Struggle for Oil: An Environmental History of West Siberia, 1961-1978

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in 1955, at the very peak of the local anti-religious campaign, taught me to persevere. My father, Vladimir Oposhnyan, an engineer who worked with petroleum geologists at West Siberian oil deposits in the 1990s sparked my interest in the region and its environment when he told me about Tyumen North's nature, people, and the tremendous influence the petroleum industry has had on them. I am endlessly indebted to my grandfather, Semën Vedernikov, son of dekulakized peasants and a genuine *sibiriak*, who after having re-located to the Urals for work in the 1950s, returned to Siberian taiga every summer and every winter and brought back huckleberries and captivating stories about the North. And most importantly, I am grateful to my sister, Ekaterina Postovalova, who was always there for me and was looking forward to my accomplishing this project but, sadly, passed six months before I submitted it. It is in her memory that I dedicate this text.

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Introduction

Endless swamps, massive permafrost, long and cold winters, minimum temperatures below minus thirty degrees Celsius, insatiable summertime gnat, and inadequate infrastructure to come to terms with this harsh environment – these are the famous images of the West Siberian natural world. It is a nature that has resisted and complicated human action for centuries. Despite this resistance, the "natural" resources of West Siberia have occupied the minds of the Russian statesmen over the past four hundred years, motivating them to come up with methods of mastering this severe land. The culmination of these attempts was the construction of the West Siberian Petroleum Complex (WSPC).

West Siberian petroleum complex emerged around the deposits located at the Middle and Lower Ob and made the Soviet Union the world's largest crude producer in the 1980s. Today West Siberia is Russia's most highly developed petroleum province,[1] producing 78 percent of all Russian oil.[2] It is home to the country's leading cities for quality of life and GDP per capita.[3] These economic achievements co-shape the positive attitude to the transformation of the area into the center of the petroleum industry. For the Russian public, including historians of the energy complex, the entire development of the oil industry in West Siberia was a definite success story.

Yet, the promise and reality of wealth and progress for some rarely comes without disappointment and suffering for others, as cases from different corners of the world have shown.[4] Oil development endeavors until today disrupt local communities and destroy the environment. While petroleum development produces wealth and opportunity, it also generates

[1] A "petroleum province" is a universal geographic term, referring to an area bearing hydrocarbons in commercially significant quantities, Jim Brooks, ed., *Classic Petroleum Provinces* 50 (London, 1990).

[2] With 11.49 million barrels of oil a day Russia is outstripped only by the United States (19.51 million barrels) and Saudi Arabia (11.81 million barrels): U.S. Energy Information Administration https://www.eia.gov/tools/faqs/faq.php?id=709&t=6, accessed August 11, 2020.

[3] According to the Moscow Financial University, Tyumen, the capital of the Tyumen Oblast where West Siberian petroleum province is located was Russia's leading city for quality of life in 2018 and rated third in 2019, see: https://rg.ru/pril/article/162/11/08/73._Kachestvo_zhizni_v_gorodah_Rossii.pdf, and http://www.fa.ru/Documents/91_LQ_2019.pdf). The two autonomous okrugs within the oblast where the most oil deposits are situated, boast the highest GDP per capita among Russian regions: Karlygash Dairabayeva et al., "Export Competitiveness and FDI Performance Across the Regions of the Russian Federation" 7821 (World Bank, 2016), https://ssrn.com/abstract=2849121, 70 accessed August 10, 2020.

[4] For international examples of environmental problems of petroleum development and social responses to them, see for Ecuador: Patricia Widener, *Oil Injustice: Resisting and Conceding a Pipeline in Ecuador,* Another world is necessary (Lanham, Md: Rowman & Littlefield Publishers, 2011), for Nigeria: Augustine Ikelegbe, *Oil, Environment and Resource Conflicts in Nigeria,* Politics and economics in Africa 7 (Zürich: Lit, 2013), for The U.S. and particularly Pennsylvania: Brian Black, *Petrolia: The Landscape of America's First Oil Boom,* Creating the North American Landscape (Baltimore: Johns Hopkins University Press, 2003).

distress and misfortune. The West Siberian petroleum was no exception. More recent and predominantly Western anthropologies, as well as environmental assessments, both based on the contemporary empirical material, have shown that the process of oil development, which started in the early 1960s, has been characterized by a minimal regard for the environment, preservation of cultural properties, or effective consultation with the local communities.[5]

The environmental drawbacks of the hasty transformation of a non-industrial landscape into a petroleum giant could not have become visible only decades after the oil discovery. Naturally, witnesses and builders of West Siberian petroleum province must have experienced disruptions in their lifestyle and distress caused by environmental pollution as early as the petroleum prospectors marched in. Alongside causing physical disruptions, such environmental transformations challenge the way local nature is understood as well as by whom, and to whose benefit it is used.[6] Not all Siberians wanted to be part of the Soviet petromodernity project, and neither did they all approve of its ecological imprint. Responding to William Cronon's call to produce more inclusive histories,[7] this project incorporates various voices and human experiences with transformations nature underwent since the discoveries of the first deposits in the region in 1961. It details the collision of different ideas about the functions of West Siberian nature and their compatibility with Moscow's plans to transform the region into the country's powerhouse. The questions of how and why the local actors reacted to the ecological change caused by petroleum development in West Siberia and what defined their reactions from 1961 to 1978 form this dissertation's focus.

In search for answers, I problematize the notion of "struggle for oil." This expression quickly became an established synonym for the "transformation of nature" in West Siberia in

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[5] During the perestroika green wave a number of critical articles on miserable conditions of the indigenous Siberians in the oil producing regions entered the press, see for instance, Vladimir Sangi and Anna Dmitrieva, "Spasti Narodnosti Severa, Sokhranit' Ikh Kul'turury," *Voprosy Literatury*, no. 3 (1989); Eremej D. Ajpin, "Ne Neft'yu Edinoi," *Moskovskie novosti*, January 8. Such late- and post-Soviet accounts, however, focused mainly on West Siberian indigenous, omitting other communities whose life oil changed dramatically. The first comprehensive statistics assessing oil-related pollution appeared in 2001: M. Lodewijkx, "West Siberia Oil Industry Environmental and Social Profile" (IWACO BV Consultants for Water and Environment, Rotterdam, 2001), http://www.greenpeace.org/raw/content/nederland-old/reports/west-siberia-oil-industry-envi.pdf. For a detailed antropological study of West Siberian natives' adaptations to petroleum inflicted technological change, see, among others, Stephan Dudeck, *Der Tag Des Rentierzüchters: Repräsentation Indigener Lebensstile Zwischen Taigawohnplatz Und Erdölstadt in Westsibirien,* Studies in social and cultural anthropology (Fürstenberg/Havel: Verl. der Kulturstiftung Sibirien, 2013).

[6] An interdisciplinary collective of geographers and political ecologists persuasively underlined the fruitfulness of focusing on conflicting visions of (social) nature see: Becky Mansfield et al., "Environmental Politics After Nature: Conflicting Socioecological Futures," *Annals of the Association of American Geographers* 105, no. 2 (2015).

[7] William Cronon, "A Place for Stories: Nature, History, and Narrative," *The Journal of American History* 78, no. 4 (1992): 1371.

the early 1960s. The designers of the petroleum complex used this wording to portray nature as an enemy that the Soviet people need to defeat to conquer oil for their bright communist future. Since the discoveries of the first deposits, the landscape that had to become the country's new energy hub was called "the frontline of the struggle for oil.[8]" What did this struggle aim at, and who participated in it? Were all the agents of the struggle fighting for the same goal, and what were their motives?

Historiography: Why West Siberian Oil Matters (Without Gas)

Most of the existing histories of Siberia omit reactions to environmental transformations petroleum development caused in the region. Western scholars have tackled Soviet petroleum in other areas and during other periods,[9] but neither its environmental history nor locals' reactions to the industry's dark sides. Histories of Siberia only briefly mention the hydrocarbon development and refer to a sporadic engagement with the environmental cause solely by natives during the late 1980s and post-Soviet years.[10] Some anthropologies have covered Siberia's industrialization from the indigenous perspective, leaving non-indigenous Siberians out[11] and again covering mainly the post-Soviet period.[12] This scholarship neither deals with the role of ordinary citizens and groups in critiquing large-scale socio-industrial projects prior to perestroika's green wave, nor with the knowledge about environmental transformation generated by (citizen-) scientists through work within such systems. At the same time, anthropologists have identified Siberia's non-indigenous populations and their perspectives as a lacune, to which scholars ought to direct their attention.[13] Why should it be different for

[8] Such headlines could be found in nearly every issue of regional newspapers during the investigated period, see, for instance, *Nefteyuganskiy Rabochii, "*Burenie-Peredniy Krai Bor'by Za Neft," April 3, 1976, 41.

[9] See, among others, Felix Rehschuh, *Aufstieg Zur Energiemacht: Der Sowjetische Weg Ins Erdölzeitalter, 1930er Bis 1950er Jahre*, 1. Auflage, Osteuropa in Geschichte und Gegenwart (Köln: Böhlau Köln, 2018); Thane Gustafson, *Wheel of Fortune: The Battle for Oil and Power in Russia*, First Harvard University Press paperback edition (Cambridge, Massachusetts, London, England: The Belknap Press of Harvard University Press, 2012); Douglas Rogers, *The Depths of Russia: Oil, Power, and Culture After Socialism* (Ithaca: Cornell University Press, 2015).

[10] In her comprehensive history of the entire Siberia (East, West and the Far East), Hartley devotes a short two-page section to oil development and native activists' disappointment with its effects in the 1990s, see Janet M. Hartley, *Siberia: A History of the People* (New Haven, Connecticut: Yale University Press, 2014), 244–45. Similarly, Yu. Slezkine talks about openning up of the discourse on oil's dark sides initiated by indigenous intelligentsia in the late 1980s: Yuri Slezkine, *Arctic Mirrors Russia and the Small Peoples of the North* (Ithaca: Cornell University Press, 1994), 373.

[11] Marjorie Mandelstam Balzer, *The Tenacity of Ethnicity: A Siberian Saga in Global Perspective* (Princeton: Princeton Univ. Press, 1999).

[12] This trend stems from a wider availability of sources due to the emerging agency of the natives in form of NGOs and the increasing appearance of their critical accounts in the media in the perestroika and later years. See, for instance, Florian Stammler, "Oil Without Conflict? The Anthropology of Industrialisation in Northern Russia," in *Crude Domination: An Anthropology of Oil*, ed. Andrea Behrends, Günther Schlee and Stephen P. Reyna, Dislocations v. 9 (New York: Beghahn Books, 2011).

[13] Patty Gray, Nikolai Vakhtin, and Peter Schweitzer, "Who Owns Siberian Ethnography? A Critical Assessment of a Re-Internationalized Field," *Sibirica* 3, no. 2 (2003).

historians? This study takes note of this shortcoming and includes non-indigenous Siberians' reactions to environmental transformation brought along by the petroleum complex.

As widely recognized by historians and political ecologists,[14] studying ordinary people's perceptions and values is becoming much more relevant to understanding power[15] and mechanisms of citizen participation in the discussion of socialism's environmental downside.[16] Although the number of publications tackling nature in the history of the USSR grew over the past decade,[17] most of them present conservation attempts and ecological critique predominantly as a concern of the scientific elite, emerging in and guided from the center. Most of these environmental histories echo with Doug Weiner's claim that intelligentsia dominated the late Soviet ecological discourse, whereas the ordinary citizens joined in during the perestroika years.[18] As recognized by a German-French forum on Soviet environmental history, research on ecological protest at the grassroots level of local residents, fishermen and hunters, peasants and workers, "is still in its nascent state.[19]" My dissertation fills this gap as it looks for pre-perestroika cases of engagement of both experts and laypeople with the environment and details forms of its expression as well as the motivation behind it. It also questions the

[14] For a historian's acknowledgement of the importance of the ordinary citizens' endeavors to limit ecological destruction, see Christof Mauch, "Slow Hope: Rethinking Ecologies of Crisis and Fear," *RCC Perspectives: Transformations in Environment and Society*, no. 1 (2019). A political ecologist' perspective on the potential of ordinary people's everyday concerns to resonate profoundly with a wider society can be found in: John M. Meyer, *Engaging the Everyday: Environmental Social Criticism and the Resonance Dilemma* (Cambridge, Massachusetts, London, England: The MIT Press, 2015)

[15] Patryk Babiracki, "Interfacing the Soviet Bloc: Recent Literature and New Paradigms," *Ab Imperio* 2011, no. 4 (2011): 381.

[16] Julia Obertreis, "Soviet Irrigation Policies Under Fire: Ecological Critique in Central Asia, 1970s–1991," in *Eurasian Environments: Nature and Ecology in Imperial Russian and Soviet History*, ed. Nicholas B. Breyfogle, Pitt series in Russian and East European studies (Pittsburgh, Pa.: University of Pittsburgh Press, 2018).

[17] Among the recent overviews of the field see: Jonathan Oldfield, Julia Lajus, and Denis J. B. Shaw, "Conceptualizing and Utilizing the Natural Environment: Critical Reflections from Imperial and Soviet Russia," *The Slavonic and East European Review* 93, no. 1 (2015) and Brian Bonhomme, "Writing the Environmental History of the World's Largest State: Four Decades of Scholarship on Russia and the USSR," *Global Environment* 6, no. 12 (2013): 12-37, accessed August 11, 2020

[18] Douglas R. Weiner, *A Little Corner of Freedom: Russian Nature Protection from Stalin to Gorbachev* (Berkeley, Calif., London: University of California Press, 2002). Among the followers of Weiner's claim that only in the late 1980s did ordinary Soviet citizens express their ecological critique publically and its earlier utterance was only possible in the underground, see: Marc Elie and Laurent Coumel, "A Belated and Tragic Ecological Revolution: Nature, Disasters, and Green Activists in the Soviet Union and the Post-Soviet States, 1960s-2010s*," *The Soviet and Post-Soviet Review* 40, no. 2 (2013). Another more recent work tackling popular engagement with ecological problems in Soviet Armenia from 1969 to 1991 also states that only in the second half of the 1980s the non-intelligentsia joined the environmental debate and action: Katja Doose, "Green Nationalism? The Transformation of Environmentalism in Soviet Armenia, 1969–1991," *Ab Imperio* 2019, no. 1 (2019).

[19] Melanie Arndt and Laurent Coumel, "A Green End to the Red Empire? Ecological Mobilizations in the Soviet Union and Its Successor States, 1950–2000: A Decentralized Approach," *Ab Imperio* 2019, no. 1 (2019).

defining role of antagonism toward nature in Soviet ideology, which some scholars identified as an entrenched feature of the state's dealings with the environment.[20]

Russian historians of West Siberia do not show noticeable interest in either human interaction with the environment in light of industrialization or the socio-cultural transformations in local communities caused by oil. Even Siberian historians working on social aspects of the WSPC construction hesitate to mention their fellow-citizens of Khanty, Mansi and Nenets origin and the hardship the industry put them through.[21] Neither have the non-indigenous Siberians and the compatibility of their visions with the state strategy to reclaim resources concerned Russian scholarship. Russian historians interpret the petroleum complex exclusively as a blessing for the region and a modernization vehicle.[22] This scholarship is dominated by studies of CPSU's decisions and their discussion within the regional administration.

Russian accounts of oil's environmental impact are rare. A recently founded school of environmental history at Surgut Pedagogical University has not yet produced a comprehensive environmental history of oil, although some of its scholars focus on the same period.[23] Exceptions are found in the works of Yulia Prikhod'ko and Maksim Mostovenko. Their doctoral dissertations deal with environmental politics in West Siberia in the second half of the twentieth century by analyzing governmental directives and scientific concepts of nature use applied in the area.[24] Another Surgut historian, Igor' Stas' touched upon the ecology of Siberian oil towns. However, in his article on Surgut ecology during the first decades of the oil era, Stas' reduced the locals' environmental concerns to city planners' debates about recreational areas and urban greening. Stas' claims that oil's environmental issues did not interest the residents

[20] See, for instance, Klaus Gestwa, *Die Stalinschen Großbauten des Kommunismus: Sowjetische Technik- und Umweltgeschichte, 1948-1967,* Ordnungssysteme 30 (Berlin, Boston: Oldenbourg Wissenschaftsverlag, 2010); Paul R. Josephson, *Industrialized Nature: Brute Force Technology and the Transformation of the Natural World* (Washington, DC: Island Press, 2002).

[21] See, for instance, Nadezhda Yu. Gavrilova, *Social'noe Razvitie Neftegazodobyvayushikh Raionov Zapadnoi Sibiri 1964-1985* (Tyumen, 2002).

[22] A telling example that already in its title reflects the deifying rhetoric the Russian historians employ when dealing with Siberian petroleum is the book by Galina Koleva and Marina Komgort: Galina Yu. Koleva, Marina V. Komgort, Vitaly S. Maidanov, *Bol'shoy Chelovek Iz Velikoy Epokhi: (K 100-Letiyu A. K. Protozanova)* (Tyumen': TyumGNGU, 2012); V. P. Karpov, *Istoriia Sozdania I Razvitiia Zapadno-Sibirskogo Neftegazovogo Kompleksa (1948-1990 Gg.)* (Tiumen': Tiumenskiĭ gosudarstvennyĭ neftegazovyĭ universitet, 2005).

[23] Evgeniy I. Gololobov and Maksim S. Mostovenko, "Stanovlenie I Razvitie Nauchnyh Issledovanii V Sfere Izucheniya Bioresursov Severa Zapadnoi Sibiri V 1960-80-E Gg." *Vestnik NVGU*, no. 2 (2017).

[24] Yulia S. Prikhod'ko, "Ekologicheskaya Politika Gosudarstva Na Severe Zapadnoi Sibiri Vo Vtoroi Polovine XX - Nachale XXI Vv." (unpublished manuscript, 2015), doctoral dissertation; Maksim S. Mostovenko, "Gosudarstvennaya Politika V Oblasti Ispol'zovaniya Bioresursov Na Severe Zapadnoi Sibiri Vo Vtoroi Polovine 1950-H – Pervoi Polovine 1980-H Gg." (unpublished manuscript, 2017), doctoral dissertation.

of the region's first and largest oil town.[25] This dissertation challenges this view by employing sources on ecological critique from several West Siberian locales. In so doing, it seeks to restrain the triumphant narrative of oil's virtue as an engine of modernization.[26]

Typically, Russian historians of the West Siberian energy complex deal with oil and gas simultaneously. This approach is fruitful for studies that adopt a top-down perspective and rarely disassociate from the official party terminology of their investigated period. Nevertheless, for an environmental history of reactions to nature transformations, it is essential to separate the two types of hydrocarbon resources. As *Figure 1* illustrates, during the first decade of exploration, gas was mostly found in the oblast's farther North corners, in the Yamalo-Nenets district, whereas oil concentrated in the Khanty-Mansi district. Although some deposits were of mixed origin bearing both oil and gas,[27] until 1977 gas production remained secondary.[28] The period from 1961 to 1977, which fits into this study's timeframe, was dominated by oil, as during the 1960s gas was only entering its prospecting phase. Only in 1977 did the Ministry of Geology unite West Siberian petroleum industry with the gas industry[29] under the umbrella term "West Siberian Oil and Gas Complex." Until 1977 the emerging petroleum-producing area was part of the so-called "West Siberian economic complex."[30]

[25] Igor N. Stas', "Ekologicheskij Diskurs V Surgute V Period Rozhdeniya Novogo Goroda (Pervaya Polovina 1960-H Godov)," *Vestnik Surgutskogo gosudarstvennogo pedagogicheskogo universiteta*, 6 (45) (2016).

[26] So far one history of Soviet oil has attempted to shed light on the dark side of modernization fueled by petroleum, albeit from a macro-economic perspective. As a way out of the tragic situation in which the late Soviet and consequently Russian energy complex found itself, Maria Slavkina remains within the paradigm of resource extraction from the middle of the last century, as she suggests to remember, that "the womb of our country remains the richest storehouse of hydrocarbon resources," see Maria V. Slavkina, *Triumpf i tragediya: razvitie neftegazovogo kompleksa SSSR v 1960 - 1980-e gody* (Moskva: Nauka, 2002), 191. If Russia's decision makers and oil-industry leaders in fact follow Slavkina's call, the oil and gas complex and the ecosystems that support it are to experience another tragedy.

[27] Among the first such mixed deposits was Var'egan where gas was discovered in 1967 and oil 1968.

[28] Dunja Krempin in her study of Soviet gas exports also dates the start of West Siberian gas to 1978, see Dunja Krempin, "Rise of Western Siberia and the Soviet–West German Energy Relationship During the 1970s," in *Cold War Energy: A Transnational History of Soviet Oil and Gas*, ed. Jeronim Perović (Cham: Palgrave Macmillan, 2017), 254.

[29] Although the first West Siberian gas deposit was found in Berezovo as early as 1953, the local gas industry gained momentum only in 1977, see Galina Y. Koleva, "Strategiya Razvitiya Zapadno-Sibirskogo Neftegazovogo Kompleksa (1960-1980-E Gg.)," *Vestnik Tomskogo gosudarstvennogo universiteta*, no. 302 (2007).

[30] Koleva, "Strategiya razvitiya Zapadno-Sibirskogo Neftegazovogo Kompleksa (1960-1980-e gg.)" 37.

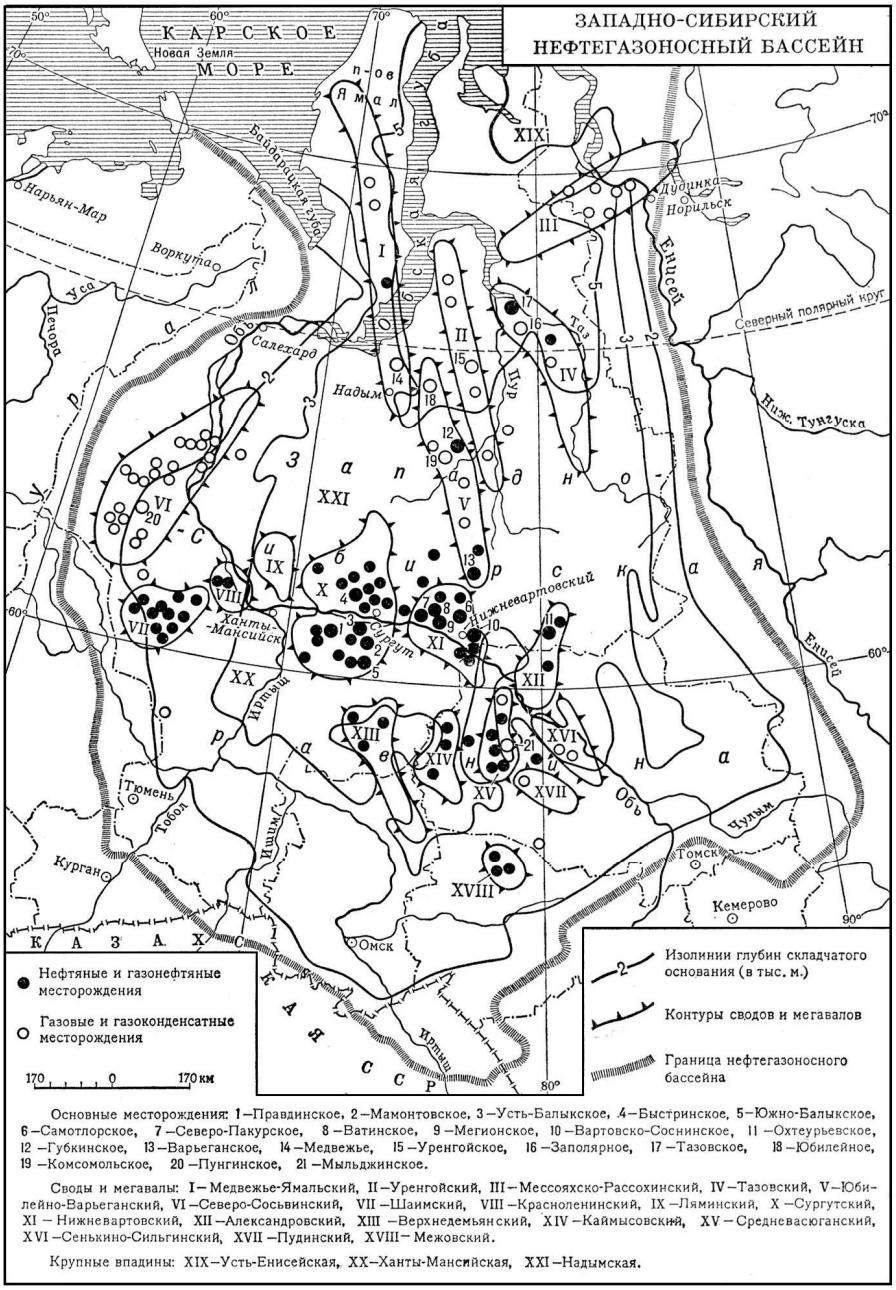

Figure 1 West Siberian oil and gas-bearing basin, 1971.

Zapadno-Sibirskiy Neftegazonosnyi Bassein (Moskva: Sovetskaya Entsiclopedia, 1971), accessed August 17, 2020, http://bse.sci-lib.com/article043413.html

- Oil and mixed oil-and-gas deposits
- Gas and gas condensate deposits

Focusing on landscapes around oil deposits, I move away from the Soviet and Russian historical tradition of viewing oil and gas as a whole and analyse the emergence of the West Siberian Oil industry separately. Moreover, due to oil's physical qualities and geophysical

origin, its environmental impact and perception thereof differed from gas. Oil's materiality (color, consistency, and smell) makes its environmental imprint more noticeable for humans. This is why, reactions to spills, leaks, pipeline ruptures, breakages of drilling and pumping equipment were quite acute from the very start of oil prospecting, let alone development. These factors justify the separation of petroleum from gas for this study. Oil's prevalence as the natural resource and defining factor in the region's environmental history in the years 1961-1977 determine the periodization of this dissertation. Also, since this dissertation searches for other vantage points than the production volume,[31] it looks beyond 1977 to include a 1978 turning point in the local conservation attempts and thus sets the timeframe at 1961-1978.

West Siberian petroleum complex emerged at an overlap of a space rich in resources, which occupied the minds of state-planners for centuries, and a place that had become home for people of non-conformist ideas and deviance. Similarly, this study positions itself at an intersection of disciplines. It is a political and cultural environmental history influenced by energy humanities and science and technology studies (STS).

Environmental history explores human interactions with the rest of the natural world over time. Among its various perspectives on relations between nature and society, it studies how people come to perceive the change in the environment and what action they take to influence this change. This history positions itself within the field as a study of the growing environmental awareness of the Soviet society, especially of its regional segment, brought about by the petroleum-related transformation of West Siberian nature. In particular, it analyzes the involvement of local actors (both intelligentsia and working-class) with the issues of petroleum-related pollution. In so doing, it corresponds with John McNeill's definition of political environmental history, which "concerns the history of self-conscious human efforts to regulate the relationship between society and nature as well as between social groups in matters concerning nature.[32]" As a research object of political environmental histories, McNeill determines struggles over a place's function. Precisely the contestations over the functions of the Tyumen North[33] constitute the focal point of this dissertation.

To explore the reasons for their engagement with the complex's environmental impact and the collisions of the industrialization plans with the locals' visions of nature, I analyze

[31] Changes in production volume have traditionally guided Tyumen historians in their periodization, see Koleva, "Strategiya razvitiya Zapadno-Sibirskogo Neftegazovogo Kompleksa (1960-1980-e gg.)" 37.
[32] John R. McNeill, "The State of the Field of Environmental History," *Annual Review of Environment and Resources* 35 (2010): 345-74, 347.
[33] Chapter Two details the concept of "Tyumen North."

Siberians' cultural constructions[34] of nature that emerged before the arrival of the petroleum complex. This engagement with nature perceptions and environmental thought generated within the petroleum complex positions this dissertation within cultural environmental history.[35] When I investigate the cultural constructions of nature as a basis for critical reactions to West Siberia's petrolization, I keep in mind Joachim Radkau's argument, that often effective solutions to environmental issues "were not a recognizable response to a given problem, but a component of the culture or political system that was presumably reinforced by environmental pressures."[36] This dissertation views Radkau's statement as a call to not merely search for cases of effective reduction of environmental harm, but to decipher cultural responses to it. Therefore, I show that regional histories of the late USSR offer a variety of cultural perceptions of nature's functions despite the existence of the uniform state-imposed Marxist-Leninist concept.[37]

Most studies that examined Soviet representations of nature have stressed the prominence of Promethean visions,[38] which were an organic element of Marxist-Leninist concept of nature as a treasure trove whose limits could be overcome with the proper technology. I challenge this view as I analyze deviating visions of nature that were shaped through interactions with the natural world and settlement patterns of Siberian colonization. I claim that interactions of two investigated groups - ethnographers and Siberians - with the local natural world shaped their determination to oppose environmental and cognitive injustices brought along by the petroleum complex.

Although the first group, the ethnographers, have already concerned historical scholarship, I suggest a more nuanced interpretation of their role in Soviet history. In his book on the political relationships and perceptions of Russians and the indigenous peoples of the

[34] Two types of "cultural construction" appear in this study. The first is the English equivalent of the Russian term "*kulturnoe stroitel'stvo*" which refers to the Soviet state's strategy of transforming non-socialist cultures. The second "cultural construction" refers to the culturally embedded ideas and visions of nature.

[35] Here a lean on John McNeill's definition of cultural or intellectual environmental history: John R. McNeill, "Observations on the Nature and Culture of Environmental History," *History and Theory* 42, no. 4 (2003): 6.

[36] Joachim Radkau, "World History and Environmental History," in *UNESCO-EOLSS Encyclopedia of Life Support Systems*, ed. Mauro Agnoletti, Elizabeth Johann and Simone Neri Serneri (2009), http://www.eolss.net/sample-chapters/c09/e6-156-02-00.pdf.

[37] In its late 1960s-1970s Soviet edition, Marxist-Leninist ideology viewed nature as brute matter, whose value was measured by labor applied to extract resources. This means, that to Soviet ideologues the non-human nature and its elements, i.e. resources, did not carry any intrinsic value. For a detailed account on the Soviet concept of natural resources, see: Daniel S. Papp, "Marxism-Leninism and Natural Resources," *Resources Policy* 3, no. 2 (1977), 137-138.

[38] Arja Rosenholm and Sari Autio-Sarasmo, eds., *Understanding Russian Nature: Representations, Values and Concepts,* Aleksanteri papers 4, 2005 (Helsinki: University of Helsinki Aleksanteri Institute); Andy Bruno, *Nature of Soviet Power - an Arctic Environmental History,* STUDIES IN ENVIRONMENT AND HISTORY (Cambridge University Press, 2017).

North, Yuri Slezkine claims that 1960s ethnographers were devoted social-engineers glorifying the indigenous' journey to Russianness and that only under glasnost of the mid-1980s, such propaganda gave way to exposes of substandard living conditions.[39] Focusing on knowledge production within a rapidly transforming landscape and on attempts to preserve traditional environmental knowledge, I suggest that already in the early 1960s some ethnographers working in the Tyumen North moved away from the grand narrative of "leap into progress" as they criticized the environmental and cognitive injustices of petrolization, which I will define shortly.

This dissertation investigates the ordinary Siberians' reactions to petrolization by analyzing the activities of the semi-civic People's Control. The engagement of the West Siberian People's Control Committees with ecology of oil deserves special attention for the following reasons: there is only a very sporadic scholarship on KNK in general[40] and virtually no scholarship on the KNK's role in Soviet nature protection. The 1977 book by a political scientist Jan S. Adams' is the only Western monograph on Soviet people's control. Although it offers a comprehensive analysis of KNK's structure and election/appointment mechanism, it leaves several important questions unanswered. Among these questions is the motivation of the Soviet citizen to become an activist within the KNK network, which this dissertation tackles. Cherny's 2002 published doctoral dissertation on the history of KNK's activities at West Siberian enterprises focuses mainly on election procedures and the background of popular inspectors, whose low education the historian laments as the main reason for their allegedly poor performance.[41] Precisely this aspect I interpret as a valuable insight into the non-intelligentsia involvement with petrolization's environmental impact.

Concepts

This work goes beyond the established economic meaning of "petrolization" as coined by Terry L. Karl,[42] and views it as a conversion of a landscape into an industry's service provider and

[39] Slezkine, *Arctic mirrors Russia and the small peoples of the North*.
[40] The only comprehensive study of the KNK as an institution in the Soviet political system is *Jan* S. *Adams* (1977), *Citizen Inspectors in the Soviet Union*: The People's Control Committee, New York: Praeger. The article of a political scientist Charles E. Ziegler provides useful insights into the plurality of actors (among them KNKs) participating in the formulation and implementation of the Soviet environmental policy, see: Charles E. Ziegler: "Issue Creation and Interest Groups in Soviet Environmental Policy: The Applicability of the State Corporatist Model", *Comparative Politics*, Vol. 18, No. 2 (Jan., 1986), 171-192.
[41] Viktor A. Chernyi, *Narodnyi Kontrol' Na Predpriyatiyakh Neftegazovogo Kompleksa Zapadnoi Sibiri V 1971 - 1980 Gg.: Opyt Kriticheskogo Analiza Partiynogo I Gosudarstvennogo Rukovodstva* (Tomsk, 2002).
[42] Karl terms petrolization as conversion of a country or region to a petroleum-based economy. See Terry L. Karl, *The Paradox of Plenty: Oil Booms and Petro-States* (Berkeley, Calif.: Univ. of California Press, 2010), 80.

an integral part of the petroleum complex. Petrolization of a landscape entails the loss of its previous cultural meaning and function. In this regard, the term "landscape" is used following Denis Cosgrove, who defines landscape as a vision of space created to serve power and control.[43] This study views "landscape" as a fragment of a natural space that reflects human power and control established over it as well as ambitions to transform this space for political and economic purposes. "Landscape" implies a perspective taken on the fragment of space, "a way of seeing nature"[44] and the meaning attached to its embedded physical and cultural resources. In order to fortify the state's control over the resources and social relations in the Tyumen North, Khrushchev's and Brezhnev's governments claimed the landscape of personal connections, familial ties and interactions with pre-industrial nature incompatible with the communist future. Accordingly– in the eyes of the CPSU leadership – it had to be transformed into a petroleum complex, a Northern hub of socialist construction, symbolizing the dominance of Soviet power over this remote and harsh landscape.[45] As a prerequisite of the thriving oil complex, Soviet petrolization involved "cultural construction" (*kulturnoe stroitel'stvo*) - transformation of cultural practices embedded in the pre-pteroleum landscape.[46]

Following the discussions on conflicting systems of knowledge in the field of STS,[47] I employ the concept of "cognitive justice" to evaluate ethnographers' attempts to protect traditional knowledge and integrate it into the new petroleum-dependent social structures. The concept of "cognitive justice" was coined by an STS scholar Shiv Visvanathan and has become a normative principle for the equal treatment of all forms of knowledge.[48] By applying "cognitive justice" this study shows that catalyzed by the petroleum industry, Soviet science, specifically ethnography, and the underlying Marxist-Leninist paradigm that dictated the only

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[43] Denis Cosgrove, "Prospect, Perspective and the Evolution of the Landscape Idea," *Transactions of the Institute of British Geographers* 10, no. 1 (1985): 45.
[44] Ibid, 55.
[45] On spatialization of power in the late and post-Stalinist context, see Elena R. Iarskaia-Smirnova and Pavel Romanov, "At the margins of memory: Provincial Identity and Soviet Power in Oral Histories, 1940-53," in. *Provincial landscapes local dimensions*, ed. Donald J. Raleigh (Pittsburgh, Pa: Univ. of Pittsburgh Press, 2001) 299–330, 312. On the landscapes representing Soviet power in temporal and spatial terms, see Evgeny Dobrenko and Eric Naiman, *The Landscape of Stalinism: The Art and Ideology of Soviet Space* (University of Washington Press, 2011).
[46] "Cultural construction" was the task everyone involved into the WSPC had to commit to. So, beside propaganda agents and theoreticians of Marxism-Leninism, geologists and engineers were expected to actively help shape the modern progressive culture in the once wild area. See, for instance, a report by a leading Siberian geologist Gourari: Fabian G. Gourari, "Neft i gaz Zapadnoi Sibiri: perspektivy, problemy," *Priroda*, no. 1, 1971: 16-23, 19.
[47] When broadening the spectrum of knowledge agents, I follow Philipp Sarasin, "Was Ist Wissensgeschichte?," *Internationales Archiv für Sozialgeschichte der deutschen Literatur (IASL)* 36, no. 1 (2011); Shiv Visvanathan, "Knowledge, Justice and Democracy," in *Science and Citizens: Globalization and the Challenge of Engagement*, ed. Melissa Leach, Ian Scoones and Brian Wynne, 2. impr (London: Zed Books, 2007).
[48] Shiv Visvanathan, *A Carnival for Science: Essays on Science, Technology and Development* (Delhi: Oxford Univ. Press, 1997).

acceptable form of social development had a destructive effect on "less Soviet" cultures. However, actors monitoring the locals' conversion into employees of the petroleum complex were stimulated by petrolization in a way that central planners had not expected.

From energy humanities, this thesis borrows the concept of "petromodernity." Coined by Stephanie LeMenager, it describes a society whose existence and values are based on consumption of the cheap energy and convenience made possible by petroleum products.[49] This work deals with a Soviet version of petromodernity, or oil-driven modernity, that had its unique nuances. Soviet Union as a whole and West Siberia, in particular, aspired to build a socialist modernity fueled by petroleum and take advantage of the material wealth that it generated. Although this modernity project did not emphasize convenience and comfort to the same extent as the U.S. petroculture, the Soviet tale of the oil complex as a vehicle of socialist construction included promises of a more comfortable life, full of light, warmth and state-of-the-art education that a research-intensive industry and accompanying technology would make possible. To achieve this goal, the designers of the WSPC encouraged the local communities to break their traditional bonds with the natural world.

Although the level of everyday comfort in the USSR remained far behind that of Western economies running on oil, Siberian oil allowed the Soviet state to supply its citizens with amenities (both in terms of residential infrastructure and consumer goods[50]) unthinkable during pre-petrolia. Despite WSPC's being its central vehicle, Soviet petromodernity materialized faster in the capitals of the European part of the USSR, as the economic benefits and environmental burdens of oil production were unevenly distributed. During the investigated period, the improvement of life quality for many ordinary residents of the oil-bearing North remained an unfulfilled promise: many West Siberians still lacked proper housing with heating and electric power promised by the WSPC designers in return for giving up the traditional bonds with nature. Reactions to distributional and other injustices of Soviet petromodernity help me draw a nuanced picture of the struggle over oil.

[49] Stephanie LeMenager, *Living Oil: Petroleum Culture in the American Century,* Oxford studies in American literary history (New York: Oxford University Press, 2016).
[50] On consumption patterns and disparities emerging from petroleum exports, see: Natalya Chernyshova, *Soviet Consumer Culture in the Brezhnev Era*, First issued in paperback, BASEES-Routledge series on Russian and East European studies 90 (London, New York: Routledge, 2015).

Figure 2. Yuvan N. Shestalov My Zhiviom Na Severe. [51]

For the Socialist modernity to finally arrive in Siberia, the government set out to eradicate the allegedly backward cultures and uses of nature. This thesis sets out to explore what human-nature relations had to transform and why. To do so, it problematizes the meaning of "backwardness" and its function within the petroleum complex. How did the centuries-old practices embedded in the pre-petroleum landscape fit with the promise of modernity?

This dissertation terms the socio-technical installations serving the petroleum industry in 1961-1978 as the West Siberian petroleum complex (WSPC). This definition is influenced by recent discussions about the relations between extractive industries and local residents in anthropology. My definition of "complex" echoes Douglas Rogers, who for the Volga-Urals basin includes the hardware and the production elements of an oil industry, the non-technological expertise and the industry's critique.[52] I expand the definition of the "complex" by adding people, the natural space expected to serve the industry's needs and the state development plans. To this end, I employ Ashley Carse's concept of "nature as infrastructure,"

[51] Yuvan N. Shestalov, My Zhiviom Na Severe. Moskva: Detskaia Literatura, 1966. This cover of a children's book by a Mansi author Yuvan Shestalov is one of the many visualizations of the promise of petromodernity in the Soviet North. The oil derricks and trucks with Russian houses and street lights in the backdrop, as well as Russian-style toys in the hands of indigenous children, all symbolize the modern and comfortable life that oil production was supposed to make possible for the natives.

[52] Rogers focuses mostly on the post-Soviet period. For the Perm region he dates the environmental turn in the local oil discourse as late as 1987, see Rogers, *The depths of Russia*, 66–67.

which, when transformed to deliver services, becomes a carrier of new values and policies.[53] In the Siberian case, this process entailed the elimination of values previously inscribed on the landscape.

This study also examines the complex's social engineering function of transforming the locals and their human-nature relations. For this purpose, I view the petroleum complex not merely as an industrial hardware but as a "bundle of relationships[54]" and a place of knowledge production. This work understands "knowledge" not only as scientific expertise, but "knowledges" that go beyond formal academic findings. In search of ambivalent intersections of knowledges, the dissertation unearths Siberians' practical knowledge about the local nature, ethnographers' findings about challenges of adaptations to an industrialized landscape, and the growing awareness of the general public about oil's environmental impact. To this end, viewing the petroleum complex as a "bundle of relationships" demonstrates how an industry can be initiated as a blessing by one group, end up being an environmental burden for another, and stimulate production of critical knowledge by a third. Notably, the latter two aspects have been overlooked by histories of West Siberia and constitute the novelty of this project.

Historians of the Soviet Union and Russia still have not agreed on a stable definition of "environmentalism.[55]" When applying "environmentalism," I follow Stephan Brain, who calls it a political and philosophical program, putting limits on human activity to preserve the integrity of the environment.[56] When evaluating Siberians' engagement with environmental cause, I refer to conservation initiatives, the English equivalent of the Russian "*okhrana prirody*," or literary "nature protection.[57]" In the context of my work, I define conservation as anthropocentric attempts to protect nature for future generations and economize natural resources in order to maintain various functions of a natural space, not limiting them to servicing an industry. The other form of this engagement, mainly practiced by the intelligentsia,

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[53] Ashley Carse, "Nature as Infrastructure: Making and Managing the Panama Canal Watershed," *Social Studies of Science* 42, no. 4 (2012): 540.

[54] Ashley Carse, "The Anthropology of the Built Environment: What Can Environmental Anthropology Learn from Infrastructure Studies (And Vice Versa)?," posted on the Engagement blog, on May 17, 2016 Anthropology and Environment Section of the American Anthropological Association, accessed December 12, 2019, https://aesengagement.wordpress.com/2016/05/17/the-anthropology-of-the-built-environment-what-can-environmental-anthropology-learn-from-infrastructure-studies-and-vice-versa.

[55] Some scholars use "environmentalism" synonymously with "conservationism," as discussed in: Arndt and Coumel, "A Green End to the Red Empire? Ecological Mobilizations in the Soviet Union and Its Successor States, 1950–2000: A Decentralized Approach" 109.

[56] Stephen Brain, *Song of the Forest: Russian Forestry and Stalinist Environmentalism, 1905-1953,* Pitt series in Russian and East European studies (Pittsburgh: University of Pittsburgh Press, 2011), 2.

[57] Douglas Weiner translates the Russian "okhrana prirody" as conservation, see: Douglas R. Weiner, *Models of Nature: Ecology, Conservation and the Cultural Revolution in Soviet Russia,* Pitt series in Russian and East European studies (Pittsburgh: Univ. of Pittsburgh Press, 2000).

fits with what Julia Obertreis terms as "ecological critique,"[58] as it did not transform into political action or become a movement.

As has been recognized by an entire cohort of environmental historians, the "spatial turn" initiated more than a decade ago in Russian and Soviet studies has not yet fulfilled all its promises, specifically when it comes to the study of the regional dimension of the Soviet society's engagement with the environment.[59] Histories of the Soviet Union have so far largely neglected the regional and, to be more exact, the province's perspective.[60] However, provinces hold genuine treasure troves for environmental historians as they provide opportunities to explore places infused with cultural meaning, which comes into play at times of environmental contestation.[61] This is where this dissertation steps in as it examines the competing visions of nature generated in places around oil deposits. Understanding the Soviet 1960s is impossible without making sense of "achievements of Siberian North[62]" because exactly here, in villages and emerging industrial towns, to whose development so much hope and enthusiasm was attributed, ideals crashed against ideocracy and growing awareness of system's injustices. Until today the locales of these "achievements" as well as changes in nature-human relations they entailed remain unstudied as written Siberian histories situate their geographies mostly around such urban centers as Novosibirsk,[63] Irkutsk[64] and the Lake Baikal region.[65] This study looks at locales that so far remained out of the scope of Siberian studies and thus contributes to the histories of Soviet regions and provinces.

[58] Obertreis, "Soviet Irrigation Policies under Fire: Ecological Critique in Central Asia, 1970s–1991" 115.
[59] By a "cohort" I mean historians involved in the 2014–2018 German-French research project EcoGlobReg, whose stand on the latest trends in the field, and on the need to produce more localized histories of the USSR is summarized in: Arndt and Coumel, "A Green End to the Red Empire? Ecological Mobilizations in the Soviet Union and Its Successor States, 1950–2000: A Decentralized Approach"
[60] Edith W. Clowes, "Centrifugal Forces? Russia's Regional Identities and Initiatives," *Region: Regional Studies of Russia, Eastern Europe, and Central Asia* 5, no. 2 (2016).
[61] Jane Carruthers, ""Land" to "Place": Landscape Conservation and Environmental Activism in the Magaliesberg, South Africa, and Cooper's Creek, Australia," in *Shades of Green: Environmental Activism Around the Globe*, ed. Christof Mauch, International environmental history (Lanham: Rowman & Littlefield Publ, 2006), 70.
[62] Under "Siberian achievements" an Irkutsk historian and philosopher Rozhansky understands the large "shock" construction projects putting in place new industrial clusters in remote locales: Mikhail Rozhansky, "Sotsial'naia Energiia: Ustnaia Istoriia Udarnykh Stroek," *Cahiers du monde russe* 52, no. 4 (2011).
[63] Paul R. Josephson, *New Atlantis Revisited: Akademgorodok, the Siberian City of Science* (Princeton: Princeton Univ. Press, 1997).
[64] For studies dealing with, among others, the Bratsk Hydropower Station located in the Irkutsk province, see, Gestwa, *Die Stalinschen Großbauten des Kommunismus* and Rozhansky, "Sotsial'naia energiia: ustnaia istoriia udarnykh stroek"
[65] Nicholas B. Breyfogle, "At the Watershed: 1958 and the Beginnings of Lake Baikal Environmentalism," *The Slavonic and East European Review* 93, no. 1 (2015).

Sources and Outline of Chapters

The types of sources used for this study mirror its "provincial" approach. Documents from two oblast archives that reveal reactions to petrolization, originated mostly from locales neighboring the oil deposits (Nefteyugansk, Nizhnevartovsk, Surgut, and Ust-Balyk). Among them are reports of prospecting expeditions, local administration's responses to requests for better provisions, and correspondence concerning the flaws of residential and industrial infrastructure. Reports on oil leaks and condition of the local rivers both filed by citizens volunteering as people's controllers (hand-written in part) and by regional research institutes provide valuable material on the scale of environmental problems and their interpretations by laypeople and experts. Controllers' reports sometimes contain photographs documenting *Nefteprom's* environmental wrong-doings. These documents are augmented by materials produced by leaders of respective ministries and institutes in Tyumen (the oblast' capital) and Moscow.

Encouraged by William Cronon to not just tell "stories about nature, but stories about stories about nature,[66]" I examine the ways that actors talked about their experience with oil-related environmental degradation. In this respect, an incredibly valuable source are ethnographers' fieldnotes, held in the regional archives, and partly published. Photographs from ethnographic expeditions provide insights into the petrolization of indigenous landscapes.

Local newspapers, both from the emerging oil-towns and regional centers, contain rich material on the discussions of oil's environmental impact. National newspapers, as well as popular journals, add intelligentsia's perspective on the topic. Scientific journals from the investigated period help identify discrepancies between the centrally formulated strategy of Siberia's reclamation and ideas of some scholars about the function of this landscape. To complement the analysis of the Siberians' sense of place and their perception of local nature, I use poems and novels by local authors.

The five chapters of this dissertation follow a narrative arc that spans two decades of the region's history broadened by some excursuses into earlier periods. Such excursuses allow me to trace the origins of nature's cultural constructions that later deviated from the CPSU's imperatives. Furthermore, the excurses into oil history before the discovery of West Siberian

[66] Cronon, "A Place for Stories: Nature, History, and Narrative" 1375.

deposits provide context for oil's role in Soviet energy politics and highlight its growing importance in the post-WWII world economy. Thus, the first chapter sets the scene for oil as the driver of Soviet industrial modernity as well as for its growing role as a power factor in international relations. The chapter shows that for domestic economic needs, Soviet planners considered alternatives to oil. However, in the Cold War context, given the oil focus of the U.S. geopolitics, the USSR had to take on the oil race, which demanded oil-orientation in both internal and foreign energy policies.

The following chapters treat phases of reclamation and groups of people who engaged with the transformation of West Siberia's environment critically. The second chapter introduces the Tyumen North and its people and the origin of their visions of nature. It provides an overview of reclamation attempts before petrolization in order to evaluate the magnitude of the 1960s-1970s transformations. The chapter argues that the settlment's manner and motives, as well as the set of values the settlers developed through their interactions with the receiving nature, pre-determined their reactions to the oil-induced transformations.

Chapter Three analyzes the early phase of the struggle for oil in West Siberia in 1961-1963. This period was characterized by a conflict between two development scenarios for the region: the hydropower and the hydrocarbon. By analyzing these strategies from the perspective of human-nature relations, the chapter evaluates the impact this competition had on oil's ecological image. The chapter claims that the arguments that helped the petroleum scenario to win hampered the discussion of *Nefteprom*'s ecological drawbacks.

In the atmosphere of oil's triumph as an optimal development strategy, it was quite a challenge for the locally working ethnographers to engage with the ecology of oil and its impact on indigenous communities, as the fourth chapter shows. This chapter focuses on yet another function of Soviet industrial megaprojects - cognitive enclosure and reveals the competing visions on human-nature interaction that complicated such endeavors. It describes the struggle of ethnographers for more environmental and cognitive justice for the indigenous peoples.

After dealing with ethnographers' attempts to raise awareness about WSPC's injustices, the dissertation turns to non-intelligentsia actors. Chapter five tackles the struggle of the people's controllers for a cleaner petroleum complex. In search of a Soviet citizen's motivation to volunteer for People's Control, I analyze Siberians' visions of nature. To discuss the reasons for the emergence of such activism on a macro level, the chapter puts it into the context of the

hereto largely unstudied Brezhnev's policy of "Economizing and Thrift.[67]" This analysis provides new insights into Moscow's attempts to establish a more sustainable system of resource management that encouraged the broad involvement of citizens of all walks of life. Finally, following several theorists who have worked on the resonance of environmental criticism and on its potential to induce structural change, I investigate the reasons for the initiative's fading.

The dissertation argues that depending on the functions they attributed to the pre-petroleum nature, each of the groups of actors identified the environmental consequences and troubles caused by petrolization. It suggests that the Soviet society was home to conflicting cultural constructions of nature and shows how identities intersected with environmental concerns. In so doing, the thesis offers a history of different visions of ideal human-nature interactions and attempts to implement these visions in the rapidly transforming West Siberian North.

[67] Economic histories of the USSR tend to omit the "Thriftiness" policy. For instance, Philip Hanson's definitive history of Soviet economy completely overlooks this essential strategy aimed at transforming the Soviet resource management, see: Philip Hanson, *The Rise and Fall of the the Soviet Economy: An Economic History of the USSR from 1945,* The Postwar World (London: Routledge, 2014). Neither did Tompson's distinguished monograph on Brezhnev's era nor a comprehensive collection of essays by German scholars revisiting this controversial period cover "Thriftiness": William Tompson, *The Soviet Union Under Brezhnev,* Seminar Studies In History (Oxfordshire, England, New York: Routledge, 2014); Martin Deuerlein Boris Belge, *Goldenes Zeitalter Der Stagnation? Perspektiven Auf Die Sowjetische Ordnung Der Brežnev-Ära* (Mohr Siebeck, 2014),

Chapter One. Oil in Soviet Industrial Modernity from 1950 to 1961

By mid-1955, the Soviet Union had completed many milestones on its way to implementing its ambitious post-war reconstruction plans. The key industrial targets of the fifth five-year plan (in its first version) were on track to being fulfilled on schedule. Regardless of these considerable quantitative achievements, however, the development and production of heavy industry was still inadequate to the goals it had been set. The main centers of heavy industry located in the European parts of the USSR, as well as the Urals, experienced a shortage of fuel resources, which was largely eliminated by long-distance coal, mainly from Kuzbass[68] and Ekibastuz[69], and local reserves of low-calorie coal and peat. To increase the production volume of these enterprises, more and cheaper fuel was needed. In May 1955, several *Pravda* articles publicly surfaced the Soviet government's dissatisfaction with fuel shortages and called to revise the status of petroleum in the Soviet energy balance.[70] The 1956 directives for the sixth five-year plan put forward a new strategy of faster development of oil and gas industries as these delivered cheaper and more efficient fuel.[71]

Well into the early 1960s, the Soviet Union was primarily a coal economy. The reasons for this delay are not straightforward, given that as early as 1901, Russia produced approximately 250 thousand barrels of petroleum per day, almost on par with the United States.[72] From 1932 to 1950, the production and consumption of hard coal comprised a large and rising share of the Soviet energy balance - from 50.8 percent in 1932 to 64.6 percent in 1950. Over the same time frame, the share of crude oil had fallen significantly from 28.7 percent to a mere 17 percent. The focus on coal to the exclusion of residual fuel oil intensified in 1950-55 through the 'mineralization' of the fuel balance specified by Stalin's fifth five-year plan.

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[68] Kuzbass stands for Kuznetsk Basin, a region in southwestern Siberia covering approx. 26,000 km^2. Coal was discovered here in 1721 and after systematical mining began in 1851 the region became one of the largest coal producers in the country.

[69] Ekibastuz is a city in Pavlodar region of northeastern Kazakhstan. Coal was found here in the 19th century after which commercial exploitation of coal began.

[70] The call to increase petroleum's share in the fuel and energy mix was first surfaced in an article by a petroleum engineer Solodko: A. Solodko, "Protiv Nedootsenki Nefti I Gaza V Ekonomike Strany," *Pravda*, May 14, 1955, 134, 2 The Congress of Soviet Industry that soon followed confirmed Soviet leadership's determination to derive more industrial fuel from oil as well as expand the usage of oil to produce synthetic alcohol, rubber, solvents and other products of chemical synthesis, see: *Pravda, "*Za Novyi Moshchnyi Pod'em Sotsialisticheskoi Promyshlennosti," May 19, 1955, 139.

[71] XX S'ezd Kommunisticheskoi Partii Sovetskogo Soyuza, Stenograficheskiy Otchiot. Moskva: Gospolitizdat, 1956, vol. 2, 15.

[72] John D. Grace, *Russian Oil Supply* (Oxford: Oxford Univ. Press, 2005), 7.

Why did the USSR remain a coal economy until the 1960s despite staggering oil discoveries? What shaped Soviet energy policy during the post-WWII reconstruction, and what part did petroleum play in this process? What role did Soviet planners assign petroleum in their strategies to modernize the Soviet economy and society? What was the place of nature and environmental aspects of energy production in the discussions around energy production? To answer these questions, this chapter will first examine the Soviet 1950s energy mix and identify the drivers of its transformation. Secondly, it will analyze Khurshchev's attempt to utilize hydrocarbon resources to modernize the Soviet chemical industry and turn the USSR into an exporter of highly industrial goods. Further, the chapter will explore geopolitical factors that defined oil's role in Soviet exports to both socialist and capitalist countries. Finally, keeping in mind the focus of this book on the ecological critique of the oil industry, I will evaluate the place of environmental topics in the discussions around Soviet energy strategies and the reclamation of new resource-baring areas.

Soviet Energy Mix and Transition from Coal to Oil

In 1959, almost two-thirds of all Soviet energy consumption accounted for coal, peat, shale, and firewood, despite giant deposits already being discovered in the Volga-Ural basin in 1929.[73] After World War II, the focus was initially on restoring oil production in the Baku region, but gradually moved north towards the Volga-Ural basin. By the beginning of the war, production in this area did not exceed two million tons per year. Large deposits were discovered during the war in 1944, but consistent drilling began only in 1955. Drilling and consistently increasing extraction of Volga-Ural oil elevated Soviet crude production to equal about three-fifths of the total production in the Middle East.[74] In 1955, Soviet oil production amounted to 70.8 million tons; ten years later, in 1965, this number more than tripled, constituting 241.7 million tons yearly. What decisions drove this increase in production, and how was the growing amount of extracted crude utilized?

Despite continuous critique by Soviet economists and state planners for its inefficiency as the basis of the nation's energy mix, until 1962, coal continued to compose over half of

[73] Sergei R. Ermolayev, "Formirovanie I Razvitie Neftegazovoy Zavisimosti V SSSR," Carnegie Endowment for International Peace, accessed Decembrer 2, 2023, http://carnegie.ru/2017/03/31/rupub-68448,
[74] Daniel Yergin, *The Prize: The Epic Quest for Oil, Money & Power*: *The Epic Quest for Oil, Money, and Power*, 1. Free Press ed. (New York, NY: Free Press, 2003), 515.

Soviet energy production, with oil at 29 percent and natural gas at eight percent.[75] The "Control numbers of the Soviet economy for 1959-1965" confirmed the transition to an oil-based energy mix as the central goal of the seven-year plan, which was expected to "change the structure of the Soviet fuel mix by prioritizing increase in extraction and production of the more cost-efficient sources of fuel – oil and gas."[76] Lower cost was attributed to extraction and higher efficiency derive from higher calorific value. Among fossil fuels, natural gas has the highest energy content, with a value of about 50,000 kJ per kilogram, while coal has the lowest, with a value of about 30,000 kJ/kg.[77] Crude oil, with its 42,300 kJ/kg, is in the middle and is 41% more efficient than coal.

In addition to the needs of the Soviet industry for larger volumes of more cost-efficient and more conveniently located fuel, the transition from coal to oil was also driven by two additional factors. Factor number one lay in the Soviet industry's lag of facilities and technology to meet their Western competitors' high, exacting standards. Soviet-manufactured machines and devices could not compete in foreign markets with those produced in market economies. As Jennifer Considine summarized, "shoddy in appearance, poor in quality, overpriced, and questionable durability, they could scarcely hope to attract the eye of the potential buyer.[78]" As the Soviet Union was already losing the race with the West in producing state-of-the-art industrial machinery and appliances for the consumer sector, investing time and resources to build the needed technology by replicating the West was not an option. The only viable and time-saving solution in the context of the bloc race was to import the required modern technology. However, that path necessitated additional sources of hard currency. Since Western Europe was also transitioning from coal to oil and was increasingly dependent on crude imports, Soviet oil, with its competitive pricing, was naturally becoming a popular commodity on the international market, providing the USSR with hard currency earnings.[79]

The second factor lay in the spirit of the Cold War. The success of the post-war economic development of Western countries was attributed to the petroleum shift in their

[75] Douglas Rogers, *The Depths of Russia* (Cornell University Press, 2016). https://doi.org/10.7591/9781501701573 56
[76] XXI S'ezd Kommunisticheskoi Partii Sovetskogo Soyuza, Stenograficheskiy Otchiot. Moskva: Gospolitizdat, 1961, vol. 2, 473.
[77] İbrahim Dinçer, *Comprehensive Energy Systems* 3 (Amsterdam, Netherlands: Elsevier, 2018), 678.
[78] Jennifer I. Considine, *The Russian Oil Economy,* Edward Elgar E-Book Archive (Cheltenham, U.K, Northampton, Mass: Edward Elgar, 2002). https://doi.org/10.4337/9781843765578. 64
[79] Soviet oil exports will be discussed in more detail in the later section of this chapter explicitly devoted to foreign energy transactions.

energy supplies. Soviet leadership wanted to keep up with the capitalist countries, especially the U.S., in modernizing their energy systems by converting them to oil and gas. Khrushchev expressed his concerns about the USSR's lagging in the transition to petroleum. At a special convention of the Smolensk region CPSU committee on August 13, 1958, the Soviet leader warned: "If we continue to rely on coal to produce energy and to supply fuel to industry and transport when leading capitalist countries develop their energy production and industry based on oil and gas, we will have a hard time catching up with them.[80]" Thus, alongside objective reasons for cost reduction and increasing sources of hard currency, the transformation of the energy mix towards a higher content of hydrocarbon resources was tied to the economic competition between the socialist and the capitalist systems. In this context, replacing coal with oil became a non-disputable goal for Soviet planners.

Modern Chemical Industry for 'Consumer-Oriented' Socialism

After Stalin's death, the winds of change were blowing in the USSR, and political success now demanded substantial 'consumer-oriented' reform. Following the demands of the postwar society, Nikita Khrushchev came up with a set of reforms to address the consumption needs of the Soviet people and to provide citizens with more comfort and material amenities. Consumers were promised more goods in shops and better homes. The press began to emphasize consumer rights in its increasing coverage of customer service shortcomings. [81] The image of a fussy consumer entitled to be selective was promoted with more rigor.

Communication between consumers and state planners began to receive close attention in the Soviet Union under Khrushchev. Consumers were encouraged to take part in the discussion of their rights and call the Party's attention to the deficits they were facing. In their letters to party leadership, citizens lamented deficits in consumer goods. They stressed the entitlement of the Soviet people to enjoy material well-being and comfort higher quality of life not just in the distant future but already then in the mid-1950s.[82] This sentiment echoed the new mantra of Khrushchev's era communist ideologists who repeatedly highlighted that

[80] *Pravda, "*Prazdnik Sovetskikh Shakhterov," August 30, 1958.
[81] Yelena Bogdanova, "Gazetnye Zhaloby Kak Strategii Zashchity Potrebitel'skikh Interesov.: Pozdnesovetskii Period," *Teleskop: Nabliudeniia za povsednevnoi zhizn'iu peterburzhtsev*, no. 6 (2002).
[82] "Pis'mo Uchitel'nitsy M. Nikolayevoi N.S. Khrushchevu O Printsipah Sotsial'noi Spravedlivosti," in *Khrestomatiya Po Otechestvennoi Istorii (1946-1995)*, ed. Alexander F. Kiselev and Ernst M. Shchagin (Moskva: Vlados, 1996), 275.

consumption is not capitalist and stressed that the growing material well-being of Soviet people required closer attention of central planners as an essential driver of the country's progress towards communism:

> Neglect of the material needs of working people and emphasis chiefly on enthusiasm and political consciousness, on social and moral forms of encouragement and reward, impeded the growth of production and improvement of the living standard… Increasing public funds for personal consumption is a communist way of raising the standard of living.[83]

The Soviet economy faced these demands amidst a structural crisis of the second half of 1956 - early 1957, which was associated with the shortage of its traditional resources - ferrous and non-ferrous metals as well as coal. This crisis required a reconsideration of priorities and increased attention to their substitutes - hydrocarbon resources and chemical materials. However, at the end of the 1950s, the Soviet economy experienced a real shortage of chemical materials, and the level of their production reached by 1957 met the needs of the national economy for certain types by no more than 70-80%, and for new kinds of plastics only to 18-25%.

To realize the postulates of a more consumer-oriented socialist program, to improve the material welfare of the Soviet people, and to get the economy back on track, the Khrushchev government committed to an ambitious reform program. Among several reform vectors pursued during the post-Stalin era, three represent the most relevance to the purposes of this work as they redefined the role of hydrocarbons in the Soviet economy:

1. Agriculture: The reform set out to improve incentives for agricultural production by raising farm procurement prices and reducing taxes. The goal of increasing food production was approached by extending the cultivated land by plowing up the 'Virgin Lands' of Southern Siberia and Kazakhstan. Also, the reform foresaw an increase of agricultural productivity through broader application of mineral fertilizers whose production was to increase from 12 million tons in 1958 to 35 million tons in 1965 (an increase of 192%).[84]
2. Housing: In 1956, the mass housing campaign was launched to provide state-assisted housing to the population. Over the first five years, the number of available square

[83] Nikita Sergeevich Khrushchev, *Communism - Peace, and Happiness for the Peoples.,* 2 vols. 1 (Moscow: Foreign Languages Publishing House, 1963), 32-33.
[84] Nikolai Baibakov, "Rol' Khimicheskoy Promyshlennosti V Razvitii Proizvoditel'nykh Sil," no. 18 (1963) 17

meters of state apartment housing increased by 90% (from 178 million available in 1951-1955 to 338 million in 1956-1960).[85] The reform brought millions of Soviet families out of the cramped rooms in shared housing and into their own separate apartments, the famous 'khrushchevki'. To support the needs of the newly baked 'khrushchevki' dwellers (55 million people during 1956-1964), the authorities launched mass production of furniture. They pinned their hopes on the scientific and technical revolution in the chemical industry to provide people with consumer delights and communist mentality.[86]

3. Chemicalization of the economy: The Soviet chemical industry was one of the country's most backward and showed signs of missing out on about two decades of development compared to Western nations. Mainly, plastics, synthetic fibers and mineral fertilizers had accumulated a significant backlog that Khrushchev demanded eliminated. [87]

To implement these three programs successfully, Nikita Khrushchev came up with a complex endeavor involving various institutional and economic measures that aimed to leverage the country's hydrocarbon resources and chemical materials for the modernization of the economy and thus raise the population's standard of living. In historiography, this set of transformational measures is referred to as 'Khrushchev's petrochemical project.' The Soviet leader came up with this project when comparing his country's economic development and application of hydrocarbon resources with the Western countries. Khrushchev identified one advantageous practice in the West that, in his opinion, the Soviet economy needed to adopt: foreign countries successfully used oil and gas not only as a source of fuel but also as valuable raw materials for the production of synthetic materials, fertilizers, and consumer goods. The use of oil and gas in this way would result in an expansion of the industrial base through the construction of new enterprises directly and indirectly related to the petrochemical industry. In Khrushchev's view, the implementation of such a project in the USSR would create new enterprises, jobs, and professions, would improve the supply of scarce goods to the population, and most importantly, would allow, subject to the satisfaction of the domestic market with new products, the export of petrochemical products with high added value abroad, and, therefore, increase foreign currency earnings. Thus, Khrushchev's perspective on the usage of hydrocarbons aimed to

[85] Philip Hanson, *The Rise and Fall of the the Soviet Economy*: *An Economic History of the USSR from 1945,* The Postwar World (London: Routledge, 2014), 64.
[86] Natalya Chernyshova, *Soviet Consumer Culture in the Brezhnev Era*, First issued in paperback, BASEES-Routledge series on Russian and East European studies 90 (London, New York: Routledge, 2015), 2.
[87] For more details on Khrushchev's economic reforms see, among others, Hanson, *The rise and fall of the the Soviet economy*, 51-67.

address two main challenges of Soviet economic development in general and of the chemical industry in particular: lack of raw materials and lack of funds to import equipment.

The discussion around the role of hydrocarbons as a new source of modern materials started in 1955 when Khrushchev propagated the idea of replacing traditional types of fuel, resources, raw materials, and agricultural raw materials (mainly fertilizers) with new, more efficient ones. So, at a meeting of the Presidium of the CPSU Central Committee on November 16, 1956, the First Secretary of the CPSU Central Committee proposed to "strengthen artificial fiber" and "cut down on the iron and steel industry.[88]" Minutes of the November 16, 1955 meeting of the Presidium of the CPSU Central Committee mention a special Commission tasked with the development of a production plan for artificial fibers for 1956-1960. The Commission prepared decisions for the sixth five-year plan for the development of the national economy (1956-1960).[89] For the planning exercise, the Commission referenced the Soviet Union's standing in production of various types of plastics, chemical fibers in comparison to the level of their production in developed capitalist countries. For example, in 1957 USSR's production of plastic per capita amounted to only 1 kg, while in Germany it was as high as 11.9 kg, in the USA - 11.7 kg, in England - 7.7 kg. Per capita USSR produced only 0.73 kg of chemical fibers of all types, whereas Germany and Japan produced 5 kg each, the USA - 4.7 kg, England - 4.4 kg, France - 3.1 kg.[90]

To catch up with the West on these metrics, during 1958-1964 Khrushchev set the goal of expanding production of plastics, polymer materials and synthetic fibers. Polymer materials (such as nylon, polyethylene, polyester) were supposed to complement and replace traditional materials in the three priority sectors of Khrushchev's reforms: agriculture, housing construction, light industry (primarily consumer goods and textiles).[91] The sixth five-year plan, however, considered the chemical industry only one of several sectors servicing the needs of heavy industry, specifically ferrous and non-ferrous metallurgy. Yet, Khrushchev sought to assign it more weight and prioritization as an independent industry requiring more considerable

[88] Aleksandr Aleksandrovich Fursenko, *Rossiya i mezhdunarodnye krizisy*: *Seredina XX veka*, Naučnoe izd (Moskva: Nauka, 2006), 69-70.
[89] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya), 60-61.
[90] RGAE, f. 4372, op.77, d. 408, l. 33.
[91] Vyacheslav L. Nekrasov, "Neftekhimicheskiy Proekt N. S. Khrushcheva (Vtoraya Polovina 1950-Kh — Pervaya Polovina 1960-Kh Gg.): Strategiya Modernizatsii Sovetskoy Ekonomiki, Eksport Nefti I Raspredelenie Resursnoy Renty," *Istoriya*, 11 (44) (2016), accessed October 10, 2023, https://history.jes.su/s207987840001371-7-1/.

investment as he viewed the industry as an engine of economic growth and a provider of materials needed to satisfy consumer needs. In mid-1957 after consolidating political power and becoming the absolute leader, he shifted the state planning focus to the chemical industry in the seven-year plan (1959-1965). The transition to the seven-year planning was directly related to the intention of the Soviet leadership to intensify the development of the most progressive industries.[92] As a result, on October 10, 1957, the Presidium of the CPSU Central Committee signed a resolution "On the main directions of the seven-year plan for the development of the national economy of the USSR." The resolution stressed the necessity to "place special emphasis on a sharp rise and development of the chemical industry... emphasis on decisive increase oil production and gas use in the national economy."[93] The resolution identified hydrocarbon resources as an inexhaustible resource for the ambitious program to revamp chemical industry. In particular, the seven-year plan foresaw a massive increase in production of synthetic fibers, that was to reach 666 thousand tons in 1965, a 300 per cent improvement over the 166 thousand tons reported in 1958.[94]

The early phase of Khrushchev's petrochemical project manifested itself in great attention to oil, which became visible in 1957. The seven-year plan (1959-1965) foresaw a massive expansion of exploration drilling, which yielded visible success: for the first time in Soviet history, the volume of exploration drilling for both oil and natural gas (6743 thousand meters) was scheduled to exceed that of development drilling (2412 thousand meters).[95] At the same time, investments in the oil and gas industry grew significantly compared to the previous years. During the seven-year plan Soviet petroleum industry received 130.2 billion rubles, or 35 percent of total investments in the energy sector, whereas between 1952 and 1958 it had been only 62.7 billion rubles or 30.1 percent. The two major areas neglected in terms of investment in favor of oil were the electrical and coal industries.

During its initial phase, in 1958 —1962, the petrochemical project yielded visible improvement in economic growth. According to the USSR State Planning Committee, by 1963, 28 new chemical enterprises were built and 195 large chemical production facilities were

[92] Sergei Khrushchev, *Nikita Khrushchev: Reformator,* Trilogiya ob Ottse 1 (Moskva: Vremya, 2010), 537-543.
[93] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya), 267.
[94] Considine, *The Russian oil economy*, 73.
[95] Ibidem,74.

launched on existing enterprises.[96] From 1954 to 1963, the capacity of oil refineries increased by 320%. The share of chemical products manufactured from oil and gas increased from 10.7% in 1958 to 16% in 1963. [97] Polymers found wider applications in mechanical engineering, electrical engineering, and the textiles industry. As a result, at the XXII Congress of the CPSU, Khrushchev proudly stated that oil and gas resources in the fuel balance amounted to 42%, and the production of plastics and chemical fibers doubled. Savings from switching to cheaper fuel in six years exceeded three billion rubles, the use of natural and oil gas resulted in reduction of production costs and savings of other costly natural raw materials.[98]

Since Khrushchev hoped to export products of chemical and petro-chemical synthesis to Western countries, the petrochemical project was also viewed as a source of foreign currency earnings so necessary for purchasing Western industrial equipment. The petrochemical project stimulated the 1960s attempts of the Soviet government to establish mutually beneficial scientific and technical cooperation with foreign partners and import turn-key chemical plants.[99] Khrushchev proposed to purchase equipment for the chemical industry abroad which resulted in turn-key chemical plants imported from Germany, Italy, Japan, and France.[100]

This aspect of the project demonstrates Khrushchev's intent to move away from Soviet export's focus on unprocessed goods and raw materials and switch to industrially produced goods:

> We can be even bigger exporters of mineral fertilizers and other chemical products, the raw materials for which are gas and oil, to many European countries not even to mention the Asian countries. So, we could perhaps become competitors to the West… so that we can already attack the capitalist market and prove ourselves there. [101]

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[96] RGAE, fond 399, op.1, d. 1084, l.14-15.
[97] Ekonomicheskaya Enciklopediya. Promyshlennost' I stroitel'stvo. T. 3. M., 1965, 665.
[98] XXII S'ezd Kommunisticheskoi Partii Sovetskogo Soyuza, Stenograficheskiy Otchiot. Moskva: Gospolitizdat, 1962, vol. 1, 56.
[99] Baibakov, "Rol' khimicheskoy promyshlennosti v razvitii proizvoditel'nykh sil" 14
[100] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya) vol. 2, 629, 821.
[101] Nikita S. Khrushchev, "K proyektu zapiski N.S. Khrushcheva v Prezidium TSK KPSS s predlozheniyami po voprosam dal'neyshego razvitiya khimicheskoy promyshlennosti (po itogam poyezdki na khimicheskiye kombinaty), 29 marta 1963," in Nikita Sergeevich Khrushchev: Dva cveta vremeni; dokumenty iz lichnogo fonda N. S. Khrushcheva, ed. Natal′ia G. Tomilina, 2 vols., Rossiia XX vek Dokumenty (Moskva: Mezhdunarodnyi Fond "Demokratiia", 2009), 2, 720.

Khrushchev's government and advocates of the petrochemical vector attempted to move away from viewing the oil industry mainly as a source of crude exports. Instead, they sought to repurpose petroleum into a provider of raw materials for the chemical industry. This vision also included enabling the Soviet Union to export high quality industrial products thus upgrading Soviet export portfolio to the level of industrialized economies. As per consensus among economists, specialization in the production of raw materials for export leads to a displacement of energy and resources from more productive economic activities. Because of the short-term gains of raw material exports and because of the vested long- range interests of the so-called "export elite," resource extraction tends to monopolize available capital to the detriment of other industries.[102] Thus, the petrochemical project was also an attempt to rethink Soviet foreign trade and re-distribute oil and gold rent for imports of hi-tech equipment and state-of-the-art industrial technologies yet unavailable in the Socialist bloc. This approach could have raised the Soviet *level* of *technological* advancement.

Instead, scarce hard currency resources were directed to pipe imports. This change of trajectory was a result of the strengthening of metallurgy and natural gas lobby in the State Planning Committee (Gosplan) that coincided with Khrushchev's gradual loss of political power. Not all echelons of power in the Soviet state shared Khrushchev's views on the priority vectors of economic reforms. The State Planning Committee and the State Economic Council of the USSR consistently blocked fund allocation and decision-making to promote the petrochemical project. Instead, they patronaged metallurgy.

In December 1960, at a meeting of the Presidium of the CPSU Central Committee, Khrushchev proposed to reduce the metallurgy plan for 1965 from 96 million tons to 86-91 million tons, and re-direct released capital investments to production of mineral fertilizers and chemical protection products for agriculture. However, Gosplan did not comply with this instruction. In November 1962, Novikov was removed from the post of chairman of Gosplan and replaced by Veniamin Dymshits, a steel engineer by training. In the same month, at the Plenum of the CPSU Central Committee, Nikita Khrushchev called pro-metal Gosplan and the State Economic Council Cerberus, who "tear everyone apart for attempts to changes plan numbers in steel production and do not understand that by doing so they are ruining our

[102] Randall Stokes and David Jaffee, "Another Look at the Export of Raw Materials and Economic Growth," *American Sociological Review* 47, no. 3 (1982), https://doi.org/10.2307/2094996.

economy...[103] " Khrushchev emphasized that Gosplan continues to plan the "old way" prioritizing the development of metallurgy at the cost of the chemical industry.[104] At a following meeting of the Presidium on December 4, 1962, the first CPSU secretary accused the former Gosplan chairman V. N. Novikov of not complying with the decisions of the Presidium on redistribution of capital investments from metallurgy to the chemical industry. In 1962, Gosplan allocated only 1.3 billion rubles instead of the 1.5 billion planned for the development of the chemical industry in the seven-year plan.[105]

In early 1963, the Soviet bureaucratic community was alarmed by Khrushchev's declaration that Gosplan was a failure due to its 'excessive conservatism'. In response to Khrushchev's allegations, the Central Planning Committee blocked the petrochemical project followed by Khrushchev's dismissal. The fiasco of the petrochemical project is the first instance of struggle over oil's role in the development of Soviet economy. This project opened a short window of opportunity for the Soviet foreign trade to shift to highly industrial goods. However, the hasty character of reforms, as well as growing struggles among lobby groups within the government and state planning authorities, resulted in the abandonment of this progressive strategy. The fiasco of the petrochemical endeavor marked the long-term adoption of an export strategy mainly based on raw materials, with crude oil being at its core.

Oil as a Factor of Soviet Geopolitics and Foreign Trade

After WWII, oil gradually became the central export commodity in the world trade. In addition, this period marked a turning point in oil's becoming an instrument of power in the international arena. This section reviews post-WWII geopolitics and foreign trade as factors defining late Soviet energy politics. What aspects of international relations and trade made oil crucial to Soviet foreign policy and energy strategy? How did crude oil become a central commodity of Soviet exports?

[103] Nekrasov, "Neftekhimicheskiy proekt N. S. Khrushcheva (vtoraya polovina 1950-kh — pervaya polovina 1960-kh gg.): strategiya modernizatsii sovetskoy ekonomiki, eksport nefti i raspredelenie resursnoy renty."
[104] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya) 630
[105] RGAE, f. 173. Op. 1. D. 350. L. 5.

During the 1950s, oil was not yet a significant factor in the Soviet Union's foreign trade. Coal and petroleum products were the top exported goods until 1957, with coal remaining the top commodity in Soviet energy exports. However, in the early 1950s, petroleum products gradually dominated the list of Soviet exports, overtaking wheat and timber, which fell to second and third place, respectively. In 1958, crude and petroleum products achieved parity in the export mix:

Type of export commodity / year	1913	1928	1938	1950	1955	1956	1957	1958
Coal	0.1	0.6	0.4	0.1	4.3	5.7	8.8	10
Crude oil	0.007	0.2	0.2	0.3	2.9	3.9	5.9	9.1
Petroleum products	0.9	2.5	1.2	0.8	5.1	6.2	7.8	9

Figure 3. Russian and Soviet total exports of oil, petroleum products, and coal, millions of tons per year [106]

Only in 1960 did crude oil exports surpass petroleum products by 2.4 million tons (or 15%) a year, with crude reaching 17.8 million tons and petroleum products 15.4 million tons. [107] This hierarchy in the Soviet export mix reflected the distribution of these commodities in global energy consumption. During the first half of the XXth century, coal was the primary fuel source in the world economy. Globally, oil was only beginning to gain importance:

[106] Narodnoe khozyaystvo SSSR v 1958 g.: statisticheskiy ezhegodnik, Moskva: Gos. stat. Izdatel'stvo, 1959, 200-213, 800, 802.
[107] Maria Vladimirovna Slavkina, *Triumpf i tragediya: razvitie neftegazovogo kompleksa SSSR v 1960 - 1980-e gody* (Moskva: Nauka, 2002), 30.

year	coal	oil	gas	hydropower
1913	89.8	5.6	1.8	2.8
1920	83.5	11.6	2.7	2.2
1929	76.3	14.1	4.2	5.4
1937	70.2	17.8	5.7	6.3
1949	59.3	24.2	9.4	7.1
1950	57.8	24.9	10.0	7.3

Figure 4. Primary energy resources in the world energy use (or energy balance) in the first half of the 20th century, % [108]

The share of oil in the world fuel and energy balance increased to 25% by 1950, as its consumption doubled compared to the late 1920s. The USA dominated global oil production, contributing to almost 50% of world oil extraction. As part of its strategy to restore and control post-war Western Europe, the U.S. set out to dominate Europe's energy supplies with U.S. oil exports pushing Europe to change from a coal-based economy toward one based on imported oil.

Marshall's Plan and Oil Race

During World War II, while the Soviet Union was fighting for survival, the United States formed a new internationally-oriented oil strategy, whose central tenets can be summarized as follows:

1. Oil is the leading strategic resource and commodity during the war and the main factor of a nation's power and international influence during peacetime.
2. For the U.S. to ensure economic growth and consistent influence in the international arena, it needs to control and begin the development of foreign oil reserves.
3. The main area of US interests in terms of oil reserves is the Middle East.

[108] Data taken from Ashik Avetich Manukyan and Klavdiya Nikolaevna Kozarez, *Kapitalisticheskiy Rynok Nefti*, 2nd ed. (Moskva: Lenand, 2017), 9.

4. The oil resources of the Middle East should be divided between the USA and England: England is to control Persian oil; USA - Saudi Arabian oil; oil from Iraq and Kuwait was subject to joint ownership.

5. The US must control energy supplies to Europe and hence needs to build oil pipelines to Europe to transport Saudi and Kuwaiti oil.[109]

Under President Truman, who came to power after Roosevelt's death on April 12, 1945, this concept found new ideologists, was supplemented, and included a reference to the Soviet Union. US Navy Secretary James Forrestal, concerned with "ensuring the security of the United States in the post-war world" during a "long-term confrontation with the Soviet Union," linked the "prestige ... and influence of the United States" with "wealth … in terms of oil resources, foreign as well as domestic." Forrestal was the first to publicly combine the goal of the United States ownership of oil globally with the call to enter a "protracted confrontation with the Soviet Union.[110]" This concept was soon supplemented by US concerns about the post-war reconstruction of devastated Europe, which allowed the US to extend its political and economic influence zone.

Driven by the determination to control Middle Eastern oil reserves, the 1947 Truman Doctrine aimed to extend U.S. military influence into this region. An excellent opportunity to achieve this goal presented itself in 1948 when the Arab American joint venture Aramco first drilled into the gigantic Ghawar field in eastern Saudi Arabia. With the original reserves of 80-100 billion barrels, Ghawar was more than ten times the size of the great East Texas field, the largest ever discovered in the United States up to that time. The control over Ghawar by U.S. oil firms helped consolidate U.S. power over allies and contain other countries' influence in the regions of U.S. strategic interests. Two such vital regions at the time were Western and Southern Europe, where the U.S. feared a potential spread of Soviet influence and communism whose sprouts, for unknown reasons, Washington discovered in miners' trade unions.[111]

To supply Middle Eastern oil to Europe, American companies Bechtel, Consolidated Steel, and the National Tube Company began construction of a trans-Arabian oil pipeline from

[109] Yergin, *The Prize: The Epic Quest for Oil, Money & Power*,405-408
[110] Ibidem, 406
[111] Galina Y. Koleva and Zheko M. Kolev, "Sovetskiy Neftyanoy Eksport 1950-1960-Kh Gg.: Na Fone Izmeneniy Na Mezhdunarodnoy Arene I Deyatel'nosti SEV," *Vestnik Tomskogo gosudarstvennogo universiteta, Istoriya*, no. 66 (2020), 46.

the Persian Gulf to the eastern ports of the Mediterranean Sea, which was completed in 1950. The U.S. introduced oil pipelines not merely as a type of international oil transport but as a means of geopolitical dominance as they established control over the European oil market. By establishing this supply mechanism of oil extracted by American companies to Europe, the U.S. demonstrated its commitment to further goals laid out in the Marshall Plan such as overcoming the European energy crisis, replacing coal with oil, long-term contracts of oil imports to European countries from American companies paid in U.S. dollars, restoration of U.S dollar status in Europe.

In addition to establishing the transportation solution for Middle Eastern oil to Europe, as part of the Marshall Plan, the U.S. invested in the expansion of European refineries. As a result, by 1952, the capacity of West European refineries tripled compared to the pre-WWII level. Yet, the domestic economic benefit of the expansion of the refinery industry was limited due to the fact that 69% of all European refineries specialized in oil distillation[112] were fully owned by U.S. corporations. Refineries specialized in cracking[113] showed an even higher presence of U.S. capital, with 91% of these enterprises in full U.S. ownership.[114] Hence, profit from refinery businesses was not re-invested in the European economy but was converted into U.S. dollars and returned to the U.S. Furthermore, the remaining 31% of West European refineries were partially owned by U.S. petroleum conglomerates. For example, in May 1950, Standard Oil of New Jersey invested fourteen million U.S. dollars in Italian refineries in Livorno and Bari. In return for this generous investment, Standard Oil took ownership of 50% of the shares of these Italian businesses.[115] Aside from largely owning the profit of these enterprises, such a strong presence of U.S. capital meant de facto U.S. ownership of all phases of oil transportation and refinery in Europe as well as the strategic decision-making about Western Europe's oil consumption. Hence, oil linked the Truman Doctrine for the Middle East to the Marshall Plan for Europe. On the global scale, the implementation of these two interlinked strategies resulted in the transition of the world economy from coal to oil, the

[112] Crude oil consists of a mixture of hydrocarbons, and the distillation process aims to separate crude oil into broad categories of its component hydrocarbons, or "fractions," source: U.S. Energy Information Administration, https://www.eia.gov/todayinenergy/detail.php?id=6970#, accessed on November 23, 2023

[113] Cracking is a refining process of breaking down complex organic molecules (such as kerogens or long-chain hydrocarbons) into simpler molecules (such as light hydrocarbons), U.S. Energy Information Administration, Glossary, https://www.eia.gov/tools/glossary/index.php?id=C, accessed on November 23, 2023

[114] Manukyan and Kozarez, *Kapitalisticheskiy rynok nefti*, 78.

[115] Control over Italian refineries, particularly, was strategically important to the U.S. oil producers as it was logistically convenient for the Middle Eastern and especially Libyan oil that could conveniently reach Italian refineries after crossing the Mediterranean. For more on the transportation and refining of Middle Eastern and Libyan crude to Europe and the role of the U.S. corporations in crude logistics and processing, see Yergin, *The Prize: The Epic Quest for Oil, Money & Power*, 529.

acquisition of the European energy markets by the U.S. oil companies, and the introduction of Middle Eastern oil to the global economy. As we have seen, the Marshall Plan drove Europe's transition from a coal-based economy toward one based on imported oil.

The Marshall Plan and the Truman Doctrine embodied the U.S. post-WWII determination to control oil markets and to elevate itself as a global power employing mostly foreign oil while conserving its domestic supplies. In contrast to its competitor, in the post-WWII period, the Soviet Union was unable to use oil as an instrument of power and influence. Despite having won the war, the USSR was facing a plethora of socio-economic problems. In addition to domestic economic challenges which were discussed in the earlier sections, the USSR faced challenges in its foreign relations. The main external challenge was the necessity to support communist regimes in the socialist bloc countries. However, due to the need to utilize all available oil resources for the post-war reconstruction, the Soviet Union could not yet employ oil to leverage its influence abroad. In 1946–1949, exports were nearly nonexistent at 0.5–0.9 million tons per year.[116]

Also, in terms of post-war oil production, the Soviet Union ranked only third in the world after the United States and Venezuela, with a share of 9.7%. With their Truman Doctrine and Marshall Plan the U.S. had already put oil at the core of the geopolitical adversary. In such circumstances, the USSR had to develop a new, more oil-focused strategy to address the geopolitical challenges of the confrontation with the U.S. In addition to switching to an oil-dominant energy mix to boost economic growth domestically and to support Comecon economies, the Soviet leadership had to increase oil production and exports to overcome the embarrassing third place in global production. From its onset, the Cold War took on the form of a race in several areas of production and trade, including oil. American postulate, "Oil is the main strategic resource and commodity during the war and the main factor of a nation's power and international influence in peacetime," became the underlying principle of this race and had to be adopted by the USSR. Accepting these rules of the race and committing to catching up and surpassing the United States in oil production so early in the post-war period when the Soviet oil industry still had not recovered from significant damage of the wartime and oil production volumes were low was a risky decision that required a rapid exploration and reclamation of new oil baring territories. The following sections will explore how the USSR

[116] Ermolayev, "Formirovanie i razvitie neftegazovoy zavisimosti v SSSR."

addressed the challenge of the oil race and how its rivalry with the U.S. affected Soviet crude exports to the socialist bloc and capitalist countries.

Socialist Bloc Economies and 1956 Events in Hungary

Energy reserves of East European countries[117] of the socialist bloc were limited. Years of exploration and forced production confirmed that the petroleum base in post-WWII Eastern Europe was insufficient to sustain a rapid industrialization program.

Production	**1955**	**1958**	**1965**
total	100	100	100
Coal and lignite	87.2	85.3	82.9
Crude oil and NGL	6.4	6.8	7.1
Natural gas	3.6	4.3	6.6
Hydro-power	0.8	1.1	1.6
Nuclear energy	-	-	-
Other	2.0	2.5	1.8

Figure 5. Energy Production in Eastern Europe (Czechoslovakia, East Germany, Hungary, Poland) in 1955, 1958 and 1956, %

In addition, the transition from coal to oil and chemical industries' growing demands for hydrocarbons widened the gap in local supplies and raised a question of higher imports. In the second half of the 1950s, the Soviet Union which accounted for 70% of the population and industrial production of the COMECON countries, produced about 95% of the COMECON energy potential and accounted for over 90 % of the bloc's petroleum production.[118]

To support the economies and particularly the energy needs of the socialist bloc, during his early years in office (1953-1956), Khrushchev pushed to increase coal production and, consequently, coal exports to the Comecon countries. At the time, the GDR was the leading importer of Soviet coal among socialist countries, with 2,544.4 thousand tons per year. During this period, crude oil exports to socialist countries were low. They started in 1949 with

[117] For the purposes of this study and due to availability of data, East European countries of the socialist bloc are limited to Czechoslovakia, East Germany, Hungary, Poland.
[118] Jan S. Prybyla, "Eastern Europe and Soviet Oil," *The Journal of Industrial Economics* 13, no. 2 (1965), 157.

Czechoslovakia at 55.5 thousand tons per year, followed by Poland in 1950 at 53.5 thousand tons. In 1951, 198.8 thousand tons of oil were supplied to Hungary. These volumes grew significantly by 1956 when Czechoslovakia received 676.8 thousand tons (a 122% increase compared to 1951), Hungary 304.7 thousand tons (a 53% increase), GDR - 745.5 thousand tons (no data for 1951), and Poland 489.2 thousand tons (an 815% increase). However, this consistent increase in Soviet oil supplies was insufficient to ensure consistent political loyalty of the Comecon countries and provide economic stability.

Political tension in the relations with the socialist countries of Central and Eastern Europe soon triggered a shift in the Soviet energy policy. Transcripts of meetings of the Presidium of the CPSU Central Committee during the Khrushchev era reveal an acute discussion of the relations with the countries of "people's democracy." The deterioration of these relations was at the center of attention of Soviet leadership since the mid-1950s. The driver of this deterioration was anti-Soviet sentiments spreading fast in the Socialist bloc countries of Eastern Europe. These anti-Soviet revolts followed Khrushchev's secret speech in which he attacked Stalin's rule and called for several political and cultural updates, allowing for more freedom of speech and information. Inspired by the loosening of censorship and promises of more political freedom, a rising wave of unrest and discontent broke out in Hungary, criticizing the People's Republic of Hungary and its Soviet-imposed policies. These uprisings culminated in violent demonstrations in October 1956. Rebels were victorious at first and put Imre Nagy into power, who aimed at establishing a multiparty system and withdrawing from the Warsaw Pact. On November 4, the Soviet troops invaded Hungary to stop the revolution, executed Nagy, and installed Janos Kadar as the new leader of the People's Republic of Hungary. At the peak of the Hungarian events, on October 30, 1956, Soviet foreign minister Dmitry Shepilov, for the first time, explicitly called out the critical state of anti-Sovietism in Eastern Europe: "The course of events revealed that the crisis in our relations with people's democracies is pervasive.[119]"

After suppressing the revolts in Hungary, CPSU leadership discussed various possible measures to stop the spread of anti-Soviet sentiments within the socialist bloc: sending advisers, withdrawal of Soviet troops, and more expansive use of force, as it was in Hungary. At the same time, there was a consensus about the urgent need to preserve the reputation and

[119] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya), 187

authority of the Communist Party in the region at all costs. Khrushchev summarized the debate by stressing: "Give them anything they need: metal, other raw materials, food supplies.[120]" Out of these three categories, raw materials enjoyed the highest demand. Coal and cotton were the most requested Soviet imports. Coal was the most problematic raw material, as the Soviet economy was experiencing an increasing coal deficit.

To determine a new export strategy that would satisfy the needs of the European satellite countries and ensure their loyalty, a group from CPSU's central committee visited Hungary. The group consisted of Mikhail Suslov (member of the Presidium of the Central Committee and chief party ideologue), Andropov, Zhukov and others. Upon their return to Moscow in December 1956, they reviewed the baseline numbers for the sixth five-year plan based on the observations from their trip to Budapest. Minutes of the discussion highlighted the deficit of energy resources in exports as the bottleneck for the stabilization of relations with Eastern Europe and suggested replacing coal with oil as a solution.[121] This suggestion was naturally advocated by the emerging oil lobby of the Gosplan led by Gosplan's newly appointed chair, Nikolai Baibakov. The Hungarian events and the need to find an alternative to coal in energy supplies to the satellite countries presented an opportunity for the oil lobby to begin influencing Soviet energy politics.

Minutes of Comecon meetings following the Hungarian uprising indicate active discussions about the increase in Soviet crude exports.[122] Khrushchev had traditionally supported the focus on coal and was initially reluctant to invest in further exploration and expansion of crude exports. During the discussion of relations with Hungary and other East European allies, the first CPSU secretary agreed with the oil lobby about the need to reorient Comecon economies towards "the raw materials we produce." After referencing the situation in Hungary, Khrushchev emphasized that the same approach was required to relations with Poland since "America is courting Poland," believing that "Poland is predisposed... to the restoration of capitalism."[123] Further, he pointed to Yugoslavia and Rumania as other countries

[120] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya), 140
[121] Galina Y. Koleva, "Neft Vmesto Uglia.: Vliyaniye Vengerskikh Sobytiy 1956 G. Na Izmeneniya V Energeticheskoy Politike SSSR," *Vestnik Tomskogo gosudarstvennogo universiteta, Istoriya*, no. 399 (2015).
[122] Koleva and Kolev, "Sovetskiy Neftyanoy Eksport 1950-1960-kh gg.", 48.
[123] Prezidium TSK KPSS. 1954–1964 gg. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy. Postanovleniya. Chernovye protokol'nye zapisi zasedaniy. Stenogrammy / gl. red. A.A. Fursenko.1344 s. (Ser. Arkhivy Kremlya), 540, 541, 546.

that could potentially fall under U.S. influence. He concluded his speech calling the Soviet Union to attack, and attack wisely. The wise attack strategy had to rely on oil.

As a result, in the following year, Soviet crude exports to East European countries increased by 68% (1.5 mln tons) and exports of petroleum products increased by 10% (0.1 mln tons). Further, in 1958, for the first time in Soviet history, crude exports surpassed exports of petroleum products and coal:

Commodity type	**1956**	**1957**	**1958**	**1959**	**1960**	**1961**
Crude oil	2.2	3.7	4.2	5.3	6.2	7.0
Petroleum products[124]	1.0	1.1	1.2	1.3	2.9	3.4

Figure 6. Eastern European Imports of Soviet Petroleum (millions of metric tons).[125]

This increase relied solely on the reserves of the Volga-Ural oil province, which was forced to increase production to meet the new export goals. Stretching from the west bank of the River Volga to the western Ural Mountains, the province's oil fields were, on average, nine thousand kilometers away from the Central and East European consumers. This distance determined the second hotly debated topic of the Comecon meetings - the transportation of crude to Europe. Mirroring the USA's approach to connecting Europe to Middle Eastern oil reserves, at the X Comecon session in 1958, the USSR decided to build a pipeline to send crude from Volga-Ural to Eastern Europe. The Druzhba ('Friendship') pipeline was to stretch from Tataria (a region in the Volga-Ural province) to Belarus, where it was divided into two branches: northern (to Poland and GDR) and southern (Czechoslovakia and Hungary). The pipeline formed a permanent physical link between the Soviet Union and its East European allies. Given the spirit of the rivalry with the U.S., the Soviet pipeline had to exceed similar projects initiated by the capitalist economies in capacity and size. After the first segments were built in 1964, Druzhba became the longest oil pipeline in the world, stretching for 4665 km and bearing a capacity of 8.3 million tons.

Imports of Soviet crude, as compared to petroleum products, provided the Eastern European countries with cheaper petroleum and facilitated the building up of a petrochemical industry in the region, which, in turn, supported the plans to modernize the industrial structure

[124] Petroleum products exported to Eastern Europe encompassed gasoline, diesel oil, kerosene, and lubricating oils.
[125] Data taken from Prybyla, "Eastern Europe and Soviet Oil," 157.

of the Comecon economies. Pipeline's economic benefit was enhanced by the plans to construct large refineries and petrochemical centers at Plock (Poland), Schwedt (East Germany), Szazhalombatta (Hungary), Bratislava (Czechoslovakia), and Mozyr, Polotsk, Kremenchug, and Ventspils (U.S.S.R.). According to Polish sources quoted by Jan Prybyla, refining crude domestically meant significant savings for the bloc economies. When East European countries still relied on the export of petroleum products due to insufficient refining capacities at home, they would spend up to 100 million rubles annually on petroleum products (during years when crude oil was 90 rubles per ton and petroleum products were on average 145 rubles per ton.)[126] Being able to refine domestically meant significant savings. These savings benefited the domestic economies, while in contrast to the investment and share-holding model applied by the US in Western Europe, the Soviet Union did not (co)-own refineries in CEE.

Another reason that determined the shift from petroleum products to crude exports was the limited refining capacity and steadily growing domestic demand for petroleum products. In the first post-war twenty years, the Soviet oil refining industry intensively increased its production potential - 16 large refineries were built. However, this increase in refining capacity was not sufficient to keep pace with the growing demand for petroleum products. The country was undergoing a rapid motorization of all aspects of life - more and more petroleum products were consumed by transport, rural mechanization, and the fleet of construction equipment increased at an unprecedented pace. There were simply no free refining capacities that could be leveraged to increase the production of petroleum products for potential export. At the same time, there was crude, and its extraction grew significantly faster than the country's refining capacity. So, it was cheaper to export this surplus of crude in exchange for either hard currency or to directly barter it for equipment.

The dynamics of oil supplies from the USSR to Eastern Europe reflected the emerging trends in European economies and consumption. The dominating trend was the transition from coal to oil. Under these conditions, the socialist camp, constantly shaken by political crises, demanded from the USSR significant economic help. To provide such economic help, the Soviet Union needed a resource of unconditional value, highly competitive in the international arena, capable of driving the economies of these countries forward and generating noticeable and immediate effects. In 1956 oil became such a resource. After the Hungarian events,

[126] Prybyla, "Eastern Europe and Soviet Oil" 155.

Comecon countries used political blackmailing to request a consistent increase of oil supplies even during the years when the USSR could not satisfy its domestic needs. The Comecon countries, as documents from the early 1960s show, quite consistently pursued a policy of attacking the Soviet leadership on the issue of abandoning coal fuel, with statements about increasing oil supplies and starting gas exports. Thus, Hungary included in its planning documents from 1963, designed for the period until 1980, an increase in oil imports to eleven million tons (a 700% increase from 1961). When appealing to the Soviet leadership to increase pressure, Hungary used the following arguments ranging from neutral "Raw materials are in short supply in the Comecon economies" to blackmail-like "We will have to start buying it from non-socialist countries.[127]"

Thus, the 1956 events in Hungary became a turning point in the development of making oil a crucial instrument in Soviet foreign policy and geopolitics. After 1956, oil exports gradually became the means to secure the loyalty of the Comecon countries and support their communist regimes. The Soviet energy policy towards Comecon countries became oil-focused and retained this focus through the remainder of the USSR's existence.

The main objectives of oil trade with Comecon countries were not around generating profit, but rather sustaining Soviet political influence in the socialist bloc. East European countries received substantial subsidies from the Soviet Union because of the skewed prices of fuels, raw materials, and engineering products. Oil despite appreciating rapidly on world markets, was underpriced in the Socialist bloc. Oil trade with the USSR was profitable mainly for Eastern European countries because they received better prices for their machinery than what they paid for raw materials.[128] Meanwhile, East European machinery that the USSR imported was overpriced because it was priced as if it were comparable to Western machinery, although it, in fact, lagged far behind Western products in quality.

To obtain higher quality machinery, equipment and products Soviet Union set out to look for trade partners outside of the socialist bloc. With Italy being the first market economy to import Soviet crude in 1951 oil emerged as an increasingly important source not just of hard currency but of barter deals with the West so needed for the Soviet economy. USSR continuously expanded crude exports to market economies such as Finland and Western

[127] Koleva and Kolev, "Sovetskiy Neftyanoy Eksport 1950-1960-kh gg." 51
[128] For more on discrepancies in Soviet oil and machinery trade with Eastern Europe, see Randall W. Stone, *Satellites and Commissars* (Princeton University Press, 1995) 5-9.

Germany in 1957, followed by Austria, Mongolia, Marocco, Uruguay and Japan in 1958. With the world demand for oil rising at four to five percent a year and with West European demand rising at a staggering 6 percent,[129] the expansion of Soviet crude exports to more parts of the world had perfect timing.

As the development of the Volga-Ural region progressed and its output doubled between 1955 and 1960, total Soviet crude exports quadrupled in the period between 1955-1960. This increase in exports was largely driven by faster-growing exports to capitalist countries along with consistently high crude volumes exported to the Socialist bloc. By 1961, Soviet oil exports to non-Socialist countries was three times higher in volume than exports to the Socialist countries of Eastern Europe and Mongolia:

Soviet Bloc:

Country	**Quantity**	**percent of quantity**	**value**	**percent of value**
Czechoslovakia	2,845.10	40.3	59237	42.8
Wast Germany	2,077.40	29.5	35725	25.8
Hungary	1376.8	19.5	27562	19.9
Poland	730	10.3	15236	11
Mongolia	24.3	0.3	558	0.4
Soviet Bloc Total:	7,053.60	100	138318	100

Non-Soviet Bloc:

Country	**Quantity**	**percent of quantity**	**value**	**percent of value**
Italy	5513.8	33.8	47329	31.3
Cuba	2979.8	18.2	29289	19.4
Japan	2234.4	13.7	18549	12.3
West Germany	1572.3	9.6	13182	8.7
United Arab Republic	1537.2	9.4	14419	9.5
Finland	878.5	5.3	8663	5.7
Greece	468.5	2.9	5697	4
Austria	437.3	2.7	6139	4.1
Brazil	379.8	2.3	4126	2.7
Morocco	111	0.7	1203	0.8
France	108.7	0.7	1084	0.7
Yugoslavia	70.4	0.4	890	0.6
Uruguay	23.9	0.2	280	0.2

[129] The continuously growing oil consumption in Western Europe created a growing import dependency: net imports of fuel as a percent of total consumption moved from 15.5 per cent to 28.6 per cent in the same period, or in short, import dependence nearly doubled. For more details on Europe's oil imports see

Belgium	19	0.1	165	0.1
Non-Soviet Total	**16334.6**	**100**	**151015**	**100**
Grand Total	**23,388.20**		**289,333.00**	

Figure 7. Soviet Crude Oil Exports, 1961 (quantity in 1,000 metric tons; value in 1,000 rubles)[130]

By bartering crude for machinery, products, and commodities, the Soviet Union could find buyers for all of the oil it had for sale. According to Ebel, the USSR successfully bartered oil with Italy for large-diameter steel pipes and associated equipment, with Brazil in return for coffee, with Cuba in exchange for sugar, and with Egypt - for cotton.[131] This semi-barter approach was also more straightforward for planners to deal with than selling on the volatile international market. As fluctuating international prices made it difficult to predict foreign exchange earnings, it was challenging to plan the quantities of imports that would be available to be incorporated into the plan. Oil for commodity swaps provided some assurance as to the quantities that would be available for import, facilitating the planning process. However, this assurance of quantity often meant that Soviet planners had to exchange crude at even lower effective prices than if it had simply been sold.

The nature of oil exports with non-communist countries resulted in a discrepancy between the growth of volume and the increase in revenue of this business. In 1961, the volume of crude exported to capitalist countries was 332% higher than the volume sold to the Socialist bloc. At the same time the ruble value of Non-Soviet bloc exports grew only by 209%. The above-discussed barter format of these exports was one factor driving this discrepancy. The other factor was dumping prices. To be competitive in Western markets, the USSR always managed to sell for less than its capitalist competitors, such as British Petroleum, Royal Dutch Shell, and the French government company. In its dealings with some countries, for example, with Italy and its state oil trust, in November 1960 the USSR agreed on a price as low as 1.00 USD per barrel[132] for 5 million tons of crude per year from 1961-1966. In exchange for such an unbeatable deal, Soviets received 1020 mm pipes and other materials from their Italian

[130] Based on statistical data from *Vneshnyaya Torgovlya Soyuza SSR Za 1961 God (Statisticheskiy Obzor)* (Vneshtorgizdat, Moskva)., 47-48.
[131] Robert E. Ebel, *Communist Trade in Oil and Gas;*: *An Evaluation of the Future Export Capability of the Soviet Bloc,* Praeger special studies in international economics and development (New York: Praeger, 1970) 37.
[132] In 1960-1966 U.S. oil was sold at the price of 2.86-2.90 USD per barrel, compared to which Soviet oil that was 286-290% cheaper was a genuine bargain, see:
U.S. Crude Oil First Purchase Price (Dollars per Barrel), U.S. Energy Information Administration, available at: https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=f000000__3&f=a

partners needed to extend Druzhba to West European borders.[133] Given the highly competitive nature of the West European oil market described in earlier sections and USSR's need of equipment hard currency earnings per se were not the only merit of Soviet oil exports to the West. The main benefit of this trade were equipment deals sealed in return for cheaply sold oil.

The third factor driving low export prices to Western Europe was the speed at which global production capacity grew compared to world oil demand during the 1950s. Although oil demand was growing in the post-war economies, production capacity was growing faster. As Daniel Yergin summarized this situation: "Always in search of higher revenues, the exporting countries, for the most part, sought to gain them by increasing the volume sold, rather than by raising prices. More oil was in search of markets than there were oil markets.[134]" In this setting, Europe's rapid economic growth and industrial expansion, combined with the transition from coal to oil and the growing demand for more affordable cars, made the European market the most competitive in the world in the 1950s and 1960s. With protectionist quotas now limiting the amount of U.S. oil imports, all U.S. oil companies extracting oil overseas had to look for other markets and naturally turned to Europe. To prevent the U.S. monopoly on the European oil markets and to purchase Western industrial machinery, the Soviet Union entered markets of both socialist and capitalist Europe.

Contrary to the widely spread idea about oil exports primarily serving as a source of hard currency for the USSR and an easier way to earn money fast, we have seen that the financial impact and relative gains of the Soviet oil advance on the capitalist markets were questionable. At the beginning of its oil trade with the capitalist world, the USSR concentrated its exports on smaller countries, particularly those with some surplus of goods for which oil made a ready exchange. Iceland with its fish presented such an example. Finland, conveniently located at the Soviet North-Western border, also was a large recipient, and in 1957 smaller amounts were going to a number of Western European countries. But later, developed countries found it attractive to obtain cheap oil and dispose of their goods. Italy and Japan, Western have-not nations in oil, were particularly interested in oil deals with the USSR and seen as 'vulnerable' by Western observers who began to be alarmed about increasing consumption of and dependencies on Soviet oil.[135]

[133] D. L. Spencer, "The Role of Oil in Soviet Foreign Economic Policy," *The American Journal of Economics and Sociology* 25, no. 1 (1966), 99.
[134] Yergin, *The Prize: The Epic Quest for Oil, Money & Power*, 514
[135] D. L. Spencer, "The Role of Oil in Soviet Foreign Economic Policy," 100.

A crisis in Soviet relations with socialist countries that culminated in 1956 events in Hungary created an opportunity for the supporters of the development of the oil industry to persuade Soviet leadership to use oil as a lever in its relations with the socialist bloc. Following the U.S. who switched to an oil-dominated domestic energy mix and set out to control international and particularly European oil markets, the Soviet leadership switched to oil both for the domestic as well as foreign energy policy. Starting from the second half of the 1950s, Soviet oil exports provided solutions to various problems: a) preserving and uniting the socialist camp, b) supporting and protecting the regimes of developing countries from the "oil pressure" of the West, c) establishing economic relations with developed capitalist countries, despite the ongoing confrontation in the context of the Cold War. Soviet Union took on the US call for the oil race and became a significant actor in the international oil economy.

Place of "Nature" in the public discussions of Pre-Siberian Oil and in pre-oil Siberia

In addition to economic reasons for oil's victory over coal both internationally and in the Soviet domestic energy mix, environmental factors also played a role. In the 1950s oil was perceived (and in fact was) less environmentally harmful and easier to handle than coal. With its history of struggle against pollution from coal burning, Britain took the lead in favoring oil as fuel for its less significant environmental impact. The 1957 Clean Air Act prohibited the usage of coal in particular urban areas where only smokeless fuels could be burned thus favoring oil.

Similarly to their Western counterparts, Soviet administrators were aware of the environmental harm of coal mining. Air and water quality in the coal producing regions was closely monitored in the 1950s-1960s. Numerous documents from government agencies indicate that during the late 1950s – early 1960s there was a significant deterioration in the quality of the environment and a decline in the level of public health in the Kemerovo, Irkutsk, Cheremkhovo, and Bratsk industrial regions.[136] Wastewater from seven coal districts of Kuzbass was not sufficiently purified from suspended particles and was not purified from

[136] Natalia V. Kuksanova, "Ekologicheskaya Situatsiya V Sibirskom Regione V Period Aktivnogo Promyshlennogo Osvoyeniya (1950–1980 Gg.)," *Sibirskaya Zaimka Istoriya Sibiri v nauchnykh publikatsiyakh*, 1998, https://zaimka.ru/kuksanova-ecology/

chemical ingredients at all. As a result, phenol concentrations[137] in the Kuzbass rivers exceeded the permissible norms by 90 times, and suspended particles were 700 times above the norm. Data collected by the regional sanitary-epidemiological services indicated that in 1960 Kuzbass air carried critically high concentrations of dust, soot, sulfur dioxide, and carbon monoxide gas.[138] West Siberian coal-producing enterprises did not comply with the late 1950s regulations that required the construction of water and air treatment facilities. Attempts to reduce pollution related to coal production in the Kuzentsk Basin in the late Khrushchev era cost the Soviet government 93 million rubles and were reported as ineffective.

Against the background of cost- and pollution-intensive reliance on coal, re-orientation to petroleum brought hope for a cleaner, more accessible, and cheaper energy. At first, this hope was associated with the Volga-Ural oil. The predecessor of West Siberia, the Volga-Ural oil province was the first "purely socialist" oil project. In the context of the confrontation with the capitalist world, which Soviet political and intellectual elites portrayed as notorious polluters of the environment, Socialist energy production was portrayed as a clean business. This alleged environmental harmlessness of socialist oil from the Volga-Ural province remained unquestioned during Khrushchev and Brezhnev terms. Discovered in 1929 and supplying fuel during WWII as well as for the post-war reconstruction, Volga-Ural province became home for the first experiments with techniques of enhancing productivity of oil wells and transform the geology of oil deposits. These activities, as well as discussions of Volga-Ural development, showed little consideration for "Nature" as an autonomous agent or a culturally significant subject worthy of preservation and treatment outside of the utilitarian paradigm. In the discussions of Volga-Ural oil production "nature" was treated as an object of exploitation in the service of socialist construction. According to Rogers, environmental aspects of Volga-Ural oil production entered public discussions on the pages of the regional press as late as 1987 at the height of glasnost.[139]

[137] The presence of phenolic compounds in surface and groundwater are undesirable because of their toxicity to living organisms and danger to human health. Already in very small concentrations, phenols can have toxic and carcinogenic effects on human organs. For more detail on phenols' affects on living organisms see: Shailesh Ghodke and Utkarsh Maheshwari, "Advanced Techniques for Wastewater Purification: Fundamentals and Applications," in *360-Degree Waste Management*, https://www.sciencedirect.com/book/9780323907606/360-degree-waste-management-volume-1, 1 115

[138] Evgeniĭ Naumovich Pertsik, *Gorod V Sibiri: Problemy, Opyt, Poisk Resheniy* (Moskva: Mysl, 1980), 279

[139] Rogers, *The Depths of Russia*, 66-69.

After we have seen that the 1950s leader in oil production, the Volga-Ural province, did not become a place of ecological critique, we will turn to pre-oil Siberia to examine what meaning Nature was assigned in the social and cultural construction of the region.

The "Thaw" ushered by the 1956 XX Congress of CPSU brought in an attempt to comprehensively revise and modernize Soviet socialism, including the methods of socialist construction. Siberia and its virgin lands, saturated with natural resources and immense territory, offered a perfect ground for an upgraded socialist experiment. Siberia's relevance and its more and more popularized image as a land of bountiful natural resources and vast expanses in the second half of the 1950s was associated with an attempt to "renew" socialism. To the Soviet planners, Siberia presented a place and an opportunity to build socialism from scratch in its better form, without having to clean up the mess and to correct mistakes of Stalin's era.

In May 1956, the Central Committee of the CPSU and the USSR Council of Ministers called on young people to actively participate in the industrial development of Siberia and the Far East. This appeal launched a corresponding propaganda campaign and cultural activities to "recruit" the young workforce to relocate to Siberia with the purpose of reclaiming its abundant resources and turning it into a new industrial hub. Since May 1956, Soviet periodicals began to focus on the topic of economic development of the eastern areas of the country. The "Siberian myth" became the most popular territorial myth in the progressive literature of the Thaw, placing the focus of the new wave of socialist construction to the East of the Ural Mountains. The imaginary space of the USSR in such essays was organized in a way that would draw the reader's attention to the shift of the center to the east ("the earth moved to the east")[140] where Soviet youth was to build "new, better life.[141]" In addition to labeling nature as a treasure chest of resources and a source of cheap energy, such narratives contrasted nature in its untamed, wild form with civilization. The process of subjugating nature and taking ownership of the material resources it bore was presented as the backbone of modernization.

Joining the chorus of progressive writers and journalists, intellectual elites included Siberian nature in the narrative of "better socialism" on a virgin terrain to be built by a "better" young generation born and educated in socialism. For instance, academician Mikhail Lavrentiev, founder of Akademgorodok[142], envisioned Siberia as a future heartland of

[140] A. I. Razuvalova, "«Ottepel'» V Sibiri: Transformatsii Territorial'nogo Mifa V Sovetskoy Proze Kontsa 1950-Kh Gg." *Izvestiya Ural'skogo federal'nogo universiteta*, no. 4 (2014), https://elar.urfu.ru/bitstream/10995/29032/1/iurg-2014-133-17.pdf 166

[141] *Literaturnaya Gazeta, "*Na Vostok!," May 26, 1956.

[142] Akademgorodok, or a 'town of academia', refers to the campus of the Siberian branch of the Academy of Sciences of the USSR founded in Novosibirsk in 1957.

prosperity and industrial might, a land where nature and civilization would coexist in harmony. Cities in the woods ('*gorod-les'*) would have no smoke as they would be entirely powered by electricity.[143] Conversely, this harmony was to emerge as a result of a battle against nature, resulting in its subjugation by man.

Remarkably, alongside the dominating narrative of the need to tame nature and access its riches to build a better socialist society, journalism, and literature of the early Thaw began to slowly draw their readers' attention to the so-called "pessimistic scenario" of socialist exploitation of nature. Among the first ideologically revisionist texts was Boris Mozhaev's prose that uncovered the environmental consequences of Siberia's industrialization. At first sight, the protagonists of his short novels "Tonkomer" (1956) and "Naled" (1959) fit the ideal picture of the progressive Soviet youth relocating to Siberia to dedicate their lives and work to large-scale industrial projects. However, they unavailingly try to persuade the system of nature's agency and its significance outside of the utilitarian paradigm. In the time of ever-growing propaganda of the reclamation of Siberia's virgin lands, Mozhaev's prose devalues humans who practice a consumer-like disdainful attitude towards nature.[144]

Although less prominently than their call to tame Siberian nature and open its treasure troves, Soviet academia followed the revisionist writers in their latent warnings about the ecological downside of the industrial reclamation of Siberia. Mikhail Lavrentiev, for instance, cautioned that the outcome of the 'Siberian endeavor' depended on how the relationship between nature and civilization would develop. The academician assumed that nature did have agency, yet it could be deprived of it by the builders of socialist modernity:

> Theoretically, one can imagine two radically different forecasts for the future of Siberia. The forecast of an extreme pessimist: we will destroy the forests, we will scare away all wildlife. The rivers will be covered with oil; all the fish will die. Cities will have to be moved from the banks of the rivers ten kilometers away since otherwise, it will be impossible to exist in them due to pollution. We will begin to extract fresh water by melting ocean ice, for which we will create expensive and complex installations, and water will be more expensive than gasoline.[145]

Despite not elaborating further on the 'pessimistic' scenario and focusing on the 'optimistic' one, Lavrentiev felt the need to call out the risks of the utilitarian approach to nature and was permitted to publish his warning in an all-Union newspaper.

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[143] A. Levikov, "Sibir'. Prognoz Na 2000 God." *Literaturnaya Gazeta*, November 5, 1967, 15
[144] Razuvalova, "«Ottepel'» v Sibiri: transformatsii territorial'nogo mifa V sovetskoy proze kontsa 1950-kh gg..", 175
[145] Levikov, "Sibir'. Prognoz na 2000 god.", 15

Other precarious industrial projects, like building two cellulose combines at the East Siberian Lake Baikal in 1958, spiked vivid discussions about nature's non-utilitarian value and stimulated environmental activism. The Baikal debate was, in part, successful in opening the public call for the state economic planners to consider the environmental limits that industrial projects should not cross.[146] However, in the late 1950s, the environmental critique of socialist industrial endeavors was only entering its infancy, was sporadic, and lacked the momentum to transcend the framework of just the Baikal use case and raise public awareness around other industrial projects.

As oil gained more and more strategic importance both as a vehicle of domestic economic growth and as a power factor in the international arena, it was treated as a sacred cow. It was entirely excluded from ecological critique during the first two post-war decades. Discussions about Siberia's industrialization and acquisition of its resources for the betterment of socialist life were interrupted by sporadic caesuras that permitted utterings of concerns about nature's non-utilitarian worth and even its agency. However, these still rather unsystematic 'criticisms' did not question the necessity to spread socialism in its highly industrial form onto the virgin lands and to base this development on extensive reclamation of natural resources. Neither did the emerging environmental critique target the Soviet Union's increasingly hydrocarbon-based growth strategy.

[146] Nicholas B. Breyfogle, "At the Watershed: 1958 and the Beginnings of Lake Baikal Environmentalism," *The Slavonic and East European Review* 93, no. 1 (2015), https://doi.org/10.5699/slaveasteurorev2.93.1.0147, 149

Chapter Two. The Tyumen North: How Nature Co-shaped Siberian Identity and Pre-Oil Development Strategies

The idea of accessing Siberia's natural resources has occupied Russian decision-makers for several centuries. When the conquest of the region began in the sixteenth century, Siberia was colonized and exploited for mainly economic reasons, particularly fur and precious metals. The government's attempts to appropriate Siberia's natural riches on the one hand and fear of its vast, cold unstudied spaces on the other defined the choice of people who were sent behind the Ural Mountains as well as their mission. Some had to improve or "civilize[147]" the places they arrived at and their inhabitants; others had to improve themselves. What they had in common after having arrived in Siberia was the vital need to come to terms with the harsh environment that differed significantly from that of their native places.

By showing the intricate relations between various groups of the Siberian population (incoming and native) and local nature on the one hand and the diverging visions of the region's future on the other, this chapter demonstrates the roots of the multiple challenges that made the construction of the WSPC a genuine struggle for, and at points, against, oil. This chapter asks: What were the relations between the West Siberian natural landscape and people that pre-defined the struggle for and against oil? What were the origins of the alternative visions of nature that became a fruitful ground for the environmental critique of petrolization? How did the locals' visions of Siberian nature fit with Moscow's reclamation plans?

First, I will describe the natural landscape that constituted the Tyumen[148] North and locate it within the system of Soviet administrative division. Making sense of the administrative structure is necessary for mapping the pre-petroleum power relations over this territory as well as its ethnic composition. Further, I will explain the Soviet strategy of the "conquest of nature," whose late and most significant materialization was the WSPC, and use it as a reference point for this chapter. Against the backdrop of the late Soviet "conquest," I will analyze the state's

[147] On the Russian and Soviet civilizing mission see: Jörg Baberowski, "Auf Der Suche Nach Eindeutigkeit: Kolonialismus Und Zivilisatorische Mission Im Zarenreich Und in Der Sowjetunion*: Kolonialismus Als Projekt Der Moderne," *Jahrbücher für Geschichte Osteuropas* 47, no. 4 (1999). and Christian Teichmann, "Cultivating the Periphery: Bolshevik Civilizing Missions and Colonialism in Soviet Central Asia," *Zeitschrift für Globalgeschichte und vergleichende GesellschaftsforschungComparativ.* 19, no. 1 (2009). The terms "civilizing" and "backwardness" in the context of petroleum development are analyzed in more detail in Chapter Four.

[148] The toponym "Tyumen" has a dual function in this dissertation: it either refers to the region "the Tyumen oblast" or its capital, the city of Tyumen. The reference to the city is more rare, sine the city was merely an administrator in this environmental history of oil. Each case of Tyumen referring to the region's capital indicates the city explicitly. Otherwise, "Tyumen" refers to to the district, i.e. *Tyumenskaya Oblast'.*

attempts to deal with the challenges that the Siberian natural world posed to the Russian and Soviet rulers. In order to show that the "conquest" strategy reached the peak of its materialization in the WSPC and that especially this phase of reclaiming West Siberian nature entailed the most radical transformations of human-nature relations, I will review the previous attempts of the Russian and Soviet state to master this land. In particular, I will analyze the reclamation attempts by focusing on people who were either the agents of reclamation and civilizing missions or their objects. Finally, the chapter analyzes the concept of "land with no prospects" and why, despite blocking a comprehensive development strategy for the Tyumen North, it became a convenient justification for the conquest of its resources. As a catalyst for discussion in later chapters, I explore the functions that the locals and the central government attributed to nature before the construction of the petroleum complex.

Setting the Scene, Defining the Tyumen North

West Siberian petroleum province lies in the North of the Tyumen oblast. The third-largest administrative unit of contemporary Russia, the Tyumen *oblast,* is situated on the West Siberian Plain. With the territory of 1.435.300 km^2, it is, for example, four times the size of Germany. The oblast borders Krasnoyarskiy Krai in the East, the Omsk and Tomsk oblasts in the Southeast, as well as the Komi Republic and the Sverdlovsk Oblast in the West. In the North, the oblast takes off at the coast of the Kara Sea with a part of its Yamalo-Nenetsk district located in the Russian Arctic. From there, it stretches for two thousand kilometers all the way to the Kazakh steppes in the South.

The North of the Tyumen Oblast (the Tyumen North, or *Tyumenskiy Sever*)[149]" is the focus of this study, as it became the core of the WSPC when the major hydrocarbon deposits were found here in the 1960s. The Tymen North has a subarctic climate, with the temperatures dropping below -50°C during long frosty winters and rising to +34 °C during short warm continental summers. This type of climate has an annual precipitation between 400 and 500 mm. This precipitation rate is rather low, as it is 20% lower than that of Central Russia and, for instance, 50% lower than in Bavaria.[150] The duration of snow cover varies with latitude and altitude from 120 to 250 days per year in the entire oblast or 145 to 155 days per year in its

[149] "The Tyumen North", or "*tyumenskiy sever,"* is a widely used synonym for the North of West Siberia and refers to the northern parts of the Tyumen Oblast.
[150] On precipitation in Russia see: Atlas po Geografii Rossii, 8-9 klass, Roskartografia, Novosibirsk, 2018, 17. For data on Bavaria see "Klima Für Bayern (Deutschland)," accessed September 27, 2020, https://www.laenderdaten.info/Europa/Deutschland/Klima-Bayern.php.

northern part.[151] The soils are mainly of a low nutrient peat-based type supporting numerous bogs and forest ecosystems. Groundwater levels are high with waterlogged soils characterized by long degradation and recuperative times. The West Siberian basin forms a nearly perfect plain, with a subtle slope to the North. The world's largest area of unbroken flat terrain, it is characterized by waterlogged soils, shallow lakes, and extensive swamps.

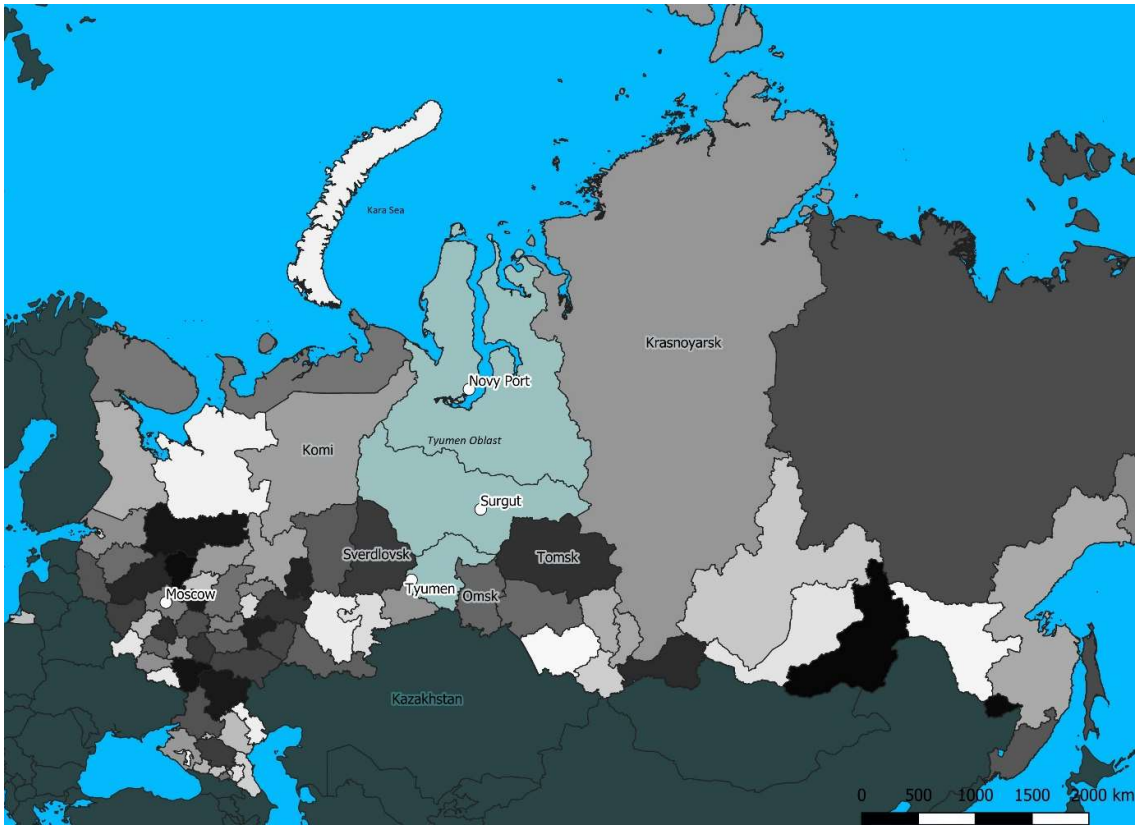

Figure 8. Tyumen Oblast on the political map of Russia, David Stäblein and Valentina Roxo, 2019.

Settlement patterns, transportations routes, economic developments, and local cultural identities have taken their roots in the basin of the Ob-Irtysh river system, the third-largest river system in the world, that drains West Siberia to the North. Bogs embedded into the river system cover half of the area, forests a third, and tundra most of the rest; permafrost underlies the northern half. Maximum heights above sea level measure no more than 182 meters. The many water bodies originating from the Ob-Irtysh river system have historically been home to many fish species, including some commercially significant types (eighteen species of the Coregonus

[151] Lodewijkx, "West Siberia Oil Industry Environmental and Social Profile," 7.

genus), and such endangered species as the beaver and sturgeon. Along with timber, these species constituted the primary natural resource, driving the region's pre-oil economy.

In terms of administrative division, the Tyumen North consists of the Khanty-Mansi and Yamalo-Nenets Autonomous Districts, which formed the core to the oil-bearing territories, with the largest petroleum deposits of the WSPC (Samotlor, Megion, Ust-Balyk and Fedorovskoe) located in their Middle Ob region. These parts of the Tyumen oblast traditionally inhabited by the indigenous peoples were named "autonomous districts" *(avtonomnye okrugi)* in 1977. Before that they were called "national districts" *(natsionalnye okrugi).* I use the names KMNO and YaNNO to refer to the districts prior to 1974 and KMAO and YaNAO to refer to their history after 1977. Although the actual definition of regions belonging to the Tyumen North cuts across *oblast* boundaries, this study focuses on its core, the territories of the KMAO and YaNAO, where the West Siberian hydrocarbon province took its roots in the investigated period. Thus, the Tyumen North is operationally defined here as a territory of the two autonomous districts.

For centuries, three significant factors made the reclamation (*osvoenie*[152]) of West Siberia and its resources an endless struggle: the vastness of the territory, remoteness, and cold. The cold and harsh climate, with rich but hard to access natural resources, predestined West Siberian nature to be not merely reclaimed, but conquered by the Soviet state. Reclamation of the pre-oil period meant access to the natural resources, primarily pelts and timber, and a rather formal control of the territory and lifestyles of its population. The North's reclamation of the early Soviet and pre-revolutionary period did not entail social engineering and a forceful change of the locals' relations with nature. In contrast, mastering of the oil-bearing lands required more radical transformations: state propaganda portrayed the intractable nature as an enemy of the Soviet people. This enemy needed to be subdued to gain economic and aesthetic value.[153] Following the pattern established in the Northern corners of the Europen Russia, where industrialization marched in decades earlier,[154] the designers of the petroleum complex constructed the Tyumen North as an important wild frontier with a hostile nature, holding

[152] The etymology of the Russian term "osvoenie" and the fruitul ground this etymology suggests for understanding Siberians' otherness will be discussed in detail in Chapter Four.
[153] Alla Bolotova, "Loving and Conquering Nature: Shifting Perceptions of the Environment in the Industrialised Russian North," *Europe-Asia Studies* 64, no. 4 (2012): 648.
[154] For extensive accounts of earlier Soviet projects of reclaiming Northern nature, see, among others, Andy Bruno, *The Nature of Soviet Power: An Arctic Environmental History,* STUDIES IN ENVIRONMENT AND HISTORY (New York: Cambridge University Press, 2016). doi:10.1017/CBO9781316534762; John McCannon, *Red Arctic: Polar Exploration and the Myth of the North in the Soviet Union, 1932-1939*, [ACLS Humanities E-Book edition] (New York: Oxford University Press, 1998).

immense riches. The state planners presented the region as an empty "space" that could only become valuable when its harsh nature was conquered to serve the needs of an industrial complex. To persuade the Soviet society to take part in this conquest, the state set out to teach people to appreciate landscapes that were not conventionally beautiful. State propaganda contributed to the cause by cultivating a sensibility towards the industrial landscape that engaged people's imaginations and visions of the bright communist future that the construction project aspired. The oil industry and the adoption of natural spaces to fit the oil industry's needs were presented together as a materialization of the dream of communism. In the Soviet rhetoric of conquest, gaining control over nature meant progress in socialist construction:

> The music of oil fountains woke the Tyumen North up […] The music of motors is accompanied by the never-ceasing rumble of helicopters […] Flying in the Siberian skies has now become merrier: instead of the dull green spots of swamps – clear lines of railways and roads, electric power lines, pipelines, and concrete stripes […] Towns, production fields and roads are born faster than maps are printed. Constantly developing new oil fields, the conquerors of the taiga are competing with the sun, reaching new deposits faster than the sun rays.[155]

With the second wave of resource exploration that began in the 1960s and culminated in the discoveries of unprecedented hydrocarbon deposits, the discourse of "the senseless emptiness[156]" implied that only activities of the "civilized" man, mostly incoming technical experts, can endow a certain locality with meaning and turn a "mere space[157]" into a useful territory. This paradigm rejected the value of interactions with the natural world by social and ethnic groups that did not fit the description of "proper Soviet citizens." People relying on the old, non-industrial functions of West Siberian nature, had to abandon their non-conformist practices and perceptions of the natural world.

The strategy of conquest and the privileged position of the incoming experts were documented in the reclamation roadmap for the Soviet North, of which the Tyumen North was a significant part. The 1961 edition of this guideline defined the following criteria for the North: continental or (sub)arctic climate, high latitude, low population consisting mainly of the indigenous peoples distance from more densely populated regions of the USSR, and a higher expenditure of resources for economic activity than in the more southern areas.[158] Territories

[155] Sergei Bogatko and Sergei Chursin, "Sopernichaya S Solntsem Pravda," *Pravda*, June 30, 1971, 2.
[156] Peter Schweitzer, Olga Povoroznyuk, and Sigrid Schiesser, "Beyond Wilderness: Towards an Anthropology of Infrastructure and the Built Environment in the Russian North," *The polar journal* 7, no. 1 (2017): 65.
[157] On the concept of "mere space" in the early Soviet rhethoric of developing natural spaces see Bruno, *Nature of soviet power - an arctic environmental history*, 29.
[158] Samuil V. Slavin, *Promyšlennoe I Transportnoe Osvoenie Severa SSSR* (Moscow: Izdatelstvo Economicheskoy Literatury, 1961), 7.

classified as belonging to the North were subject to specific development priorities, including regional northern wage increments for workers and other benefits as incentives to attract workforce and experts. Focusing on the newcomers' needs, the strategy largely overlooked the interests of the locals, whose relations with nature had formed centuries before petrolization. The socialist construction[159] that aimed to transform the region and its people into an integral part of Soviet political and cultural space entailed an unequal allocation of its environmental and social benefits and ills.[160] To identify these inequalities, this chapter analyzes how this transformation paradigm fit with Siberians' visions of nature and what potential ideological conflicts the state's struggle for oil bring to the Tyumen North. To answer these questions, I will first provide an overview of the indigenous relations with pre-petroleum nature and the government's attempts to transform them. The next group and bundle of human-nature relations in the focus of this chapter are the pre-petroleum volunteer settlers and exhiles, whose complex relations with the local nature created the basis for antagonism to *Nefteprom*'s ecological imprint.

West Siberians and Their Visions of Nature

Moscow's initial economic interest in Siberia's natural riches lay primarily in the lucrative fur trade. In contrast to the later phases of Siberian reclamation, pelts acquisition did not force the local population to change their lifestyle and interaction with the native landscape significantly. The profitable trade with Siberian furs convinced Ivan the Terrible to conquer these lands from the Tatar Khan Kuchum in 1581-1585. Mainly guided by the task of securing the tribute collection in the form of pelts (*yasak*) first Russian settlers were not interested in proselytizing the indigenous Siberians. Who were the indigenous Siberians and how did their relations with nature impact the integration of Russian settlers? How did the indigenous' vision of nature fit in the paradigm of conquest and construction of socialism? What was the main difference between the pre-revolutionary and Soviet approaches to the natives' relations with Siberian nature? Answers to these questions will demonstrate the bundle of human-nature relationships,

[159] This thesis applies "socialist construction" as an umbrella term for multiple dimensions of building a communist society. It does not only refer to building the communist system's hardware (administrative institutions, decision-making mechanisms and economic basis of communism), but also covers the conversion of the people and social structures in accordance with socialist principles.

[160] The concept of distributional justice in energy system employed in this dissertation leans on the discussion provided in Kirsten Jenkins et al., "Energy Justice: A Conceptual Review," *Energy Research & Social Science* 11 (2016).

which petrolization transformed the most, thus setting the scene for the critique of this transformation in the following chapters.

The Indigenous

The native West Siberians paying *yasak* were the Ugrian tribes of Khanty and Mansi as well as Nenets, representatives of the Samoyedic group. They have traditionally inhabited the northern regions of today's Tyumen oblast and were (semi)nomadic hunters, fishermen, and reindeer herders. During the so-called "Yermak era," named after a cossack ataman in charge of the early Siberian conquest, Moscow supported mobile lifestyles because they were a prerequisite for successful hunting and thus for a reliable tribute collection.[161] Due to the economic importance of *yasak* for the Russian budget, the Tsars were not interested in assimilation or transformation of the landscape, or the abolition of traditional practices. State interests in the highly lucrative fur trade resulted in native land rights protection by the colonial law, which prohibited Russian migrants from settling on the indigenous lands. Thus, a colonial economic niche generated isolated geographic spaces within which Khanty, Mansi and Nenets could maintain traditional bonds to nature over centuries.

In addition to exercising their traditional lifestyle, the tsar allowed the indigenous to keep their beliefs. Historically these shamanist groups have engaged with their native landscapes in a sophisticated manner, conducting a dialogue between living humans, their ancestors, animals, and other parts of non-human nature and essential deities.[162] For instance, the Ob River, and its tributaries have traditionally occupied a meaningful place in the Khanty system of beliefs. One of the leading gods of the Khanty religion, the bear *Yaun-iki* was the holder of the intersection of the Ob and Yugan-Tromyogan waterways in the Surgut area.[163] During the late Soviet era, this sacred river segment became an artery of a petroleum deposit as it was integrated into the infrastructural cluster to serve the WSPC. The designers of this petroleum cluster forcefully relocated the nearby Khanty people and also demanded their conversion from shamanism to socialism. In contrast, under the tsar baptism was voluntary,

[161] For the periodization of the Russian colonization of the Northwestern Siberia see, for instance, Andrei V. Golovnev and Sergei Kan, "Indigenous Leadership in Northwestern Siberia: Traditional Patterns and Their Contemporary Manifestations," *Arctic Anthropology* 34, no. 1 (1997): 150, 153-4. On the role of *yasak* in retaining the traditional lifestyle among Khanty, Mansi and Nenets see Aleksei Y. Konev, "Gosudarstvo I Narody Severa Zapadnoi Sibiri V XVII-Nachale XXvv: Opyt Yuridicheskogo Uregulirovaniia Zemelnykh Otnosheniy," in *Korennye Narody. Neft'. Zakon: Materialy Mezhdunarodnoi Konferentsii* (Khanty-Mansiysk, 1998), 127–28
[162] Peter Jordan, *Material Culture and Sacred Landscape: The Anthropology of the Siberian Khanty,* Archaeology of religion v. 3 (Walnut Creek, CA: AltaMira Press, 2003), 213, 281.
[163] Perevalova, p. 63

and missionaries were allowed "to use the word, but not the sword.[164]" Before Sovietization, baptized elites appointed to govern these territories often converted back to shamanism (as was the case with Prince Taishin) instead of baptizing the locals.[165] The Muscovite tsars did not seek to promote conversion to Orthodoxy to rule over the native peoples. Herein lays a striking difference in the expansion of tsar's versus Soviet power, with the latter inseparably connected with forced conversion to Socialism of the people and dramatic transformation of nature.

Pre-Soviet reclamation of Siberia did not imply the "conquest" of nature nor ideology. Just as the indigenous peoples did not need to convert their beliefs, the state did not label the harsh and unwelcoming nature an enemy that needed to be defeated and tamed. In contrast to the tsar, the Soviet state associated power with the ability to shape nature and control people's relations with it. This shift became visible when the 1917 established Soviet regime set out to expand its powers to the eastern periphery at a significantly higher pace than the tsar. Military activities began with the Civil War, followed by the suppression of the anti-Soviet peasant resistance in 1921. The ideological Sovietization of the North followed, which manifested in a series of campaigns against shamanistic "superstitions" and a cultural revolution. In just four decades (the 1920s-1950s), the Soviet state carried out a set of reclamation actions in Siberia, having thus established more control over the territory than the old regime during three centuries.

The 1930s ushered in an administrative-judicial stage, marked by the establishment of national districts (okrugs), which resulted in the near annihilation of the local indigenous self-governance. In the 1930s-1950s, the Soviet government subordinated the economic structures of the indigenous people by nationalizing the land, establishing a system of collective farms, settling the nomads, and the so-called "*raskulachivanie*" (the expropriation of the wealthy peasants' property). This time was characterized by repressive actions against the native aristocracy and remaining shamans as well as the transformation of land use through often irrationally organized collective farms.[166]

In contrast to the tsar, the Soviet government saw the distinctive cultural "otherness" of Siberian natives and their relation to nature as barriers to modernization. Their reverent and

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[164] Martin Aust, "Rossia Siberica: Russian-Siberian History Compared to Medieval Conquest and Modern Colonialism," *Review (Fernand Braudel Center)* 27, no. 3 (2004): 188

[165] For a detailed account on the relationship of the pre-revolutionary Russian and indigenous elites see, for instance, Elena V. Perevalova, *Severnye Khanty: Etnicheskaya Istoria*, (Ekaterinburg: UroRAN, 2004).

[166] For a comprehensive analysis of collectivization drawbacks in West Siberia see, for instance, Elena V. Perevalova, "Obskie Ugry I Nentsy Zapadnoi Sibiri: Etnichnost' I Vlast'" (habilitation, Institut Istorii i Arkheologii, Uralskoe Otdelenie Rossiiskoi Akademii Nauk, 2017), accessed July 18, 2018, http://www.archaeology.nsc.ru/ru/dissovet/doctordissert/17/Perevalova_EV/Perevalova_EV_1.pdf, 240–43.

almost conservationist attitude to nature as an animated sacred world didn't fit with the Bolshevik vision of nature as a hidden store of treasure, that ought to be extracted to increase the nation's material wealth. According to the Marxist-Leninst doctrine, the treasures of nature belong to no one until discovered. Those who exploit nature's wealth are, therefore, accountable to no one.[167] According to a prominent regime's mouthpiece, poet Maxim Gorky, adulation and submissiveness to nature were non-socialist, as they contradicted the purpose of the Soviet people to replace elemental nature by human-contrived "second nature.[168]" Examples of such "second nature" could be found in increasing monoculture plantations, as well as territorial-industrial complexes, that became a popular format of North reclamation under the Soviets.

The "second nature" was the embodiment of Socialist modernity in the wild non-industrialized remote areas. As such, it was an attempt of the Soviet government to create a spatial and material basis upon which communism could be achieved in all corners of the country, including the Tyumen North. A companion term of this notion of modernity is development.[169] Underdevelopment or, using the wording of the Soviet period, "backwardness" is what development aims to overcome. Soviet modernity sought to overcome "tradition," "barbarism," "fanatic religious belief" of culturally different and consequently labeled as "underdeveloped" people to integrate them into the Soviet space, to make them conform subjects of the Soviet power. The Soviet government set out to transform much of the still existing non-Russian cultural form, including nature perception because the government saw this transformation as a necessary step towards eliminating "backwardness." This strategy presented a useful framework for state decision-makers to terminate inconvenient cultural practices and traditions of resource management that could potentially hinder *osvoenie*. Under Stalin, as Terry Martin has shown, "backwardness" turned into an official category and brought with it both stigma and possible rewards.[170] In the case of oil-induced development of West Siberia, the rewards were rare and enjoyed solely by the party functionaries, as Chapter Three will show.

Communist ideologues of the Khrushchev period expanded the term "backwardness" by adding an economic dimension to it. "Economic backwardness" meant engagement in non-Soviet activities and lifestyle: nomadism, subsistence hunting, and gathering, privately

[167] Weiner, *Models of nature*, 51.
[168] Ibid., 170.
[169] Madina Tlostanova and Walter Mignolo, "Global Coloniality and the Decolonial Option," *Kult*, no. 6 (2009): 132.
[170] Terry D. Martin, *The Affirmative Action Empire: Nations and Nationalism in the Soviet Union, 1923-1939* (Cornell University Press, 2001), 126.

conducted vernacular economic activities (*khoziastvovanie*). In the West Siberian context, defining a *khoziastvo* or practices as economically backward was a way to legitimize their transformation or elimination to free the way to a form of resource use foreseen by Moscow. More importantly, such "diagnosis" entailed an unconditional right to transform the landscape that was home to the non-Socialist activities and visions.

This logic translated into the following practice: cultures that viewed nature in a non-socialist way were labeled "backward." In the case of the Tyumen North's indigenous, their perception of nature as inseparable from their cult, as a deity, and a realm which humans arenot entitled to transform, presented an obstacle to the CPSU's strategy of extracting resources from the Siberian "treasure chest." The implementation of new technologies and economic activities in a natural system previously seen as hostile to humans required the Soviet state to eliminate the preceding system of nature-human relations embedded in the West Siberian landscape.[171] The "backward" elements of these "obsolete" relations stemmed from indigenous beliefs and economic practices. The Soviet regime rated any belief in supernatural forces as incompatible with Marxism-Leninism and, therefore, anti-Soviet. Un-socialist activities with natural resources such as worship and conservation were seen as a threat to the regime and stigmatized as "backward" and subject to eradication. Drawing on Marxist explanations of religion's origins, Soviet ideology equated all religious beliefs with superstition and ignorance. Scientific knowledge and technological innovation were presented as the antidote to religion.[172]

This ideology served the goal of entirely subordinating not just a population group but also establishing control over lands and practices. The methods to achieve this were collectivization and industrialization. As one article in the Soviet ideological mouthpiece, the journal *Bolshevik*, expressed it in 1925: "All problems of Northern Asia are inevitably subordinate, in some way or other, to the possibility of future industrial development.[173]" To justify the speed and forceful character of industrialization coupled with Sovietisation, they had to be presented as tools to overcome the alleged "backwardness" and lack of civilization, which de facto meant non-conformity with the Soviet social structure and ideology. Alongside with logging, early Stalinist collectivization and industrialization covered such elements of the traditional economy as fishing and reindeer herding. These transformations disrupted the

[171] Here I build on Andy Bruno's definition of "conquest of nature," Bruno, *The nature of Soviet power*.
[172] Andrew B. Stone, ""Overcoming Peasant Backwardness": The Khrushchev Antireligious Campaign and TheRural Soviet Union," *The Russian Review* 67, no. 2 (2008): 302.
[173] Cited in: Andrew Wiget and Ol′ga Balalaeva, *Khanty, People of the Taiga: Surviving the Twentieth Century* (Fairbanks, Alaska: University of Alaska Press, 2011), 22

natives people's lifestyle immensely and resulted in armed resistance in the 1930s. Under Stalin, these protests, particularly the uprisings in Kazym in 1931-1934, were suppressed by force.[174]

Propagated class equality was supposed to erase ethnic differences gradually. However, before Khrushchev's enthusiastic take on molding all nationalities and ethnicities in the USSR into one ethnicity-free nation, the Soviet regime refrained from the implementation of the "national fusion" in the North.[175] Under Stalin, the Soviet government encouraged the Northern indigenous peoples to develop and consolidate their own Soviet state systems in patterns consistent with the national character of their cultures. Stalin specified that each nationality should provide cadres for its own courts, administrative bodies, economic agencies, and government by its own local native peoples and conduct them in its own language.[176]

This strategy formally materialized in 1930 as a series of administrative reforms. On December 10, 1930, part of the Khanty native territory was transformed into the Ostiak-Vogul Okrug (District), which was renamed into Khanty-Mansi national Okrug in 1940 and into Khanty-Mansi Autonomous Okrug (KMAO) in 1978. Simultaneously, the Nenets native territory became first a national district, which was transformed into the Yamalo-Nenets Autonomous District in 1977 (YaNAO). The creation of such ethnic administrative units was supposed to foster the natives' participation in the Soviet administrative system. This goal was howbeit doomed from the start for two main reasons. First, the massive industrialization brought large numbers of migrants, who rapidly outnumbered the indigenous population. Although in absolute terms, the size of the Khanty community in the KMAO, numbering 12238 in 1939 and 11892 in 1989 remained relatively constant, and Mansi population even grew slightly from 5768 to 6562 in the respective years, in relative terms, they both became minorities in their native lands. The indigenous' proportion dropped from 13.1% to 0.9% for Khanty and from 6.2% to 0.5% for Mansi. Similarly, the Nenets population dropped from

[174] For a detailed account on the Kazym uprisings of 1931-1934 see A. S. Pimanov, A. N. Piyukov, "Volneniya korennogo naseleniya na Kazyme v 1930-1933 godah," *Yezhegodnik Tyumenskogo oblastnogo kraevedcheskogo muzeya*, Tyumen, 1998. In 2010 based on the Kazym events a Khanty writer Erimey Aipin wrote a novel "Mother of God in the Snows of Blood," which was translated into French in the same year: Eremej Danilovič Ajpin, Anne-Victoire Charrin and Anne Coldefy-Faucard, *La Mère De Dieu Dans Les Neiges De Sang* (Paris: Paulsen, 2010).
[175] Chapter Four analyzes the policy of "ethnic fusion" in more detail.
[176] Bernhard J. Stern, "Soviet Policy on National Minorities," *American Sociological Review* 9, no. 3 (1944): 232

22.4% to 4.23 % in the YaNAO in the respective years.[177] Second, the Soviet administration's hierarchical structure and the electoral practices in Soviet Russia made native people's representation impossible. Thus, these nationality districts, allegedly designed for the indigenous peoples, could never de facto represent their interests.

Figure 9. Administrative division of the Russian Federation, 2010. [178]

[177] Statistical data generated by the Russian Federal Statistics Service quoted in: D. A. Funk and N. I. Novikova, eds., *Sever I Severyane: Sovremennoe Polozhenie Korennyh Malochislennyh Narodov Se- Vera, Sibiri I Dal'nego Vostoka Rossii* (Moscow: IEA RAN, 2012), 263.

[178] Tyumen Oblast consists of the Khanty-Mansi, Yamalo-Nenets Autonomous Okrugs (marked yellow) and the rest of the oblast's territory around the city of Tyumen to the South of the Khanty-Mansi Autonomous Okrug (marked 52). KMAO and YaNAO comprise the Tyumen North's oil baring territory, source: https://www.britannica.com/place/Primorye, accessed May 6, 2020.

Making sense of the area's administrative division and ethnical composition provides an outline of the most significant geographic and demographic characteristics of the place that was to become the largest oil complex in Soviet history. The administrative and economic measures to fully integrate the Tyumen North into the Soviet society were initiated decades before the oil discovery. However, until the mid-1950s the majority of Khanty, Mansi, and Nenets de facto retained their semi-nomadic lifestyle and traditional animist system of beliefs.[179] After more than three decades of rather fruitless attempts at assimilation, it was clear that collectivization had failed to achieve its goal of producing a new, highly productive agricultural sector and eradicating the un-socialist carry-overs form the rural culture.[180] Collective farms still suffered from widespread absenteeism and drunkenness. Before the arrival of *Nefteprom*, there was no economic incentive and enough means to monitor the collectivization in the Tyumen North. Transformation of the native lands into a new center of the petroleum industry meant a new, more intense phase of Sovietisation, which forced the indigenous to alter their social role and relations to nature. Due to the poor results of pre-oil Sovietisation Khanty, Mansi and Nenets entered the age of WSPC still as de facto semi-nomadic hunters, gatherers, reindeer herders and fishers who continued living at the Ob and its tributaries and considered these areas their ancestral lands.

Before the start of the oil-era, the population of the Tyumen Oblast amounted to 71.5 thousand people. The Khanty population amounted to 19.3 thousand (i.e. 27% of the oblast population), Mansi — 6.3 (9%), Nenets - 16.7 (23%).[181] As these statistics and the map (Figure 10) demonstrate, the indigenous groups constituted more than half of the oblast population, a pattern that began to change rapidly with *Nefteprom'*s arrival. Thus, 59% of the Tyumen North's population practiced a relationship to nature that lay worlds apart from the "conquest" and "struggle," that gained momentum with petrolization. This relationship crushed with the establishment of the WSPC and caused yet another group of actors to critique the social and environmental injustices of petroleum-induced modernization, as Chapter Four will discuss.

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[179] Elena G. Fedorova, *Rybolovy i ochotniki basseina Obi: problemy formirovaniya kul'tury khantov i mansi*, (Sankt-Peterburg: Evropejskiy Dom, 2000), 13.

[180] Sheila Fitzpatrick, *Stalin's Peasants: Resistance and Survival in the Russian Village After Collectivization* (New York, Oxford: Oxford Univ. Press, 1996), 30–39. The failure of collectivization was, however, much more obvious in the Siberian North, than in Central Russia. In contrast to the former, the latter was has been the traditional research focus of the majority of literature on Russian/Soviet agrarian development.

[181] Statistics quoted in Yuri B. Strakach, "K Metodike Izucheniya Sovremennykh Etnolingvisticheskikh Protsessov: (Po Materialam Sotsiologo-Lingvisticheskogo Obsledovaniya Narodov Ob'-Eniseyskogo Severa)," *Sovetskaya Etnografiya*, no. 4 (1969): 4.

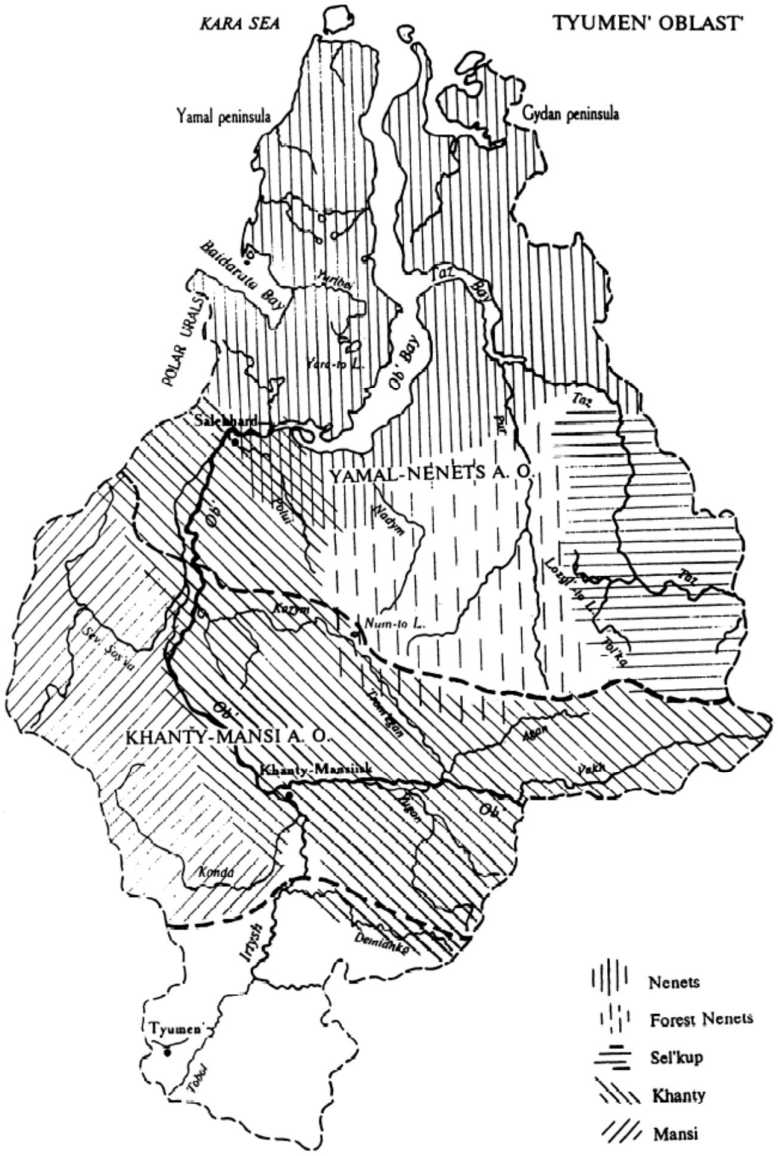

Figure 10. Traditional territories of the indigenous peoples of the Tyumen North[182]

[182] *Golovnev and Kan 1997, 151*

The Colonizers: The Free and the Unfree

The same factors that pushed the Russian and Soviet rulers to conquer Siberian nature determined the reasons for settlement in the area, the types of settlers, and how their relations with local Siberian nature evolved. The non-indigenous population of the Tyumen North, whose descendants continue to live in the region, were volunteer and forced settlers as well as convict laborers who began to arrive in Siberia in the seventeenth century. Existing comparative research on economic and democratic development of vast and climatically challenging spaces suggests that it is not the size of territories, but rather the settlement manner over time that defines the territory's development.[183] Building on this argument, this section shows that the settlment's manner and motive, as well as the set of values the settlers developed through their interactions with the receiving natural spaces, pre-determined their reactions to the oil-induced transformations. To illustrate this thesis, the section first provides an overview of the most relevant phases of voluntary and forced settlement, with a focus on settlers' perceptions of the Tyumen North's natural environment. What factors made the Siberians' relationship with nature incompatible with the conquest strategy which petrolization entailed? In this section, I will answer these questions by exploring the formation of the Russian settlers' relations with West Siberian nature. I start with their relations to land and explain why they differed significantly from land relations in European Russia. In the next step, I will explain the role of the "Old Belief" in shaping *sibiriak*'s strong bond with nature and in their affinity to indigenous ecological knowledge. Finally, the section examines the tenacity of Old Belief in West Siberia and its relevance in the local society in the 1960s-1970s. In exploring these questions, I will demonstrate that *sibiriakis*' system of beliefs and environmental ethics, was not compatible with the "conquest of nature" paradigm and became a fruitful ground for the environmental criticism during the early phase of petrolization.

In the early 1890s, on his way to the East Siberian Krasnoyarsk, Sergei Elpatievskiy had to stop in the Tobolsk gubernia. From 1796 to 1920 Tobolsk Governorate was the core of today's Tyumen oblast. Elpatievskiy would spend six years in exile for spreading revolutionary Narodnik ideas and related forbidden literature. His first encounters with the West Siberian taiga made a deep impression on him as he had never seen such landscapes anywhere before. Elpatievskiy was even more struck by the transformation the Siberian wilderness caused in a Russian exile: "Still carrying the legends and myths of the Volga where

[183] Fiona Hill and Clifford G. Gaddy, *The Siberian Curse: How Communist Planners Left Russia Out in the Cold* (Washington, D.C: Brookings Institution Press, 2003), 102.

he [an exile from European Russia, V.R.] came from, here when entering the taiga he had to surrender to its quiet and murky might." Describing the role of the Siberian landscape in molding a new regional identity, the traveler was amazed at the metamorphosis of the Russian settlers in the bosom of Siberian nature. Elpatievskiy stressed the loss of the typically Russian carelessness (*razgildiaystvo*) and lack of discipline (*raspushchennost'*): "He starts to understand and copy the habits of local animals, becomes all firm and alert to the signs of nature… Taiga had to tame the man.[185]"

Who were the Russian settlers, who instead of subduing the natural environment to their needs, rather submitted themselves to Siberian nature? What shaped their environmental prudence? Most immigrants who were "tamed by the Siberian taiga" and spent the rest of their lives there as they learned to understand its inhabitants constituted the group known today as *sibiriaki*. This word refers to the ambiguous identity of the non-indigenous Siberians, descendants of peasants, exiles, and prisoners who relocated to Siberia from the seventeenth century onwards. According to Mikhail Rozhanskiy, precisely those who escaped from the Moscovite serfdom and oppressive Orthodox Church, and not the cossacks who colonized these lands by Moscow's order, were the founding fathers of Siberian history, the genuine Siberians.[186] *Sibiriaki* form an interesting socio-cultural category that remained out of sight of both state and scholarship for a significant period.[187] In contrast to the indigenous and incoming temporary workers, the state barely interfered with their existence (be it in the form of special education plans, bonuses, or centrally regulated supplies). Thus, *sibiriaki* developed a relative economic self-sufficiency and retained a set of ethical principals and beliefs that were subject to persecution in European Russia. These characteristics laid the ground for a critical perception of forced conquest of nature and related social engineering that WSPC later brought along.

[185] Sergey Ya. Elpatievskiy, *Ocherki Sibiri* (Moskva: Kushnerev i Ko, 1893), 9.
[186] Mikhail Rozhansky, "Sibir' Mezhdu Moskoviei I Rossiyei," *Revue des études slaves* 68, no. 1 (1996).
[187] Patty Gray, Nikolai Vakhtin, and Peter Schweitzer, "Who Owns Siberian Ethnography? A Critical Assessment of a Re-Internationalized Field," *Sibirica* 3, no. 2 (2003): 203–4.

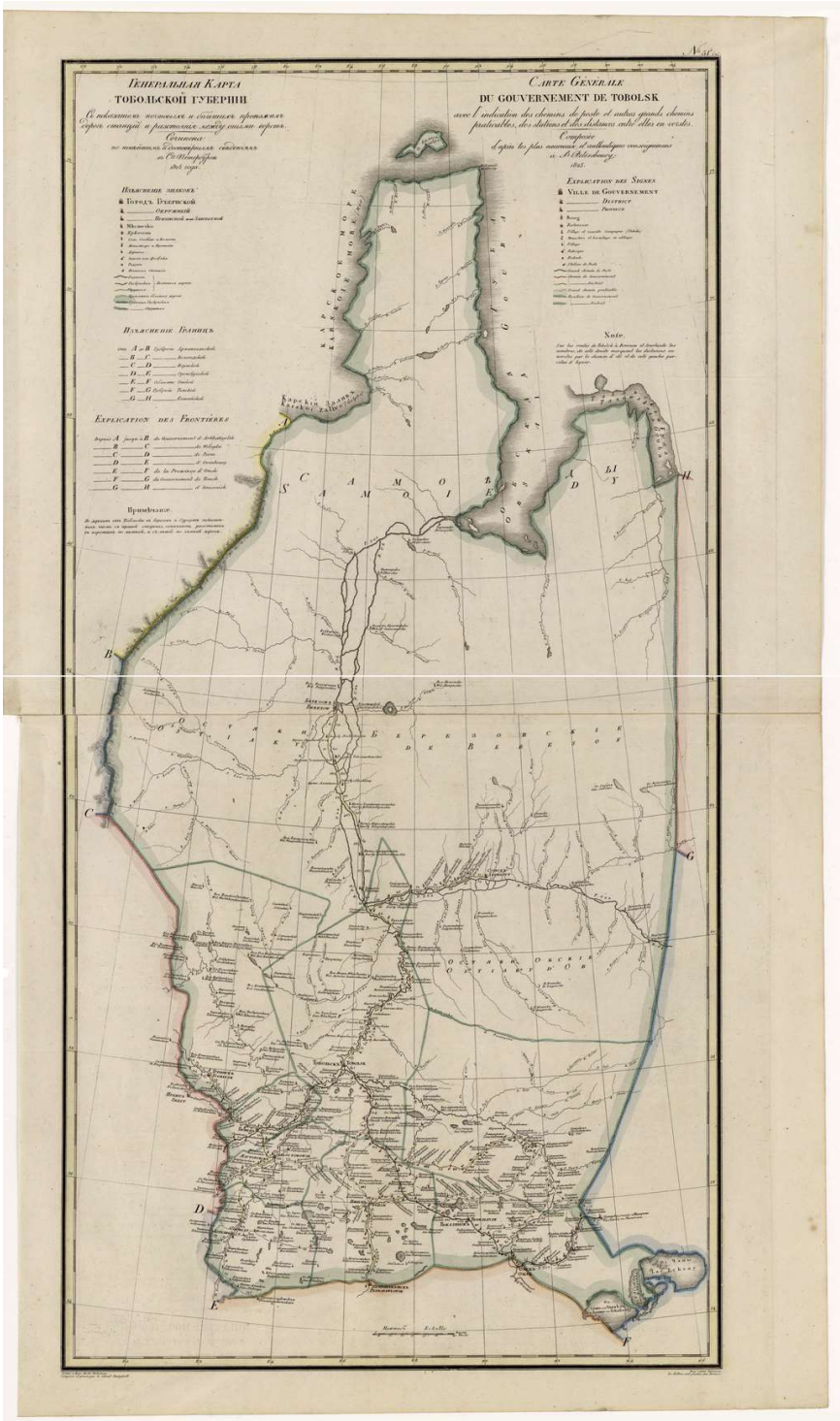

Figure 11. Map of Tobolsk governorate, 1825. [188]

[188] Map of Tobolsk governorate, 1825, source: Geograficheskii atlas Rossiiskoi imperii, tsarstva Pol'skogo i velikogo kniazhestva Finliandskogo, Library of Congress, World Digital Library, available at: https://www.wdl.org/en/item/14101/

Figure 11. Map of Tobolsk governorate, 1825, source: Geograficheskii atlas Rossiiskoi imperii, tsarstva Pol'skogo i velikogo kniazhestva Finliandskogo, Library of Congress, World Digital Library, available at: https://www.wdl.org/en/item/14101/

Another factor that shaped *sibiriak's* character and relations with the natural world differently than in European Russia was land availability and ownership. Particularly in the early years of settlement, at the beginning of the seventeenth century, when Siberia was poorly administered, it was reasonably easy for state peasants here to farm uninhabited land, which was available in excess, in addition to the allotted state fields. Those additional lots were often later claimed as private peasant property, an almost unthinkable phenomenon in European Russia. Thus, despite being the traditional place of exile, the region possessed a lure of appeal as a land of opportunity, given the vast territory and the absence of serfdom. Approximately 90% of the non-indigenous population of the region comprising today's Tyumen oblast lived outside of towns and could be categorized as peasants, mostly working on state land as opposed to the privately-owned serfs of European Russia. Together with so often praised greater independence and self-reliance, the opportunity to own land laid ground to a different perception of land and nature. This perception was characteristic of the Siberian peasant.[189] As is visible from memoirs of political exiles, Siberian nature shaped a particular personality type: industrious, disciplined, prudent, and attentive to the signals of the animal world.[190]

Land ownership and comparable freedom created a fruitful setting for the development of a sense of responsibility for the land. All these qualities constituted the legendary Siberian "*khoziaistvennost'*" towards the place – a combination of responsibility, providence, and care. *Khoziastvennost'* became the core of the sibiriak's sense of place and, at the same time, a basis for condemnation of improvident dealings (*beskhoziastvennost'*) with Siberian nature as Chapter Five will show. Several siberianists attribute these qualities to the domination of the Old Belief in the locals' religious world.[191] Old Believers were supporters of the old Orthodox Church, which was eliminated in the Tsardom of Russia by patriarch Nikon in 1652-1666. Also known as *raskolniki*,[192] the old believers began to relocate to West Siberia following their first

[189] Among the most famous and frequently quoted admirers of Siberian peasants, their free spirit and progressiveness was the iconic Russian philosopher and revolutionary Alexander Herzen, who hoped for the establishment of peasant socialism in Russia. For more on Herzen's ideas on Siberia and its peasantry see: I.L. Damashek, L. M. Damashek, ed., *Sibir' V Sostave Rossijskoj Imperii,* Historia rossica: Okrainy Rossijskoj imperii (Moskva: Novoe Literaturnoe Obozrenie, 2007), 303-4.
[190] Elpatievskiy, *Ocherki Sibiri*, 10.
[191] For a detailed account on the environmental discourse in the religious life of the rural, predominantly Old Beliver, Siberian population, see: Galina Lyubimova, "Environmental Aspects of Religious Beliefs and Ritual Practices of the Rural Population of Siberia (The 1920s - Beginning of XXI Century)," *The Soviet and Post-Soviet Review* 43, no. 1 (2016); Nikolai B. Vachtin, Evgeniy V. Golovko and Peter Shvaitcer, *Russkie starožily Sibiri: Social'nye i simvoličeskie aspekty samosoznanija,* Serija (A) (Moskva: Novoe Izdat, 2004)., 95.
[192] *Raskolniki* is the Russian for "people of *raskol*", or people of Schism.

spiritual leader protopope Avvakum in his exile to Tobolsk in the 1650s.[193] Upon their arrival in west Siberia, raskolniki found themselves in conditions radically different from their customary life in the regions of Central and Southern Russia. According to Dolitsky and Kuz'mina, adaptation to the harsh climate required urgent of the centuries-old ecological knowledge of the aboriginal population. Such knowledge was used both in economic activities and everyday interactions with the local nature.[194] Some Old Believer communities went further in securing themselves in the new space by learning to apply shamanist practices.[195] This adoption of the indigenous cult was rather common among those settling in the West Siberian Plain's northern corners. According to Gorbatov, the remote geography of Old Believers' settlements and their nonconfrontational ethics helped them preserve their belief and traditional vision of nature through decades of Soviet atheism.[196]

These Russian communities differed from the settlers of the South of the region. The climate in the South of West Siberia suited traditional Russian husbandry types and consequently it became home to large peasant communities that followed the conventional Russian agricultural model. In contrast to their Southern neighbors, in the areas that later constituted the Tyumen North, settlers formed small enclaves in places unsuitable for agriculture, surrounded by various indigenous groups, which outnumbered the settlers. Surviving in taiga and tundra required learning other husbandry models, such as fishing, hunting, and trapping, which meant adopting elements of the indigenous neighbors' material and spiritual culture. Following a strong wave of persecution in the 1740s, some Slavic Old Believers in the region even chose to register as *inorodtsy*, the population category applied to the indigenous people. Russian intellectuals interpreted this trend as a "back to nature" movement.[197] As a result, Siberian Old Believers until today view nature as an animated world: they communicate with plants and animals, rivers, and forests as they believe that through harmonious dialogue, the powers of nature can help humans to purge from sin.[198] As most of them fled to West Siberia to escape persecutions and landlessness, they perceived the local

[193] The territory of the contemporary Tyumen oblast was part of the Tobolsk province (*gubernia*) until 1919.
[194] Alexander B. Dolitsky, Lyudmila P. Kuz'mina, "Cultural Change Vs. Persistence: A Case from Old Believer Settlements," *Arctic* 39, no. 3 (1986), accessed April 12, 2019.
[195] According to Shimikin, both shamanist and traditional Old Believer religious rituals were carried out far into the mid- XXc. mostly in form of a covert culture, that survived the notorious period of Stalin's purge from 1933 to 1937. Demitri B. Shimkin, "Siberian Ethnography: Historical Sketch and Evaluation," *Arctic Anthropology* 27, no. 1 (1990).
[196] Aleksei V. Gorbatov, *Gosudarstvo I Religioznye Organizacii Sibiri V 1940-E - 1960-E Gody* (Tomsk: Izdatelstvo Tomskogo Gosudarstvennogo Pedagogicheskogo Universiteta, 2008), 37.
[197] Alfred J. Rieber, "Colonizing Eurasia," in *Peopling the Russian Periphery: Borderland Colonization in Eurasian History*, ed. Nicholas Breyfogle, BASEES/Routledge series on Russian and East European studies 38 (London: Routledge, 2007), 271.
[198] Larisa N. Mukaeva, "Ekologicheskie tsennosti staroobryadtsev," *Evraziitsy*, no. 2 (2006): 31.

taiga as a secure refuge, where they chose to stay and live in stable communities until today.[199] In the following, I will demonstrate why, despite the non-conformity of their system of beliefs with the centrally imposed religion and later with the ideology of conquering nature, the Old Believers became the exception to the Soviet mass assimilation project.

Although there is no consistent statistics on the numbers of Old Believers in the Russian Empire, historians estimate that they dominated the West Siberian peasantry. Nikonian Orthodox Church's inability to establish a monopoly over the spiritual life in West Siberia made this region an attractive destination for the Old Believers. Sober and literate, they were considered a reliable workforce for state fields, as well as fish and timber processing plants and copper works. After several persecution waves in the XIX century and another migration flow to West Siberia after the abolition of serfdom, *raskolniki* entered the "golden age" as the 1905 tolerance act fully legitimized their cult and formation of communities. Out of all religious groups populating the region, Old Believers were the only ones almost entirely left in peace by the Soviet government. Gorbatov attributes this "convenient" constellation to the geography of old believers' settlement and their nonconfrontational ethics.[200]

Living in small remote villages, avoiding contact and conflict with the outside world, *starovery*[201] managed to preserve their belief and traditional vision of nature through several anti-religion campaigns. According to Ryabceva, quite a few Old Believer communities existed in the pre-WWII period around Tyumen, Yalutorovsk, Ishim, and Tar.[202] The area around Isetsk and Yalutorovsk in the southern part of today's Tyumen Oblast became one of Old Belief centers, with a strong community that retained its religious tradition well into the 1960s.[203] Locals from these areas later played an essential role in forming political elites and civic organizations in the 1960s-1970s Tyumen oblast. Furthermore, studies on Khrushchev's antireligious campaign show that despite Moscow's zeal in eliminating religion in the Soviet village, the local party officials were quite lax in eradicating Orthodoxy (both in its Nikonian and Old Ritualist forms) in their subjective locales, which allowed religion and the Soviet system to coexist.[204]

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[199] Hartley, *Siberia*, 50.
[200] Gorbatov, *Gosudarstvo i religioznye organizacii Sibiri v 1940-e - 1960-e gody*, 118.
[201] *Starovery*, literary "old believers," is the most frequently used term to refer to Old Believers by scholarship worldwide.
[202] V. A. Ryabceva, "Migracionnye potoki staroobryadcev v Zapadnuyu Sibir'," *VESTNIK KemGUKI*, no. 24 (2013): 67.
[203] An exhibition on the history of Old Believers in the at the Isetsk Museum of Regional Studies demonstrates various objects of the cult. A report on the exhibition "Staroobryadchestvo v Priiset'e" is available at: http://www.ikz.ru/culture/isetsk/staro.html, accessed May 27, 2019.
[204] Stone, ""Overcoming Peasant Backwardness": The Khrushchev Antireligious Campaign and theRural Soviet Union" 300.

Under the growing pressure of socialist construction during Khrushchev's rule, West Siberian North experienced a replacement of the old social structures by the new. Accompanied by Soviet propaganda, this process gave new impulses to the traditional Russian religious dualism, which this time was replenished by new beliefs, such as beliefs in the powers of nature, of progress, and thus transformed into a "poly-religion."[205] As a key component of this poly-religion in late socialist Siberian village, the ethics of the Old Belief was quite likely to remain influential in determining the worldview of the 1960s rural populace of such hard-to-access to total ideological control area as the Tyumen North.

Nature perceptions of the Russian settlers' and the resulting interactions with the Siberian landscape during the pre-petroleum period represent a striking contrast to the *osvoenie*. As they embraced the legacy of the Siberian landscape, relied on the indigenous environmental knowledge, and allowed the taiga to change their character, they became antipodes of the Soviet conquerors of nature who in search of oil, subdued the land that *sibiriaki* learned to warship. Despite the anti-schism and atheism campaigns, the Old Belief maintained its presence in West Siberia and shaped the environmental ethics of the locals. Having emerged from the symbiosis of the Old Believer and indigenous cultures *sibiriaki's* ecological ethics came to be at odds with principles of nature management brought in by the WSPC. Chapter Five details the culmination of this collision.

"The House of the Dead" and Post-Stalinist Settlers' Vision of Siberia

The title of the Dostoevsky's novel became an eponym of the tragic part of Siberian history, the history of exile and imprisonment, which provides useful insights into the nature perceptions of yet another group that co-shaped *sibiriaki's* ethics.[206] The idea of Siberia as "a place of punishment and banishment[207]" remained a powerful image in the minds of the Russian public, including the decision-makers in charge of the reclamation plans. Since the second half of the twentieth century, the Russian government believed that life and work on these virgin and scarcely populated lands, reclamation of Siberian resources (in the case of the Tyumen North, mainly timber) would have a positive effect on the convicts and help them transform into useful citizens. Siberia's swathes of wilderness encouraged the Russian rulers

[205] Natal′ia Nikitična Kozlova, *Gorizonty povsednevnosti sovetskoj ėpochi*, Naučnoe izd (Moskva: Rossijskaja Akad. Nauk Inst. Filosofii, 1996), 96.
[206] The 1861-1862 published "The House of the Dead" by Fiodor M. Dostoevsky is a semi-autobiographical novel portraying the life of convicts in a Siberian prison in Omsk. This novel and particularly its title are eagerly employed to present West Siberia's history as the country's largest prison.
[207] Hartley, *Siberia*, 115.

to dispatch criminals and political prisoners there, putting them as far away as possible from the centers of power and population. The following section looks, on the one hand, at the visions of nature of the convicts, who remained in Siberia and co-shaped the *sibiriak* environmental ethics. On the other hand, the section explores the implications that Siberia's history as the country's largest prison had on the conquest of the region's hydrocarbons.

In 1929, Josef Stalin launched an unprecedented wave of dispatching prisoners to Siberia, but this time to use their labor in the GULAG. Convict labor opened Siberian coalfields, constructed railroads, and dams lumbered timber. Alone in 1930—1932, as many as 37 400 "special settlers" arrived in the Ostiako-Vogul district (today's KMAO), comprising a third of its population. In addition to the GULAG convicts, the "special settlers" from the dispossessed "kulaks" brought another thirty thousand people.[208] Besides being the only source of labor for the construction and timber industry, they constituted 55% of the workforce of the agrarian sector, commissioned to stub woodlands and cultivate potato and grain crops.[209] In the scarcely populated Tyumen North, four labor camps were placed, which were mainly involved in the construction of river ports and railroad segments, connecting the Ob with the Trans-Siberian railway (Transsib).[210] During the WWII, in addition to the "standard" contingent, Stalin deported the majority of ethnic Germans from European Russia (mainly from the Volga area) and placed them in Siberian labor camps and the so-called "special settlements."[211]

How did the reality and the image of the country's largest and coldest prison affect the Tyumen North on its post-Stalinist modernization path? The GULAG legacy generated two major socio-economic and cultural patterns that challenged the region's petroleum future. The first relevant remnant of the GULAG past stems from the fact that most convicts and deportees stayed in Siberia and co-shaped the *sibiriak* identity, which later played a meaningful role in the discussion of petroleum's ecological imprint. Those prisoners and "special settlers" who survived the atrocities of detainment and forced labor were released but could not return to

[208] The actual number of the dispossessed peasants forcefully settled in the KMAO is claimed to be higher as the local archival record of the time is inconsistent, see: "Istoria ssylki i spetspereselenii v Khanty-Mansiiskom avtonomnom okruge – Yugre. 1920-1950 gg," virtual'naia vystavka museia Prirody i Cheloveka KMAO-Yugry, http://hesr.ugramuseum.ru/, accessed April 19, 2020.
[209] Kratkiy ocherk istorii Khanty-Mansiyskogo rayona s 1923 goda, Khanty-Mansiyskiy rayon, ofitsial'nyy sayt administratsii, http://hmrn.ru/raion/history.php, accessed May 28, 2019.

[210] For an exhaustive list of labour camps and their specialization in the USSR see: Mikhail B. Smirnov, *Sistema ispravitel'no-trudovych lagerei v SSSR: 1923 - 1960; spravočnik* (Moskva: "Zven'ia", 1998).
[211] For more on the history of German settlers in Siberia see: Detlef Brandes and Andrej Savin, *Die Sibiriendeutschen Im Sowjetstaat 1919-1938*, 1. Aufl., Veröffentlichungen zur Kultur und Geschichte im östlichen Europa Bd. 19 (Essen: Klartext, 2001).

their original homes in the European parts of the USSR, developed a special relationship with Siberian nature that differed tremendously from the legacy of conquest, propagated on the macro-level by the industrialization projects and on the micro-level by the GULAG labor. They viewed nature as an embodiment of free happy life, and this perception became a long-lasting element of the convicts' cultural memory, which persisted decades after their liberation.[212] In the harsh and cold Siberian taiga, the former convicts and deportees found a refuge: a place to build a new home, to sate their hunger, and find remedies to heal their bodies and souls.[213]

This affective bond to nature, combined with the legacy of working as a prisoner or deportee in the Subarctic, became part of what intensified over several generations a sense of *sibiriaki* identity. In addition to the mixed families from the indigenous and early settlers, the released GULag detainees and "special settlers" comprised another significant category of *sibiriaki* living in the Tyumen North under Khrushchev. Their role in Siberian history has been underestimated in literature,[214] as has been their characteristic perception of the local nature.

As prisoners and deportees co-molded the *sibiriak* identity, it gained an even more pronounced "otherness." *Sibiriak's* otherness finds expression in the inseparable ties to the Siberian land, and nonconformity with the centrally dictated norm of whatever it means to be Russian (or Soviet) at a given point of time (be it Nikonian Orthodox, Bolshevik, or a conqueror of wild nature). Nevertheless, Siberian identity did not descend to nationalism as most Siberians until today consider themselves Russian in national origin.[215] In contrast to the writers from the so-called "Siberian villagers,[216]" Tyumen northerners lacked grand Russian or Siberian chauvinism and developed their ideas of nature protection in a distinctly different direction (as Chapter Five demonstrates).

Descendants of convicts, who mingled with the indigenous and thus learned to view the Siberian nature as part of divine providence and as an animated world that demanded a respectful and careful attitude from humans, differed from the newcomers arriving here in the

[212] Inna Klause, *Der Klang des Gulag: Musik und Musiker in den sowjetischen Zwangsarbeitslagern der 1920er- bis 1950er-Jahre*, 1. Aufl. (Göttingen s.l.: Vandenhoeck Ruprecht, 2014), 508.
[213] Vladimir Sedykh, "Kommunizm V Debriakh Sibirskoi Taigi," *Sibirskie Ogni*, no. 8 (2017): 170–71.
[214] Marjorie Mandelstam Balzer, "Local Legacies of the GULag in Siberia: Anthropological Reflections," *Focaal*, no. 73 (2015): 100.
[215] Stephen Watrous, "The Regionalist Conception of Siberia, 1860 to 1920," in Galya Diment and Yuri Slezkine, eds., *Between Heaven and Hell: The Myth of Siberia in Russian Culture* (New York, s.l.: Palgrave Macmillan US, 1993), 117. For an account on a late- and post-Soviet *sibiriak* identity and its non-separatist character see: Edith W. Clowes, "Being a Sibiriak in Contemporary Siberia: Imagined Geography and Vocabularies of Identity in Regional Writing Culture," *Region* 2, no. 1 (2013), accessed April 19, 2019, especially pp. 54-55.
[216] For examples of econationalist discourse in the Soviet literature and (pseudo)environmentalism, particularly on the case of Vladimir Chivilikhin, see N. M. Dronin and J. M. Francis, "Econationalism in Soviet Literature," *The Soviet and Post-Soviet Review* 45, no. 1 (2018).: 59-60.

1960s to build the WSPC. In contrast to other Russian regional identities (e.g., St. Petersburg – rich cultural heritage, the Urals – achievements of the mining industry, etc.), *sibiriaki*'s place attachment is expressed in their love of local pristine, i.e., not-industrialized, nature. Most Siberianists agree that life in mostly unexplored and sparsely populated places contributed to a distinct Siberian worldview: a Siberian is a "citizen of nature" rather than an urban resident. The intrinsic (versus economic) value of Siberian land laid ground to a nonexploitative attitude to nature on the part of "genuine Siberians.[217]"

Although never genuinely separatist, Siberians have viewed themselves as physically and culturally separated from the "Big Land." They traditionally perceived the Ob as a border between Siberia and the rest of Russia, which they either left willingly or which rejected them:

> Rivers like *ours,* you won't find anywhere else. Siberian rivers! Fast, dark, and long, with steep curves, islands, and rapids. Nowhere else you will find such rivers… All Siberian rivers run to the North. All! And in their run to the cold Arctic Ocean, there is a grand doom, despair, and strength, which you feel even if you don't know where the river is running. You see this strength. …Our rivers run straight to the North and inevitably flow into the icy waters. They run into the space without people and trees. There, where Siberia stops being simply Siberia and becomes a space of its own, which makes you feel cold even when you simply think about it. [218]

Physically and culturally far apart from European Russia in the locals' minds, "Siberia" transformed from a mere geographical term into an ethical concept, promising an unexplainable but desired renewal and purification.[219] Herein lies another contradiction between the *sibiriak* vision of nature and that of a Soviet state planner. As much as they were crucial in molding the *sibiriak* identity, the rivers of the Tyumen North were central to the industrialization endeavors of the Khrushchev years. In contrast to the locals, the designers of these gigantic industrial projects saw the primary function of Siberian rivers in providing services to the industry and not in feeding locals' bodies and souls.

If the river was the border separating Siberia from the Big Land, taiga was a haven for *sibiriaki,* who did not wish for it to transform into a service-provider to an industry. These views were challenged by the arriving petroleum industry, which foresaw to transform Siberian

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[217] Alla Anisimova and Olga Echevskaya, "Siberian Regional Identity: Self-Perception, Solidarity, or Political Claim?," in *Russia's Regional Identities: The Power of the Provinces*, ed. Edith W. Clowes, Gisela Erbslöh and Ani Kokobobo, Routledge contemporary Russia and Eastern Europe series (2018), 193.
[218] Evgeniĭ Grishkovet͡s, *Reki: Povest'* (Moskva: ĖKSMO, 2015), 58.
[219] Nikolai V. Kovtun, " Sibirskiy tekst v proze vtoroy poloviny XX veka (na materiale romana S. Zalygina "Komissiya), *Literatura Urala: Istoriya i sovremennost',* no.4 (2008): 102. The theme of catharsis in the everyday life of former GULAG convicts and their descendants particularly in interaction with the indigenous population is introduced by Balzer, "Local legacies of the GULag in Siberia: Anthropological reflections" 99, 110.

nature into an industrial complex. Some locals openly articulated this collision of the *sibiriak* vision of nature with Moscow's conquest of resources. For instance, a former Volga-German deportee who became a Siberian peasant, and his Khanty wife, reacted to the beginning of petroleum prospecting near their village in 1962 in the following manner:

> Maybe by working so diligently here, you will find oil, but this will be absolutely no use for us…True, nature here is extraordinarily rich. This is why we protect it all together, and really don't want anyone to destroy it and destroy our taiga communism. So, let's drink to your not finding any oil here… hoping that you will leave this God blessed corner of taiga in peace.[220]

This eagerness to continue living in accord with the taiga, in the community of different from European Russians "good" and "open" people, without an energy complex in their backyards, contradicted the expectation of petroleum prospectors arriving from different corners of the USSR.[221] Prospectors proudly announced the launching of petroleum exploration as a beginning of a new era, an era of progress, and socialist modernity in the Siberian village. *Sibiriaki* did not reject communism but rather hoped that communism and progress would not entail the transformation of natural spaces into industrial infrastructure. These visions were later voiced by local agencies who unexpectedly for the CPSU authorities in Moscow, initiated a public discussion on the ecological drawbacks of the West Siberian petroleum enterprise, as further chapters will show.

The second feature of the GULAG legacy that affected the 1960s industrialization is the region's dependence on convict labor and the resulting acute deficit of manpower. After Stalin's death in 1953 and the following abolition of the GULAG system, the only available source of labor vanished, and the Soviet planners in charge of the further *osvoenie* strategies were literally left alone in the cold, as no workforce was available locally to implement any development strategies. This pattern worsened due to the population scarcity historically typical for this region. Before entering the petroleum era, only 186 260 people lived on the 1.3 million km^2 vast territory of the Tyumen North. The average population density amounted to 0.14 people per square kilometer.[222] In contrast, the Moscow oblast's average population density (including the city of Moscow) was 233 people per square kilometer.[223] According to

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[220] Sedykh, "Kommunizm v debriakh sibirskoi taigi," 174.

[221] On the kindness, openness and other positive qualities of Sibiriaks that made them different from the Russians of the Big Land, see Hartley, *Siberia*.224-225

[222] The territory of the Tyumen North is viewed as a sum of KMAO (534 800 km²) and YANAO (750 300 km²). The population numbers date back to the 1959 census, source: Vsesoyuznaya perepis' naseleniya 1959 goda. Tablica 3,4. Raspredelenie naseleniya po nacional'nosti i rodnomu yazyku, Institute of Demography of the Higher School of Economics, http://www.demoscope.ru/weekly/ssp/rus_nac_59_gs.php?reg=65, accessed on June, 5 2019.

[223] P. G. Podiachikh, *Naselenie SSSR* (Moscow: Gosudarstvennoe Izdatel'stvo Politicheskoi Literatury, 1961), 13.

Gavrilova, in the mid-1960s about 8.5 times fewer people lived on a square kilometer of the Tyumen North than on average in the RSFSR.[224] Furthermore, the non-convict population was dominated by women, who traditionally were not seeking employment in such "manly" spheres as petroleum prospecting and in accompanying technical jobs:

	1939			1959		
	both sexes	male	female	both sexes	male	female
KMAO	93 274	44 538	48 736	123 926	58 154	65 772
YaNAO	45 840	23 451	22 389	62 334	29 715	32 619
Total for T.North	**139 114**	**67 989**	**71 127**	**186 260**	**87 869**	**98 391**

Figure 12. Population of the Tyumen North 1939-1959.[225]

The presence of GULAG convicts in Siberia could not improve the population numbers significantly, as the harsh working conditions affected their life-expectancy. Balzer refers to a daily death rate of 35 men just in one local camp in the 1930s caused by malnutrition, absence of heating in the barracks, and extremely low temperatures at the logging grounds, where the convicts worked daily.[226] Besides, the wave of repressions (Stalin's purges) did not spare Tyumen Oblast, including its remote northern corners, such as Salekhard in its Arctic part and Ostiako-Vogul'sk (today's Khanty-Mansiisk). Alone in 1937-1938 in the Tyumen oblast, 22 000 people were convicted, with 7290 of them executed in the towns of Tyumen, Tobolsk, Ishim, and Ostiako-Vogulsk.[227] These developments inevitably sharpened the local labor scarcity. A Western observer Douglas Botting elegantly described the discrepancy between the growing discoveries of natural resources and a critical demographic situation:

[224] Nadezhda Yu. Gavrilova, *Social'noe Razvitie Neftegazodobyvayushchih Raionov Zapadnoi Sibiri 1945-1985 Gg.* (Tyumen: Neftegazovyi un-t, 2002), 32.

[225] Population data taken from 1939 and 1959 censuses, published by the Institute of Demography of the Higher School of Economics, data for 1939 is available at:
http://www.demoscope.ru/weekly/ssp/rus_age_39.php?reg=50&gor=3&Submit=OK,
Data for 1959 is available at: http://www.demoscope.ru/weekly/ssp/rus_nac_59_gs.php?reg=65. Due to the varying administrative division (both national districts appeared as administrative units only in 1930 and were included into various oblasts before they finally became part of the Tyumen oblast in 1944) and statistical gaps of the WWII years, there is no reliable population statistics prior to 1959. The 1939 census did not consider special settlers, who de facto constituted a large number of male population of both national districts. By 1959 many of the liberated convicts of the newly abolished GULAG settled in Siberia both voluntarily and forcefully (due to the notorious *linia osedlosti* that will be explained in Chapter Five) and were covered by the census.

[226] Balzer, "Local legacies of the GULag in Siberia: Anthropological reflections," 101.

[227] Yuri I. Pakhotin, ""Perevypolnili Plan." Istorik - O Zhertvah Repressii I "Vragakh" Naroda," *Argumenty i Fakty Tyumen*, October 29, 2018, https://tmn.aif.ru/society/details/perevypolnili_plan_istorik_-_o_zhertvah_repressiy_i_vragah_naroda.

> With their backs to the past and their faces to the future, the new Siberians are confronted with problems as gargantuan as the country's potentials... Siberia seems to have everything; just, one commodity is missing: men.[228]

Thus, the Tyumen North entered its petroleum era with a significant socio-economic problem: an acute deficit of human resources. The labor scarcity challenged the implementation of Khrushchev's ambitious construction plans on the one hand and defined the social engineering strategy brought in by *Nefteprom* on the other.

Prospectless

West Siberia's gloomy history as the country's harshest prison, lack of workforce, challenging geography, and hard-to-develop economy contributed to its image as a territory without prospects. The stigma of a "hopelessly backward region" represented a sharp contrast to the "land of opportunity," "construction site of the century," "the epicenter of Soviet modernization," and other descriptions that the Tyumen North acquired as it entered the petroleum age. As all the factors that constituted the region's hopelessness in the 1950s continued to exist in the following decade, labeled as "the age of progress" fueled by the oil production, it is necessary to take a closer look at them in this section. What constituted Tyumen North's "prospectless" and "backwardness," and what did it mean for the region's reclamation strategy? Who viewed Tyumen North as "prospectless" and what visions of nature were behind this? Non-conformist visions of nature were also considered prospectless.

Before the discovery of hydrocarbon energy resources, the 1944 founded Tyumen oblast was considered economically uninteresting (*besperspektivnoi*, i.e., without prospects) as it was a territory with vast economically inactive segments in the North and a traditionally rural area in the South. Compared to its Siberian neighbors – other provinces that received strong impulses for industrial development during and after World War II – Tyumen oblast continued to lag well until the end of the 1950s. In contrast to West Siberia's dramatic increase in industrial production over the period from 1913 to 1959 by 183 times, Tyumen Oblast performed rather poorly as its industrial output grew only by 49 times.[229] This comparatively

[228] Douglas Botting, *One Chilly Siberian Morning,* (London: Hodder and Stoughton, 1965), cited in: S. G. Prociuk, "The Manpower Problem in Siberia," *Soviet Studies* 19, no. 2 (1967): 190, accessed February 28, 2019

[229] The dramatic rise in industrial production in the rest of West Siberia was caused by the re-location of large factories from the central parts of the RSFSR during the World War II and the post-war growth of non-ferrous metallurgy, electrochemistry, electrometallurgy, chemical, cellulose-, paper- and woodworking industry. However, these industries developed mostly around Omsk, Novosibirsk, Tomsk and in the cities of the Kuzbass area, all situated outside of the Tyumen Oblast, see: Marina V. Komgort, Galina Yu. Koleva, "Problema Povysheniya Urovnya Industrial'nogo Razvitiya Zapadnoy Sibiri I Proekt Stroitel'stva Nizhneobskoy GES," *Vestnik Tomskogo gosudarstvennogo universiteta*, no. 308 (2008): 86, accessed April 1, 2019.

low growth was provided by such leading local industries, as timber production, fisheries, ship construction, and maintenance. Until 1961 Gosplan did not even include the oblast into its plans of industrial development or "reclamation" as it considered the area "definitely hopeless."[230]

In addition to the discouraging GULAG past, the vastness of its territory, and intimidating cold climate, another reason for Moscow's disinterest in industrializing the Tyumen oblast was the lack of energy supplies. By January 1951, only 18 out of 38 *raion* centers (towns which served as administrative centers of *raions,* smaller districts within the *oblast*) received electricity lines. So, more than half of the oblast's urban localities were failing Lenin's formula of building communism.[231] What is more, twelve of eighteen towns were powered by electricity with the help of occasionally acquired low-capacity automobile, tractor, or portable engines, which were taken down from smaller local factories.[232] The electric power station of the city of Tyumen had the capacity of only 8 000 kilowatts. Yet, in 1959 the city needed a power station with a capacity of 30 000 kilowatts. Under such circumstances, Tyumen's industry had to introduce a series of austerity measures. Tyumen's inhabitants were prohibited from using electrical heaters (a rather inhumane measure considering the severity of local winters). Only very few city center streets were lit, and residential buildings of the non-central parts of town were entirely cut off from the municipal power supply system.[233] Thus, ironically, the energy-hub-to-be suffered a dramatic energy scarcity.

Despite being significantly more advanced than the oblast's rural areas, and despite boasting such rare infrastructural advantages as central heating, running water, and albeit insufficient electricity lines, the oblast's cities remained quite underdeveloped. The oblast's capital, the city of Tyumen, truly deserved its nickname "the capital of villages.[234]" Backwardness and lack of prospect were the first impressions that incoming exploration geologists gained upon their first arrival in the oblast's center. For instance, when Yuri Ervie,

[230] GASPITO, f. 124, op. 98, d. 80, l. 23.
[231] According to Lenin, communism equaled the sum of Soviet power and elictrification of the entire country. In other words, to be an active participant in the Socialist construction that would ultimately lead the Soviet society to communism, all parts of the country had to be sufficiently supplied with electric power.
[232] GASPITO, f.124, op. 66, d. 115, l. 14.
[233] GASPITO, f. 124, op. 72, d. 165, l. 47.
[234] This sarcastic Russian saying has become part of Ural-Siberian folklore as it mocks Tyumen's provincial and underdeveloped character prior to the petroleum era and contains a witty rhyme "*Tyumen' - stolitsa dereven'* ," as, for instance, referred to in: Oleg B. Podvincev, "Mental'naya Granica Mezhdu Uralom I Sibir'yu V Sovremennoj Rossii," *Simvolicheskaya politika*, no. 4 (2016): 211.

arrived in Tyumen from the Southern Urals (Cheliabinsk oblast) to head the geological prospecting at *Glavtyumengeologia*[235] in 1955, he stumbled upon quite a depressing landscape:

> Right next to the airport, I saw a waste ground, neighboring warehouses behind barbed-wire walls, then a couple of small old wooden houses. The office of the prospecting unit was at the end of the Respublica street next to the cemetery. [236]

Although the city of Tyumen is located quite far from the oil deposits[237] and the natural landscape around it differed starkly from places where oil was found and developed, it is important to make sense of the impressions the oil specialists gained about the oblast's capital as the region's calling card. After all, if the oblast's most developed city at the time was so discouraging by its "backwardness," what could the newcomers expect from the non-urban places surrounding the deposits? Would "underdevelopment" encourage the experts from the Big Land to conquer and to "civilize" rather than protect and conserve? How did the "prospectless" label define the interactions with the local nature?

As the newcomers entrusted with the mission of reclamation moved from the urban centers to the oblast's North to begin their work, even more than in towns, they were intimidated by the lack of infrastructure both needed for their work and life. In the language of socialist construction, this lack of infrastructure equaled the lack of civilization. Thus, in tune with the conquest ethos, specialists from the Big Land, like Ervie, went beyond the small urban spaces of the Tyumen oblast in their "backwardness" tales. They labeled the mighty Siberian taiga "backwater" (*glukhoman'*) and the impassable swamps with their gnat clouds "the evil enemy of reclamation.[238]" The "backwardness" label attached to the urban spaces and the natural world was a license to transform, as eradicating backwardness and uselessness in all forms was the central aim of the conquest strategy. To conquer and then to condition (*obustroit'*[239]) the "backward" area meant to civilize it. A "civilized place" meant the home of an industry, a locale whose human and non-human inhabitants serve that particular central industry and adjacent sectors. The first incoming technical specialists and geologists searching

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[235] *Glavtyumengeologia* is the acronym for *Tyumenskoe Geologicheskoe Upravlenie* which translates as "The Tyumen Administrative Board of Geology" and was in charge of geological prospecting in the Tyumen Oblast.
[236] Yuri Ervie, *Sibirskie Gorizonty* (Sverdlovsk: Sredneural'skoie knizhnoe izdatel'stvo, 1968), 21.
[237] The distance between the city of Tyumen and the nearest oil deposit, the Pravdinskoe Deposit discovered in 1964, is 760 km.
[238] Ervie, *Sibirskie gorizonty*, 22.
[239] On the meaning of "obustroi'stvo" in Siberian context and on the way it reflected the civilizing function of industrialization, albeit without references to nature, see Oleg N. Stafeev, "Obraz Severa Zapadnoyi Sibiri Epokhi Industrializacii V Trudakh Memuaristov," in *Istoricheskie Issledovaniya V Sibiri: Problemy I Perspektivy*, ed. R. E. Romanov (Novosibirsk, 2009), 275–76.

for natural resources presented their battle against the severe nature as a school of masculinity and genuine heroism: eradicating "backwardness" of a place was the privilege of the strong.[240]

The further the newcomers went to the North to approach the potential oil-bearing areas, the less developed were the towns and the more intimidating the natural world. For instance, this was the case with Surgut, a natural center and the West Siberian oil industry's unofficial capital that has been both geographically and economically better connected to the oil-bearing lands than the city of Tyumen. Surgut entered petrolization as a small provincial village-like town of approximately 6000 inhabitants.[241] The de facto capital of oil mining (located just 20 km away from one of the first oilfields[242]), the third most prosperous Russian city today, the oil hub of the Khanty and Mansi District, embraced its "bright petroleum future" as a shabby village with a potato field in the center.[243]

Descriptions of the early 1960s Surgut can serve as an illustration of Siberian nature and the intimidating impression it made on the newly arrived "conquerors of its riches." Impassable and harsh, the pre-petroleum Siberian North resisted any attempts of the unwelcomed guests to enter its realm. The first *neftianiki* brigades arriving here encountered nature's fierceness, which to them seemed almost like an intentional resistance to human intervention.[244] The section of *Literaturnaya Gazeta* dedicated to the reclamation of the North sited ambiguous pictures full of fear and admiration of the untamed nature surrounding Surgut. From the first sight, these accounts reflected the breath-taking beauty of the virgin setaceous taiga, that greeted the newcomers with its white patches of swamps. The further to the North the observer would move away from Tyumen, the less forest and the more water he encountered. The increasing proximity of the North gradually transformed the admiration into a fear of the endless, unpassable plain dominated by swamps and peat bogs, which stood in the way of the state planners in their quest for energy resources:

> Beginning at the Tobol river, you already see swamp giants stretching to the horizon, and that horizon is broad from a kilometer height. In front of me in a trembling heat haze, dim at first, as if it were even heavier than it is, another swamp appeared. We were flying, not rowing in a boat, not riding horses and not even driving a car – we were flying

[240] Farman K. Salmanov, *Sibir' - Sud'ba Moia* (Moskva: Molodaia Gvardia, 1988), 17, 88.
[241] According to I.P. Zakharova in her brochure "Nash gorod. Khronika vazhneyshikh dat i sobytiy" in 1960 Surgut's population amounted to 6200 people and grew up to 6900 by 1962, source: City Archive of Surgut, f. 154, op.1, d.2, l.50, available at https://arhivugra.admhmao.ru/virtualnye-vystavki-arkhivnykh-dokumentov/395445/virtualnaya-vystavka-arkhivnykh-dokumentov-surgut-vchera-i-segodnya-posvyashchennaya-420-letiyu-goro
[242] The nearest oil deposit is the Zapadno-Surgutskoe discovered 20 km northwest from the town of Surgut in 1963.
[243] KMAO's first oil deposit was discovered in Megion in 1961, followed by 30 more in the next years.
[244] *Neftianiki* is a Russian umbrella term referring to technical specialists working with oil, including, but not limited to such professions as engineers, drillers and geologists.

> in a modern airplane at a modern speed, and we could not reach the end of this swamp for a while! Continuous water with fragments of low forests and deserted islands. What a wild and untamable might![245]

In addition to the fear of the unknown, harsh, and endless space, such accounts created the dangerous illusion of abundance of land and natural resources. Following the ideology of Soviet Prometheanism, industrialists working both in Moscow and locally believed in technology's power to transform any senseless and hostile natural environment, even as harsh and uneasy to conquer as the Tyumen North, into a useful industrial complex. Moscow used its conviction about the region's prospectless to justify a ruthless conquest of its resources. Only utilization of the conquered natural riches could give Tyumen North prospects for a better future.[246] The incoming oil workers were supposed to share that belief, which the actual encounters with West Siberian wilderness challenged continuously.

Hydrology and Transport

Another significant component of the region's "backwardness," and a significant challenge to reclamation endeavors was the insufficient transport infrastructure. The existing transportation network consisted mainly of river routes and the Trans-Siberian railway segments in the South. As rivers constituted the core of the Tyumen North's transportation system and bogs have made it challenging for construction, the land-based transport has been traditionally underdeveloped. In the 1960s, the Sverdlovsk-Tyumen-Krasnoyarsk railway was the nearest and only land-based transportation artery connecting the area to the country's rest. However, this segment of the Trans-Siberian railway ran only through a relatively small southern part of the oblast, without even reaching the city of Tobolsk.[247] According to V.L. Nekrasov and O.N. Stafeev, 90% of the oblast's territory was detached from the railway network.[248] The XXIII Party Congress ordered the construction of the segment Tyumen-Surgut in 1966, as a necessary element in the development of the West Siberian economy.[249] As the majority of infrastructural projects on Siberian terrain, this construction endeavor turned out to be a lengthy process that

[245] Vladilen Travinskiy, "Surgutskie Kontrasty," *Literaturnaia Gazeta*, January 18, 1967, 3, 10.
[246] Among numerous propagandistic accounts in the local press, see, for instance, an editorial in the Surgut newspaper *K pobede Kommunizma*: "Atakuyushchei Mysli – Dorogu!" *K pobede kommunizma*, June 16, 1961, 71 (2307), 1.
[247] Galina Yu. Koleva, Marina V. Komgort, Vitaly S. Maidanov. *Bol'shoy chelovek iz Velikoy epokhi: (k 100-letiyu A. K. Protozanova)*, (Tyumen: TyumGNGU, 2012), 113.
[248] Vyacheslav L. Nekrasov, Oleg N. Stafeev, "Proekty Industrial'nogo Obnovleniya Regionov Severa Zapadnoy Sibiri: (1950-E - Pervaya Polovina 1960-H Gg.)," *Vestnik Surgutskogo gosudarstvennogo pedagogicheskogo universiteta*, no. 3 (2010), https://cyberleninka.ru/article/n/proekty-industrialnogo-obnovleniya-regionov-severa-zapadnoy-sibiri-1950-e-pervaya-polovina-1960-h-gg.
[249] XXIII S"ezd KPSS. Stenograficheskiy otchet. M., 1966. T. 2. p. 334.

stretched well into the mid-1970s.[250] The first train arrived in Surgut in the summer of 1975.[251] Thus, during its first decade of development, the WSPC did not have a reliable and economically viable transportation network.

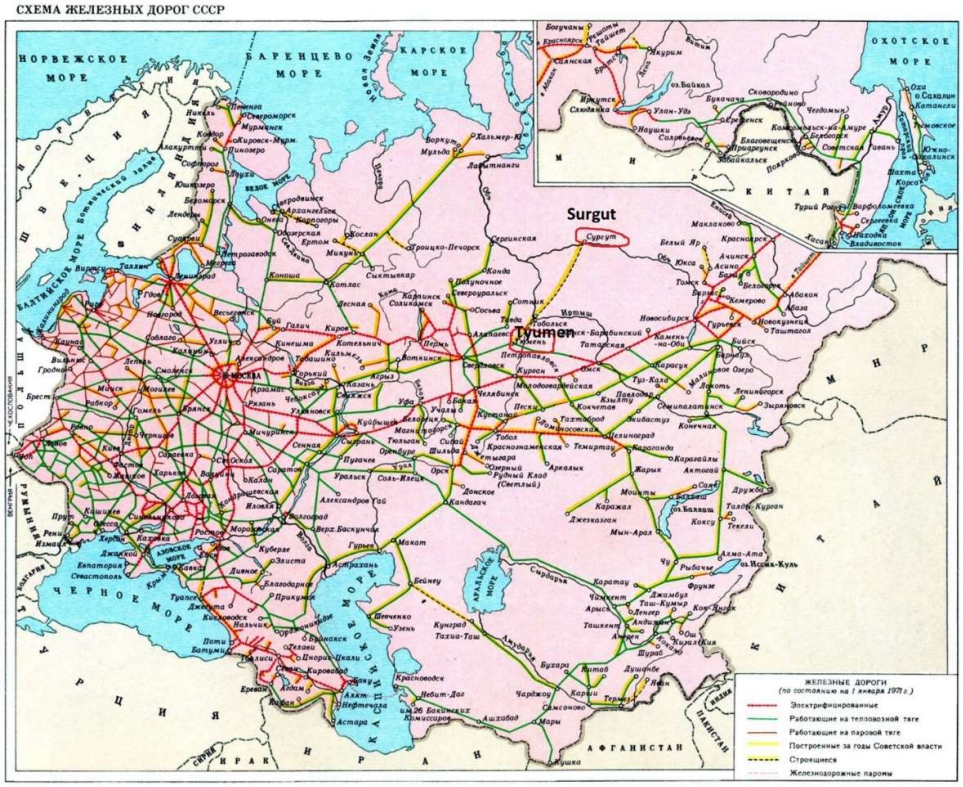

Figure 13. Map of the Railway Tracks of the USSR, January 1971.[252]

Soviet scholarship considered permanent automobile roads uncompetitive with railways in the areas dominated by swamps.[253] Before the 1961 discovery of commercially significant quantities of oil, road construction was economically unviable. So, the Tyumen North was

[250] The start of the railroad construction in the Tyumen North was announced in newspapers that carefully followed the development of the WSPC, such as "Literaturnaya gazeta" that started a series of articles on railroad construction in West Siberia with this article: "Nachinaetsya Novaya Trassa," *Literaturnaia gazeta*, February 26, 1966, 25, 1.

[251] Anna Petina, "Stantsiya "Surgut" vstretila veteranov-zheleznodorozhnikov," *Novosti Yugry,* June 17, 2016, https://ugra-news.ru/article/date/14539/, accessed April 03, 2019.

[252] Skhema zheleznykh dorog SSSR. Atlas skhem zheleznyh dorog SSSR, Moskva, Glavnoe upravlenie geodezii i kartografii pri Sovete Ministrov SSSR, 1972, 3. Although this map was drafted already in 1971, at the peak of oil development, the only railroad segment that connected the Transsiberian railway to the city of Surgut, the actual capital of petroleum production, was still under construction, as it was completed as late as in 1975. So, this map reflected the absence of railroads in the Tyumen North throughout the 1960s.

[253] Robert N. North, "Soviet Northern Development: The Case of NW Siberia," *Soviet Studies* Vol. 24, no. 2 (1972): 182, accessed October 29, 2018.

notorious for a complete lack of roads, and its landmasses were traditionally described as "roadless" (*vnezdorozh'e.*)

The scale of transformation nature had to endure to serve the industrial complex struck witnesses of the first attempts to tame the Tyumen North. One of such critical observers, rather impartial in contrast to the conquest agents, journalist Vladilen Travinsky, came up yet with another term to refer to the road situation.[254] Travinsky called the lack of infrastructure and the impassability of the West Siberian terrain not simply "the lack of roads" (the equivalent of which would be the common Russian word "*vnedorozhie*"), but the "anti-road situation," i.e., the Russian *"antidorozhie."* This description implies that nature here openly protested the human's mere intention to move across its spaces. So, for example, a distance of 23 kilometers from Surgut (back in 1967 still a settlement, not yet a town) to the nearest oil deposit required a three- to four- hour drive on a most robust off-roader of the time, the truck Ural, whose wheels were almost as tall as a grown-up:[255]

> Just imagine a *bogatyr*[256]-like a truck as tall as a house struggling with nature in a series of chaotic motions resembling a St Vitus' dance under a gloomy wet sky, surrounded by silent swamps and the unkind offended taiga.[257]

Travinsky's choice of such words as "offended" and similar lexis conferred animate properties to the landscape, extending the claimed value of Siberian nature beyond "resource storage." Struck by the grandeur and beauty of the local nature, Travinsky could not but regret the scale of destruction that the reclamation of the North entailed. A comparison of the truck's motion with a psychiatric disease aimed to show the danger and irrationality of human attempts to struggle with West Siberian nature. Having to report the successes of the industrial reclamation in West Siberia, some critical journalists instead shared their controversial thoughts about the transformation of these natural spaces into an energy complex. In so doing, they repeatedly showed that nature was not just a passive scenery or site, but an actor defining the course of human action. Its resistance to reclamation that manifested in swamps engulfing equipment and gnat clouds attacking newcomers encouraged the central planners even more to pursue an aggressive strategy of struggle against nature for oil.

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[254] Vladilen Mikhailovich Travinski (1934-1974) — a Soviet writer, journalist and a script writer. Travinski was an editor in chief of the Leningrad magazine "Zvezda". In the early and mid-1960s he was a special correspondent of the Literaturnaya Gazeta covering developments in the Tyumen North.
[255] Ural-375D — is a general purpose 4.5 ton 6×6 truck of increased terrain crossing capacity, whose production began at the Ural Automobile Plant in Miass in the early 1960s.
[256] *Bogatyr* is a Russian viking-like warrior, whom the Middle Age epos ascribed fantastic strength, size, wisdom and other outstanding qualities.
[257] Travinskiy, "Surgutskie Kontrasty," 10

Most newcomers commissioned to tame Siberian nature and find its precious resources, knew, similarly to journalists, that swamps surrounded Surgut, and that the summer temperatures here rarely rose above sixteen degrees Celcius and fell in winter below minus thirty. From geography textbooks, the general Soviet public was aware of the disagreeable weather with severe frosts in the winter and omnipresent gnat clouds in the summer, which made it even more difficult for a human to work here. Soviet media regularly covered the violent confrontation between the man armed with all available technology and the wilderness presenting it as the heroism of citizens devoted to socialist construction. Nevertheless, those who had witnessed this struggle could truly experience its scale and absurdity.

Economic Backwater and Non-oil Development Plans

The above described natural and cultural factors, together with the Tyumen North's almost non-existent infrastructure and disconnectedness from other parts of the Soviet Union, were the major reasons for its lagging behind other RSFSR regions in the economic sense. Central planners in Moscow were aware of all the elements Tyumen North's alleged "backwardness." This is why, although the first oil deposits had already been discovered, in the early 1960s the central government was still reluctant to fund further geological prospecting and shipment of costly equipment to the area. Until 1963 Gosplan was determined to center the region's development plans around its traditional industries: timber, fish and the river transport from the Trans-Siberian railway to Norilsk and the Kara Sea.[258] Wood production had grown since over the first decades of Soviet rule, from below a million tons in 1913 to over six million in the late 1950s, when it formed 80% of the river traffic.[259] The wood came mostly from West Siberia's southeastern corners, avoiding the swampy lowland with its poor communications, i.e., the areas that later appeared to be oil-bearing.

Tyumen oblast produced 12.5% of Soviet timber, thus being the fifth producer in the USSR. Therefore, before the oil discovery, the Gosplan intended to focus on the "appropriation" of the oblast's timber resources. In the early 1950s, several measures were introduced to modernize the local timber industry. They were essential in a situation when timber resources of the Central and Western regions of the European part of the USSR were in decline. According to the geologist and later leader of the Tyumen *obcom* Gennadiy P.

[258] GASPITO, f. 124, op. 134, d. 88, l. 1-2. Norilsk, once a small town in East Siberian Krasnoyarsk province, became important for the Soviet economy after in 1935 the world largest deposits of nickel were found here.
[259] Robert N. North, "Soviet Northern Development: The Case of NW Siberia." *Soviet Studies* Vol. 24, no. 2 (1972): 171–99, 173.

Bogomiakov,[260] an overhaul of the timber industry was on top of the Party's 1950s agenda. The main railroads branches stemming from the Transsib, currently mostly used by *Nefteprom*, such as Ivdel-Ob and Tavda-Sotnik, were built not for the needs of the petroleum industry. They were necessary for the construction of four or five timber complexes that were supposed to provide deep timber processing for the oblast to be able to produce paper, cardboard, and cellulose.[261] Apart from logging, a few sawmills and fish-packing plants represented other local industries.

In addition to the plans of focusing the region's economic development around timber and fish industries, one more aspect of the 1950s history of West Siberia signifies the original disinterest of the state planners in funding petroleum explorations. Khrushchev's government included some parts of the Tyumen Oblast in the Virgin Lands Endeavour (mostly in the South of the oblast). So, the area's function was not initially planned as an energy hub, and the long-term investment for cost-intensive hydrocarbon exploration was not in sight. Furthermore, the strategy of industrial complexes aimed mostly at the construction of the "Third Metallurgical Base" as an extension of the Kuzbass, which mostly covered the oblast's South. [262] The strategy foresaw the construction of iron and steel metallurgical works in the South-East of West Siberia and the adjacent areas of Kazakhstan. The territories around Surgut and Khanty-Mansiisk were supposed to remain centers of woodworking and food processing that could serve the growing metallurgical sector. The energy supplies for the expanding metallurgical industry were to be provided by the Omsk refinery, which received petroleum from the Volga- Ural oil province by pipeline. Thus, the Sixth Five-Year-Plan (1959-1965) defined quite different regional priorities for the vast territory of West Siberia, which did not leave space for either political will or funding necessary for the petroleum industry.[263] The *piatiletka's*[264] outline reflected the above-described condition, in which the Tyumen North entered its petroleum age. After over four decades of being part of the Union's plan economy, still in the 1950s, the region could be

[260] Gennady Pavlovich Bogomiakov (born in 1930) began his career as a geologist in 1952, after which he headed the Department of Oil and Gas Industry of the Tyumen *obkom* in 1962, where he worked his way up to the *obkom's* first secretary in 1973. Despite being popular among his fellow countrymen for supporting the party faction that criticized the Lower Ob GES in favor of expanding the petroleum exploration, Bogomiakov's political portrait in general and particularly his views on local nature protection have been quite controversial. Especially Bogomiakov's support of the Siberian River Reversal discredited him in the eyes of the public, who increasingly blamed him for anti-democratic and environmentally destructive governance in the 1980s.
was the last to head the Tyumen Communist Party Committee in 1973.
[261] Quoted in: Galina Yu. Koleva, Marina V. Komgort, Vitaly S. Maidanov, *Bol'shoy chelovek iz Velikoy epokhi*.
[262] "Kuzbas" is the Russian abbreviation for "*Kuznetskiy Bassein"*, one of the largest coal mining areas in the world, located in Southwestern Siberia. For more on the plan to build a third metallurgical belt see: Robert N. North, *Transport in Western Siberia: Tsarist and Soviet development* (Vancouver: Univ. of British Columbia Press, 1979), 169.
[263] Ibid., 168.
[264] *Piatiletka* is the Russian synonym for a five-year-plan.

regarded as an economic backwater and a virgin ground for Soviet planners. Hence, they suggested some development scenarios, which could have changed West Siberian nature and, eventually, the climate of the entire Soviet North dramatically and could have made its hydrocarbon resources virtually inaccessible, as Chapter Three will explain.

Similarly to Gosplan, the West Siberian branch of the Soviet Academy of Sciences (SO AN SSSR), commissioned to study productive forces of the oblast, viewed the Tyumen lands as a "prospectless periphery" of their research and therefore did not stimulate any serious interest in studying its natural riches. It is worth noting here that Novosibirsk, where the branch's campus popularly called "Akademgorodk" is located, lies outside of the Tyumen Oblast and Siberian North at a distance of approximately 880 km by air from Surgut. Despite this distance and unfamiliarity with the local conditions, the Tyumen North's future was mainly in the hands of the "uninterested" scholars from the SO AN SSSR, as Moscow's willingness to allocate funds for resource development depended on the evidence provided by Novosibirsk researchers. The post-war geological exploration was picking up very slowly and focused on the southern corners of the West Siberian Plain, comfortably situated along the Trans-Siberian railway.[265] In 1961 the prominent Novosibirsk economist A. Aganbegian wittily formulated this dependence of Siberia's fate on the research conducted in Akademgorodok: "Siberia is an array of territories, which constitute research areas of the Siberian Branch of the Academy of Sciences."[266]

Finally, in 1957, the Siberian Branch of the Academy of Sciences gradually directed its research foci towards the Tyumen North's hydrocarbon resources. This change of track was initiated by the academician Andrey Alekseevich Trofimuk, who arrived in Akademgorodok to head the newly organized Institute of Geology and Geophysics (IGG). Trofimuk was one of the first high-ranking Soviet geologists who believed in the existence of petroleum reserves in the Cretaceous and Jurassic sediments of the Siberian Plain. Thus, he became a significant figure in the local petroleum lobby aiming to persuade Gosplan to fund oil prospecting in West Siberia.[267] Since 1958 primarily due to Trofimuk's influence and firm belief in hydrocarbon deposits around the Latitudal Ob, the IGG began lobbying for the large-scale exploration in the

[265]Andrey A. Trofimuk, *Sorok Let Boreniua Za Razvitie Neftegazodobyvajushchey Promyshlennosti Sibiri* (Novosibirsk: Izd-vo SO RAN. NIC OIGGM, 1997)., 73.
[266] Rozhansky, "Sibir' mezhdu Moskoviei i Rossiyei", 70.
[267] Marina V. Komgort, "Otkrytie Zapadno-Sibirskoy Neftegazonosnoy Provintsii I Perspektivy Promyshlennogo Osvoeniya Resursnogo Potentsiala Regiona V 1960-E Gg." *Vestnik Tomskogo gosudarstvennogo universiteta*, no. 331 (2010), accessed April 1, 2019: 79

region.[268] Yet, five years had to pass, and battles against powerful political and economic actors had to be won for the Siberian geophysicists and (petro)-geologists to gain the upper hand in defining the region's development.

The setting in which the West Siberian petroleum industry emerged was quite a challenge for the proponents and later designers of the country's new energy powerhouse. On the one hand, the local nature that bared the precious resources was challenging to master. On the other hand, in contrast to state planners, the local people viewed nature not as a treasure trove and a hostile realm that needed to be conquered, but as a haven, home, and deity, whose riches could not be used up. This collision of perspectives on West Siberian nature became a fruitful ground for critiquing *Nefteprom*'s environmental impact and social engineering endeavors that the project entailed. Also, both the indigenous' and *sibriaki's* views of their homeland's function provided the industrialization planners with more substantial incentives to not simply reclaim natural resources but add a large-scale social engineering task to the plan of Mastering the Tyumen North.

[268] Viacheslav L. Nekrasov and Oleg N. Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 Gg.): Lobbirovanie, Sozdanie Koalitsii Interesov, Opportunizm," *Vestnik Surgutskogo gosudarstvennogo pedagogicheskogo universiteta*, no. 4 (2012): 178-9.

Chapter Three. Industrialization Attempts: Hydrocarbon vs Hydropower Scenarios

Due to its remoteness and harsh climate, Siberia was one of the last regions of Soviet Russia to industrialize. Before the decision to turn West Siberia into a new center of the petroleum industry, there was no incentive to modernize this area on the scale that petrolization later entailed. There was also no comprehensive strategy to transform the region's nature and people. However, other plans foresaw the construction of a different kind of an energy-producing landscape. These pre-petroleum industrialization plans neglected the locals' interests and lacked a plausible plan for helping people adapt to the new production facility intended to put in place. In contrast to the oil project, these industrialization plans did not include social-engineering strategies and were even more focused on mere exploitation of the region's natural resources.

Post-war Siberia was subject to the so-called "economic reclamation[269]" aimed at speeding up the region's industrial development that was supposed to finalize the transition from a semi-agrarian to an industrial economy. This plan was part of the state strategy entitled "advanced placement of productive forces of the country.[270]" Given its vast territory, low and uneven population density, as well as its poor transportation network, the region's modernization took place in selective locales. Following the established tradition, Siberia's economic reclamation focused on the extraction of natural resources. However, before 1963 the development strategy focused on other natural resources than oil. The decision to center the region's reclamation around hydrocarbon resources was a result of a long political struggle whose main arguments dealt with the transformation of the local environment. In order to evaluate the impact of the environmental problematique on the decision to transform the region into the center of the petroleum industry, this chapter will analyze the struggle of two development scenarios that accompanied the early petrolization.

[269] The English word reclamation is the nearest equivalent to the Russian "osvoenie". However, the Russian term implies both acquisition of ownership as a process of combatting the "other" and "strange" as well as gaining knowledge and understanding of the reclaimed object. Further detailed explanations of the political and cultural implications of the "osvoenie" of Siberia are provided in Chapter Four.

[270] Marina V. Komgort, and Galina Yu. Koleva. "Problema povysheniya urovnya industrial'nogo razvitiya Zapadnoy Sibiri i proekt stroitel'stva Nizhneobskoy GES." *Vestnik Tomskogo gosudarstvennogo universiteta*, no. 308 (2008): 85–90, 85

On March 21, 1961, a geological expedition struck the first oil gusher near the snowy village of Megion, in the Surgut area. The expedition leader, talented Azerbaijani geologist Farman Salmanov, did not follow the Ministry of Geology's instructions. Instead of continuing the prospecting works in the Kuznetsk Bassin and Novosibirsk area, as the ministry assigned in 1957, Salmanov took his expedition 150 kilometers farther to the North to search for oil near Surgut where he soon succeeded. Despite the series of discoveries following Megion, the decision-makers in Moscow were still reluctant to fund further oil prospecting in such a climatically challenging and almost impassable region. The territory lacked a reliable topographic basis: the only available maps were drawn at the beginning of the 20th century and underwent only minimal alterations based on sporadic aerial photographic surveys. For 75% of the oblast's territory the map accuracy remained questionable as the height errors alone reached 25-35%.[271] Geographic and geological research had covered only a relatively small part of the oblast, mainly along the river valleys. Thus, in 1961 the government was still skeptical about the region's future as a new leader in oil production.

Simultaneously, the Council of Ministers and the Central Planning Committee were eager to support projects of another group of industrialists and technical specialists[272] who, similarly to petro-geologists, were in search of new projects in West Siberia. This group consisted of hydrologists. Compared to *neftianiki*, hydrologists working in Siberia during the early Khrushchev era enjoyed two significant advantages. First, the resource they worked with, namely the water from rivers, was abundant in Siberia, did not require costly prospecting and discoveries, and thus was easy to access as opposed to fossil fuels. Second, the *Gidroproekt* Institute of the Ministry of Power Station Construction enjoyed a strong political lobby in Moscow and had a record of several large-scale, successfully implemented hydroelectric projects.

[271] Galina Yu. Koleva, Marina V. Komgort, Vitaly S. Maidanov, *Bol'shoy chelovek iz Velikoy epokhi*, 169.

Figure 14. Major 1960s discovered petroleum deposits, David Stäblein and Valentina Roxo, 2019.

In a setting, when the government was in search of more energy supplies to cover the deficits in electric power in the Ural and Central regions, the vast northern areas stretching along the Ob began to draw the attention of the supporters of large-scale hydropower projects. As coal was somewhere else in Siberia,[273] in order to make use of the vast still underdeveloped Tyumen North, some members of the government actively promoted the idea of building the Lower Ob Hydroelectric Station (Lower Ob GES).[274] This GES was conceptualized as a part of the cascade of six hydroelectric stations, an unprecedented in scale river reclamation project based on the largest artificially flooded area in history covering over a hundred thousand square kilometers. The largest artificial lake in the Soviet Union at the time was that of the Volga GES near Kuibyshev and measured 6450 square kilometers.[275] The largest human-made water

[273] The Kuznetsk Basin in the South of West Siberia is home to the extensive coal reserves. However, in the post-war period the Soviet economy was slowly switching from coal dominance to other types of fuel, see: Maria Slavkina. *Triumf i tragedia: razvitie neftegazovofo kompleksa SSSR v 1960-1980-e godi,* (Triumph and Tragedy: Development of the Oil and Gas Complex in the USSR 1960s-1980s). Moskva: Nauka, 2002, 14.
[274] "GES" is the Russian abbreviation for the "hydroelectric station", or *gidroelectrostantsiya.*
[275] Gestwa, *Die Stalinschen Großbauten des Kommunismus*, 479.

reservoir in the US was Lake Mead, formed by the Hoover Dam with the surface area of 640 square kilometers.[276] The Lower Ob GES was expected to outstrip them all in size and to have the highest capacity in the cascade, as it was to unify "the immense power of the Ob, the Irtysh, and all their tributaries."[277]

The Lower Ob GES Project

In 1960 the Lower Ob GES received Nikita Khrushchev's seal of approval and enjoyed the fullest support throughout his office term.[278] However, neither the GES project documentation nor the media coverage mentioned the risk of losing access to discovered oil deposits and making the prospecting in the flooded area impossible. Clearly, the implementation of the GES endeavor would have canceled out the petroleum project. To prevent this, the emerging petroleum coalition entered a two-year (1961-1963) open confrontation with the GES scenario's proponents. What did the collision of two development scenarios (hydropower vs. oil) and the publicly unfolding struggle of interests it caused mean for the discussion of environmental issues in the Soviet society? What role did this conflict play in showing the ecological imprint of the petroleum industry? In order to answer these questions, the hydroelectric station's location and possible environmental imprint will be addressed, followed by the analysis of the criticism it received.

When Gidropoekt first designed the Lower Ob power station's project in 1954, it immediately received support from the oblast authorities. Tyumen administrators saw the hydropower station as a viable strategy to develop the region's productive forces. Since the area of the future dam was dominated by wetlands, and the majority of Soviet authorities believed that wetlands had no value, either to society or as a component of the environment,[279] the oblast administration seemed to have no reservations to just flood the territory. Thus, in their view, the prospectless area could finally be of some use to the cause of *osvoenie,* as the hydropower station could have benefited from wetlands and the landscape's high saturation with water.

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[276] Hoover Dam, Frequently Asked Questions and Answers, U.S. Department of the Interior, Bureau of Reclalamtion, http://www.usbr.gov/lc/hooverdam/faqs/lakefaqs.html, accessed September 18, 2020
[277] *Sovetskaya Rossiya*, no. 206, October 17, 1957, 3.
[278] Slavkina, 11-12.
[279] Richard D. Robarts, Alexander V. Zhulidov, and Dmitry F. Pavlov, "The State of Knowledge About Wetlands and Their Future Under Aspects of Global Climate Change: The Situation in Russia," *Aquatic Sciences* 75, no. 1 (2013): 27.

In contrast to their hydropower competitors, petroleum geologists defined swamps as a severe challenge to hydrocarbon exploration. What is more, when describing swamps, they acknowledged nature's agency in the process of petrolization, even if they limited this agency to a resilient adversary:

> Swamps are cunning (*kovarny*), as they are in constant movement, and every interference and small motion in the earth crust can cause them to move over vast distances, thus posing a threat to construction. As if nature has covered the most promising deposits with the most extensive and most dangerous swamps.[280]

Compared to the oil scenario, the Lower Ob GES presented a more straightforward solution to taming the "cunning swamps" as the available high water content in the local soils did not require a high dam and an elevation at the crest of no more than fourty meters would have sufficed. The dam's height was indeed relatively low compared to other existing hydropower complexes. The Volga dam was 47 meters high.[281] The US dams built by that time were significantly higher. For instance, the Hoover Dam rose up to 221.4 m at its highest point.[282]

Where the Ob GES was indeed going to outstrip its predecessors worldwide and demonstrate the successes of the Soviet regime in transforming nature into a reliable service-provider of the national economy was the size of the flooded area. The GES construction required the flooding of the territory of the Angalsk Cape, situated on the right shore of the Ob in the city of Salekhard and the surrounding area. Near Salekhard, a 12 kilometers long dam was supposed to be built. This installation would have raised the water level by 42 meters, thus creating a large lake. The dimensions of the artificial lake immediately became a controversial issue. Remarkably, the media of the time cited quite varying numbers when describing the size of the reservoir. The GES supporters, of course, tended to report a somewhat smaller area to be flooded and referred to the numbers not exceeding 90 thousand square kilometers.[283] Representatives of the petro-lobby and other critics of the flooding scenario mentioned 130-150 thousand square kilometers.[284]

As for the official project documentation under review by Gosplan's responsible committee, it, in fact, foresaw the total flooding (*zatoplenie*) of 11 340 thousand hectares (113 400 square kilometers). Moreover, it was planned to "slightly" or "partially" flood (*podtopit'*)

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[280] Fabian G. Gourari and Vladimir P. Kazarinov, *Geologiia I Neftegazonosnost' Zapadno-Sibirskoi Nizmennosti - Novoi Neftianoi Bazy SSSR* (Novosibirsk: Izd-vo SO AN SSSR, 1963), 17.
[281] Pamiatniki i dostoprimechiatel'nosti Volgograda, http://monument.volgadmin.ru/start.asp?np=4-2, accessed on May 18, 2020.
[282] David P. Billington, Martin V. Melosi and Donald C. Jackson, *The History of Large Federal Dams: Planning, Design, and Construction in the Era of Big Dams* (Denver, Colorado, 2005)., 212.
[283] RGAE, f. 4372, op.65, d. 423, l. 103.
[284] GASPITO, f. 2010, op. 1, d. 117, l. 4.

an additional 822 thousand hectares (8 220 square kilometers).[285] So, the total area under water (be it totally or slightly flooded) would have amounted to at least 121 620 square kilometers, which constitutes 11% of the size of the Tyumen Oblast, or, for example, over a third of the German territory. Since the land here was so flat, the resulting reservoir would have been even larger than the planned flooding as water would automatically spill further to cover up to 150 000 square kilometers. Had the project been implemented, a large part of the territory rich in oil and gas would have been flooded and become impossible to develop with the existing technology.

Until 1961 the GES was presented as a definite success soon to be achieved on the path of Siberia's industrial reclamation. This pathos was widely expressed in the media, advertising it to the Soviet public:

> A gigantic water reservoir would store the Ob's spring floodwaters. The reservoir's size will be ninety thousand square kilometers, which will allow it to store three annual yields of the Ob drainage basin. This artificial lake will be three times larger than lake Baikal.[286]

The imperative of dominating and excelling nature was among the paramount criteria defining the virtue of the GES. The fact that the Soviet man could build a lake three times as large as Baikal served as a convincing argument in favor of the project. None of the official communications about the Lower Ob endeavor mentioned that the artificial lake would be placed on the most populated and better accessible segments of the Ob banks and thus force the relocation of thousands of people. Khrushchev's government managed to hide the dark side of the project for some time as it presented the hydropower projects as a sign of the country's success in building communism, which it promised to achieve by 1980.[287]

The massive transformations of the natural world aimed at increasing energy production were presented as successes of Soviet modernization. The emerging civilization of "ideal Soviet people" had to overcome all natural and social hurdles on its way.[288] The credibility of progressing to communism by subduing rivers to ever larger and more powerful hydroelectric stations grew as in October 1961 *Gidroproekt* presented the XXII Party Congress with the Volgogradskaya GES (world's largest at the time). Having tamed the Volga, an iconic river

[285] RGAE, f. 4372, op. 65, d. 427, l. 127.
[286] *Sovetskaya Rossiya*, no. 206, October 17, 1957, p. 3
[287] RGAE, f. 4372, op. 65, d. 426, l. 2
[288] More on the Soviet imperative to transform nature as a method to construct an advanced progressive civilization see, for instance, Gestwa, *Die Stalinschen Großbauten des Kommunismus*.

ubiquitous in the historical memory as the symbol of Russian national identity,[289] and having successfully connected the Volgogradskaya GES through power lines to Moscow and the industrial region of Donbas, the state managed to demonstrate two things to the Soviet people.[290] Firstly, the alleged rightness of the conquest of nature as a means to build a new, better Soviet society. Secondly, it presented hydropower as an effective solution to the country's energy deficit.

In this context, to further the successes of hydroelectric station construction, the Lower Ob GES was included in the CPSU Program of 1961 as one of 180 new GES's to be built to supply the country's energy needs.[291] The abstractly formulated "needs of the Soviet society" were superior to a particular regional population's needs. Tens of thousands of people living on the land that was supposed to go underwater and such their necessities as housing, infrastructure, and food supplies were entirely missing in the ambitious Lower Ob project's documentation.[292] *Gidroproekt* and the decision-makers in Moscow gave the endeavor their seal of approval, including the Gosplan with its preliminary acceptance of the project, thus demonstrating their disinterest in developing and comprehensively industrializing Siberia.[293] Having been informed by the Ministry of Power Station Construction in 1956 and 1959 about the GES project, Gosplan did not critique either the Lower Ob endeavor in general or its non-existent social program in any form until 1963.

For over seven years, the country's leading decision-making bodies were seriously considering implementing a project that could potentially not only destroy a fragile ecosystem but also leave tens of thousands of people without homes and food. The following approximation refers to the relocation of the population from the flooded area: the entire population of Salekhard (16 567 people), of the Labytnangi village (5220 people), of fifteen other smaller settlements and sixteen Khanty yurts.[294] Besides, to service the Lower Ob GES,

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[289] On Volga's central meaning in the Russian culture see, among others, Guido Hausmann, *Mütterchen Wolga: Ein Fluss Als Erinnerungsort Vom 16. Bis Ins Frühe 20. Jahrhundert*, [Online-ausg.], Campus Historische Studien 50 (Frankfurt, M.: Campus Verlag, 2009).

[290] On the history of the Volga GES and its economic importance locally and for the city of Moscow see Gestwa, *Die Stalinschen Großbauten des Kommunismus* , 30.

[291] "O Programme Kommunisticheskoy Partii Sovetskogo Soyuza", Doklad N.S. Khrushcheva, *Pravda Kommunizma*, October 22, 1961, 3.

[292] GASPITO, f. 124, op. 98, d. 80, l. 2-20.

[293] Stafeev, Nekrasov, 179.

[294] Population numbers are taken from the 1959 census: Vsesoyuznaya perepis' naseleniya 1959 g. Chislennost' gorodskogo naseleniya RSFSR, ee territorial'nyh edinits, gorodskih poseleniy i gorodskih rayonov po polu, * *Demoscope Weekly*, no. 797 – 798, 1 - 27 January 2019, available at: http://www.demoscope.ru/weekly/ssp/rus59_reg2.php, accessed February 3, 2019.

the Tyumen North's population would have to rise from 186 260 to 850 000.[295] The *Gidroproekt* Institute entirely ignored this aspect as it did not include any housing plans for the incoming specialists, whose presence was necessary to ensure the smooth operation of the Union's largest GES.

In addition to the relocation of people, the GES construction would have meant the destruction of culturally significant sites. The Angalsk Cape, which would have been in the center of the artificial lake, has been a sacred place and a pilgrimage destination for both Khanty and Nenets. It has been traditionally the home of the *Obdorsk Gorodok*, the residence of the Taishin clan of the Northern Khanty princes who persistently retained their pagan religion.[296] But even before the Taishins' establishment as a ruling Khanty clan,[297] the place was home to the *ostiak*[298] pagan temple as it was a traditional venue for discussing matters of war and peace with the then adversary *samoyeds*,[299] and for planning resistance to the Russian colonization.[300] Since all these sacred sites were supposed to be flooded, the GES endeavor's implementation would have meant the irreversible elimination of nature's function as a deity, essential for the indigenous and *sibiriak* cultures. Instead, nature was expected to become a functioning element of infrastructure for the Soviet modernization projects. Such dramatic landscape transformations and their socio-cultural consequences seemed meaningless to the designers of hydroelectric stations. As Shiv Vishvanathan argued, for technocrats and politicians, the idea that flooding a plot of land might destroy a culture is incomprehensible.[301] Similarly, Soviet central planners at this point failed to consider other cultures within the USSR that perceived land, not as a resource or real estate. As long as the natural powers were not

[295] The population statistics is based on the 1959 census, source: Vsesoyuznaya perepis' naseleniya 1959 goda. Tablica 3,4. Raspredelenie naseleniya po nacional'nosti i rodnomu yazyku. RGAE. f.1562 op. 336 d.1566 a, 1566 b, 1566 v, published by the Institute of Demography of the Higher School of Economics, http://www.demoscope.ru/weekly/ssp/rus_nac_59_gs.php?reg=65, accessed June, 5 2019. A special group of the Gosplan's Council for the Study of the Productive Forces estimated the population growth for 1962, source: Sergey Zalygin, "Lesa, Zemli, Vody I Vedomstvo," *Literaturnaya Gazeta*, January 26, 1963.

[296] Elena V. Perevalova, "Obdorskie Knyaz'ya Tayshiny: (Istoriko-Etnograficheskiy Ocherk)," UrO RAN, accessed September 28, 2020, http://www.yamalarchaeology.ru/index.php/texts/etnograph/106-perevalova-e-v-2000. After the tsar ordered to build a church on the territory of Taishins' residence in the beginning of the XVII c., the pagan sanctuary was relocated to the Kniazevy Yurts (translates as the "Prince's Yurts"), another residential complex of the Taishins 26 km to the North from Obdorsk.

[297] Taishins' first mention in the Russian sources refers to the 1591 granting of a charter to Marmuk Taishin by Boris Godunov, which inaugurated the first Khanty Prince as an Obdorsk governor authorized by the tsar.

[298] "Ostiak" is the pre -1940 Russian denomination for Khanty.

[299] The term "samoyeds" currently refers to the group of Uralic peoples, however in the Russian language and in west Siberian context *samoyedy* is the pre-1930 name of the Nenets.

[300] Perevalova, "Obskie Ugry i Nentsy Zapadnoi Sibiri," 141.

[301] Visvanathan, *A carnival for science*, 42.

wasted and were directed into improving the region's production indices, *Gidroproekt* saw the GES initiative as feasible and appealing to the high-rank authorities.

Gidroproekt and Its Omnipowers

Although Gosplan was reluctant to include the Lower Ob project into either the sixth five-year or into the seven-year plan of development of the Soviet economy, the Ministry of Power Station Construction managed to get support for this project from the government's Economic Council. As a result, in 1961 the Sovmin's Economic Council included the Lower Ob GES as a priority project into its General Strategy for the People's Economy until 1980.[302] In November 1961, the Economic Council suggested accelerating the works on project design and beginning the construction of "the powerful Lower Ob GES."[303] Although in the earlier discussion of the GES scenario the powers of *Gidroproekt* already became visible, it is necessary to focus on the position of the institute within the Soviet decision-making structures and to make sense of its plans to transform the Tyumen North. How did *Gidroproekt* manage to gain support within the upper echelons of power, and how did it intend to transform West Siberian nature? What did *Gidroproekt's* strategy mean for the supporters of the petroleum exploration?

The *Gidroproekt* Institute, responsible for designing and implementing hydropower projects was a research and project design center of the Ministry of Power Station Construction. In 1962 the Minister of Power Station Construction Ignatiy T. Novikov was appointed deputy chair of the Soviet Council of Ministers and chair of the USSR State Committee for Construction Tasks (*Gosstroi*). As a result, the institute gained an even more substantial political leverage in the business of drafting plans for industrializing West Siberia and offering what was presented as "economically effective ways" of transforming its nature. Moreover, in contrast to their competitors from the oil lobby, the hydroelectric coalition enjoyed the informal personal support of Khrushchev, who was fond of hydropower.[304] *Gidroproekt* boasted the successfully launched GES on the Volga and had commenced with the project planning for the Krasnoyarsk GES on the Yenisei River. Ironically, this institute was entrusted with nearly unlimited powers for the transformation of the West Siberian plain: it was in charge of the

[302] Nekrasov and Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 gg.): Lobbirovanie, sozdanie koalitsii interesov, opportunizm," 177.
[303] Ibid.
[304] Fabian G. Gourari, *Zapadno-Sibirskaya Neftegazovaya Provinciya – Otkrytie Veka!* (Novosibirsk: SNIIGGiMS, 1996), 176

design, project management, construction, and protection of water resources. So, it was in the hands of *Gidroproekt* to destroy the ecological balance in the region and to protect nature at the same time.

The main argument used by *Gidroproekt* in lobbying the construction of the new GES was putting in place an adequate supplier of electric power to the Ural economic region.[305] The massive industrial cluster that emerged in the Urals due to the relocation of 830 factories from central and western regions of the USSR during World War II was suffering the deficit of energy resources available locally.[306] However, the gigantic hydroelectric stations were a costly undertaking, and the central planning committee in Moscow began to search for other ways to meet the growing energy needs of the Soviet society. In the late 1950s, Gosplan suggested a gradual transition to building more thermal power stations, which were more cost-efficient.[307] Following this strategy, the central planners cut the annual capital investment into hydropower from 635 to 437 million rubles, thus reducing them from 50 to 20% of the entire expenditures in the energy sector.[308] In such a setting, the Lower Ob GES, whose construction costs alone amounted to 1.32 billion rubles, was facing a challenging task of fighting for funds. These costs were significantly higher than of the previously built hydroelectric stations, including the Volga GES, which in 1961 cost 836.4 million rubles, so 40% less than the Lower Ob station.[309]

The high construction and operation costs became a central argument in the anti-GES campaign initiated by the petroleum scenario advocates in 1958. Initially, the petroleum lobby consisted mainly of research institutes (Institute of Geolgy and Geophysics of the Siberian Branch of the Academy of Sciences, Siberian Institute of Geology Geophysics and Mineral Resources) and regional geological units.[310] *Neftianiki* questioned the unrealistically low construction costs, that *Gidroprojekt* presented in its project documentation. One of the petroleum coalition leaders, a prospecting geologist and politician, Gennadiy Bogomiakov, claimed that instead of 838 million Rubles estimated by *Gidroproject*, the construction would

[305] GASPITO, f. 2010. op. 1. d. 117, l. 3–4
[306] On the relocation of industrial enterprises from central parts of the USSR to the Urals during the Great Patriotic War see, for instance: Al'bert A. Antuf'ev, *Ural'skaia promyšlennost' nakanune i v gody Velikoi Otečestvennoi voiny* (Ekaterinburg: Rossiiskaia Akad. Nauk, 1992).

[307] Nekrasov and Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 gg.): Lobbirovanie, sozdanie koalitsii interesov, opportunizm" 175.
[308] Veniamin V. Alekseev, *Elektrifikaciya Sibiri. Istoricheskoe Issledovanie* (Novosibirsk, 1976), 47.
[309] Fedor Ya. Nesteruk, *Razvitie Gidroenergetiki SSSR* (Moscow: Akademia nauk SSSR, 1963), 115–17.
[310] The oblast party committee switched from the hydropower to the petroleum camp in 1960, thus strengthening the oil lobby with the needed political leverage. For an exhaustive list of organizations involved in the informal "oil coalition" see Nekrasov and Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 gg.): Lobbirovanie, sozdanie koalitsii interesov, opportunizm" 178.

have cost the minimum of 1.32 billion Rubles.[311] In addition to stressing the direct costs of the Ob GES, the petroleum coalition underlined the indirect costs that the GES-related loss of oil and gas reserves would have caused. Bogomiakov and his colleagues estimated the damage to the deposits of hydrocarbons at nine billion rubles in 1963 with respect to the amounts of oil and gas prospected by that time.[312] Nevertheless, the geologists warned that these numbers lacked accuracy and underestimated the actual petroleum reserves since the West Siberian plain's contemporary geological and geophysical maps provided only limited coverage.

To divert attention from the apparent cost-inefficiency of the project, the GES coalition presented the dam as an economic breakthrough for the traditionally underdeveloped region. Besides, *Gidroproekt* and its Tyumen supporters presented this economically questionable endeavor as a means of finally gaining control over West Siberia's abundant water resources, which in the minds of devoted Marxist-Leninists could not be just wasted without contributing to the socialist construction in the North. Despite Gosplan's growing reluctance to support the construction of new costly hydropower stations, its members shared this ideologically conform vision of nature as a storehouse of wealth, waiting to be utilized for the nation's development. In order to decide on the future of the costly GES project, in 1962, the central planners formed an expert group, which had to conduct an on the ground feasibility study to "effectively place the country's productive forces."[313] Thus following the standard ideological framework, a young member of the expert commission expressed his optimism about the GES endeavor at a meeting in Surgut in summer 1962: "This will be a source of sterile energy, and we will finally put a barrier to nature's wastefulness. And what a barrier! This power station will demonstrate the world the potential of the whole country!"[314]

In addition to maximizing the utilization of natural resources for the national economy and portraying hydroelectric power as an environmentally friendly form of energy, this rhetoric reflected the hydroelectric station's geopolitical importance. Giant Soviet hydropower projects were not merely entitled to produce energy but to represent USSR's might on the international arena. Through 1950s, hydroelectric stations contributed actively to the image of a powerful nation both domestically and internationally. Therefore, Soviet hydropower unit construction aimed at fulfilling the following informal directive: each new plant had to be placed farther

[311] GASPITO, f. 2010, op. 1, d. 233, l. 18.
[312] These costs were estimated by the Gosplan's Special Expert Commission in charge of the analysis of the efficient placement of productive forces in West Siberia. The results of the Commission's study were published in *Literaturnaya Gezeta,* see: Zalygin, "Lesa, zemli, vody i vedomstvo", 2.
[313] Nekrasov and Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 gg.): Lobbirovanie, sozdanie koalitsii interesov, opportunizm" 180.
[314] Farman K. Salmanov, *Sibir' – sud'ba moya,* (Moskva, 1988), 188.

away on the country's periphery and have a larger capacity than its predecessor. The West Siberian Plain provided a perfect setting for the *Gidroproekt* Institute to implement this strategy. Situated at the Lower Ob the new station had a potential capacity of up to 6,000 MW and could become the Union's most powerful at the time.[315] With its installed capacity the Lower Ob GES was supposed to excel the leading hydropower plants of the time both within the USSR and abroad. Thus, it would, for instance, surpass the Bratsk GES on the Angara river in East Siberia with the installed capacity of 4,500 MW, the Aswan hydropower plant in Egypt with 2,100 MW, the China's Sanmenxia hydropower plant with 1,100 MW.[316]

The latter two hydroelectric stations in Egypt and China were built with the Soviet technical support in 1960-1970 and 1957-1960, respectively. They illustrate that during this period, the USSR began to gain an essential position in hydropower plant construction abroad, exporting its know-how to other nations, which sought to avoid the West's support. In the Cold War setting, the Soviet Union instrumentalized its technical support abroad as a materialization of victories over the capitalist system and as a means of widening its political influence outside of the Socialist bloc.[317] For this reason, the potential of the Lower Ob GES was eagerly presented as superior in comparison to the existing hydropower plants in the West.[318] So the Lower Ob GES had to become a symbol of the Soviet energy superpower. Naturally, the Soviet know-how's geopolitical importance in constructing hydroelectric stations strengthened the political standing of the *Gidroproekt* Institute.

A remarkable argument in the discussion about the Lower Ob hydropower plant's economic feasibility was that of a maximum utilization of all available natural resources. Interestingly, both supporters of the hydropower and the petroleum scenarios were passionate proponents of this approach to nature. In its project documentation and public statements, *Gidroproekt* underlined that a society "as advanced as the Soviet could not allow that gigantic mass of water to be carried into the ocean without any use for the national economy."[319] So, also prior to oil, every bit of Siberian nature, including its rivers, was expected to increase the Soviet Union's material basis. The attempt to implement the Lower Ob GES endeavor kicked off the execution of concrete top-down directed steps to convert all West Siberian rivers into

[315] Nesteruk, *Razvitie gidroenergetiki SSSR*, p.225

[316] Ibid.

[317] For a detailed account on the Soviet-US rivalry over the Aswan High Dam see: Silvia Borzutzky and David Berger. "Dammed If You Do, Dammed If You Don't: The Eisenhower Administration and the Aswan Dam." *Middle East Journal* 64, no. 1 (2010): 84-102.

[318] Nesteruk, especially pp. 178-184, 217, 319.

[319] Farman K. Salmanov. Sibir' – sud'ba moya, Moskva, 1988, 188

arteries of industrial complexes.[320] This implementation of the utilitarian vision of rivers reached its peak during the petroleum age when it sparked criticism among local actors who still had a different view of nature's function than the Communist Party. How this conflict of ideas evolved is the subject of the next chapters.

Petroleum Lobby and Siberian Writers: How Hydropower Lost Ground

For the post-war industrialization, hydropower mega-projects played the role of the "panacea for the national economy."[321] How did the petroleum supporters manage to overthrow such a strategically important project as a new GES in Siberia that was to utilize the abundant natural riches, cover the growing energy deficit, and represent USSR as a hydroelectric superpower? In addition to cost-effectiveness, whose calculation was nearly impossible because the Tyumen North was largely unstudied in a geological sense, another weakness of the GES endeavor gained momentum in the struggle between hydropower and hydrocarbon development scenarios. Precisely the GES lobby's approach to transforming the landscape made the project vulnerable to the critique by their contesters from the petroleum camp.

The campaign against the Lower Ob GES project represents an early case of environmental PR in the Soviet Union that positively affected the image of the emerging petroleum complex. As a result, until today West Siberian media interprets the discovery of the hydrocarbon reserves in the region as a salvation from the tragedy, the Lower Ob Plant would have caused: "Had the construction of the hydropower plant been commissioned, we would have been in big trouble… Luckily for everyone, petroleum was found in West Siberia and in Yamalo-Nenets Autonomous District.[322]" The following section will analyze the argumentation of the pro-petroleum actors in their struggle against the GES initiative paying particular attention to the way they addressed the environmental issues.

[320] Plans to access Siberian natural resources through hydro power stations were designed before the Lower Ob endeavor, see Gestwa, *Die Stalinschen Großbauten des Kommunismus*, 83. However, before the Lower Ob plan, the rivers running through the Tyumen Oblast were untapped for power.
[321] Ibid., 84.
[322] Sergey Kazantsev, "Ostanovimsya. Oglyanemsya. Vspomnim," *Pravda Severa*, no. 47(4754), November 28, 2015, http://pravda-severa.ru/content/ostanovimsya-oglyanemsya-vspomnim-2 (accessed November 21, 2018).

A Man Who Defeated a Hydroelectric Station[323]

Gennadiy Pavlovich Bogomiakov was a patriot, a patriot of what in Russian is called "one's small motherland" (*malaya Rodina*), not the entire country, but the region where one is born. In the context of the "final phase of socialist construction," such emotional attachment to a home region could often be at odds with Moscow's plans to develop that particular area. Born in 1930 in the village of Taiga, Kemerovo oblast in the South of West Siberia, Bogomiakov received a diploma in hydrogeology engineering from Tomsk Polytechnical Institute, where he consequently completed his doctorate in Geology and Mineralogy in 1960. Progressing on the classical career path of a Soviet geological engineer, Bogomiakov was a devoted communist.[324] This ideological conformity did not stop him from opposing the rapacious conquest of West Siberian nature the GES could have entailed.

Due to the proclaimed re-orientation towards thermal power, Gosplan set out in 1958 to fund only the construction of undoubtedly efficient and economically viable hydroelectric plants. Following this guideline, Gosplan's Council for Studying Productive Forces (SOPS[325]) called a special commission to conduct a feasibility study for the Lower Ob GES in summer 1962. An expert team lead by top Soviet engineers (S. Klopov), economists (A.Probst), and designers of strategies to "master the North" (S. Slavin) went to Surgut, Nizhnevartovsk, Khanty-Mansiisk (all three are towns located near the first oil deposits) and to Salekhard (the center of the most populated area in the district to go underwater). Bogomiakov and his fellow-geologist, discoverer of the first West Siberian oil deposit Farman Salmanov, accompanied Moscow's high-ranking delegation on its trip through the Tyumen North. In his talks with the delegates, Bogomiakov stressed two central factors detrimental to the region's future.

Like all his fellow *neftianiki,* Bogomiakov first emphasized the loss of oil and gas deposits, which, contrary to *Gidroproekt*'s argumentation, would be virtually inaccessible if covered by a gigantic artificial lake. Bogomiakov calculated that if the territory of 120 thousand square kilometers were flooded in order to build the hydropower station, the damage to the

[323] This "title" was given to Gennadii P. Bogomiakov in the local newspaper "Tyumenskie Izvestia" in the homage article commemorating the 85th anniversary of the prominent geologist and politician: Andrey Fateev, "Chelovek, kotoryi pobedil gidroelektrostantsiyu," *Tyumenskie Izvestia,* July 2, 2015, 2, https://t-i.ru/articles/19821, accessed September 7, 2020.

[324] On Bogomiakov's faithfulness to the directives of the CPSU see Roman Neumoev, *Rok v Sibiri*, (Novosibirsk: Ridero), 2016, http://e-libra.su/read/482188-kak-ya-v-eto-vlyapalsya.html, accessed June 27, 2019

[325] SOPS stands for the "Sovet po Izucheniyu Proizvoditel'nyh Sil". After being part of the Soviet Academy of Sciences (1930-1960), SOPS was overtaken by Gosplan in 1960 as a research council in charge of the strategy for regional economies and for placement of productive forces on the entire territory of the USSR. For more on the SOPS' structure and functions see: Nikolai N. Nekrasov, *Regional'naya ekonomika*, Moskva: Ekonomika, 1978, 86-87.

Soviet economy from the loss of this territory and its mineral resources would amount to nine billion rubles.[326]

Bogomiakov's second and most important argument against the new GES was the potential impact on other natural resources and the local climate. In addition to the Tyumen's hydrocarbon resources, which were the main focus of his professional activity, the famous hydrogeologist emphasized the value of the Siberian forest, which was in his words a "miracle that nature gave to our land, which we should take care of."[327] Still, as a devoted Marxist aspiring to a political career, the geologist stressed the material value of the miraculous resources that were to disappear under the artificial lake: "Alone the loss of the annual forest growth would cancel out all the imagined profit from the hydropower."[328] Nevertheless, this perfectly Marxist utilitarian vision of natural resources suggested a more sustainable development scenario for Siberian forests: instead of flooding them all together, Bogomiakov set out to preserve their well-established and ecologically wise management.[329] Timber harvesting in Siberia was, in essence, a more sustainable approach to managing the Siberian forest, than flooding it all together. Bogomiakov warned that felling the forests on the flooded areas would open the way for the cold arctic winds to southern Siberia, causing the local climate to become even colder and harsher. The culmination of his call to prevent climate change in Siberia was the concern about the threat that GES would have posed to the entire Ob Basin, as it would inevitably disrupt the natural drainage system and thus the ecological balance in the entire region.[330]

In the discussion of the hydropower versus petroleum scenarios, Bogomiakov was the first technical expert and early career politician who called for a more cautious, deliberative approach to transforming the environment. He was the first Tyumen decision-maker alarming the highest echelons of power, such as Gosplan and Sovmin, about the necessity to consider the whole range of environmental effects, both positive and negative, resulting from the

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[326] GASPI TO, f. 2010, op. 1, d. 117, l. 18.

[327] Gennadiy P. Bogomiakov, "Lomaia Liod Nedoveriia," in *Neftegazostroiteli Zapadnoi Sibiri*, vol. 1, ed. Yurii P. Batalin, 2 vols. (Moskva: Ros. soyuz neftegazostroitelei, 2004), 1:32.

[328] Salmanov, *Sibir' – sud'ba moya*, 189.

[329] Unlike Stephen Brain, this work does not identify Soviet forestry as sutainable although it agrees with its ecologically wise character. The English word "sustainability" or the expression "sustainable development" can be best translated into Russian as *ecoustoichivost'* (literally "ecological stability") or *ustoichivoe razvitie* ("stable development"). The term "*ustoichivoe razvitie"* entered the official Russian environmental discourse in 1992 and more explicitly in 1994 as a concept in legislation regulating environmental protection, see J. D. Oldfield and D. J. B. Shaw, "Revisiting Sustainable Development: Russian Cultural and Scientific Traditions and the Concept of Sustainable Development," *Area* 34, no. 4 (2002): 394. However, already referring to earlier episodes of Soviet environmental activity, some scholars use the term "sustainable," including the translation of sources that reproduce history of resource management in the USSR in the 1930s. See, for instance, Brain, *Song of the forest*, 120.

[330] GASPITO, f. 2010, op. 1, d. 117, l. 23-25.

implementation of any development strategy. Under the imperative to industrialize, actors like Bogomiakov could not possibly express any clearly conservationist ideas and demand to treat nature as if humans did not exist and did not need natural resources for survival and development, with the latter being the basis of Soviet socialism. Bogomiakov's argumentation even won over the reasoning of the "enemies" from the established Volga-Ural oil province, who were also competing for state funds and supported the GES scenario insisting that funding exploration in West Siberia was nothing but a waste of money. Thus, Bogomiakov's approach to solving the hydropower versus hydrocarbon controversy shows that in the early 1960s, Siberian decision-makers began to evaluate development scenarios in environmental terms. Moreover, environmental PR became a useful tool in political struggles over the region's future.

A Hydrologist Turned Ecocritic.[331] *Sergey Zalygin's Condemnation of the Lower Ob GES*

Along with the economic infeasibility, the Lower GES project's ecological danger became one of the central arguments in defense of the petroleum future of the region. The most prominent participant of this group, whose critique of Gosplan's shortsightedness enjoyed full recognition both in scientific and political circles, was Sergei Zalygin. A professional hydrologist who had worked on Siberian rivers and later undertook a literary career was the first to publish a comprehensive analysis of both economic and environmental drawbacks of the GES in a union-wide weekly newspaper "*Literaturnaya Gazeta*" ("LG") with a circulation over a million at the time.[332]

In his first article published on June 26, 1962 Zalygin summarized the arguments of the GES opponents and accented the project's environmental dimension. The author began by addressing nature transformation as an inevitable part of scientific and technological progress. Still, he demanded that this transformation corresponded with natural proportions and maintained the healthy and reasonable ratio of forests, rivers, and pastures.[333] In his second article about the GES, Zalygin analyzed the findings of the Institute of Geography of the

[331] The term "ecocritic" is used here rather in the sense of criticizing ecological aspects of industrial developments. Respectively the "ecocritic" here is rather someone engaged in "ecologocial critique" the way Julia Obertreis coined it in her Julia Obertreis, *Imperial Desert Dreams: Cotton Growing and Irrigation in Central Asia, 1860-1991,* V & R Academic Band 8 (Göttingen: V & R Unipress, 2017), 400, 458. Thus, "ecocritic" in this work is not a scholar, involved in the field of ecocriticism studying the interaction between literature and environment, but an individual expressing critique of environmental aspects of an industral project.

[332] On the popularity of the *Literaturnaya Gazeta* and its engagement with environmental issues see Anna Mazanik, "Environmental Change and the Soviet Media Before 1986: Dissident and Officially Sanctioned Voices," in *Climate Change Discourse in Russia Past and Present*, accessed March 22, 2019, 34, 40

[333] Sergey Zalygin, "Lesa, Zemli, Vody," *Literaturnaya Gazeta*, June 26, 1962., 2

Academy of Sciences and warned about the danger of a dramatic climate change that flooding would have caused. Without making concrete predictions about the transformation of the local climate, the hydrologist expressed his worries about the influence of a gigantic "ice field" on the ecology, as it would melt much later and freeze much earlier than a river and, in his opinion, would inevitably change the ice regime of the Kara Sea.[334]

Echoing Bogomiakov, Zalygin pointed out that GES-planners failed to consider the local climate in their concept of the new residential infrastructure. As *Gidroproekt* expected the population of the area around GES to double and reach 850 thousand people, they suggested that the newcomers find their new homes on permanently floating guard ships. However, little did they consider the local weather, which made life on guard ships unthinkable. Besides, Zalygin raised the question of food supplies to the growing population. Hydropower plant designers expecting at least the doubling of the area's population did not consider the food deficit that was to occur if two million hectares of pastures situated in the Ob's valley were flooded. Thus, based on the feasibility study by scholars from the Council on the Study of Productive Forces, Zalygin concluded that it would have been impossible to attract any workers or specialists to take on employment and live at the GES.[335]

The overarching theme of Zalygin's concerns was the value of land that would have been forever lost, had the GES materialized. Yet, in contrast to his argument on the literary treatment of Siberia, which Zalygin centered around the cultural value of land,[336] in his GES-critique the hydrologist reduced the notion of land to its agricultural value, significance as a residential space and as a storage of resources:

> The GES irreversibly exempts one more gem from the national treasure trove. This gem might not yet have any practical value today, but after some time, it will definitely gain unique value. This gem is land… Why not measure the value of land over the same period [as the pay-off period for a hydropower plant, i.e. ten, fifteen, twenty years, VR] in terms of productivity of agriculture, timber and fish industries?[337]

Furthermore, Zalygin was concerned with the land losing its function as a place to build petroleum infrastructure: he warned about the immense additional costs that accessing petroleum deposits would entail if the area went underwater. Zalygin's perspective on land in the GES versus oil controversy did not correspond with some Western and Russian scholars'

[334] Zalygin, "Lesa, zemli, vody i vedomstvo"
[335] Sergey Zalygin, "Lesa, zemli, vody i vedomstvo," *Literaturnaya gazeta*, January 26, 1963, issue 12, p.2.
[336] Sergey Zalygin, "Pisatel' I Sibir' (1961)," in *Kritika I Publitsistikia*, ed. Sergey Zalygin (Moskva: Sovremennik, 1987), 280.
[337] Zalygin, "Lesa, zemli, vody"

views on his early 1960s work. For instance, Douglas Weiner interpreted the hydrologist's vision of land as a call to move away from the "conquest of nature" paradigm[338] and to understand the non-utilitarian cultural value of land. Such ethos was howbeit absent in the hydrologist's publications about the Lower Ob GES. Just like his opponents from the hydropower lobby, in his GES articles, Zalygin represented, in essence, the ideology of conquest and maximum utilization of natural resources. His argument of the loss of land Zalygin backed with numbers illustrating millions of cubic meters of lost timber, of vanished pastures and collective farms.

Zalygin's contemplation on potential risks of the hydropower scenario culminated in a call to fight departmentalism in order to manage natural resources more wisely:

> Why indeed, is the ministry of power station construction in charge of the entire spectrum of issues related to USSR's water resources, including their protection?! This ministry does everything by itself: it designs schemes of water use, defines construction sites, develops, and commissions projects.[339]

The writer went on asking for an independent research institution to overtake the environmental impact assessment of projects. He demanded to empower regional organizations to control the central ministry in project design and construction with a particular focus on environmental aspects. Zalygin was the first Siberian to claim the necessity to create an independent, meaning not affiliated with any industrial or resource-managing ministries, research-based water protection authority. The absence of such an organization later became a stumbling block in the discussion of petroleum-related environmental degradation, as Chapter Five will show.

In his critique of the attempts to industrialize West Siberia, Zalygin was among the first "whistle-blowers" Union-wide to raise the question of outrageous departmentalism in Soviet decision-making on such a significant public level. The priority of departmental interests defined the decisions about the use of Siberian natural resources. In his analysis of the Soviet natural resource management the former Russian environment minister, Viktor I. Danilov-Danil'yan summarized: "The departmental approach to the national economy coupled with the omnipotent central government meant that the Soviet state had the mechanism that allowed it to fulfill its grand plans without considering the local interests in the regions."[340] This approach

[338] Weiner, *A little corner of freedom*, 416.
[339] Zalygin, "Lesa, zemli, vody"
[340] Viktor Ivanovich Danilov-Danilʹian, Kim Semenovich Losev and Igorʹ Reif, *Pered glavnym vyzovom tsivilizatsii: Vzgliad iz Rossii* (Moskva: Infra-M, 2005), 41.

to West Siberian resources was a backbone of the region's industrialization policy already in the pre-oil phase and gained even stronger momentum during petrolization.

His warning about the environmental catastrophe that the Lower Ob GES was about to cause, Zalygin accompanied with the more realistic (in contrast to the calculations of HydroProjekt) numbers reflecting the amount of energy to be produced by the GES compared to the amounts of hydrocarbon energy stored under the planned artificial lake. Based on the calculations of scholars from the Siberian branch of the Academy of Sciences, the writer warned about the risk of losing rich petroleum deposits. Zalygin insisted that oil production would be economically more viable, as based on the calculations of the Tyumen Institute of Mineral Resources, the Lower Ob GES would need to work for at least 500 years to produce the amount of energy equivalent to the energy to be obtained from oil, which GES would have made inaccessible. To approach those reserves, the prospectors would need up to 17 thousand exploration wells. These wells would have to be attached to underwater canals, which would have to be built on the lake's bottom. Altogether from 18 to 54 thousand kilometers of underwater canals. Commercial mining would require at least one hundred large artificial islands, which in turn would need access and entail tremendous costs.[341]

Zalygin was not the first to publish the alarming truth about the Lower Ob endeavor. What made his publications stand out was his status: a successful scholar with a doctorate in hydrology, a member of the Siberian Branch of the Academy of Sciences (Department of the Use and Protection of Water Resources) who had access to "prestigious" newspapers like "Literaturnaya Gazeta." In a technocratic society like the Soviet Union, technical specialists and graduates of such nature transforming sciences as hydrology, prospecting geology, and geophysics were at the top of the knowledge hierarchy. Expertise produced by a "technical specialist" boasting an affiliation with the Academy of Sciences resonated more prominently with both high-ranking state decision-makers and ordinary citizens (even if that expertise was less technical and more a call for political action). In addition to Zalygin's hydrological expertise, his growing authority in the literary world became beneficial for the debate on the ecological consequences of GES construction. All these professional affiliations provided Zalygin with access to reputable periodicals, like the *LG*,[342] that helped the GES controversy

[341] Ibid.
[342] "Literaturanya Gazeta" was the official newspaper of the Writers' Union, formally free from the direct party control and, therefore, allegedly one the most liberal among newspapers of the Soviet era. On the prestige of the "LG" see Natalia Roudakova, *Losing Pravda: Ethics and the Press in Post-Truth Russia* (Cambridge: Cambridge University Press, 2017), 54.

to get publicity. At the same time, Zalygin's credentials made him and his publications respected and very much welcomed by the emerging petro-lobby, which began to gain power at the beginning of the 1960s, mostly due to the growing number of impressive discoveries of oil and gas reserves along the Ob banks.

The timing of Zalygin's first publication in the *LG* was ideal for the petroleum lobby to use the critical article in their first battle with Gospaln. On June 26, 1962, the newspaper published Zalygin's critique of both the economic and environmental sides of the GES project. On the same day, Gosplan's official meeting with representatives of Tyumen Industrial Obcom and geologists Bogomiakov and Ervie took place in Moscow. In the early morning of June 26, Tyumen geologists bought the fresh *LG* issue in Moscow's newspaper kiosks and hung its page two with Zalygin's article on all chairs in the Gosplan's conference room. As a result, the conference rejected *Gidroproekt's* feasibility study (*tekhniko-ekonomicheskoe obosnovanie*), Gosplan postponed the revision of the Lower Ob project and never returned to it. At that point, Zalygin did not cooperate with the Tyumen geologists: only fifteen years later, during his first personal meeting with Bogomiakov, did the writer find out about the campaign that Tyumeners organized for his article in the rooms of Gosplan.[343]

Zalygin's publications opened the way for further critique of the environmental and not just economic dimensions of the GES project. In January 1964, Yamal district party authorities, among others, the secretary of the District Committee of the CPSU Maksimov and the leader of the District *ispolkom* Yumatov alarmed the party leadership in Tyumen of the potential disappearance of winter pastures essential for the Yamal reindeer, as the so-called Salekhard sea would have flooded them.[344] This theme was taken over by broader nature protectionist circles, whose concerns entered the pages of such popular journals as *Priroda* and *Kommunist.*[345]

Simultaneously, building on the success of Zalygin's articles *LG* provided a platform for the public discussion about the contradicting and environmentally precarious strategies to

[343] Anatolii Men'shikov, "Arkhivy rasskazali o proekte pokoreniya Obi," *Rossiiskaia Gazeta,* February 5, 2013, https://rg.ru/2013/02/05/reg-urfo/proekt.html

[344] Sergey Kazantsev, "Ostanovimsya. Oglyanemsya. Vspomnim," *Pravda Severa*, no. 47(4754), November 28, 2015, http://pravda-severa.ru/content/ostanovimsya-oglyanemsya-vspomnim-2, accessed April 24, 2019

[345] Yuriy I. Gordeev, "Opravdano Li Sozdanie Nizhneobskogo Moria?," *Priroda*, no. 6 (1963): 51-54; *Kommunist*, no. 3 (1963), sited in Nekrasov and Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 gg.): Lobbirovanie, sozdanie koalitsii interesov, opportunizm" 180.

manage Siberian natural resources. Since its first publication on January 18, 1967 every two to five weeks in its new section "On the banks of the Ob" the newspaper published the opinions of various actors concerned with the future of the region in general and with the progress and drawbacks of *osvoenie* in particular. Several times these articles appeared on *LG*'s pages on major Soviet holidays, such as the Day of the Soviet Army (February 23), the Victory Day (May 9), and the Day of the Soviet Constitution (December 5). This timing demonstrates the growing attention to the environmental issues of the dynamically industrializing Tyumen North.

Gosplan's Petroleum Vector

In the late 1950s, Gosplan hesitated to decide upon one long-term strategy for the "industrial reclamation" of the Tyumen North. Even when the first significant oil deposits were discovered in 1960-1961 (Shaim, Ust-Balyk, Megion), the central planning committee was still reluctant to choose one concrete development path of West Siberia: it was still weighing the pros and cons of the Lower Ob GES.

The discoveries of the commercially significant oil deposits alone were not enough to ultimately support Moscow's decision in favor of the petroleum complex. The critical juncture in this period of oil history was the leadership change within Gosplan that strengthened the Soviet economy's oil-vector. On March 13, 1963 Nikolai Konstantinovich Baibakov became chair of the Committee of the Chemical and Petroleum Industry of the all-Union Gosplan and, at the same time, headed the Gosplan for the RSFSR. Being a chair of the Gosplan's Petroleum Committee made him automatically minister of the petroleum industry on the Union-level. His background as an oilfield engineer and his passionate devotion to the oil-business defined the new priorities in Gosplan's decision-making. What is more, Baibakov's affiliation with the graduates of his *alma mater*, the faculty of prospecting geology at the Baku Industrial Institute, influenced Gosplan's decision to opt for the petroleum development in Siberia.

How and why did Baibakov affect the decision to dismiss the hydropower scenario and push for oil development in West Siberia? What role did transformation of nature play in his argumentation? Nikolai Konstantinovich Baibakov (1911-2008) was born in Azerbaijan, where he began his career as a petroleum engineer and later promoted to a chief figure of the Soviet petroleum industry. As Baibakov was one of the developers of the first and in the 1960s only existing Soviet technology of offshore oil mining in the Caspian Sea, he was one of the country's few experts who could assess *Gidroproekt's* suggestion to develop West Siberian oil

from underneath the artificial lake.[346] At that moment, the only offshore mining expertise available to the Soviet petroleum industry was developed by the Baku school in the Caspian Sea area. Thus, Soviet offshore mining possessed technology and know-how suited for a warm steppe climate, with average winter temperatures at 4.6 °C and the never freezing sea,[347] which differed starkly from the Salekhard area, located in the Arctic, where winter lasts for eight months with the mean winter temperatures dropping down to −26 °C.[348] The new Gosplan leader stated that at the moment, the Soviet petroleum science and mining practice lacked expertise on offshore petroleum development under Lower-Ob-like conditions. He supported the conclusions of the 1963 State Expert Committee, which stated that *Gidroproekt* had a very rudimentary understanding of the development of an oil deposit from underneath a water reservoir in an "icy region" quite different from the Caspian.[349] Further, Baibakov stressed that based on offshore mining experience on the Caspian Sea, he saw inevitable risks that ice masses would pose to the floating equipment and the high probability of uncontrolled oil leakage from such mining methods.[350] Thus, similarly to Bogomiakov and Zalygin, the country's chief *neftianik* made the government and the technical elite believe that the conventional oil mining was an environmentally friendlier development scenario for Tyumen North, than a mix of hydropower station and offshore petroleum development.

The Gosplan leader's competence in petroleum engineering backed by his growing political influence supported the Tyumen petroleum-lobby in its struggle against *Gidroproekt*. Also, Baibakov's friendship with Farman Kurbanovich Salmanov, the chief geologist of the Ust-Balyk prospecting expedition, an Azerbaijanian and a graduate of the same Industrial Institute in Baku, must have contributed to the choice of the petroleum vector for the region's development.[351] During his Surgut visit in 1964, Baibakov once again demonstrated his personal support and the country's growing interest in West Siberia's petroleum development.[352] During his work at Gosplan Baibakov was regarded as a patron of the WSPC, as he carefully followed its developments and maintained personal contacts with Salmanov and

[346] RGAE, f. 9572. op. 1, d. 1998, l. 19.
[347] On Baku's climate, see: Avtandil G. Amiranashvili, Andreas Matzarakis, and Khatuna Z. Chargazia, "Comparative Characteristics of the Tourism Climate Index in the South Caucasus Countries Capitals (Baku, Tbilisi, Yerevan)," *Journal of the Georgian Geophysical Society*, 17b (2014).
[348] Mark Nuttall, ed., *Encyclopedia of the Arctic* (New York: Routledge, 2005).
[349] Nekrasov, Stafeev, 181.
[350] RGA, f. 4372, op. 65, d. 423, l. 154-155.
[351] For more references to the friendship of two famous Bakuvians see: Maria Slavkina, *Baibakov,* Žizn′ zamečatel′nych liudei, seriia biografii 1490 = (1290) (Moskva: Molodaia Gvardiia, 2010), 37.
[352] More on that visit: Sergei D. Velikopol′skii, *Tyumentsy O N. K. Baibakove: Posvjaščaetsia 95-I Godovščine so Dnia Roždeniia N. K. Baibakova* (Tyumen: Vektor Buk, 2006),14-16.

other leading Tyumen geologists.[353] In addition to having a friendly relationship with his fellow countryman Salmanov, Baibakov supported the local decision-makers, who were involved in developing the petroleum complex. He was responsive to oblast's needs and open for dialogue with its leaders, including Gennadiy Bogomiakov.[354]

Figure 15. Photograph of N.K. Baibakov, F.K. Salmanov and V.V. Bahilov, Surgut, 1964.[355]

Baibakov's support of Salmanov and his colleagues was an element of the growing professional network of Azerbaijani petroleum experts, whose core was in West Siberia and whose political power both locally and in Moscow. Interestingly, during the investigated period, the half of the exploration geologists and petroleum engineers working in the Tyumen oblast were graduates of the Baku Industrial Institute.[356] Mastering Siberian hydrocarbon resources meant taking an active part in socialist construction and thus served as a springboard for a political career in

[353] Ibid., 26

[354] Galina Yu. Koleva, Marina V. Komgort, Vitaly S. Maidanov, *Bol'shoy chelovek iz Velikoy epokhi*, 281.

[355] *N.K. Baibakov, F.K. Salmanov and V.V. Bahilov, Surgut, 1964.* Curtesy of the Khanty-Mansiisk Museum of Geology, Oil and Gas, available at: https://contragents.ru/culture/exhibits/9084225

[356] On the popularity of Azerbaijanian petroleum experts in other parts of the USSR, and particularly, in Tyumen, see Leyla Sayfutdinova, "Mapping the Mobility of Azerbaijani Soviet Engineers: Linking West and East?," *Labor History* 59, no. 3 (2018): 322.

Moscow. For instance, in 1980-1990, Salmanov served as a RSFSR people's deputy from Azerbaijan and became the first deputy minister of geology in 1987.[357]

This career path was aspired not just by Bakuvians, but by petroleum geologists and engineers from an older oil province of the Volga-Ural region. Specialists from the so-called "second Baku[358]" constituted the majority of the remaining half of experts who searched for and produced oil in West Siberian during the initial phase of *osvoenie*. These people also arrived from far-away and climatically very different regions and thus lacked both experience working under such conditions and practical, local knowledge of the place. As most petroleum engineers and other technical experts viewed their posting to West Siberia as temporary and necessary for professional growth, their perception of nature was outright coherent with the conquest ideology. In their memoirs, *neftianiki* expressed nostalgia about the "Big Land," which in most cases stood for warmer areas at the Volga or around Baku. For instance, the founding father of *Glavtyumenneftegaz*, Viktor Muravlenko, used to say in moments of hardships, "I should just leave it all here in Siberia and go back to Kuibyshev,[359] to my dacha, stay there and practice agricultural selection.[360]" The incoming technical specialists limited nature's value to the amount of energy that they could extract both to fuel Soviet economy and their careers.[361] The more physical energy the petroleum engineers made available, the more their performance was acknowledged and the more power they gained within the industry. Putting energy to work translated into professional growth and, for many, even into remarkable political careers. Therefore, the newcomers from Azerbaijan and the Volga-Ural province were eager to conquer Siberian nature and enjoy career benefits: "Back to the frontline! I am going

[357] "Biografiya Farmana K. Salmanova," in *Otechestvennye Chleny-Korrespondenty Rossiĭskoĭ Akademii Nauk XVIII--Nachala XXI Veka: Geologiia I Gornye Nauki*, ed. I͡U. I. Solov'ev, G. Khomizuri and Z. A. Bessudnova (Moskva: Nauka, 2007)Among other graduates of Baku petroleum engineering faculty, who made an astounding political career after having worked for the WSPC, is Vagit Alekperov, the CEO of Lukoil, who in 1990-1991 became a deputy minister of the Soviet Oil and Gas Industry, see: "Alekperov, Vagit Yusufovich." In *Marquis Who's Who in the World*, edited by Marquis Who's Who. 33rd ed. Marquis Who's Who LLC, 2016, available at: http://ezproxy.cul.columbia.edu/login?qurl=https%3A%2F%2Fsearch.credoreference.com%2Fcontent%2Fentry%2Fmarquisworld%2Falekperov_vagit_yusufovich%2F0%3FinstitutionId%3D1878, accessed on June 17, 2020.

[358] On the history of the Volga-Ural petroleum province, or "the second Baku" from Moscow's perspective, see: Rehschuh, *Aufstieg zur Energiemacht*; Rogers, *The depths of Russia*.

[359] Kuibyshev is the Soviet name of the city of Samara located in the southeastern part of Western Russia at the confluence of the Volga and Samara rivers. Samara region experiences a humid continental climate with long warm summers, and is home to the vast black earh areas, which makes it particularly suitable for agriculture and gratifying for dacha gardening.

[360] Viktor P. Biryukov, *Kak Eto Bilo. Otkrytie Veka. V Shtabie Tyumenskikh Neftianikov: Vospominania o Trudovoi Deiatelnosti (1971-1978),* (Tyumen: Sibirskiy izdatelskiy dom 2008), 99.

[361] Here I follow the formula suggested by Edmund Russel et.al who prove that social and political power equals physical energy (deriving from the natural realm) put to work and to move into sociotechnical systems: Edmund Russell et al., "The Nature of Power: Synthesizing the History of Technology and Environmental History," *Technology and Culture* 52, no. 2 (2011).

to Tyumen," wrote Muravlenko upon his transfer from the Middle Volga Petroleum Administration to the (*Glavtyumenneftegaz*) in September 1965.[362] Such belligerent rhetoric shows that Siberian forests, tundra, rivers, and swamps presented no value for the petroleum-technocrats unless transformed into a functioning energy complex, which offered them promotion.

Although their petro-geological expertise was among the most advanced in the country, the arriving experts lacked local practical knowledge and experience of working in the Siberian climate. Neither did the incoming specialist have any emotional bonds to their new place of work. Hence they accepted the rules of the battle against harsh Siberian nature and became ideal agents of the conquest strategy. Their position in the oil socio-technical system allows me to view petroleum technocrats as "inside players" who, as John Meyer rightfully asserts, are poorly situated to change the rules of the game, and as I argue for the WSPC case, aspired a position in the Soviet power structure that gave them no motive to question the state's approach to nature.[363] So petro-technocrats supported the GES environmental imprint critique not because they aspired to protect Siberian nature, but because they needed the oil scenario to win to excel professionally. The petro-lobby's involvement in the discussion of the GES's impact on nature was driven by political calculations in the war between ministries. Neftianiki took advantage of the Soviet intellectuals' and decision-makers' emerging eagerness to problematize industrialization's environmental aspects and discuss them publicly. Nonetheless, the petro-lobby's engagement in environmental discourse was not driven by the will to change the regime's approach to resource management. Viewing nature from within the same paradigm as their counterparts from the hydrology camp and their superiors in Moscow, Tyumen petro-lobby played the environment card in order to attract funds for the oil endeavor, and not to highlight nature's non-industrial value.

Another reason for the success of the environmental campaign the petro-lobby launched against the hydropower project was the character of nature transformation the GES could have entailed: it was indeed more tangible and spacious than oil's impact. Petroleum's environmental impact was not new to the Soviet society as it had already built two petroleum provinces prior to West Siberia.[364] However, in contrast to hydroelectric stations, landscape

[362] Nina V. Grozova, *Viktor Muravlenko. Zapomnite Menia Takim,* (Moskva: Olma Press 2002), 44.
[363] Meyer, *Engaging the everyday*, 7.
[364] Among the very few histories of oil's environmental impact for pre-revolutionary Russia see Andrei Vinogradov, "Fish Vs. Oil: The Struggle with the Pollution of Caspian and Volga Waterways (1873-1931)" (Schönwag, October 26, 2019).

transformation in the petroleum case was somewhat diffuse, as exploration and drilling were to take place in the earth's depths as opposed to the large surfaces covered by hydroelectric complexes. The physicality of a hydropower plant with a dam and a gigantic artificial lake entailed a more visible impact on the landscape and thus resonated more powerfully with the Soviet technocrats.

Concurrently, vast landscape transformation resulting from hydropower plant construction generated critique in other parts of the world. The Bavarian Walchensee power station offers a classic example of such critique.[365] Similarly to the Soviet environmentalists who advocated petroleum as a "greener" alternative to hydropower, some nature conservationists in Western Europe in the 1950s demanded that hydropower be replaced by another, in their view, environmentally friendlier source of energy. However, in the German case, nuclear energy became such a "greener alternative," as allegedly, it did less visible damage to the landscape. In contrast to a rather utilitarian Marxist-Leninist approach of the Soviet opponents of hydroelectric plants, their German contemporaries criticized hydropower installations mainly on aesthetic grounds, emphasizing dams' impact on landscape's beauty. Unlike their West European colleagues, Soviet hydropower opponents were primarily concerned with the utilitarian value of the landscape. Climate change, the loss of forests and pastures meant in the first place the loss of residential areas and production sites for the timber industry and agriculture. Hydropower adversaries viewed nature from within the same paradigm as its proponents: the treasure trove for socialist construction.

The hydropower project represents an attempt to industrialize West Siberia before oil. Its story serves as an illustration of the political-economic setting in which the WSPC emerged. Since it caused such a lively discussion on the GES environmental impact and the outrageous departmentalism that accompanied its implementation, the hydropower enterprise's dismissal was perceived as a victory over these two principal evils - environmental degradation and departmentalism. This subjective victory, in turn, made the petro-industrialization that forced the GES out from the agenda of West Siberian development seem like a clean business, at least for the initial years of oil euphoria.

The Lower Ob GES episode illustrates the center-periphery pattern in decision-making, which traditionally neglected the local interests of the "periphery" and aimed to implement the

[365] David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York: Norton, 2007); David Blackbourn, "The Culture and Politics of Energy in Germany: A Historical Perspective," *RCC Perspectives*, no. 4 (2013), 19.

decisions of an often distanced center, focused on achieving planned growth rates at any cost. This mechanism's main feature was the center's disinterest towards the periphery's genuine needs, its specific cultural and natural characteristics. Such decisions were aimed at sustaining the highly centralized Soviet system. Moscow's approach to nature transformation in the initial years of petrolization often lacked a comprehensive calculation of economic and ecological factors, let alone an analysis of local interests. These patterns of center-periphery relations persisted during the initial phase of WSPC construction.

The struggle between the two scenarios unfolded as the first open confrontation between different groups who defined the future of West Siberia as the country's energy hub.[366] Despite having disagreed with each other on several issues, both the hydropower and hydrocarbon camps, in a nutshell, represented the same approach to nature. The discrepancies emerged mainly along the interests of conflicting departments who in essence aspired to reach the same goal: convert nature into energy.

More importantly, the conflict between the hydropower and the hydrocarbon scenarios uncovered the ambiguity of Siberia's industrialization. On the one hand, its destructive effect on nature became widely known and stimulated the society to discuss its environmental concerns. The Lower GES episode of the oil history demonstrates that in the 1960s Soviet Union there was room for critique of environmentally meaningful industrial projects, including endeavors designed by reputable institutions with substantial political leverage. On the other hand, the rejection of the hydropower project and the petroleum lobby's victory made oil production and construction of the WSPC seem environmentally clean and economically more efficient. What is more, since from the very start the petroleum endeavor promised to put in place more modern social infrastructure, the wider public automatically perceived the hydrocarbon scenario as more attractive. Finally, the GES episode made it clear, that before the discovery of petroleum in commercial quantities, the existing plans of resource management and industrialization lacked a comprehensive infrastructural dimension as well as socio-cultural components. In contrast, petrolization envisioned a socio-cultural and infrastructural transformation, which, especially at its early stages, served as concrete instantiations of a desirable communist future. Taking this promise of a bright communist future fueled by Siberian oil as a reference point, the following chapters will verify whether

[366] Here I support the thesis of Nekrasov and Stafeev, who describe the hydropower project as an open conflict of interests of various lobby groups, see: Nekrasov and Stafeev, "Proekt Nizhne-Obskoy GES (1958-1963 gg.): Lobbirovanie, sozdanie koalitsii interesov, opportunizm," 175

the promise of greener oil benefiting nature and people came true and will trace whether the reactions to the environmental impact of the WSPC transformed over the investigated period and what actors engaged in the critique of *Nefteprom*'s dirty side.

Chapter Four. New Ethnographic Expertise and Sovietization at West Siberian Oil Deposits

The Soviet government believed that the West Siberian Petroleum Complex could only be a success when the remote region, which had always been seen as a distinct antipode of whatever it meant to be Russian, was transformed into an economically and culturally truly Soviet territory.[368] In particular, the nomadic tribes of Khanty, Mansi, and Nenets had to assume a sedentary lifestyle to free up their ancestral lands for a giant industrial complex. Alongside with the constructed physical facilities (e.g., wells, pipelines and mining equipment, buildings, and roads), various resources, particularly human labor, were needed for the industry to function. The WSPC was conceptualized as a system of hydrocarbon exploration and mining, geological research, construction industry, timber, fish, food industries, and agriculture as well as related provision branches.[369] Accordingly, the WSPC was not merely an industry but a dynamic system of industries and related infrastructures, research, services, and personnel, designed to reclaim the region and exploit its resources.[370]

Moreover, the CPSU conceptualized this industrial territory complex as a cradle for ideal Soviet people.[371] The party-state believed that industrial infrastructure would have a transformative effect on its citizens who were to practice a socialist way of life.[372] As had been the case with other underdeveloped Soviet peripheries, the communist ideologues expected the

[368] This description of the otherness of native Siberians was coined by Yuri Slezkine and holds true not just for the indigenous peoples but their habitat and cultural landscape. Therefore, it is applied here to refer to the incomplete integration of West Siberian lands into Russian cultural and economic space: Yuri Slezkine, *Arctic mirrors Russia and the small peoples of the North* (Ithaca: Cornell University Press, 1994), ix.

[369] In the last third of the 1970s timber, fish, food and agricultural industries were officially excluded from the "complex". Nevertheless, the core enterprises of the WSPC continued to possess their own subordinate manufacturers of fish and agricultural produce, urgently needed for the rapidly growing population .

[370] Recent scholarship conceptualizes infrastructure to include human resources, see, for instance, Akhil Gupta, "Thoughts on the Temporality of Infrastructure," in *The Promise of Infrastructure*, ed. Nikhil Anand, Akhil Gupta and Hannah Appel, A School for Advanced Research advanced seminar (Durham, London: Duke University Press, 2018).

[371] "Industrial territory complex" is the English equivalent of the Russian term *territorialno-promyshlennyi complex* (TPC). TPC was a term introduced into the Soviet economic geography by Nikolai Kolosovsky in 1940s to mean a territorially structured industry. Its main characteristic was the high regional interdependence of vertically and horizontally integrated enterprises, dependent on local resources. Such complexes created technical and economic dependencies among local production sites. Soviet TPCs were used as a format of economic and technological modernization of undeveloped areas. Source: A.N. Azriliyan (ed.) *Bol'shoy ehkonomicheskiy slovar* (Moskva: Institut Novoi Ehkonomiki, 1997), http://sbiblio.com/BIBLIO/content.aspx?dictid=175&wordid=1305479, (accessed September 28, 2018).

[372] More on the strategies of the Soviet state to translate socialism into lived life, see, for instance, Juliane Fürst and Stephen V. Bittner, "The Aging Pioneer: Late Soviet Socialist Society, Its Challenges and Challengers," in *Endgames? Late Communism in global perspective, 1968 to the present,* The Cambridge history of communism Volume 3, ed. Juliane Fürst et al. (Cambridge: Cambridge University Press, 2017), 300.

new industrial complexes to transform the mindset and behaviors of the people not only working for them but living on their territories.[373]

The WSPC was designed not merely as a technical system that helped to exercise control over a natural resource, not as a thing, but as a framework capable of building a new, progressive social reality. In this respect, viewing the petroleum complex as a "bundle of relationships[374]" demonstrates how an industrial complex can be initiated as a blessing by one group, end up being an environmental burden for another, and, more importantly for this study, stimulated production of critical expertise by a third. Thus, this chapter brings to light actors, co-building and simultaneously critiquing this infrastructure's transformative effect on nature and society. This intersection of two precious veins – infrastructure and scientific discovery – makes the WSPC a bonanza of knowledge production and lies in the chapter's focus.

Who were the scholars producing this critical knowledge? Initially, the communist planners expected the WSPC to turn into a bonanza of hydrocarbon energy resources and Sovietization. By employing the indigenous in "perfectly" communist jobs, the state hoped to end such anti-Soviet practices like shamanism and nomadism and, more importantly, solve the problem of labor deficit that emerged in the region after the abolition of Stalin's labor camps (1953-1960). Therefore, alongside engineers, geophysicists, and petro-geologists, the project needed ethnographers to study the aborigines' potential to transform into proper Soviet citizens who were capable of functioning productively within the petroleum complex. From its initial stages, the project meant the rise of Soviet *severovedenie,* a branch of ethnographic studies dealing with native peoples of the Soviet North. In addition to a growing number of funded ethnographic expeditions to West Siberia, the young ethnographers working on Ob Ugrians and Samoyeds could now take advantage of the WSPC transportation, communications, and supplies.

Their engagements with the adaptations of traditional culture and economy to the needs of a petroleum complex led the ethnographers, contrary to their assigned mission, to illuminate the deficits of socialist construction in the North. For this reason, this chapter identifies the intersection of the *severovedy's* fieldwork and the construction of the petroleum complex as a bonanza of new ethnographic expertise, which attempted to dispel Moscow's Sovietization myths and thus went against the government's expectations. To be able to explain why the

[373] For other examples the social engineering function the CPSU attributed to large-scale industrial projects see, for instance, Artemy M. Kalinovsky, *Laboratory of Socialist Development: Cold War Politics and Decolonization in Soviet Tajikistan* (Ithaca, London: Cornell University Press, 2018).
[374] Carse, "The Anthropology of the Built Environment: What Can Environmental Anthropology learn from Infrastructure Studies (and Vice Versa)?"

WSPC became the place of emergence of the new school of Soviet *severovedenie*, I will first describe the mission entrusted to the ethnographers by the government. Their assignment will be discussed within the context of Khrushchev's policy of ethnic fusion and his plans to finalize socialist construction in Siberia. After that, I will take the actors' (in this case, the ethnographers') perspective and explore their concerns with some aspects of the natives' new life within the petroleum complex. By doing so, the chapter will demonstrate the deficits of socialist construction that became visible to the ethnographers at the intersection of traditional and petrolized landscapes.

The indigenous landscape of West Siberia was among the first to experience the effects of petrolization. In order to fortify the state's control over the resources and social relations in the Tyumen North Khrushchev's government claimed the indigenous landscape incompatible with the communist future. Accordingly – in the eyes of the CPSU – it was to be transformed into a petroleum complex, a Northern hub of socialist construction, symbolizing the dominance of Soviet power over this remote and harsh landscape.[375]

As WSPC grew to be the largest producer of Soviet petroleum and provider of petrodollars, vitally important for the Soviet economy, any attempts to reveal its dirty side were problematic. In this setting, actors communicating *Nefteprom*'s ecological imprint as early as in the 1960s, when Soviet environmental discourse is believed to have been having an arduous and rather informal start, deserve particular attention.[376] Using petrolization as a backdrop, the chapter shows that ethnographers working in West Siberia, contrary to their task of supporting the natives' integration into the new reality, developed a critical view of the WSPC's environmental and cultural impact. Accordingly, this section reveals the specific traits of knowledge production in the setting provided by giant infrastructural projects during the late Khrushchev- early Brezhnev period. It is an example of how the installation of a large technological system with the underlying infrastructure provided employment and research opportunities for ethnographers. The chapter also shows how the results these researchers produced failed to satisfy the expectations of their employer, the Soviet state, and instead formed resistant knowledge that challenged some cornerstones of the official vision of infrastructures as engines of socialist construction.

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[375] On spatialization of power in the late and post-Stalinist context, see Elena R. Iarskaia-Smirnova and Pavel Romanov, "At the margins of memory: Provincial Identity and Soviet Power in Oral Histories, 1940-53," in *Provincial landscapes local dimensions*, ed. Donald J. Raleigh (Pittsburgh, Pa: Univ. of Pittsburgh Press, 2001) 299–330. On the landscapes representing Soviet power in temporal and spatial terms, see Evgeny Dobrenko, ed., *The Landscape of Stalinism: The Art and Ideology of Soviet Space* (Seattle: University of Washington Press, 2003).

[376] Laurent Coumel, "A Failed Environmental Turn? Khrushchev's Thaw and Nature Protection in Soviet Russia," *The Soviet and Post-Soviet Review* 40, no. 2 (2013): 167–89.

Bonanza Expected by the Government

In line with the decisions of the XXII CPSU Congress in 1961, the Soviet planners expected that the new energy complex to be realized in Western Siberia had to become a productive intersection of two crucially important aspects: that of abundant hydrocarbons and of new Soviet people.[377] The following analysis of governmental expectations towards the petroleum complex forms a necessary background against which the ethnographic knowledge generated within the emerging petroleum hub can be evaluated in terms of its (non)-conformism.

The CPSU program adopted by the Congress foresaw the increase in oil production from 146 million tons produced in 1960 up to 690–710 million tons by 1980 (an increase by 4,7–4,8 times).[378] In his Congress speech, Khrushchev elaborated on the reclamation of the country's remote areas through the construction of industrial complexes. Industrialization of Siberia coupled with the exponential growth of energy production constituted the backbone of "the material-technical basis of communism" which was to be achieved by 1980. This economic development was presented as a setting for the creation of a Soviet nation – a homogeneous, cohesive, and assimilated national community fully integrated with the Soviet state.[379]

However, such a nation-building task required the ultimate solution to "the nationalities question."[380] As part of the de-Stalinisation, Khrushchev aimed to revive what he considered "the true Leninist principles" of the nationalities policy and thus moved away from Stalin's model. For the new Soviet leader to finally solve "the nationalities question" meant to forcefully eliminate national differences through the policy of "ethnic fusion." The 1961 CPSU Program underlined the growing role of emerging industrial centers on the country's periphery in forging a new supra-ethnic entity – the Soviet people.[381] Khrushchev's government was convinced, that industrial complexes on the country's periphery would attract workers from all over the USSR and become sort of melting pots, that would generate a common culture for

[377] "New Soviet People" is used here as a plural form of the "new Soviet person" which was an ideal citizen to be raised and educated by the Soviet state in all corners of the country. According to Yuri Slezkine, taming severe Arctic nature was one of the challenges overcome by the new ideal Soviet citizens, see: Slezkine, "Arctic Mirrors," 282.

[378] Maria V. Slavkina, "Istoria Priniatia reshenia o promyshlennom osvoenii Zapadnoi Sibiri," *Ekonomicheskaia Istoria. Obozrenie* 10 (2005): 147

[379] V. S. Vardys, "Soviet Nationality Policy Since the XXII Party Congress," *Russian Review* 24, no. 4 (1965): 323.

[380] The term "nationality question" (*natsionalniy vopros*) refers to the relations between different ethnic groups within the Soviet Union. For its definition including such its goals as ethnic fusion, see: Programma KPSS 1961, chast vtoraya, razdel IV: "Zadachi Partii v Oblasti Natsionalnykh Otnosheniy," (Moskva: Gospolitizdat, 1961), 20.

[381] Ibid.

people of various ethnic backgrounds. In contrast, in the genuine Leninst creed, diverse ethnicities were permitted and considered compatible with Sovietization, "as long as ethnic consciousness did not descend to nationalism."[382] Khrushchev's edition of "ethnic fusion" went further to eliminate ethnicity altogether.

New industrial complexes constructed on wild, untamed lands offered a perfect setting for the implementation of "ethnic fusion" and for the completion of the North's Sovietization. Even the format of land and resource management that gained momentum in the Tyumen region – the "reclamation of the North" (*osvoenie severa*) – was supposed to catalyze socialist construction as it went beyond the mere industrialization to encompass cultural and ideological terrain. In order to build the petroleum complex the Soviet planners set out to "reclaim" Siberian lands both industrially and culturally. The Sovmin's[383] Directive no. 1208 from December 4, 1963 "On the organization of the preparatory works at oil and gas deposits and on further geological prospecting in Tyumen oblast" defined the development of Siberian resources, including labor, as an "industrial reclamation" (*promyshlennoie osvoenie*).[384]

The etymology of the term "*osvoenie*" is particularly remarkable as it reflects the relationship of power over the West Siberian landscapes. *Osvoenie* implies the change of ownership, as it derives from "*svoi*", which is the Russian for "one's own". Therefore, "*promyshlennoie osvoenie"* means appropriation for or by the industry and indicates that previously the land and its resources belonged to someone else, to the "other", the antagonist of "*svoi*". Further, it implies that the territory to be reclaimed had a different, non-industrial function. To the population of the area not actively involved in the industrialization ("the other"), these lands were a traditional place for cultural practices, source of economic activities and nutrition. It was the native's traditional diet that doomed them to become extremely susceptible to *Nefteprom*. Being largely dependent on fish in their diet, Khanty, Mansi and Nenets placed their encampments in the immediate proximity of river segments rich in fish. In most cases, these were the locations of the later discovered oil deposits, since waters neighboring the oil-bearing layer are richer in oxygen and thus attract more fish. Therefore, the natives' traditional lifestyle and sustenance predestined them to choose their habitat near petroleum sources and made them into a hindrance for the petroleum industry. Thus, the transformation of the landscape into a petroleum complex meant for them the loss of habitat

[382] Marjorie Mandelstam Balzer, *The Tenacity of Ethnicity: A Siberian Saga in Global Perspective* (Princeton: Princeton Univ. Press, 1999), 99.
[383] "Sovmin" is the Russian abbreviation for *Soviet Ministrov*, the Council of Ministers which was the de jure government of the Soviet Union comprising the highest executive body of the country from 1946 to 1991.
[384] GATO, f. P-814, op. 5, d. 1249, l. 97.

and a forced change of their lifestyle. For the Soviet administrators it meant converting the "other" with their un-socialist cultural practices (including those determining food choices) into "*svoi*", i.e. the state's and the industry's own, who would automatically accept the new power and property relations established over the territory.

A remarkable continuity of the concept "reclamation of the North" (*osvoenie Severa*) can be traced from the 1930ies to the present. As early as the first edition of the "Socialist Reclamation of the North," developed in 1932 by the North Committee of Gosplan, prescribed tackling the region's challenges, including harsh climate and impassability, with the help of economic complexes. The so-called "khoziastvenniye komplexy" were seen as the only viable format of dealing with the North's "problems," such as the severe winters, poor infrastructure and restrained access to natural resources.[385] This approach, which is officially regarded as an undoubted success story in today's Russia, because of its alleged effectiveness in West Siberia, is still popular with policymakers as is evident from the presidential decree no. 786 from October 19, 2013 "On a State Committee for the questions of socio-economic development of the Far East, Buriat Republic, and Irkutsk District.[386]" Commenting the implementation of this decree Vladimir Putin mentioned during the meeting with the State Commission on Mineral Resources in November 2017, that *osvoenie* of West Siberia and particularly its development as a "unified territorial and industrial complex" should serve as a model for further infrastructure projects around the deposits in Yamal and the North of Krasnoyarskiy Krai. Considering the ongoing approval of the current Russian politics of "reclamation" as a format of dealing with the climatically harsh, remote, and economically under-developed regions, it is all the more important to highlight the downsides of this strategy, revealed by critical scholars as early as in the 1960s, and evidently still neglected by the country's policymakers.

The "*complex*" approach envisaged the construction of an industrial cluster, a system including a resource extraction industry and branches supplying it with necessary materials, goods and services located within the same economic district. For West Siberian natives *osvoenie* meant not merely a physical replacement of their camps to free the access to the oil deposits. It also aimed at integration of the natives into the Soviet working class and their ideological conversion to Marxism-Leninism.[387] The Soviet government viewed such

[385] Samuil V. Slavin, "K Sorokaletiyu I Vsesoyuznoi Konferentsii Po Razmeshcheniyu Proizvoditelnykh Sil Severa," in *Letopis Severa: Sbornik Po Voprosam Istoricheskoi Geografii, Istorii Geograficheskih Otkrytii, Issledovaniya I Ekonomicheskogo Razvitiya Severa*, VI, ed. Samuil V. Slavin VI (Moskva: Mysl, 1972), VI:28.
[386] Ukaz Prezidenta Rossiiskoi Federacii no. 786, O Gosudarstvennoi komissii po voprosam social'no-ekonomicheskogo razvitiya Dal'nego Vostoka, Respubliki Buryatiya, Zabaikal'skogo kraya i Irkutskoi oblasti (October 19, 2013), http://kremlin.ru/acts/bank/24924.
[387] Dmitriy A. Smorodinskov, *Vysokoe vdokhnovenie: Kommunisty Tyumeni v bor'be za neft' i gaz* (Sverdlovsk: Sredne-Ural'skoe Knižnoe Izdatel'stvo, 1974), 132.

conversion as a necessary step to create new Soviet people to be perfectly integrated in the emerging industrial complex.

In practical terms, the territory of the petroleum complex independently of its history was considered the industry's and its employees, i.e. the oilmen's (*nefrianiki*[388]) own. Khanty, Mansi and Nenets who had lived on this land for hundreds of years, were to accept this new power structure. Soviet historians elaborating in the 1960s on *osvoenie* of the Tyumen's oil-bearing lands, like Dmitriy Smorodinskov, called the arriving oil-workers the "masters of the severe Siberian terrain,". In contrast, the natives who had lived here for centuries were referred to as "the smaller brothers," whom the oil mining working class would help to overcome "backwardness".[389] "Backwardness" was related to the pre-revolutionary reality and its "survivals"[390] which had to be eliminated by the new industrial, meaning more progressive life. Since the Sovietization of the Siberian periphery was lagging behind, even as late as until 1970s "backwardness" remained an eagerly used term to refer to obstacles standing in the way of socialist construction.

Throughout the history of their interaction with Siberian aborigines, Russian administrators have identified them as "backward."[391] In the early 1930s "backwardness" became an official developmental category attributed to all eastern nationalities of the Soviet Union. Western, and therefore "advanced peoples" of the USSR were only Russians, Ukrainians, Georgians, Armenians, Germans and Jews.[392] All other ethnicities populating the USSR including Khanty, Mansi and Nenets were listed as backward.[393] In their linear understanding of the path to progress, Communist rulers acknowledged that various ethnicities found themselves at different stages of this path. Small peoples of the North as all nomads formed a still less developed category within the backward group.[394]

Overcoming backwardness remained a central aim of the Soviet civilizing mission for decades. There is a significant bulk of literature analyzing the civilizing mission either in the

[388] The Russian word *neftianik* is a broader term than its English translation the "oilman." Neftianik includes not only the oil-drillers, but the wide spectrum of technical specialists from drillers and technicians to exploration geologists and chemists.
[389] Smorodinskov, *Vysokoe vdokhnovenie*, 118-9.
[390] "Survivals" are used here as a translation of the Russian word "*perezhitki*" (remainders, carryovers of the past) suggested by Francine Hirsch, see Francine Hirsch, *Empire of Nations: Ethnographic Knowledge and the Making of the Soviet Union*, 1st ed. (Ithaca: Cornell Univ. Press, 2005), 190
[391] Yuri Slezkine, *Arkticheskie zerkala. Rossiya i malye narody Severa* (Moskva: Novoe Lit. Obozrenie, 2008), 68-100.
[392] Terry D. Martin, *The Affirmative Action Empire: Nations and Nationalism in the Soviet Union, 1923-1939* (Cornell University Press, 2001), 23.
[393] Ibid., 167.
[394] Ibid., 127.

context of Soviet colonialism or by rejecting the Bolshevik rule as a colonial project.[395] This work does not intend to involve in the debate among historians regarding the applicability of the concept "colonialism" to the Russian and Soviet rule. However, it draws attention to the civilizing mission of the Soviet regime, whose distinctive feature Jörg Baberowski defined as the obligatory negation of the past.[396] Since "backwardness" related to the carryovers of the past, all "backward" elements of native culture and lifestyle were subject to eradication. "Backward" meant the necessity to be urgently transformed into an ideal peasant or worker, a modern subject of the Soviet state, and served as a justification for forced civilization.[397] Fighting backwardness was a method to implement the civilizing mission, which permitted the elimination of social structures that did not fit in the new order. This study builds on Baberowski's thesis, that the raison d'etre of Russian and Soviet practices in the country's remote areas was the "civilization" of non-Russian peoples and the genuine aspiration to forge cultural, social, and economic change that would pave the way to modernization. As Artemy Kalinovsky rightfully argued, officially Moscow has been trying to civilize the "backward" ethnic groups on the country's periphery since 1917, but particularly the Khrushchev's government approached this pending task with remarkable vigor.[398]

The Soviet civilizing mission was based on the paternalist concept of superiority of the state-building majority over the ethnic minorities of the periphery. As backwardness meant inability to self-govern properly, it entailed the necessity to be ruled and enlightened by external forces until the leap to progress has been accomplished. This backwardness concept underlay both the Tsarist colonization and the Soviet nation building among the Ugric and Samoyed peoples of West Siberia.[399]

There were two main tools to eliminate backwardness and consequently integrate the indigenous into the WSPC. The first was the compulsory standard Soviet education, reduced to Russification, which was cloaked by the countrywide introduction of Russian as the

[395] For an example of studies defining Russo/Soviet-Siberian encounters as a classical form of colonialism, see James Forsyth, *A history of the peoples of Siberia. Russia's north Asian colony, 1581-1990*, (Cambridge: Cambridge Univ. Press, 2010). Among works, criticizing the rubricating of USSR as a "colonial" enterprise, see Christian Teichmann, "Cultivating the Periphery: Bolshevik Civilizing Missions and Colonialism in Soviet Central Asia," *Zeitschrift für Globalgeschichte und vergleichende Gesellschaftsforschung Comparativ.* 19, no. 1 (2009): 34–52. A comprehensive analysis that defines colonialism as a central element of the Tsarist and Soviet civilizing mission can be found in Jörg Baberowski, "Auf der Suche nach Eindeutigkeit: Kolonialismus und zivilisatorische Mission im Zarenreich und in der Sowjetunion," *Jahrbücher für Geschichte Osteuropas* 47, no. 4 (1999): 482–504.
[396] Baberowski, "Auf der Suche nach Eindeutigkeit," 483.
[397] Slezkine, *Arctic Mirrors*, 144-145.
[398] Kalinovsky, *Laboratory of socialist development*, 2.
[399] Perevalova, "Obskie Ugry i Nentsy Zapadnoi Sibiri," 6.

language of "international communication."[400] The second was cadre nativization – the employment of the indigenous by the industries supplying the petroleum complex. The mission of monitoring the implementation of these measures locally was assigned to the ethnographers from the Ethnographic Institute of the Soviet Academy of Sciences.

Ethnographers as Active Participants of the Socialist Construction

The construction of the WSPC stimulated the development of the Soviet *severovedenie*, and more importantly, two competing trends in the ethnographic science. On the one hand, Soviet ethnography became greater involved in socialist construction in the North. On the other hand, individual ethnographers conducting their fieldwork in the new petroleum province developed a critique of the modernization endeavor.

Concurrently with the first oil discoveries and the start of the WSPC construction,[401] large-scale ethnographic conferences on adaptation to the North's climate and development of the indigenous groups in light of the industrialization began to take place regularly. The 1960 Moscow conference on "Problems of acclimatization and nutrition among the population of the Far North"[402] was the first extensive interdisciplinary scientific forum on the region. It opened a series of conferences on the Far North organized by the Soviet Academy of Sciences and the North Commission of the Council for the Study of Productive Forces.

The issues discussed at these conferences reflected the fact that the value of a human being in the USSR was measured by his or her qualities as a productive force. Accordingly, the "small peoples of the North" were to become advanced productive forces in the course of petrolization. This had to be achieved through education and change of their relation to nature. Marxism-Leninism defined the human-nature relation through production and social structures created for generating material wealth: "They [people] cannot produce, unless they cooperate for a joint activity and for cooperative exchange. Thus, in order to produce, people enter certain

[400] XXII S'ezd Kommunisticheskoi Partii Sovetskogo Soyuza, Stenograficheskiy Otchiot, (Moskva: Gospolitizdat, 1962), vol. 1, 217

[401] The first petroleum deposit was discovered at Megion in 1961, followed by the Sovmin Decree from May 19, 1962 "On strengthening the prospect geology for oil and gas in the districts of West Siberia," which is considered to be the official start of the WSPC, for more on the government's decisions to lounch the construction of the WSPC and increase prospecting, and particularly on the 1962 Decree, see Koleva, "Strategiya razvitiya Zapadno-Sibirskogo Neftegazovogo Kompleksa (1960-1980-e gg.)," 37

[402] From November 28 to December 1, 1960 the Medical Research Council of the Health Ministry of RSFSR organized a conference on "Problems of acclimatization and nutrition among the population of the Far North." Researchers from over twenty institutes participated in the conference, including the Sector of Contemporary Culture and Everyday Life of the Small Peoples of the North from the Ethnographic Institute of the Academy of Sciences of the USSR. Among other participants were: the North Commission of Council for the Study of Productive Forces, Academy of Medical Sciences of the USSR, The Lenin Academy of Agricultural Science. For a conference report see: Zoya P. Sokolova, "Otchiot o soveshchianii po voprosam akklimatizatsii i pitania naselenia na krainem severe," *Sovetskaya Etnografia* 2 (1961): 122-123.

social relations and only by means of these relations do they interact with nature, and only so does production take place."[403]

The indigenous of the North did not fit this paradigm with their traditional activities, as their relationship to nature was neither defined by production nor did it aim to increase material wealth. Furthermore, their relations to nature were not defined by their social relations. Instead, they perceived nature as deity and home. This vision contradicted the dogmatic postulate on the necessity of raising the working class in the country's remote areas in order to put necessary productive forces in place. Therefore, the state planners labeled the indigenous tradition and worldview backward and hence subject to elimination, veiled by such terms as "socio-economic development" and "leap into progress."

The early 1960s Soviet ethnography was expected to monitor this conversion of the natives. The Productive Forces Council proclaimed cadre nativization as the necessary step to increase the availability of Siberia's productive forces. The economist N.I. Shishkin noted the labor deficit in the North and suggested that in order to fight the cadre drain a complex of residential, industrial and socio-cultural infrastructure comparable to the central regions of the Union (or even competing with those complexes in the center) had to be built in Siberia. Shishkin underlined the educational opportunities for the native population provided by newly established enterprises of processing industries (primarily food and fish sectors) subordinated to the *Nefteprom*. [404] The scholar stressed the potential of the aborigines to become workers and highly qualified specialists so needed for the industrial complexes.

Following the government's strategy of stimulating the indigenous to join the working class at the fish and food processing cooperatives, Soviet ethnographers documented their progress in overcoming backwardness. From 1962 on, nearly every issue of "Soviet Ethnography", the discipline's leading journal, included publications dealing with the West Siberian Ugric and Samoyedic groups and their success in joining the working class and peasantry of the new industrialization hubs.

When encountered with the "survivals" ethnographers were to explain "backwardness" and suggest ways to deal with it within the Marxist vision of social development. Until the 1960s, the aim of their research was to show that all ethnicities can develop and therefore participate in socialist construction.[405] Soviet anthropologists conducted studies to prove that even the most "backward" communities were able to flourish when placed in the right economic and social setting. Furthermore, the scholarship set out to find rudiments of primitive

[403] KonstantinV. Ostrovitianov et.al, *Politicheskaya Ekonomiya* (Moskva: Gospolitizdat, 1954), 6.
[404] Sokolova, "Otchiot o soveshchianii", 122.
[405] Hirsch, *Empire of Nations*, 232

communism in the outright savagery of the "small peoples.[406]" To that end, ethnographers were looking for native units of economic cooperation resembling a functioning *kolkhoz.*[407] Although like any other non-titular ethnicity in the Soviet Union, Khanty, Mansi and Nenets could not be considered socialist by nature their production unions were presented as a fruitful ground for socialist construction.[408] Mikhail Brodnev from the 1954 established "Group of the North" of the Ethnography Institute of the Soviet Academy of Sciences underlined Nenets' natural aptitude to collective production, visible in their pre-revolutionary fishing cooperatives: "Before the Revolution they sold the fish to the owners of fish businesses, after the Revolution – to the fish factories. The money they received from this trade they split into proportionate shares – "*yugans"*… Such production unions supported the transition of Nenets economy to socialism, as merging two or three of such unions created a basis for the local *kolkhozy*.[409]"

Such publications show that ethnography, like other disciplines, was expected to participate in the "construction of socialism" and therefore find such proofs of the possibility to Sovietize non-conformist ethnicities. The 1956 renaming of the Group into "Sector of the studies of Socialist Construction among the small peoples of the North" reflects the mission of the ethnographic research at that time.[410] In practice it meant, that the ethnographers employed by this sector were to report all problems they witnessed during fieldwork to the Department of Socio-economic Development of the Areas Inhabited by the Nordic Peoples at the Minister Council of the RSFSR, as well as to the local party administration. This reporting duty mainly applied to such taboo issues (i.e. themes censored from publications) as violence towards the indigenous peoples, native alcoholism and housing deficit. Moreover, the ethnographers were expected to provide the Minister Council, and the CPSU administrations with their suggestions concerning the more efficient building of socialism in indigenous communities and share their ideas on combating the native's "backward" practices. As Maya Haber pointed out, the 1950s Soviet ethnographers substituted the documentation of social reality with an effort to transform society and produce a historical progression toward socialism and communism.[411] However,

[406] Slezkine, *Arctic Mirrors*, 147.
[407] Mikhail Brodnev, "Ot rodovogo stroiya k sotsialismu" (po materialam Yamalo-Nenetskogo natsionalnogo okruga), *Sovetskaya Etnographia* 1 (1950): 92-106.
[408] S.V. Cheshko, "Iz Arkhivov. Sovetskie etnography o "Natsionalnoi Politike" v SSSR: kommentarii k dokumentam," *Etnograficheskoe Obozrenie* 2 (2006): 144-146.
[409] Mikhail Brodnev, "Ot rodovogo stroiya," 95.
[410] Zoya P. Sokolova, "Sovetskii magazin: torgovlia i alkogol' na Obskom severe (korennoe naseleniie v 1950-1980-kh godakh), *Etnograficheskoe Obozrenie* 1 (2017): 97-108, 97. For more detail on the structure of The North Department of the Ethnographic Institute of the Soviet Academy of Sciences, see: Institut Etnologii i Antropologii, Otdel Severa i Sibiri, http://iea-ras.ru/index.php?go=Structure&in=view&id=6 (accessed May 20,2018)
[411] Maya Haber, "The Soviet Ethnographers as a Social Engineer Socialist Realism and the Study of Rural Life, 1945-1958," *The Soviet and Post-Soviet Review* 41 (2014): 194-219, 197

some ethnographers in the field in the new West Siberian Petroleum Province diverted from that mission.

Monitoring Sedentarization and Reporting its Flaws: Yuri Strakach and Zoya Sokolova

Working immediately at the emerging petroleum infrastructure, some ethnographers witnessed a reality that differed significantly from the tale of indigenous leap into socialism. Not only did they see and report the injustice of the socialist construction in the North, but they attempted to disprove the concepts underlying the struggle against the alleged "backwardness" of the indigenous.

To monitor the transformation of indigenous communities into a functional element of the new energy complex, the government organized expeditions of ethnographers from the "Sector of the studies of Socialist Construction" to the areas neighboring the oil deposits. Among such scholars was Yuri Borisovich Strakach (1929-2014). In 1952 he received a law degree from the Moscow State University. As he was reluctant to work as an investigator, which would have been his first assigned position (*po raspredeleniyu*), Strakach instead began a career as a history teacher.[412] During his work as a teacher, he took his students on frequent field trips to the back then non-urban parts of Greater Moscow. His interest in domestic tourism and Nordic nature took him to Siberia, where he became concerned with the tundra natives' living conditions.[413] Strakach's encounters with the indigenous lead him to the Institute of Ethnography of the Soviet Academy of Sciences in Moscow where in 1959 he began to work on his doctoral dissertation supervised by Boris Osipovich Dolgikh, the founder, and director of the Sector of the North, famous for his critical view of collectivization, for which he was exiled under Stalin.[414] Strakach's interests in pedagogy influenced his choice of the dissertation

[412] In the Soviet planned economy jobs were assigned to college graduates "by distribution," (*po raspredeleniyu*). Only in exceptional cases such obligatory first employments designated by the responsible ministry could be avoided (for instance, married graduates enjoyed greater freedom in deciding on their careers).

[413] Here the Soviet term *turizm* is applied, referring mostly to leisure activities in the "wild nature", including walking, hiking, biking, and camping. For a detailed analysis of Soviet *turizm* and the related concept of nature in the late Stalinism see: Anne E. Gorsuch, "There's No Place like Home": Soviet Tourism in Late Stalinism, *Slavic Review* 62, no. 4 (Winter 2003): 760-785. Strakach became a certified *turizm* instructor and in 1957 under the penname G. Yuntov published "A Handbook of a tourism instructor (to assist instructors in preparing tourists)" (G. Yuntov, *Pamiatka instruktora turizma (v pomosh' instruktoru pri podgotovke turistov),* (Moskva, 1957)).

[414] This and other bibliographical information on Yu.B. Strakach is obtained from his obituary, source: "Pamiati Yuriya Borisovicha Strakacha," *Traditsii I Sovremennost': Nauchnyi Pravoslavnyi Zhurnal* 16 (2015): 156-160. For a detailed overview of Dolgikh's research and his conflict with the political establishment see: Sevian I. Vainshtein, "Sud'ba Borisa Osipovicha Dolgikh – cheloveka, grazhdanina, uchenogo, in *Repressirovannye ėtnografy*, ed. D. D. Tumarkin (Moskva: Vostochnaiâ literatura RAN, 2002), 284-307.

topic, which dealt with the labor education of the native population in the Soviet North. From March to August 1962 Strakach was commissioned by the Institute of Ethnography of the Academy of Sciences to conduct his fieldwork in the Tazovskiy[415] and Purovksiy[416] districts (*raion*[417]) of the Yamalo Nenets National District (YaNNO[418]). The ethnographic expedition was aimed "at studying the contemporary economy, culture, and everyday life of the aboriginal population as well as the perspectives of further economic and cultural construction in line with the decisions of the XXII CPSU Congress and with the special Directives regarding the North."[419] However, soon after their arrival in the new petroleum province, Strakach and his supervisor Zoya Petrovna Sokolova disapproved of several aspects of the new petrolized reality, to which their research subjects were supposed to adapt.

The ethnographer's first concern about the natives' life in the petroleum province was compulsory education in boarding schools and Russification. Strakach's research mainly focused on the application of the new education programs designed for the North. According to the series of directives on boarding schools in the Far North and the programs of the industrial training for schoolchildren, *internaty* (boarding schools) and schools had to aim their activities at raising Soviet patriotism, dedication to socialist construction and were expected to fulfill the requirements of the all-Union norms of the compulsory eight-year school education.[420] In practice, the widely advertised socialist construction through education in the

[415] Tazovskiy district is home to the Tazovskoe field, which is primarily famous today as the natural gas deposit, but has also held such significant oil deposits, as the Messoyakh group, which currently hold approx. 40 million tons of oil, source: http://mesng.ru, accessed January 17, 2018. Tazovskoe gas deposit that until today defines the economic specialization of the district was found in 1966. However, the geological prospecting for both oil and gas within the institutional framework of Yamalo-Nents Geological Expedition began here already in 1958, see: Enciclopedia Tyumeni, http://geonetia.ru ЯМАЛО-НЕНЕЦКАЯ_КОМПЛЕКСНАЯ_ГЕОЛОГОРАЗВЕДОЧНАЯ_Э/3686342, accessed March 21, 2018.

[416] Purovskiy Raion currently produces 38 % of Russian gas and 7 % of oil. In the 1960s petroleum prospecting was conducted here with the first large mixed oil and gas deposit at Ety-Purovsk discovered in 1971, http://www.nftn.ru/oilfields/russian_oilfields/jamalo_neneckij_ao/ety_purovskoe/7-1-0-531, accessed February 1, 2018.

[417] *Raion* is a territorial-administrative unit within an *oblast*.

[418] The Yamalo Nenets National District was founded in 1930 simultaneously with the establishment of the Ostiako-Vogul National District (renamed into Khanty and Mansi National District in 1940). This new administrative form resulted in the near annihilation of the local indigenous self-governance. In 1977 YaNNO was granted a formal autonomy and renamed Yamalo Nenets Autonomous District (YaNAO).

[419] GASPITO, f. 124, op. 1, d. 4463, l.12

[420] For the summary of these documents see, for instance, N.E. Egorov, "Programmy proizvodstvennogo obucheniya shkolnikov Krainego Severa," *Shkola i proizvodstvo*, 11(1962): 11-16. The legislative norms of the first half of the 1960s were formulated in the Directive no. 96-M on March 14,1969 "Polozhenie ob internatakh pri shkolakh (s polnym gosudarstvennym obespecheniem), nakhodiashchikhsia v rainoakh Krainego Severa i mestnostiakh, priravnennykh k raionam Krainego Severa," available at: http://www.alppp.ru/law/obrazovanie--nauka--kultura/obrazovanie/42/polozhenie-ob-internatah-pri-shkolah-s-polnym-gosudarstvennym-obespecheniem-nahodjaschihsj.html, accessed February 1, 2018. Russian was introduced as the language of international communication among the peoples of the Soviet Union in March 1938 by the decree of the Central Committee of the Communist Party "On the compulsory learning of the Russian language in schools of national districts and republics." The so-called "national schools" for non-Russian speaking children with instruction in

aboriginal communities was reduced to Russification and suppression of indigenous knowledge, as children were (often forcefully) placed into *internaty* and physically separated from sources of traditional knowledge. [421] The new education strategy was implemented with remarkable zeal in the traditional Khanty and Mansi areas next to oil deposits. De facto it was exclusively Khanty and Mansi children for whom the *internaty* education was obligatory, whereas children from Zyrian families (another indigenous group of Ugrian origin in West Siberia, inhabiting areas not related to oil) involved in reindeer herding continued to live with their families.[422]

Figure 16. "Your baby belongs in the nursery, not the tundra.[423]"

native languages existed until the 1950s. Under Khrushchev the Soviet state demanded that the small peoples finally become equal brothers in the family of Soviet peoples. The way to achieve this was through elimination of nationality. As a method to erase national differences Russification of education was introduced, i.e. schools in the native languages were replaced by schools with instruction in Russian, with the native language as an (elective) subject. For the indigenous groups of the Tyumen North this meant that since the early 1960s the available schooling for their children took place only in boarding schools in Russian. For more details on these refulations see: Dmitriy V. Gorodenko, *Obrazovanie narodov Severa kak faktor razvitia polikulturnogo prostranstva regiona: Na primere Khanty-Mansiyskogo Avtonomnogo Okruga — Yugry* (Nizhnevartovsk: Nizhnevartovskiy Gosudarstvennyy Gumanitarnyy Universitet, 2013), 112.

[421] The notion of indigenous knowledge is used in line with the definitions coined by Fikret Berkes, also referred to as "traditional knowledge" that represents "a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationships of living beings (including humans) with one another and with their environment", see Fikret Berkes, *Sacred Ecology: Traditional Ecological Knowledge and Resource Management* (Philadelphia: Taylor & Francis, 1999), 8.

[422] Perevalova, "Obskie Ugry i Nentsy Zapadnoi Sibiri," 299.

[423] A 1967 poster by Boris Teders propagated the placement of children from the young age into nurseries in order for their mothers to be able to take on employment at collective farms and other state enterprises. The poster is in the public domain.

Practically Russian teaching was expanded at the expense of Northern languages. According to Diana Gerasimova, a Mansi-language specialist at the Faculty of Peoples of Northern Regions at the Leningrad's Herzen Pedagogical Institute, "Mansi students at *internaty* were told by their teachers not to speak Mansi at school during the 1960s." She was a student at an *internat* during that period, and said that students were not punished for speaking Mansi, but because of the respect for their teachers, they did as they were told. It was believed, that if Northern children would speak their mother tongues, their Russian skills would suffer.[424]

Russification and separation from families became the first aspects of critique that Strakach expressed in his works on transition of the aborigines of the Tyumen North to socialism. In his reports to the local party committee, Strakach lamented the lack of trained personnel with knowledge of native languages in the newly organized settlements of Khanty, Mansi and Nenets, and especially in the educational institutions.[425] Strakach developed this argument at the VII International Congress of Anthropological and Ethnographic Sciences in Moscow in August 1964: "The use of the students' native language and folklore facilitates the success of their education and upbringing."[426] This remark reflects the ethnographer's concern with the decline in the use of native languages, generally attributed by the contemporary Finnougrists to the discovery of hydrocarbons in the region followed by Russification of the Tyumen North.[427] This statement, which consequently entered the publication of the congress proceedings, was quite a bold move, considering that Khrushchev doctrine "ethnic fusion" still outlined the official policy.

Strakach's view on languages in the native education system contradicted the official strategy proclaimed by the director of the Ethnographic Institute of the Academy of Sciences, Sergei Pavlovich Tolstov, the restless enemy of non-Marxist scholars. In his internal memorandum to the CPSU Central Committee, addressed to the director of the International Department, Boris Nikolaevich Ponomarev on March 8, 1961, Tolstov reported progresses of the smaller peoples on their way of the adaptation of the "supreme Russian culture" and

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[424] *Dennis A. Bartels* and Alice l. *Bartels, When the North Was Red: Aboriginal Education in Soviet Siberia* (Montreal: McGill-Queen's Univ. Press, 1995), 56.
[425] GASPITO, f. 124, op. 1, d. 4463, l.14.

[426] Yuri B. Strakach, *Narodnyie traditsii trudovogo vospitania v doshkolnykh i shkolnykh uchrezhdeniyakh taiozhnykh i tundrovykh raionov Sibiri* (Moskva: Nauka, 1964), 5.
[427] More on the so-called "obstruction of native education" see: Yuliya Yu. Dolženko and and Rafis Kh. Šajmardanov, *Genezis nacional'nogo obrazovanija Khanty-Mansijskogo avtonomnogo okruga – Jugry* (Surgut 2012), 150-151.

stressed the positive effect of education in Russian as opposed to the "national schools."[428] The attempt to introduce indigenous alphabets and curriculum in the indigenous languages he regarded as merely an intermediate step on the way of accessing "the superior culture." Tolstov went on by stressing that national schools had outlived themselves and thus, the substantial educational literature published in Northern languages had no practical value: "Indicative of this transition were the recent requests by the Chukchi of the Nizhne-Kolymskiy district of the YaSSR (1950) and from the Koryaks of the Koryak National district of the Kamchatka oblast (1955-56) to entirely convert their local schools to instruction in Russian. The approximation between the small peoples of the North and the neighboring Russian population is a natural process."[429]

It seems that Tolstov was one of the influential ethnographers, anonymously mentioned by the Evenk ethnographer Alexandra Kudria, as responsible for the 1962 closure of the Northern Department of the Institute of National Schools, which had designed curricula for teaching northern languages.[430] Tolstov's standing on Russification makes the view of his young employees working in the field all the more daring. Strakach's superior Zoya Petrovna Sokolova, in charge of the ethnographic expedition in Yamal, followed his colleague in lamenting the Russification of Khanty and Nenets in the Shuryshkarskiy Raion of the YaNNO:[431]

> Often one encounters cases of grand Russian chauvinism, the undisguised will to russify the native population as soon as possible. Sometimes, even the goodwill and honest intentions of the Russian specialists to raise the cultural level of the native population and to improve their living conditions lead to the same decisions and results: actions to eliminate all sectors of traditional economy (especially reindeer herding and hunting), settle all Khanty in villages, employ them in the new industries of the energy sector, and make them to be no different than Russians.[432]

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[428] Hereinafter "national" is used in its peculiar Soviet connotation when applied to the northern natives. As a transliteration of "*natsionalnyi*" it refers to (in most cases non-Russian) ethnicity, determined by parentage. In the USSR nationality was put down in every citizen's internal passport. Dennis and Alice Bartels draw an insightful comparison of the Soviet "national" to the Canadian "aboriginal" to prove their analogy, Bartels and Bartels, *When the North Was Red,* 11-13.

[429] Sergei P. Tolstov, "Sovremennyie protsessy natsionalnogo razvitiya narodov SSSR, 1961," in *Etnologicheskaya ekspertiza. Narody Severa Rossii: 1959 - 1962 gody*, ed. Zoya P. Sokolova (Moskva: Izdatel'stvo IEA RAN, 2005), 64.

[430] Bartels and Bartels. *When the North Was Red,* 56.

[431] Shuryshkarsky Raion is located in the southwest of YaNAO and is home to Khanty and Nenets. The local Kunovat oil and gas lot has been undergoing prospecting since the early 1960s and has so far been largely classified as economically unviable mainly due to its remoteness from the pipelines, source: Korporatsia Rosneftegaz, Mestorozhdenia, http://krongs.ru/fields/, accessed September 25, 2020.

[432] Zoya P. Sokolova, "O sovremennom polozhenii Khantov Shuryshkarskogo Raiona Yamalo Nenetskogo Natsionalnogo Okruga Tyumenskoy Oblasti, 1962", in *Etnologicheskaya ekspertiza. Narody Severa Rossii: 1959 - 1962 gody,* ed. Zoya P. Sokolova (Moskva: Izdatel'stvo IEA RAN, 2005), 357.

In her field notes, Sokolova expands her critique of Russification by rejecting "ethnic fusion" and its legitimization, the concept of "backwardness": "Some call the national Khanty culture backward, and think that since it allegedly has no progress potential, one has to eradicate it in all forms…We consider this approach to national cultures wrong. Even if Khanty culture is to die out or to be replaced by another universal or communist culture at some point in the future, it does not mean that we have to reject all its achievements already today." Further, the ethnographer listed such achievements as Khanty environmental knowledge, sustainable economy, and adaptation to the harsh climate. Among the concrete material expressions of this indigenous wisdom and knowledge about local nature, Sokolova mentioned wonderful clothes and shoes, which she suggested, had to be widely introduced as uniform for oil workers and geologists. In addition, Zoya Petrovna demanded that the locally employed personnel respect these progressive elements of Khanty culture and change their negligent attitude to Khanty, who they openly regarded as backward.[433] By doing so, the ethnographer hoped to find a modus vivendi for both Socialist and native cultures, as she accentuated the often neglected value of the latter for the former.

Her critique of socialist construction in the petroleum province Sokolova communicated only within the Institute and to the sedentarization commissions of the local party administrations (*raion* committees). Field notes containing her disapproval of the official strategy towards the natives were published only as late as in 2005-2006.

Ethnographers as Advocates of Indigenous Environmental Knowledge

In contrast to his more censorship and career-cautious senior colleague, after presenting his critique of Russification at the Anthropology Congress, Strakach published a congress report, in which he underlined the necessity to consider traditional values in the strategy for newly established settlements.[434] By integrating family traditions of upbringing into education plans, the ethnographer suggested an effective method to retain crafts,[435] essential for *subsistence* lifestyles. He argued persuasively that over the long period of *osvoenie* of taiga's and tundra's riches the natives acquired unique skills and substantial knowledge, indispensable for life and work in the local conditions.[436] In Strakach's view, neither modern technology nor highly

[433] Ibid., 356-357.
[434] Yuri B. Strakach, "MKAEN i zadachi ethnographicheskoy nauki v Sibiri," *Za nauku v Sibiri*, 32 (159), August 24, 1964, 2
[435] "Crafts" is the English translation of the Russian *promysly*, which stands for traditional occupations, mainly conducted manually or with the use of hand-made equipment. In the West Siberian context crafts of the indigenous were mainly fishing, reindeer herding, hunting, and berries picking.
[436] Strakach, *Narodnyie tradicii*, 2

developed science could replace these skills. The ethnographer listed such valuable competences as the precious knowledge of the place and the ability to navigate the terrain; knowledge of the habitat of the harvested animals, birds and fish; the ability to apply the right method of hunting or fishing in each particular case and season; shepherding basics and a variety of ways to take care of reindeer in any time of the year under any meteorological conditions as well as the physical fitness of a hunter, fisherman or a reindeer herder.

Strakach borrowed such popular rhetorical elements of the Soviet planners as *osvoenie* in order to advertise traditional crafts and knowledge as progressive and socialist. For the sake of presenting the integration of vernacular knowledge and customary methods of its transmission as regime-conform, Strakach stressed their practical value in labor education and in forms of production: the ethnographer persistently described reindeer breeding as a "progressive form of production." Besides it being collective, i.e. communist in its essence, Strakach underlined its primary economic importance given the specific climatic and natural conditions. He stressed that particularly for this form of productive activity, the specific traditional knowledge and skills are needed, and that they only can be acquired by children during their stay with parents at pastures. "Being with their parents during various seasons in the areas where craft is performed or where reindeer graze, children receive education unconditionally necessary to later work in the harsh climate of taiga and tundra." [437] Further in his article Strakach elaborated on the practical advantages of education within families and on lifelong knowledge transfer from parents to children.

In order to persuade the decision-makers of the economic value of his education concepts the ethnographer portrayed crafts as the most efficient form of *osvoenie* of the local nature. He summarized by stressing the indispensable role of traditional upbringing in increasing the efficiency of the locally raised production forces: "The rational use of the best native traditions in labor education is economically feasible as it supports the development of productive forces in taiga and tundra and a steady growth of the living standard of the entire local population." This conclusion questioned the CPSU's creed that the industrialization of the landscape and the Russification of the people were the only realistic sources of economic and cultural development in the Soviet North. Moreover, Strakach indirectly contested the alleged cultural and economic backwardness, which socialist construction had to combat on its way through Siberia. By framing indigenous tradition as progressive and socialist, the ethnographer neglected the primitive character of vernacular practices.

[437] Ibid., 3

In fact, the primary motivation behind Strakach's attempts to preserve traditional knowledge and crafts was to save the indigenous from starvation and cold. Stressing the remaining existential importance of subsistence economy, he lamented the government's reluctance to retain crafts, as he emphasized the essential meaning of fishing, hunting and reindeer herding in sustaining the indigenous: "These privately conducted [as opposed to *sovkhozy* and state hunting and fish-producing enterprises, V.R.] activities provide Khanty families until today with all the necessary food stuffs, clothing and housing. However, this aspect of material supplies of the *raion* is completely ignored.[438]"

This 1962 report states the importance of the subsistence reindeer breeding, as it stresses the reliability of the natives on this traditional activity as means to sustain their households and support themselves in terms of nutrition, clothing and housing. Poor food provisions and oversupplies with vodka in the native settlements persisted during the investigated period. In his observations, Strakach even seemed to have suspected an intentional undersupply with nutrition in the Nenets settlement of Tarko-Sale in the Purovskiy district. [439] The ethnographer criticized the unsatisfactory provisions even with such non-deficient food supplies, as cheese, condense milk, egg powder, dried and canned fruit. "At the same time, alcoholic beverages and flour are delivered in disproportionately large quantities. Alarming remains the anti-sanitary condition of most children's institutions, day-care facilities, public eateries and housing." [440]

Ironically, the housing infrastructure of the new energy hub was so poor that most of the few newly built residential and medical units lacked heating facilities. Strakach stressed the apparent advantage of a warm chum with a functioning traditional heating compared to a freezing cold and dark public medical unit. "Due to the absence of fuel to heat up the medical units, the medical personnel delivers indigenous women in the settlements in Tarko-Sale and Nakhodka not in the medical units, but in the *chum*!"[441] In 1962 when Strakach sent this report to the *raicom*, there was no oil refinery in the proximity of the oil deposits. The closest refinery was in Omsk – more than 1200 kilometers to the South. The construction of the first pipeline connecting the new deposits to the Omsk refinery began in 1964. Until then people who were discovering and mining the Big Oil, as well as the natives, who had to abandon their homes to

[438] GASPITO, f. 124, op. 1, d. 4463, l. 22.
[439] Tarko-Sale is a settlement in the Purovskiy Raion of the Yamalo-Nenets Autonomous District, where both oil and gas have been industrially extracted since 1968. Currently Purovskiy Raion provides 38% of Russia's gas and 7% of oil, source: Administratsiya Purovskogo Raiona, Ekonomika Raiona, http://www.puradm.ru/catalog/ekonomika_rajona/toplivno-energeticheskij_kompleks/obschaja_informatsija, accessed November 21, 2017.
[440] GASPITO, f. 124, op. 1, d. 4463, l.23
[441] Ibid., l. 26. *Chum* is a temporary dwelling used by northwest Siberian Finno-Ugric peoples.

free up the access to the deposits, did not have enough fuel to heat up the new homes and public facilities. The ethnographer raised the issue of the unjust distribution of ills and benefits of energy production as well as of the recognition of the victims of this injustice.

Awareness about the miserable living conditions of West Siberian toilers spread throughout the country. In its 1969 November issue, a popular satire magazine "Krokodil" published a short feuilleton mocking Tarko-Sale's dreadful conditions: "Three electro-power stations located in the settlement do not manage to provide it with electricity. Electric light bulbs do not light up anymore in most houses… And the polar night is approaching. The local population is desperately looking for oil lamps and kerosene in the shops, but in vain. Not in stock. Should they collect kindling now?[442]" So seven years after Strakach reported the results of his expedition and mentioned the miserable living conditions for the indigenous, the survival challenge in Tarko-Sale continued. Communities now living on the territory of the country's leading energy provider had to rely on traditional ways of sustaining their livelihood. The promises of petromodernity were still an illusion and thus unreliable companions for most Northerners.

Against this backdrop, Strakach emphasized the necessity to rely on traditional methods to pursue crafts, as they suit the local environment better than modern science and technology. Strakach's interpretation of the role of tradition contested the postulate of the ethnographic establishment on the alleged backwardness and uselessness of crafts. By labeling crafts economically unviable, the official ethnographic discourse intended to justify the elimination of subsistence economy that had to free up space for petroleum infrastructure. A leading Soviet ethnographer and economic geographer, Mikhail Alekseevich Sergeev, propagated the elimination of crafts and conversion of pastures into elements of industrial complexes due to their allegedly "primitive technology and organization."[443] In 1956 such claims of traditional activities' inefficiency were included in the canonical volume of Soviet ethnography's "Peoples of Siberia." The volume summarizes the government's strategy for the indigenous peoples and Soviet ethnography's mission on eliminating nomadism as a way of life and reducing it to "nomadism as production." This socialist form of nomadism was categorized as a profession that could provide useful supplies for the workers of the petroleum industry and had to be "territorially and temporally separated from other activities." The latter meant a full

[442] Boris, Romkin "Ech, luchina-kruchina", *Krokodil*, no. 33, November 1969, 7.
[443] Mikhail A. Sergeev, "Natsional'noe stroitel'stvo u narodov Sibiri i Dal'nego Vostoka," in *Narody Sibiri*, ed. M.G. Levin and l.P. Potapov (Moskva: Izdatel'stvo AN SSSR, 1956), 545.

disconnection from the indigenous *byt* [444] and distancing from areas occupied by the WSPC. Nomadism as a way of life was condemned as backward, un-Marxist, and a sheer "unproductive loss of time and labor."[445]

In his further critique of collective reindeer farming, Strakach revealed the irrationality of the temporal framework designed by the central planners, as it ignored the local climate grossly. In his reports to the Council of Ministers Strakach criticized inappropriate dates defined for slaughtering reindeer. The Gosplan goals for meat production ordered to slaughter reindeer in November. "But November is already a winter month in the Tyumen North. By this time, the animals have not been eating enough moss and have lost a significant part of the weight they have gained during the summer."[446] To rehabilitate the privately conducted subsistence reindeer herding, the ethnographer pointed out the flaws of its centrally planned form and demanded that natives co-design the *kolkhozy's* yearly plans.

In his analysis of the situation in the Nenets settlement on the Gyda peninsula, the ethnographer also criticized the unwise territorial planning of reindeer herding. Strakach called the transfer of all Gyda reindeer to the *sovkhoz* "completely unjustifiable." This transfer created a situation when the local fish plant had to lend reindeer as means of transportation to its fishermen, at prices incompatible with their earnings. Secondly, the ethnographer opposed the concentration of the communal livestock in the northern part of the district with only very few proper winter pastures. Still, he did not oppose the collective agriculture as such. Instead, Strakach lamented the short-sighted implementation of the *kolkhoz* system as it ignored the peculiarity of natural landscapes and the unique indigenous knowledge about it: "The reorganisaiton of *kolkhozy* caused by the industrial development presented vast opportunities to fully rearrange the system of reindeer grazing based on the traditional knowledge and modern technology. Still, no advantage was taken of this opportunity." [447]

From the ethnographer's perspective, the re-organisation of the traditional Nenets landscape was unjustifiable. In contrast, for the designers of the petroleum complex, it was perfectly reasonable. The reindeer together with the pastures had to be removed from the South of the peninsula to free up space for geological prospecting that started here in the late 1950s. As a result, the Zapoliarnoe oil and gas condensate deposit was discovered in the South of

[444] *Byt* is the Russian for everyday domestic life or life ways, including household and its management. It is a broader term than the English "household" as it includes processes, customs and objects needed to sustain a household.
[445] Sergeev, "Natsional'noe stroitel'stvo," 545.
[446] GASPITO, f. 124, op. 1, d. 4463, l.16.
[447] Yuri B. Strakach, "Sovremennoe hozyaystvo, kul'tura i byt korennogo naseleniya Tazovskogo rayona Yamalo-Neneckogo nacional'nogo okruga, 1962. Dokladnaya zapiska," in *Etnologicheskaya ekspertiza. Narody Severa Rossii: 1959 - 1962 gody,* ed. Zoya P. Sokolova (Moskva: Izdatel'stvo IEA RAN, 2005), 374.

Tazovskiy district in 1965, about 220 km northeast of the town of Novyi Urengoy. According to the documentation of the *Glavtyumengeologia* the Tazovsk expedition of exploration seismology lead by Mikhailenko had accomplished 669 kilometers of seismic profile by August 1966 and finished the preparations of Zapoliarnaya geological structure for drilling.[448] Thus, the grazing areas had to be removed from the south of the district, as exactly here, the geological prospecting and seismic explorations took place.

This episode is one of Strakach's several critical notes which indirectly address the environmental damage caused by the WSPC. Although the ethnographer used such bald descriptions as "irrational" and "faulty," he did not explicitly blame the petroleum industry for removal of pastures and resettlement as he cautiously called it "industrial development." However, locating his remarks on the geological map reconstructed from the sources on petroleum exploration reveals such claims' addressee. Strakach did not oppose either the petrolization of West Siberia or socialist construction. Instead, he wished for the socialism in the North to be more inclusive and environmentally just.

A Discursive Shift in the Soviet Severovedenie

Since 1968 ethnographers began to challenge the state strategy of settling and relocation more openly. Sokolova's discovery concerning the nomadic lifestyle of the Ob Khanty tribes stimulated this shift. After over a decade of fieldwork, Zoya Petrovna discovered that the majority of Khanty and Mansi living along the Ob banks lead a sedentary life with elements of seasonal semi-nomadism already before the Bolshevik revolution. Only 4% of households were nomadic due to their higher dependence on reindeer herding. The remaining majority living along the Ob and its tributaries was dominated by fishing and hunting and thus led a sedentary lifestyle.[449] This finding made the state settling strategy lose ground: 96% of Ob Ugrian households had been sedentary and thus did not need to be settled. As they were not nomadic, one could also question their backwardness, as nomadism was the dominating pre-revolutionary "survival" in the official discourse on Socialist Construction in the North.

[448] GASPITO, f. 124, op. 1, d. 4744, l. 38.
[449] Zoya P. Sokolova, "Preobrazovaniya v khoziaystve, kulture i byte obskikh ugrov," *Sovetskaya Etnografiya*, 5 (1968): 26

Figure 17. Photograph of Z.P. Sokolova during fieldwork in KMAO, 1957.

Photo of the ethnographer in an abandoned traditional Khanty home in a settlement in KMAO during the 1957 expedition. The picture illustrates the main topic of Sokolova's early research – the Khanty dwelling, which lead her to the discovery of the sedentary tradition among the Ob-Ugrians. Reproduced by permission of the Institute of Ethnology and Anthropology of the Russian Academy of Sciences.

Precisely this discovery was only possible due to the appearance of the transportation infrastructure servicing the WSPC. Sokolova found the first unambiguous proof of non-nomadism during her fieldwork in Ugut in the summer of 1965. Ugut was only reachable by air at the time, with the only available air connections being the petroleum prospectors' helicopters. Throughout her fieldnotes, the ethnographer mentions the importance of meeting and "making friends with" the petroleum prospecting expedition in nearly every locale of her fieldwork to have an opportunity to use their helicopters to reach the remote Khanty settlements.[450] Thanks to such a lucky acquaintance with the petroleum prospectors Sokolova reached Ugut by helicopter on July 5, 1965, where she encountered distinct cases of only limited seasonal mobility of the Khanty hunters incorporated in the largely sedentary lifestyle which constituted the empirical core of her critique of the settlement policy.[451]

The emergence of the petroleum complex with its if not always convenient logistics provided the researchers with an afore non-existing opportunity to reach their research subjects. In addition to *Nefteprom*'s helicopters, ethnographers took advantage of motorboats delivering

[450] Zoya P. Sokolova, *Ėtnograf V Pole: Zapadnaya Sibir' 1950-1980e Gody Polevye Materialy, Nauchnye Otchety I Dokladnye Zapiski* (Moskva: Nauka, 2016), 67-68, 432.
[83] ibid., 417, 432

mail to petroleum enterprises in the areas where no other communication was available. This was the case, among others, in the traditionally Khanty area at the shores of the River Synia, otherwise not accessible to the "newcomers," where Sokolova conducted her fieldwork in 1962.[452] Until today there are no permanent roads in the area, but only the so-called "earth tracks" (*gruntovye dorogi*).

Petroleum infrastructure not only pre-defined the geography of the ethnographic fieldwork but also provided the researchers with better access to food provisions and other amenities. Moscovite researchers were quite often appalled by the sanitary conditions in homes and public facilities (including shops) of the indigenous villages. In this respect, infrastructure that emerged to serve the petroleum developers offered a more agreeable alternative, as "solely in the shops for geologists sanitary norms were observed properly." [453] In the emerging oil towns, the ethnographers could more easily buy Russian food, clothes, mosquito nets and repellents, without having to entirely rely on what was available in the native settlements (for instance, raw fish meals, long dresses and skirts, etc.). Sokolova, for instance, described in her fieldnotes a lucky purchase of a jar of sour cream in the Kazym village which she used to prepare a traditional Russian mushroom dish. The ethnographer's excitement of having finally had an opportunity to prepare a Russian meal is followed by a pitiful description of indigestion that her Khanty friends had suffered after sharing the delicacy with her. This incident illustrates how, on the one hand, the oil industry made Russian food and culture more accessible, and the fieldwork easier to master. On the other hand, it revealed to the ethnographers the cultural gap between the Soviet modernity and indigenous tradition.

However, the petroleum infrastructure was not always a blessing for the ethnographers. Often, the oil complex's presence and especially its dealings with the seemingly abundant natural resources hindered ethnographers' travel to the field. For instance, forest fires caused by flaring of accompanying gas, regularly paralyzed transportation in the area for days, as was the case in July 1979 in the area around Megion, when Sokolova could not start her journey to Ugut for three days, until a helicopter of a petrogeological expedition could again fly over this area and take her on board.[454] Thus, the increasing reliance of the ethnographers on the petroleum infrastructure also raised the scholars' awareness of *Nefteprom*'s environmental imprint and provided more reasons for their critique of petrolization.

[452] Sokolova, *Ėtnograf v pole*, 252
[453] Zoya P. Sokolova, "Sovetskii Magazin: Torgovlia I Alkogol' Na Obskom Severe (Korennoe Naseleniie V 1950–1980-Kh Godakh," *Etnograficheskoe obozrenie*, no. 1 (2017).
[454] GASPITO, f. 124, op. 1, d. 4463, l. 34.

Due to new emerging points of contact, facilitated by the petroleum transport infrastructure, Sokolova's research managed to unveil the true nature of the ongoing settlement program. Since there were practically no real nomads to settle, the government's sedentarization plan was, in fact, nothing but a relocation, with a twofold purpose of freeing up space for the petroleum infrastructure and establishing a total state control over it. By proving that the majority of Ob-Ugrians were not nomadic, the ethnographer invalidated the fundamental feature used by the decision-makers to define the alleged backwardness.

Against this backdrop, Sokolova repeatedly emphasized the irrational choice of places for new settlements and the generally formal and unsound character of settling and re-locating measures.[455] Describing the unfortunately placed new villages, Sokolova pointed out to the economic decline of the native communities, which resulted from the pointless relocation and the suppression of crafts. As a consequence of such measures and state's misinterpretation of the semi-sedentary lifestyle of the indigenous, the ethnographer stressed the decline of the traditional economy. The author suggested that more attention ought to be directed to the crafts, and that the industrial *osvoenie* of particular districts should be linked with the comprehensive development of the subsistence economy and its technical reconstruction. "The locally dominating purely *c*onsumerist attitude to the crafts has to be eliminated. The natives' enterprises now integrated into the public sector are seen as mere providers for the newcomers."[456]

In the above statement, the ethnographer implies that the region's petrolization (which she called "industrial reclamation of particular districts") did not have the promised progressive effect on the natives. This passage also shows that the native population of the oil areas had to become part of the infrastructure supporting the WSPC, in particular, its newly arrived (*prishlye*[457]) employees. Similarly to Strakach, Zoya Petrovna uses "industrial development" as an euphemism covering the petroleum complex. Blaming the abstract industrial development for the dramatic shortages the "settled" natives had to endure was more or less acceptable in terms of censorship. In contrast, calling the petroleum industry the source of all evils in the years of glorified heroism of the "struggle for oil" was quite risky.

The careful eye of the Soviet censorship did not miss any explicit references to concrete oil deposits in mass media. Alone in 1967, government censors requested 247 expunctions

[455] Zoya P. Sokolova, "Preobrazovaniya V Khoziaystve, Kulture I Byte Obskikh Ugrov," *Sovetskaya Etnografiya*, no. 5 (1968).
[456] Ibid. 33
[457] The Russian word *prishlyi* has a significant negative connotation as opposed to its rather neutral English translation "newly arrived." *Prishlyi* stands for "stranger", a newly arrived unwelcomed outsider.

from the West Siberian press, three times as many as in 1965.[458] Most of the information subject to deletion was related to new sites of petroleum development and exploration, as well as to airline connections to these sites. The number of erasures grew as more and more deposits were discovered and had to remain secret at first. The secretness surrounding the country's most important strategic resource explains why scholars were reluctant to mention concrete deposits or prospecting sites in their publications. This is why my protagonists often used the abstract term "industrial development" instead of oil prospecting/production and avoided mentioning the exact names of some locales when publishing the results of their fieldwork.

Despite the general loosening of censorship in the second half of the 1960s, the sacred character of the oil industry in the public discourse remained largely unchanged, as petroleum continued to be the main source of currency inflow for the decaying Soviet economy and could be only limitedly blamed for social or ecological damage. Only in her field notes and unpublished reports, the ethnographer openly mentioned the employees of the petroleum sector and not the abstract "newcomers" (*prishlye*), who attracted all the attention of the local administration and, more importantly, consumed all the resources allotted for housing, *byt* and cultural development. Such reporting demonstrates that the state wished to be informed about the impact of the petroleum complex on traditional livelihoods and permitted such critical opinions, as long as the petroleum industry was not explicitly blamed for the destruction of livelihoods.

The 1968 widening of the borders of the ethnographic discourse can be attributed, on the one hand, to Tolstov's retirement as the director of the Ethnographic Institute of the Academy of Sciences in 1965 and as "Soviet Ethnography's" editor-in-chief in 1966. On the other hand, it can be placed into the context of the generally increasing ability of society under Brezhnev to discuss the shortcomings of the Soviet system.[459] The "sixtiers [460]" among ethnographers fit the description of the last cohort of the Russian intelligentsia who were professionally active during the 1960s and dedicated their literary works, art, and scholarship to a call for reform, equality, and human rights.[461] This call became distinct in the works of Sokolova and Strakach, who wanted to see petroleum-fueled modernity in the North more

[458] GASPITO, f.124, op.1, d. 4974, l.33-34

[459] Boris Belge and Martin Deuerlein, *Goldenes Zeitalter der Stagnation? Perspektiven auf die sowjetische Ordnung der Brežnev-Ära* (Tübingen: Mohr Siebeck, 2014).

[460] Here the term "sixtiers" is used as a translation of the Russian word *shestidesiatniki,* which literally means "people of the Sixties" and refers to the generation of liberal intellectuals who socialized in the post-Stalin years and believed in the Soviet Union's abilities to reform.

[461] For more on the Soviet "sixtiers" see, for instance, Vladislav Zubok, *Zhivago's Children: The Last Russian Intelligentsia* (Cambridge, Mass.: Belknap Press of Harvard University Press, 2009).

humane and make the Soviet administration understand the suffering of those forced to accomplish the "leap into progress." In the West Siberian North, the new *severovedy* witnessed the state's failure to fulfill its promise of development and experienced the ever-growing gap between the socialist ideals and the reality of the industrial complex. Throughout the investigated period, the Soviet petromodernity in West Siberia, as opposed to European Russia,[462] felt rather like a promise and not as a more comfortable reality. The discrepancy between the real conditions in the native settlements and the promised "leap into progress" worried the ethnographers, who, as Yuri Slezkine put it, identified themselves with their subjects (a particular native community) and their subject (ethnicity).[463] These scholars were not in opposition to the regime and sincerely believed in the bright communist future. However, armed with local lived experiences gained during their fieldwork, they observed their research subjects dragged into petrolization, and realized that socialist construction could only be a success if it permitted various forms of knowledge and cultural practices.

The new cohort of scholars was in search of cognitive justice[464] within the communist system. They advocated the acceptance of the indigenous knowledge, in particular, the knowledge about climate and traditional forms of its transmission. By dispelling the backwardness myth, progressive scholars, particularly, Sokolova, underlined the practical value of the indigenous knowledge for further development of the region. In doing so, the ethnographers did not contest the primate of Marxism-Leninism but tried to show that traditional knowledge does not contradict socialist construction and therefore, should not be eradicated. In order to aid the recognition of indigenous cognitive systems, the ethnographers tried to facilitate the dialogue between knowledges and thus move away from binaries.[465] The

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[462] Access to better quality consumer goods, particularly imported products purchased with petro-dollars was mainly the privilege of Soviet capitals and cities of the "special" and "first provision categories," among which were famous resorts, and some "closed" cities. Towns around oil deposits were neither capitals nor "closed," so they often could not supply their residents with the basic produce, let alone with consumer and luxury goods, associated by the Soviet citizens with "developed socialism," largely nurtured by profits of petroleum export. For more on the increasingly prominent materialistic cravings of Soviet citizens and their satisfaction in the European Russia vis-à-vis their inaccessibility for Siberians, see: Chernyshova, *Soviet consumer culture in the Brezhnev era*, especially p. 92. For the classification of cities in terms of provision categories, see, for example, Natal′ja B. Lebina, *Passažiry kolbasnogo poezda: Etjudy i kartine byta rossijskogo goroda 1917-1991,* Kul'tura povsednevnosti (Moskva: Novoe Literaturnoe Obozrenie, 2019), especially p. 2.

[463] Slezkine, *Arctic Mirrors*, 341

[464] With his concept of *"cognitive justice" Shiv Visvanathan* argued that the hegemonic nature of Western *science* had a negative impact on developing countries and their non-Western cultures. Similarly, the Soviet state and the mainstream Soviet science dictated the only acceptable form of social development and thus had a destructive effect on "less Soviet" cultures. Shiv Visvanathan, *A Carnival for Science: Essays on Science, Technology and Development* (London: Oxford University Press, 1997)

[465] For more on the dialogue of knowledges as a method to achieve cognitive justice, see: Maja van der Velden, "From Communities of Practice to Communities of Resistance: Civil society and cognitive justice," in *Development* 47, 1 (2004): 73–80.

scholars' suggestions to supply oil-workers with Khanty footwear, preserve elements of traditional family education and rely on the indigenous environmental knowledge in planning the work of collective farms, illustrate the ethnographers' attempts to stimulate this dialogue.

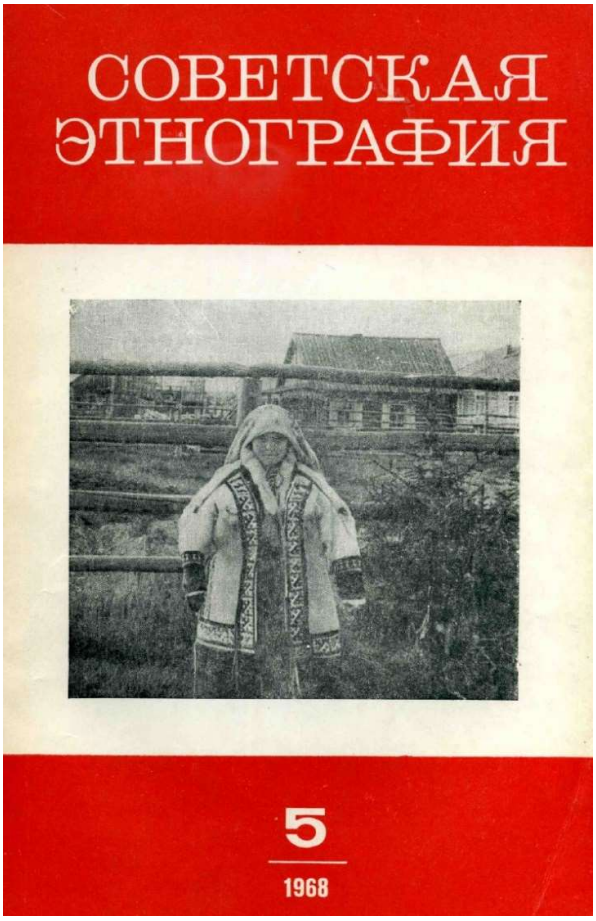

Figure 18. A Khanty girl on the cover of the journal Sovetskaya Etnografia, Issue no. 5, 1968.

The girl on the cover was Z.P. Sokolova's expedition guide. This is the first time a photo of a representative of an Ob-Ugrian indigenous community was printed on the cover of the leading Soviet ethnography journal. This fact shows, on the one hand, the growing importance of Ob-Ugrians to the Soviet ethnography. On the other hand, it underlines the significance of Sokolova's research. In this issue, Zoya Petrovna published her article dispelling the nomadism myth. Reproduced by permission from the journal's publisher, the Institute of Ethnology and Anthropology of the Russian Academy of Sciences.

By providing evidence from their fieldwork, ethnographers showed that the petroleum-induced "leap into modernity" could not be achieved through Russification and elimination of tradition. Moreover, by dispelling the nomadism myth, they questioned the issue of backwardness and thus the necessity to change the socio-economic organization of indigenous communities. Besides, the scholars proved that, at the moment, the state was incapable of providing the

indigenous with the supplies and infrastructure that the "modern" way of life would require. Such infrastructural element of the petroleum complex as provision with food and consumer goods displayed the states's true view of the native's position within the West Siberian society. The situation in the local shops could not escape the attention of the critical ethnographers.

Among the few available consumer goods, colorful fabrics enjoyed the highest popularity among the native customers. In particular, headscarves, especially large ones with tussles, were bestsellers, as women still used them to cover their faces in men's presence. What is more, Sokolova documented the wide use of headscarves in Khanty communities as oblation to the spirits, and for other religious customs, such as the bear festival. The ethnographer's observation of the high demand for headscarves that were still actively utilized for religious practices demonstrates that, in reality, the "land of progressive industry and culture"[466] glorified in the media was still home to an ancient cult.[467] Remarkably, the ethnographers referred neither to the aborigines' eagerness to purchase cult-related goods nor to the practices themselves as "backward."

The scholars showed that petrolization was not succeeding in transforming the natives' system of beliefs, but by determining food provisions, it changed their corporal and social reality. Researchers in the field regularly reported deficits in food supplies in the shops of the newly organized Samoyed and Ugrian villages: "On the shop shelves there are only cans with the "breakfast for tourists." First produced in 1950, this classical canned to-go snack of Soviet *turisty* contained, depending on the sort, either cooked cabbage leaves with minced meat, steamed buckwheat with beef, or chunks of fish cooked in tomato sauce with barley groats. Such ingredients had never been part of the traditional diet of the Ob-Ugrians and Samoyeds. With the rare exception of headscarves, provision with all other types of goods, in particular food were miserable: "Often these shops were supplied with such utterly useless from Khanty point of view foods as breadcrumbs, fruit jelly, canned vegetables, borshch, and pineapples, ewers, bicycles, and briefcases."[468] Nevertheless, even these "unnecessary" supplies became scarce in the spring, as during the high water time, delivery of foodstuffs was bogging, and the fishing season would not start yet. Due to (re)settlement, hunting that traditionally presented a solution for the hungry spring period became an arduous undertaking. If before the oil discovery, Khanty from the Maly Yugan valley would be able to hunt 6-8 km away from their

[466] Inna Iznairskaya, "Pogovorim o climate," *Sibirskie Ogni* 3 (1960): 23–4.
[467] For a detailed account of the Ob-Ugrians' consumption habits and needs see: Sokolova, "Sovetskii magazin." Due to their compulsory fulltime employment at the local factories, *kolkhozy* and hunting cooperatives, as well as due to the ever-declining access to raw materials, the natives had less time and resources to manufacture their own shoes and clothing. Thus, they became increasingly dependent on the goods from local shops.
[468] Sokolova, "Sovetskii magazin," 102.

village, since the second half of the 1960s, they were forced to search for hunting grounds within the 30-40 km radius. Sokolova, who observed these changing patterns in Khanty subsistence, noted that the petroleum extraction infrastructure was increasingly becoming an obstacle to finding food: "Wherever they go – oil derricks are on their way…When women go to pick up cranberries in autumn, they have to hide and creep."[469] Better selection of food could be found in the shops of the so-called ORS – department of workers' supplies. Employees of oil, gas, and timber enterprises enjoyed privileged access to ORS stores. The indigenous could theoretically also purchase the hard-to-get goods at ORS shops, but had to pay 30-50% more than oilmen.

The above described new hierarchy of access to food exemplifies the Soviet edition of "social triage."[470] Based on the recognition that it is inefficient to work with certain obsolescent groups, and thus sensible to sacrifice these groups' needs in order to fulfill the needs of others (more beneficial to the organization),[471] decision-makers apply social triage. To favor society's "most fit" members, planned economies experiencing deficit of consumer goods and foodstuffs have to identify "unfit" or persistently "backward" members. In the Soviet context fitness meant ideological conformity and successful participation in Socialist construction (preferably as an industrial laborer). Having largely deprived the natives of land suitable for traditional subsistence activities, and dramatically reduced their ability to pursue crafts, the state de jure committed itself to providing its indigenous citizens with food, consumer goods and housing. Nevertheless, the central planning failed to fulfill this commitment. Strakach and Sokolova alerted the readers of their reports to the decision of "social triage" performed by the Soviet petro-state towards the indigenous. The petroleum project placed the natives at the end of the social hierarchy, where they barely had any access to cultural and material goods. When it came to the distribution of deficit supplies and amenities, foreseen by a sedentary lifestyle, the indigenous accordingly found themselves at the end of the queue.

Yuri Borisovich Strakach, provided further evidence of social triage carried out by the *raion* authorities, who, like their counterparts in Moscow hindered the development of the native economies. This becomes obvious from Strakach's report to the Tazovsk raion CPSU authorities in the summer 1962, in which he pointed out the unavailability of firearms to the natives, which made the pursuit of traditional crafts impossible: "The Directive No. 300 allowing unlimited vending of all types of firearms to the native peoples is regularly violated

[469] Ibid,104.
[470] Visvanathan, *A carnival for science*, 33.
[471] Karen Glumm and Jennifer D. Johnson, "Creating the "Unfit": Social Darwinism or Social Triage?" *The Journal of Applied Behavioral Science* 37, 2 (2001): 154–79.

by the *Raiispolkom*, which arbitrarily prohibits purchases of firearms by the aboriginal population."[472] Strakach accused the local party administration of the intentional illegal deprivation of the natives of means to pursue traditional livelihood. In addition to the inflicted inability to hunt and to obtain foodstuffs, the deprivation of weapons has had one more effect on the indigenous community in a new industrial setting – the inability to protect themselves. By relocating the natives and depriving them of firearms, the state minimized the natives' capacity to resist or alter the course of petrolization.

The establishment of the new power structures in the region due to petrolization meant disempowerment of the natives, who largely remained useless and costly for the petroleum industry. This disempowerment once again demonstrated that within the emerged petrolized society, the natives were classified as an obsolescent group, excluded from the new power structures. Their power remained embedded in the old cultural landscape,[473] which was being erased by the petroleum complex. The central government established a new power over the area, as it gradually succeeded in putting the energy obtained from the oil deposits to work. Based on the argument that both physical and social power derives from the ability to put energy to work,[474] I claim here that in the new setting, only those actors having control over petroleum and willingly involved in making this energy resource work, were capable of gaining control over the landscape and define its function. Power distribution in a system like the petroleum complex is a zero-sum game, in which some must lose power for others to overtake it.[475] As disempowered groups with hardly any agency, the indigenous could now contest the landscape's new function, namely that of the petroleum industry's service provider. Proactive ethnographers tried to mediate between the petro-state and the natives, by associating themselves with their research subjects and representing their interests in the discourse on socialist construction.

The geography of some Nenets settlements reflects the new power hierarchy and the irrelevance of the natives in the eyes of the state. For instance, the village of Gyda in the Arctic part of YaNAO where Nenets were settled, served as a deportation site for the purged in 1930s-1940s under the GULAG jurisdiction. After Stalin's death in 1953, the abolition of the system

[472] GASPITO, f. 124, op. 1, d. 4463, l. 22.
[473] A "cultural landscape" here is used based on the definition by Peter Jordan, who refers to it as a place, in which certain cultural practices with the related organization of subsistence and the structure
of social organization are deeply embedded: Peter Jordan, "Ethnic Survival and the Siberian Khanty: On-Going Transformations in Seasonal Mobility and Traditional Culture," *Nomadic Peoples, New Series* 8, no. 1 (2004): 19–20.
[474] Russell et al., "The Nature of Power: Synthesizing the History of Technology and Environmental History," 249.
[475] John Scott, *Power,* Key concepts (Cambridge, Malden (Mass.): Polity, 2001), 6–7.

of GULAG took place gradually. According to the 1987 founded NGO "Memorial Society[476]" the return of the purged and otherwise deported persons from Gyda began only as late as 1969.[477] The fact that natives had to neighbor the convict settlers is another proof of the indigenous' obsolescence to the authorities. Evidently, for the Soviet state, the natives' importance as a population category was as low as that of criminals and former prisoners.

As Strakach documented in 1962, the ethnographic expedition had warned the local party executives about the danger of placing the newly freed GULAG and prison detainees next to the Nenets settlements. Strakach alarmed the leader of the Tazovsky Raion CPSU Committee T.N. Egorov of the danger of placing the "liberated convicts" in the indigenous settlements:

> Tazovsky raion, and the Gyda village in particular, have been identified as designated areas for "*vysylka*" for a number of crimes. Given the extreme remoteness and population sparseness, the constant (!) influx of criminals in the *raion* has the most negative consequences for both the moral and physical wellbeing of the native population.[478]

The term "*vysylka*" utilized by Strakach refers to criminal sanctions that outlived Stalin and his notorious labor camp system. After the abolition of labor camps (1953-1960) some GULAG detainees were granted a somewhat limited "freedom." Although they were formally liberated from the labor camps, they could only reside in certain areas. The so-called "*vysylka"* prohibitied residence in a number of Soviet cities and within the 100 km radius around them. Gyda represents an example of an area where the newly liberated were permitted to reside: the distance between Gyda and the closest town Tazovskiy is 380 km. Besides, Tazovskiy is only reachable by air. Often "*vysylka*" served as a penalty without a trial and was applied throughout the 1960ies, which Strakach confirmed in his reports.

[476] *Memorial* is a historical, educational and human-rights organization that aims to reconstruct the GULAG history and publicize Soviet totalitarian past, one of the oldest Soviet and consequently Russian NGOs, see: https://www.memo.ru/en-us/, accessed January 22, 2018

[477] See Memorial's state funded project "Map of Memory" documenting cemeteries and other unknown burial sites of the victims of political repressions, including the Gyda peninsula: "Uchastok Zahoronenii Ssyl'nyh Na Kladbishche Sela Gyda," Memorial, accessed September 25, 2020, https://www.mapofmemory.org/89-10

[478] GASPITO, f. 124, op. 1, d. 4463, l. 14

Figure 19. A map of major West Siberian oil fields found in the 1960s and Gyda Village, David Stäblein and Valentina Roxo, 2019.

In his alarming letter, the ethnographer was aghast by the state's desecration of the place that had been deified by the natives for centuries. Part of the Gyda peninsula was home to Nenets ancestral lands and to the one of its oldest clan's (the Susoi) sanctuary. According to a Nenets legend, the most prominent hill on the peninsula (*sopka*) was the body of the kinship's founder, a legendary knight which after his death formed a *sopka* and thus a sacred territory for the Nenets and the Susoi kinship.[479] In order to limit the movement of the former criminals in the now strategically important province, Gyda had to cease being home to deities and provide confinement to "special settlers."[480]

[479] Perevalova, "Obskie Ugry i Nentsy Zapadnoi Sibiri", 311.

[480] "Special settlers" (*spetspereselentsy*) is an euphemistic name for the exiled, be it on criminal or political grounds. For a comprehensive review of the existing literature on *spetspereselentsy,* see Oxana Klimkova, "Special Settlements in Soviet Russia in the 1930s-50s," *Kritika: Explorations in Russian and Eurasian History*

Strakach and Sokolova drew a clear picture of the natives' position and perspectives within the petroleum complex. The replacement of the indigenous landscape with a petroleum complex is an example of social triage, a situation, when the progress imperative that pushes the "other" (the non-toiling "backward" natives) into modernity proves ineffective. The ethnographers demonstrated that the "leap into progress" with the help of the modern industry was bogging down. Once the "small peoples" proved to be unfit as labor force involved in production and were outnumbered by more efficient migrant workers, the state defined the indigenous as dispensable. This attitude of the local party administration towards the natives became distinct in the 1971 statistics on the persistent native unemployment.[481] Seen as failed productive forces and thus useless for the industrial progress, the indigenous minorities were put all the way to the back of the waiting list for receiving necessary supplies and amenities. For a technocratic state like the Soviet Union, oil-drillers, petro-geologists and other technical specialists directly involved in the production were far more important. Therefore, the state was interested in keeping the more efficient productive force (qualified migrant workers, *prishlye*) fitter than the natives and provided the migrant workers with the necessary amenities first. Thus, labeling the indigenous unfit in a situation of resource scarcity was convenient as it would justify social triage. This explains the reluctance of the local decision-makers to invest allocated funds in better housing and food provision for the indigenous.

Before the industrial employment of the indigenous was claimed a fiasco in the party circles, ethnographers documented its reasons. Often the tenacity of the traditional world views and values, the natives' perception of social relations, and their relation to nature were the major obstacles to their employment. Sokolova's 1963 field notes on the organization of trade and the native employment in the retail sector illustrate the clash of the Ob-Ugrian culture with the new socialist reality. The ethnographer revealed the dishonesty of the newcomers who worked in local shops and neglected their Ob-Ugrian customers. At the same time, Sokolova claimed that the "nativization of cadres" in the service and retail sector was ineffective as well. Zoya Petrovna listed cases of the indigenous' failure to perform standard jobs foreseen for them by the new Socialist reality and drew attention to the insurmountable contradictions between the traditional system of values and the life in an industrialized-to-be area. The newly minted employees of the retail sector often failed already during the probationary phase either for

8, no. 1 (2007) On p. 119 Klimkova rightfully draws attention to the often overlooked fact, that *spetspereselentsy* were not only "ethno-political" deportees but also criminal elements. That explains Strakach's fear of their interaction with the indigenous.

[481] GATO, f. 1112, op.1, d. 6092, l. 2-4

alcohol abuse, or for embezzlement. For instance, in Sogom village of KMAO a Khanty saleswoman, member of the CPSU, embezzled two thousand rubles and was convicted.

> Such cases of embezzlement can be explained by Khanty understanding of property: they believe that all goods being sold by a fellow tribesman are in his possession. Therefore all Khanty can take these goods without having to pay. A Khanty salesman, in turn, cannot say no to his numerous relatives, and not "lend" them food or beverages, which are often never paid for.[482]

Sokolova insisted that neither cadre nativization nor membership in the communist party should erase the ancient Ob-Ugrian culture and clan values. In her opinion, it was pointless to fight the native tradition and worldviews. The 1960s *severovedy* argued that the socialist modernity of the North should have place for native customs and social relations. Thus, they contested the civilizing mission's imperative to eliminate the pre-revolutionary past.

However, only in the mid-1970s did the Soviet planners followed by the ethnographic establishment accept the idea of the preservation of indigenous tradition through mixed models of education in the North. This is evident from Sokolova's 1976 book "Strana Yugoria" that documented a following compromise solution for the native education:

> Ivan's son Victor is a pupil: in winter he lives in a boarding school and spends summers with his father. He helps him to fish, learns to make skis, boats and sleds. During the winter holidays, his father takes him to hunt. This is their way to pass on the precious knowledge and skills, accumulated over centuries. The boy is very clever, but shy as he spends a lot of time just with his father living on the cape, without seeing any other people. And sometimes, when Ivan leaves him to go back to the settlement, Victor stays alone with nature and keeps on learning. [483]

This passage by Sokolova, who at the moment of the book publication was a senior researcher at the Sector of Socialist Construction in the North,[484] demonstrates that the Soviet state recognized the necessity to combine standard Soviet education with traditional family education involving direct contact with nature. Although sources inform on challenges impeding the implementation of this mixed education model, alone the fact that it was included in publications by leading scholars shows that Socialist Construction in the North by the mid-1970s considered somewhat more inclusive ways. Unfortunately, it lacked incentives, mechanisms and funding to implement them.

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[482] Zoya P. Sokolova, PMA 2: 1963 (fieldnotes, vol.2, 1963), cited in: Sokolova, "Sovetskii magazin," 101.
[483] Zoya P. Sokolova, *Strana Yugoria* (Moskva: Mysl', 1976), 104
[484] "Spisok nauchnykh rabot (1953–2005) Zoyi Petrovny Sokolovoi (k 75-letiyu so dnia rozhdeniya). Biograficheskaya Spravka", *Etnograficheskoye Obozrenie Online* 1(2006), http://journal.iea.ras.ru/online/works/sokolova.pdf, accessed January, 18, 2018.

Critique of the environmental impact of West Siberian petrolization was permitted and didn't hinder scientific careers, as long as this critique did not explicitly attack the *Nefteprom*'s civilizing mission. Neither Sokolova nor Strakach experienced any career hurdles for their bold accusations. Sokolova became a leading Soviet and Russian Siberianist who published over three hundred works. Strakach eventually left ethnography to first work for the Central Nature Protection Laboratory in 1977. In the early 1990s, he switched to Orthodox Pedagogy and became a professor at the Slavic Institute in Moscow. Neither the archival sources nor communications with the Ethnographic Institute of the Academy of Sciences provided evidence of any obstacles the ethnographers' findings during their 1960s fieldwork could have possibly posed to their professional growth. One can hypothesize about the reasons for Strakach's academic career not being as brilliant as Sokolova's. It could have been his grandfather's affiliation with the White Guard, or simply his personal interests that caused him to stop pursuing a career in Siberian ethnography.

Nomadism, Settlement and the Local Party

The fact that for several years ethnographers were filing critical reports on socialist construction in the North means that the CPSU wished to obtain objective information about the indigenous' progress on the way to socialism. Moreover, the government obviously wanted to optimize its policy towards the natives. As the CPSU neither prosecuted the *severovedy,* nor rejected their non-conformist findings, it remains to be examined, what the communist administration made out of the debunked nomadism myth. How did Strakach's and Sokolova's critique influence the state (re)settlement strategy?

Throughout the initial period of petroleum development in West Siberia (1962- 1971) the Soviet decision-makers believed that the conversion of the indigenous population into proletariat, i.e. educating it to become useful for the petroleum industry, was a realistic plan. Besides the propaganda in the press and scientific literature, this message was repeatedly conveyed in the internal correspondence between the Tyumen *Oblispolkom* and the *raion* administrations involved in the sedentarisation. The *Oblispolkom* regularly praised the growth of material wealth and "rising cultural level" of the aborigines. As the main reason for this development, the local government proudly identified the fact, that "many of the indigenous are successfully learning new professions, such as builders and mechanics."[485] The April 1967 updated version of the Development Strategy for Indigenous Economics and Culture foresaw

[485] GATO, f. 1112, op.1, d. 6089, l. 4.

the accomplishment of sedentarisation within the vaguely defined "coming years" (*blizhaishiye gody*). The government still believed that the abstract sedentarisation of the peoples whose nomadic status had already been contested, was the only right way for them to develop and gain still absent qualities of "better, genuinely Soviet people." [486]

It took the Communist party four more years to finally admit the absurdity of the settlement and cadre nativization it had so zealously pursued in the West Siberian North. March 1971 marked a turning point, when the Oblast Government and its chair Makurin first reported insurmountable challenges on the way of transforming the indigenous into proper Soviet toilers and denied any possibility to implement Sovmins directive no. 557 from September 22, 1970 "On the work of the local Soviet and economic administrations in the Tyumen Oblast directed at employment and sedentarization of the nomadic population.[487]"

The Tyumen party leaders provided the downright unsatisfactory settling statistics that helped persuade Moscow of sedentarisaion's pointlessness as the Tyumeners wished to be no longer responsible for this Sisyphean task. By 1971 according to the Department of Statistics for Culture, Population and Healthcare, from 10554 households, 2220 (i.e. 21%) remained nomadic, with 11470 people (i.e. 5.1 persons per household). Nomadic families were larger than settled, so the percentage of people still leading a nomadic life was even higher than of the households. Only 83 households with 386 people (i.e. 4.7 person households) became sedentary in the Tyumen Oblast in 1971, which accounted for about 30% of the plan, all of them located in Yamalo-Nenets National District.[488] Since Nenets reindeer-breeders have traditionally dominated the indigenous livelihoods of the YaNAO, the nomadic patterns are more distinct in this area until today. Successes in settling genuine nomads are apparently easier to measure, than in an area like the KMAO, where nomadism was a mere seasonal practice. Not surprisingly, much poorer settling results were documented for the Khanty and Mansi National District, as quite a few extended families nomadized here often together in the 1970ies, and statistics for some years showed not a single household being settled.[489]

The Tyumen Statistics Board lamented the difficulty of measuring the settling progress as it stated that in 1971 no settling of a single Khanty family could be registered in part because of their movement within the District, which in the eyes of the administration obviously

[486] I.S. Vdovin, "Malye Narodnosti Severa Na Socialisticheskom Puti Razvitiya Za 50 Let Sovetskoi Vlasti," *Sovetskaya Etnografiya*, no. 5 (1967): 89.
[487] GATO, f. 1112, op.1, d. 6089, l. 4.
[488] GATO, f. 1112, op.1, d. 6092, l.2. Since the indigenous livelihoods of the YaNAO have been traditionally dominated by Nenets reindeer-breeders the nomadic patterns are more distinct in this area until today. Successes in settling genuine nomads are apparently easier to measure, than in an area like the KMAO, where nomadism was a seasonal practice.
[489] GATO, f. 1112, op.1, d. 6092,l. 2.

indicated the ongoing nomadism. In fact, the measurement of sedentism level remained quite a vague category: units that seemed to a statistician sedentary today could turn to nomadism tomorrow. Evidently, the oblast statistics board was puzzled by the "on and off nomadism" of the indigenous, which actually fit perfectly with Sokolova's description of the "seasonal semi-nomadism." This confusion shows that the statistics board and the regional authorities it reported to were either unaware of the latest ethnographic findings or were simply not ordered to consider nomadism a seasonal pattern.

As the main reason for sedentarisation's failure, however, the district CPSU listed the housing deficit, which was to blame on poor funding from Moscow. The fact that the entire native villages continued to be relocated to free up access to the oil deposits, and that they were placed to locales with insufficient housing facilities contributed to the stably high number of "nomads" who in reality simply became homeless and thus had no choice but to "nomadize." The director of the oblast statistics board M. Kruzhinov documented this pattern on January 31, 1972 as a correction to the settling progress report, explaining the ever-present massive nomadism.[490] Echoing this report, the district party officials had to admit that the shortage of housing for the natives remained an insurmountable challenge. For instance, for 1971 the Novoportovsky fish plant, neighboring the Novoportovskoe deposit, confirmed only the use of 59 thousand rubles out of allocated 188 thousand for housing construction and did not provide a single new square meter of housing. Although the promised funding was available to a large extent, the construction of proper Soviet housing for the natives was bogging down. The two buildings intended to each house eight apartments for the "national population" (i.e. for the indigenous) were transformed into a machinery hall. [491] For the following years the statistics board reported more and more similar cases of "undrawn capital" (*neosvoennye sredstva*).

Finally, the Tyumen administration had to declare a fiasco of the cadre nativization policy by reporting dreadful results in employing indigenous in the food and service sector supporting the oil province. The unemployment rate remained high despite the workforce deficit at the nearby located fish processing plants, which were ordered to employ natives. [492] Recently published statistics on Surgut Raion provides evidence, showing that this native unemployment pattern was typical for all oil-producing areas. In 1970 from approximately 3.5 thousand indigenous population of the Surgut Raion, 1369 people were considered employable. However, de facto employed were only 895 people, i.e. 25.6% of raion's native population, or

[490] Ibid., l.1.
[491] Ibid., l.2
[492] Ibid., l.3

65.4% of the employable native population. This means that the native unemployment rate was as high as 34.6%.[493]

Challenges faced by de-nomadisation were not merely the result of the natives' reluctance to take-on "proper" socialist jobs. Poor state funding and deficit of social infrastructure were the main factors, hindering sedentarisation. In his report "On the measures to accomplish the conversion of the peoples of the North of the Tyumen Oblast to sedentary way of life in 1971-1975" addressed directly to Gosplan's director Nikolai Baibakov on March 4, 1971, the first Obkom secretary Boris Shcherbina claimed the de-nomadisation plans to be ineffective due to the lack of funding from Moscow:

> Due to the deficit of funding, provided by the Ministry of Fisheries 1300 families of the fish industry employees lead a nomadic life. The situation is worsened by the acute lack of kindergartens, nurseries, boarding schools, and medical units.[494]

Further, the Obkom's first secretary lamented the everlasting deficit of food supplies. Boris Shcherbina intended to solve this problem by enlarging the existing poultry plant, as the oblast was in need of more eggs and chicken. However, Gosplan only supplied him with less than a half of metal and cement necessary for the construction project (50 tons of metal instead of required 110 and 2 tons of cement instead of 6).[495]

In his January 21, 1971 letter to the Council of Ministers of the RSFSR, Shcherbina's deputy, Bogomiakov lamented the unsatisfactory provisions with consumer goods and the disinterest of the Russian Consumer Union (*Rospotrebsoyuz*) in the needs of the needs of the indigenous. The Tyumen administrator listed meticulously all the deficient goods, including warm clothes, food supplies, and housing appliances, the lack of which he argued, affects the life and work discipline of the fish plant and reindeer farm employees tremendously.[496] The RSFSR Consumer Union replied that it did not possess resources to enable any further provisions of foodstuffs and consumer goods beyond the delivered quantities.[497] Similar replies were issued to Bogomiakov's requests to increase meat shipments for the new settlements in order to satisfy the need of the native population (which was largely unable to hunt after the relocation away from the traditional hunting grounds and due to deprivation of firearms). In particular, the Obkom's deputy head lamented the dramatic deficit of meat supplies to the employees of the regions fishing industry, as he asked for additional 1000 tons of meat produce

[493] I.E. Korovin, *Vsegda vmeste – Istoria i detistvitel'nost korennykh zhitelei Priob'ia*, Ekaterinburg: Ural'skiy Rabochii, 2004, 107.
[494] GASPITO, f. 124, op. 1, d. 5403, l. 51
[495] Ibid, l. 52
[496] GASPITO, f. 124, op. 1, d. 5403, l. 8
[497] Ibid, l. 11

to be delivered to the Consumer Union of the oblast's fishing industry.[498] Employees of the fishing industry were almost entirely of native origin.

Evidently, the party functionaries did not employ Sokolova's reasoning for the absurdity of cadre nativisation. Instead, they put the entire blame on the center. From the perspective of the local party Moscow performed the social triage as it was reluctant to fund the new settled lifestyle of the Siberian natives. There is no explicit proof of whether the local CPSU functionaries applied Sokolova's and Strakach's findings in their communication with Moscow's leadership. However, the recognition of the sedentarisation's poor results and the regional party's willingness to communicate it as a deficit of central planning and as Moscow's negligence demonstrate, that the CPSU was not a monolithic bloc and discrepancies between its regional and central units were permitted. These discrepancies provided opportunities to revise the socialist modernization project critically.

West Siberian petroleum infrastructure provides a controversial example of a scientific bonanza. Ethnographers, hired initially to facilitate the integration of the region's "small peoples" into the Soviet industrialization project, observed the destruction of traditional livelihoods and the inability of the communist state to fulfill its optimistic ideas of transformation. The destruction of the homes and landscapes their research subjects had inhabited before the arrival of the petroleum industry provided the "sixtiers" ethnographers with empiric evidence to challenge the propaganda and conviction of the absolute superiority of Soviet culture. Contrary to their assigned mission, Strakach and Sokolova criticized Moscow's sedentarization strategy and advocated the preservation of indigenous knowledge. Their scholarship on the inefficiency of Sovietization in the Tyumen North illuminated its Russo-centric and unjust fundaments.

The ethnographic expertise acquired in the emerging West Siberian oil province contradicted with the mainstream postulates. With their critical field observations, the new generation of Soviet *severovedy* argued that modernization advertised as "leap into progress" resulted in the destruction of indigenous cultures, that were deeply interwoven with the harsh West Siberian nature. Sokolova and Strakach witnessed the clash between the Soviet industrial modernity and the culture of their research objects. This collision gave the scholars an impulse to restate the value of indigenous knowledge and the necessity to preserve it. The threat that the WSPC posed to the wellbeing, life and culture of Khanty, Mansi and Nenets made the ethnographers question the just character of socialist construction. They witnessed a transformation in which the powerful initiators of this change and its relatively powerless

[498] GATO, f. 1112, op.1, d. 6092, l. 13.

subjects held deeply contrary views on the relations of humans and nature. In search for an explanation of their experience, ethnographers emphasized the misreading of the West Siberian landscape by the designers of the petroleum complex. By doing so, the scholars neither opposed socialist construction nor questioned the importance of the petroleum project. Rather, they aimed their research at attuning two worlds, showing the usefulness of traditional knowledge and opposing enforced Sovietization. So, the junction of petroleum infrastructure and ethnographic research turned out to be an early bonanza of understanding of the deficits of Socialist construction, in particular, its cognitive and environmental injustice.

The applicability of the ethnographic discoveries in the political decision-making seemed to remain problematic not just in the case of the 1960s-1970s West Siberia but throughout the entire late Soviet period.[499] However, the recognition of the downside of the socialist construction not just by scholars but by the regional authorities, independently of the reasoning they provided, appeared as an essential step in reassessing the pros and cons of Soviet industrial complexes and their socio-environmental impact.

[499] In her recent article Zoya P. Sokolova brought up this contradiction between the ethnographer's duty to report to the Soviet government all problems they encounter in the areas of research on the one hand and the implementation of the political decisions based on their findings on the other, Sokolova, "Sovetskii magazin: torgovlia i alkogol' na Obskom Severe (korennoe naseleniie v 1950–1980-kh godakh" 98.

Chapter Five. "You Ought to Love Nature!" Peoples' Controllers and West Siberian Petroleum Industry

The oil prospecting, drilling, and transporting newcomers, who were increasingly gaining control over the West Siberian landscape, immediately became the protagonists of the heroic tale of the successful conquest of Siberian nature. Moscow eagerly portrayed the West Siberian Petroleum Complex as an engine of socialist construction in the North and its abundant oil supplies as a source of industrial cornucopia for the entire Socialist bloc.[500] Both managers of Tyumen's petroleum industry and simple oilmen were praised for their courage and endurance in the struggle for the precious resource.

Figure 20. The monument commemorating the "Conquerors of Samotlor," Surgut, 1978.[501]

However, Tyumen District's (*oblast'*) archives hold sources that unveil a completely different image of the so-called "heroes of the oil struggle." Already in the early 1970s, still during the

[500] For an example of propaganda, praising the role of West Siberian oil in the industrial development in the COMECON countries, see "Kuda potechyot neft?" *Pionerskaya Pravda*, December 13, 1960, 1.

[501] The monument commemorating the "Conquerors of Samotlor" *(Pokoriteliam Samotlora)* was built in 1978 in the form of a giant male oil driller near the town of Nizhnevartovsk. The locals still lovingly call it "our Alyosha" borrowing the name of the legendary folklore knight Alyosha Popovich, photograph by author.

euphoric years when gushers were struck at Samotlor, Vatiogan, and other deposits, West Siberian people's controllers (KNKs[502]) began to attack the "oil heroes" publicly. In its resolution from September 4, 1973, the Tyumen District KNK accused the three main directorates of the petroleum industry (*glavk's*),[503] and their glorious executives by name - Yuri Ervie, Victor Muravlenko, and Evgeniy Ogorodnov - of "wasteful and improvident (*bezkhoziaystvennoye*) handling of nature's riches,[504]" a crime for which these managers "ought to be sued.[505]" This was indeed a very daring allegation, considering that the discovery of hydrocarbon energy resources in Western Siberia and the construction of the nation's largest hydrocarbon energy complex are until today put on par with such heroic deeds, as the victory in the Great Patriotic War and the exploration of space.

The semi-civic organizations of People's Control contradicted the Promethean discourse on WSPC initiated in Moscow as they criticized the environmental imprint of the petroleum endeavor and witnessed the limits of technology and expertise brought to West Siberia. As previous chapters have shown, the people's controllers were not the first to become aware of petrolization's ecological impact. However, their critique and actions differed from the reactions of ethnographers and journalists (the latter two representing *intelligentsia,* the Soviet intellectual elite[506]). The regular encounters of the non-intelligentsia (predominantly working-class citizens or citizens without higher education) with the environmental degradation caused by the oil industry in West Siberia gave rise to a particular local nature conservation initiative. Who were the West Siberian "people's controllers" and why did they decide and dare to accuse the petroleum industry of destroying the natural environment? Did the nature protection

[502] KNK is the Russia abbreviation for the *komitety narodnogo kontrolia* and it is commonly used by the few German- and English-language studies of the Soviet People's Control.
[503] Here the following Tyumen administrative boards in charge of the petroleum complex are meant: *Glavtyumenneftegaz* (the Tyumen subsidiary of the Soviet Ministry of Petroleum Industry responsible for the coordination of oil and gas production in West Siberia from 1965 to 1990), *Glavtyumenneftegazstroi* (the Tyumen subsidiary of the Soviet Ministry of the construction for the Oil and Gas sector in charge of construction of pipelines and other infrastructure within the West Siberian Oil and Gas province from 1965 to present) and *Galvtyumengeologia* (the Tyumen subsidiary of the Soviet Ministry of Geology in charge of exploratory geology and geophysical work on West Siberian oil and gas deposits from 1966 to 1995).
[504] GATO, f. 1810, op. 3 d. 328, l. 31-32.
[505] Almost three years before the resolution, the people's controllers already mentioned the irresponsible manageres collectively and called for their persecution in the local newspaper: Kommunisty – Narodniye Kontrolliory, in: *Nefteyuganskiy Rabochiy*, October 29, 1970, 2.
[506] Soviet intelligentsia were people of mental labor who accomplished higher education and possessed special knowledge in different spheres of science, technology and culture; a social strata often informally contrasted with the working class. For an exhaustive definition of the Soviet intelligentsia, see Benjamin Tromly, *Making the Soviet Intelligentsia: Universities and Intellectual Life Under Stalin and Khrushchev,* New studies in European history (Cambridge: Cambridge University Press, 2014), 3–11.

initiative of West Siberian people's controllers resonate with the Soviet society more powerfully than the ecological critique generated by scholars and journalists?

To answer these questions, the chapter will examine the People's Control's engagement with the environmental cause with a particular focus on the role of non-scientific knowledge and the local's attachment to nature in raising awareness about petrolization's "dirty" side. I argue that the West Siberian People's Control offered an institutional framework for local grassroots actors to inform the decision-making and the public about *Nefteprom*'s ecological imprint and, by doing so, limit environmental harm generated by the petroleum industry. To illustrate this thesis, first, the KNK's involvement with the oil-pollution of rivers is studied. Closely connected to the river pollution, is the controllers' engagement with the oil-related deforestation, which constitutes the second thematic block of this chapter. Thirdly, the chapter deals with oil leaks, which do not occupy a separate section, since oil leaks serve as an over-arching pollution theme, touching various ecosystems on the one hand and revealing the conflicting visions on WSPC management on the other. In search of the sources of motivation of a Soviet citizen to become an active, often unpaid, "people's controller," I analyze the expressions of the identity-related sense of place and reactions of working-class Siberians to the transformation of their native natural spaces into a service-provider of the petroleum complex. By concentrating on the perspective of those who had lived in non-industrialized natural spaces and their encounters with the oil-induced transformations of these sites, this chapter focuses on a form of nature protectionism initiated by the working-class, whose role in raising environmental awareness, especially in the Soviet context, has so far been underestimated. Finally, after analyzing the motives of the local conservation initiative, the chapter explores the possible reasons for its decline in the late 1970s.

The Institution of the Soviet People's Control in the Late 1960s-early 1970s

In the 1970ies, the "People's Control" (NK) played a growing role in the Soviet political system, as decision-makers increasingly relied on its mechanisms to provide information on local plan implementation and monitor spending. The Soviet KNK, created in 1965, was a semi-civic, semi-governmental organization to survey the activities of local administrations and enterprises. The KNK primarily conducted inquiries into the efficiency issues of production and resource management and had the power to impose disciplinary measures on the responsible personnel, including the high management. It emerged from Khrushchev's

Party-State Control Committee (KPGK[507]), as Brezhnev's attempt to enhance citizen participation in the state compliance system.

Despite Brezhnev's attempts to diminish the KNK's subordination to the Communist Party, the latter retained its control over the former. After the KNK Statute appeared on December 19, 1968, it became evident that the restructuring of the People's Control Institution had been guided indeed by the attempt to expand popular participation in ensuring the proper use of production means and an adequate managerial decision-making.[508] Formally, the 1968 reform canceled the KNK's subordination to the Communist Party. From 1968 on, the People's Controllers reported directly to the Council of Ministers (*Sovmin,* in the case of the Tyumen Oblast KNK on the RSFSR level) and their chairmen were appointed by the Supreme Soviet (in case of the Tyumen district, by the Supreme Soviet of the RSFSR).[509] However, the party's influence in selecting KNK staff de facto remained crucial: CPSU continued to exercise the right to appoint control chairs and their deputies.[510] Thus, 90% of the KNK chairmen stemmed from among the deputy secretaries of party committees. Such appointment criteria guaranteed the ideological conformity of the KNK leadership and their compliance with the CPSU's guidelines. So, any KNK activities had to be consistent with the party directives, including the engagement with the environmental cause.

In contrast, most low-key controllers in West Siberian remote oil-producing localities had no formal party affiliation. They were mainly volunteers, of whom only about 10% had some sort of affiliation with the party or the Communist Youth (VLKSM). At this point, it is useful to emphasize the structural dichotomy of the NK apparatus. Its rather complex network may be subsumed under two main categories: "The Committee Network" and "volunteers." The "Committee Network" comprised the hard organizational core, within which are found, along with a considerable number of unpaid activists ("popular inspectors," organized in "nonstaff" sections), the responsible paid NK managers (affiliated with either the CPSU or the VLKSM), whose job it was to achieve control objectives and recruit volunteers toward this end.[511] "*Aktivisty*" refers to the multitudes of unpaid inspectors who form the groups and posts

[507] KPGK stands for *Komitet Partiyno-Gosudarstvennogo Kontrolia*, Committee for a Party-state Control.
[508] William A. Clark, *Crime and Punishment in Soviet Officialdom: Combating Corruption in the Political Elite, 1965-90,* Contemporary Soviet/post-Soviet politics (Armonk, New York: M.E. Sharte, 1993), 105.
[509] Turovtsev V.I. (ed.) Gosudarstvenniy i obshchestvenniy kontrol v SSSR. AN SSR, Institut Gosudarstva i Prava, (Moskva: Nauka, 1970), 14.
[510] Jan S. Adams, *Citizen Inspectors in the Soviet Union: The People's Control Committee,* Praeger special studies in international politics and government (New York: Praeger, 1977), 97–99.
[511] Jan S. Adams, ""People's Control" in the Soviet Union," *The Western Political Quarterly* 20, no. 4 (1967)., 920

assisting the KNKs. These bodies served as the "organizing centers around which all public control unites."[512] Volunteer workers comprised up to 90% of active controllers Union-wide.

The Tyumen Oblast implemented this structure in the following way. The KNK district headquarters (*oblastnoi komitet*) was located in the city of Tyumen, NK groups in the *raion* centers (for instance, in the towns of Nefteyugansk, Nizhnevartovsk and Khanty-Mansiisk) and smaller NK posts in the remote locales neighboring the deposits (villages and stations). In addition to the territorial NK structure, smaller control groups were formed at enterprises.[513] The total number of People's Controllers in the Tyumen Oblast in 1971 amounted to 147 863 people, or an entire 10 % of the Oblast's population.[514]About a third of the Oblast controllers monitored enterprises of the petroleum complex.[515]

Most of West Siberian popular inspectors did not belong to intelligentsia circles. An example of the KNK composition in the town of Khanty-Mansiisk illustrates this pattern: 90 groups and 70 assisting posts of People's Controllers had 850 participants. 500 out of 850 were workers (59%), over 200 – engineers and technicians (26%), and about 100 specialists and innovators from the agricultural sector (12%).[516] In 1970, in Nefteyugansk and adjacent settlements, Paikovo, Mamontovo, and Karakateevo, 1200 people's controllers were active, while only 120 of them were members of the CPSU and 100 of VLKSM .[517] So, only about 10% of people's controllers were party members, which does indicate a noticeable disconnectedness from the Party, aspired by the 1968 reform.[518]

From 1971 to 1973, the local inspector network at production sites grew, whereas the number of the "central groups" administering the people's control on the *raion* level declined. For instance, in Nizhnevartovsk, the number of the administrative NK groups (comprised up to 90% of the CPSU members and party or Komsomol functionaries) dropped from 50 to 17.

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[512] Pravda, July 31, 1964, 4.
[513] Leonid F. Morozov and Viktor P. Portnov, *Sotsialisticheskii Kontrol' V SSSR Ist. Ocherk* (Moskva: Politizdat, 1984), 21.
[514] GATO f. 1810, op 3, d. 326, l. 18. Oblast population data from the all-Union censuses of 1970 and 1979 is quoted by the Institute of Demography of the Higher School of Economics in its Demoscope Weekly, no. 727 – 728, 1 - 21 May 2017, available at: http://demoscope.ru/weekly/ssp/rus70_reg1.php, accessed May 30, 2017.
[515] According to the December 1971 Tyumen Oblast KNK report 48000 controllers monitored the WSPC enterprises, source: GATO, f. 1810, op. 3, d. 934, l. 127.
[516] GATO, f. 1810, op 3, d. 326, l. 71.
[517] The population of Nefteyugansk in 1970 was 19 675 people according to the 1970 All-Union Census: Demoscope Weekly, no. 729 – 730, 22 May- 4 June 2017, available at: http://demoscope.ru/weekly/ssp/rus70_reg2.php, accessed June 2, 2017.

[518] A German political scientist Georg Brunner analyzed the development of the KNK institution in the USSR in the 1960s and was astounded by the massive character of volunteer participation of the CPSU-unaffiliated population in the units of people's control: Georg Brunner, "Merkmale Des Sowjetischen Kontrollsystems," *Berichte des Bundesinstituts für Ostwissenschaftliche und Internationale Studien* 46 (1968). 2.

At the same time, the number of NK groups monitoring oil mining units locally rose from 33 to 76 and that of smaller NK units (*posty*) from 52 to 79. This expansion of the local volunteer basis of the People's Control in the Tyumen North corresponded with the specificity of production in an oil province: extraction and exploration that comprised the core of the WSPC took place in remote non-urban areas. Such locales were under the supervision of the smaller NK structures – groups and posts – which relied largely on the free-lance working-class inspectors, as opposed to the bulkier and more party-affiliated NK structures in the district centers (e.g. Tyumen). What is more, since most of the controllers monitoring the oil production sites were workers, their educational level was rather low. Only some the KNK managers (less than 50%) had a university diploma or had accomplished a vocational training (*srednee spetsialnoe obrazovanie*).[519] Also, Tyumen Oblast's general educational profile at the time featured low numbers of both college and vocational school graduates compared to both all-Union, RSFSR and West Siberian levels.

This educational pattern is an essential proof of the popular (as opposed to intelligentsia) nature of the KNK involvement in environmental discourse. What aspects of the ecology of oil worried ordinary Siberians, and why? Did the local working-class involved in the people's control offer other solutions to environmental problems caused by *Nefteprom* than ethnographers and journalists?

[519] The drafts of KNK reports, especially originating from smaller groups and posts of the more remote towns, such as Urai, Nizhnevartovsk, Khanty-Mansiisk were not only often presented in hand-written form, but also contained a large number of grammatical and orthographic mistakes. The latter occurred particularly when noting down loanwords used for equipment, such as "reservoir." This feature again illustrates the pattern that the farther away to the North of the oblast, i.e. the nearer to the oil deposits, the lower the educational level of the controllers, see, for instance, GATO, f. 1810, op. 3, d. 579, l. 63-64.
[520] Gavrilova, *Social'noe razvitie neftegazodobyvayushikh raionov Zapadnoi Sibiri 1964-1985*, 257.

Table 1. Education level in the USSR and West Siberia, 1959-1979.[434]

Regions	Number of graduates per 1000 people 10 years of age and older						Number of graduates per 1000 people 10 years of age and older, employed by state enterprises					
	1959		1970		1979		1959		1970		1979	
	higher education	vocational training	higher education	vocational training	higher education	vocational training	higher education	vocational training	higher education	vocational training	higher education	vocational training
USSR	23	48	42	68	68	107	33	67	65	105	100	156
RSFSR	24	53	44	73	71	106	35	73	66	111	101	164
West Siberia	17	47	32	67	-	-	26	70	51	106	-	-
in particular: Novosibirsk Oblast	22	51	43	72	71	117	33	75	67	112	104	165
Tomsk Oblast	21	54	39	70	72	119	34	78	63	111	106	170
Tyumen Oblast	12	48	28	73	59	140	19	70	45	114	83	191
in particular: KMAO	14	61	30	94	68	17520	20	87	43	130	85	213
YaNAO	15	62	33	102	73	187	22	89	49	149	93	234

"There's Fish, But…."

The title of a 1972 newspaper article borrowed for the heading of this section indicates the multiple dimensions of river pollution on which Siberian controllers were the first to shed light.[521] Although the local rivers still produced fish, the pressure the oil industry exercised on them brought along dramatic consequences for the ecosystem. Before KNK began to publish data on the river pollution with crude and petroleum products in the newspapers, it demanded that the WSPC management undertake urgent measures to minimize the contamination of the water bodies. On April 22, 1971, the Tyumen controllers lamented "an outrageous increase of petroleum concentration in the rivers of the Ob-Irtysh Bassin" as the naval maintenance base of the Chief Tyumen Oil and Gas administration (*Glavtyumenneftegaz*[522]) regularly threw oil tailings onto the ice after cleaning its barges.[523] Furthermore, the KNK reported frequent discharge of bilge waters into the rivers by the fleet of *Glavtyumenneftegaz*, *Glavtyumenneftegazstroi,* and *Glavtyumengeologia* (all enterprises serving the Ministry of Oil and Gas and Ministry of Geology).[524] In the eyes of the people's controllers, the impact of the petroleum enterprises on local rivers was inacceptable: "Our inspection has shown an outright unsatisfactory implementation of water protection measures by the fleet of the Tyumen Geological Administration… which we regard as a gross violation of the existing legislation on water protection.[525]" Before describing the action the KNK took to combat river pollution, the cause of the petroleum contamination of the local water bodies will be explained.

One pattern in the development of oil deposits that became a matter of KNK's concern was water injections into the deposit's productive layer that helped maintain high pressure in the layer, which was expected to prolong the gushing of a well. This method became very popular in the Volga-Ural oil province (West Siberia's predecessor). However, from the point of view of geologists and contemporary ecologists, it was impermissible for many segments of the West Siberian strata due to the peculiarities of the local geology and climate. For instance,

[521] N. Trushenkov, "Ryba Est, No…," *Leninskoe Znamia*, March 3, 1972, 2.
[522] *Glavtyumenneftegaz* was the Oil Ministry's largest production organization, responsible for oil production in the Tyumen and the neighboring Tomsk Oblast. For more on the organization and power structure of the West Siberian energy sector see: Han-ku Chung, *Interest Representation in Soviet Policymaking: A Case Study of a West Siberian Energy Coalition,* Westview special studies on the Soviet Union and Eastern Europe (Boulder: Westview Press, 1987), 18–19.
[523] GATO, f. 1810, op 3, d. 328, l.20
[524] Ibid, l.21

[525] Here the Tyumen Oblast KNK mainly refer to the Sovmin's Directive no. 425 from April 22, 1960 "On measures regulating the use of and strengthening the protection of water resources in the USSR," quoted in: "Postanovlenie oblastnogo narodnogo kontrolia o faktakh zagriaznenia rek," April 22, 1971, GATO, f. 1810, op.3, d. 328, l. 2-3.

to extract a ton of crude, 2.2 tons of water were pumped into the production layer in 1969.[526] Such oversaturation with water, on the one hand, resulted in the premature depreciation of an oil deposit. This is what happened to the legendary Samotlor oil field, the largest oil field in Russia and the sixth in the world. It reached its peak production of 158.9 million tons in 1980, after eleven years of production. Instead of the recommended ratio of one injection well per three production wells, each production well was coupled with an injecting one.[527]

Not only did this practice result in the degradation of the productive layer, it oversaturated the strata with water, which inevitably re-entered the local water cycle, contaminating it with oil-related chemicals. However, the Ministry of the Petroleum Industry and the Council of Ministers alike supported such environmentally risky practices, as they provided a quick increase in oil outputs and, therefore, in profitability. The Petroleum Ministry proudly reported that the broad introduction of the "watering technique" allowed to reduce the amount of investment planned for the WSPC construction significantly and achieve 250 million rubles of additional profit above plan for the period of 1966-1970.[528]

Yet, in the eyes of the people's controllers, the method's environmental impact outweighed its alleged profitability massively. The use for such injections of groundwater from the Mesozoicum layer posed an environmental challenge that could not remain out of the KNK's attention. Siberian controllers, especially in Nefteyugansk, meticulously inspected the installation and operation of the storage equipment for the utilized injection waters and published the related violations in the local newspaper.[529] Nizhnevartovsk NK groups documented ruptures of the water injecting pipes, which resulted in the technical water re-entering the groundwater layer. As the injection water carried phenols and other oil-related components, its uncontrolled re-entering of the groundwater layer was problematic as from there it re-entered the Ob basin. Moreover, according to the 1973 study by the Siberian Fisheries Research Institute, some oil extracting divisions even consciously (not accidentally) discarded such technical waters directly onto the ground, from where they re-entered the Ob basin through numerous streams and bogs. Another problem this method caused, that controllers brought to light, was freezing of the injection waters. Due to low outside

[526] A. I͡U Rykun and K. M. I͡Uzhaninov, *Razvitie Toplivno-Ėnergeticheskogo Kompleksa Zapadnoĭ Sibiri: Sotsial'nye I Ėkologicheskie Posledstviia I Perspektivy,* MION - Mezhregional′nye issledovaniia v obshchestvennykh naukakh vyp. 24 (Tomsk: Tomskiĭ gos. universitet, 2010), 39.
[527] Slavkina, *Triumpf i tragediya: razvitie neftegazovogo kompleksa SSSR v 1960 - 1980-e gody* 75.
[528] The planned profit of ten billion rubles was achieved and exceeded by 250 million, i.e. 2.5%, source: RGAE, f.70, op.1, d. 2663, l. 32.

[529] For instance, "Pod Massovyi Kontrol'," *Nefteyuganskiy Rabochiy*, August 24, 1974, 3.

temperatures, injectable water froze around the slide valves of the pumping equipment, leaving them untightened. When due to pumping or to rise of the outside temperature, the loose valves unfroze, crude would start to gush, and tons of it would spill onto the ground and enter the adjacent water bodies.[530]

One more factor that increased the river's susceptibility to oil pollution was the Middle Ob area's economic geography. As after its extraction, crude must be purified and transformed into more useful products, the question of shipping crude to a refinery arose in the Tyumen North. The issue was indeed challenging because in the early 1960s the nearest refinery was located in Omsk, 1600 km Southeast from the most adjacent deposit (Shaim at that time). From its discovery up to the mid 1970ies, oil was transported from the production sites to the refineries by rail and rivers. Until the end of 1973, when the Tyumen-Surgut railway finally reached the Ob floodplain, most traffic in the North of the Oblast went by river. The first heavy extra demands on the river system from oilfield traffic came in 1964 when the first load of 200 000 tons of crude oil had to be moved to Omsk. Both ports and fleet were ill-prepared to meet the challenge, and the pipeline was still under construction.[531] In 1964 the Tyumen shipyard began to build oil tankers to transport oil. The tanker production was lengthy and could not provide the first lots of oil with adequate transport for shipment.[532] The first oil tankers were built out of barges originally intended for timber transport, which lacked the necessary leak-prevention facilities. On May 24, 1964, the first oil tanker NS-1 with the capacity of 2000 tons arrived at the Nefteyugansk deposit, and on May 26, it headed to Omsk, which it only reached two weeks later.[533]

Such inefficient transportation needed urgent alternatives. Only in December 1965, the construction of the pipeline Ust-Balyk – Omsk started, which did speed up the oil shipment upon its completion in October 1967. However, it was only the first and relatively small segment of the pipeline network, too insignificant to loosen the pressure exercised on local waterways by shipments from other deposits. Thus, well into the 1970s, oil was transported by questionably suitable barges, which caused massive leaks.

River pollution with oil and its (by)-products called the attention of the KNK subsidiaries, particularly in the towns of Nizhnevartovsk and Nefteyugansk, as these are

[530] For instance, GATO, f. 1810, op. 3, d. 356, l. 3-4, 80.
[531] Robert N. North, *Transport in Western Siberia: Tsarist and Soviet Development* (Vancouver: Univ. of British Columbia Press, 1979), 201.
[532] For a detailed account of the oil barge construction see: Novomir B. Patrikeev, *Molodezh' v letopisi otkrytiy (1950-1970)*, Khanty-Mansiisk: Poligraphist, 2003, 50.
[533] *Tyumenskiy Sudostroitel*, April 8, 1964, 3.

situated on the riverbanks. People's controllers in these towns sought to alarm a broader public about the river pollution, which they immediately addressed in the regular KNK column "*Listok narodnogo kontrolio*a." Controllers from these towns called the petroleum pollution of the Ob a crime: "*Our* rivers are polluted with petroleum products emitted during ship tanking and due to the existence of too many tanking stations. Water pollution with petroleum products near oil deposits poses a serious threat to the fish inhabiting this segment of the Ob.[534]" The locals noticed the oil pollution of the rivers immediately, as the river water changed color and began to smell and growing amounts of fish died. Furthermore, the daring articles listed the names of the "first delinquents" from the Nizhnevartovsk and Megion oil and gas mining administrations (*NGDUs*) and exploration expeditions. People's controllers described *Nefteprom*'s wrong-doings in detail, stressing that even before the extraction phase, already during the exploration, the prospecting the local NGDUs were reluctant to build reservoirs to collect leaked oil. Instead, significant amounts of wasted oil would go directly into rivers, which caused dramatic contamination of waters and the massive death of fish. As a result, alone the Khanty-Mansiisk fish plant reduced its fish production rate from 40 thousand to 15 thousand tons over the period from 1960 to 1968.[535] Several Ob tributaries lost almost all its fish and turned into the sewer of the oil industry.

To combat the environmental atrocities of the petroleum industry, people's controllers took several actions. With remarkable enthusiasm, the Neftezugansk KNK published its concern about the magnitude of oil spills into the local rivers and the journey of the leaked oil in the environment. A.Mechanov, an engineer at the Surgut Water Inspection and an active controller, published an article "Protection of water to be controlled strictly" in the February 13, 1971 issue of the *Nefteyuganskiy Rabochiy*. Mechanov reported on the joint examination, conducted by the Nefteyugansk KNK and the Surgut branch of the North Ural Water Inspection at the sites under exploration by the local enterprises (Mamontovsk Drilling Division and Yuganskneft Oil and Gas Mining Directorate, or NGDU). A remarkable feature of this report is the publication of detailed pollution data, for instance, on the oil spills in the area subject to the Mamontovsk Drilling Division. The newspaper informed its readers of the 2000 square meters of the (oil) field surface covered with petroleum and its derivatives. The author explained that although this area did not directly border the rivers, oil would still get washed off the ground by the rain and by the drilling fluids and, as a result, enter the Bolshoi Balyk

[534] Trushenkov, "Ryba est, no…"
[535] E. I. Gololobov and M. S. Mosotvenko, "Rybolovnoe I Ohotnich'e Hozyajstvo Severa Zapadnoj Sibiri V 1960–1980-E Gg.: Ot Promysla – K Otrasli," *Vestnik Ugrovedenia*, 3 (26) (2016): 114.

River inevitably. As for the nearby fuel warehouse, oil products were being spilled here regularly as a result of improper tanking. An oil layer covered sixty square meters of the warehouse territory. A large amount of crude oil had been spilled along the pipeline, covering the area of 100 square meters. All these tailings entered the Bolshoi Balyk with the rain. On January 28, 1970, as a result of a pipeline rupture on the Mamontovsk field, about 500 tons of oil leaked. This pipeline served the NGDU Yuganskneft, which, as controllers noted, avoided the regular state inspection, and thus, all this oil landed in the Ob.[536] In total, for 1970, only in the Nefteyugansk area, the KNK documented 700 tons of leaked oil due to pipeline ruptures. This data entered the Controller's Column of the local newspaper.[537]

In addition to alarming the public about oil spills and the resulting river pollution in the press, the KNK sought a practical solution to the issue of ill-advised tanking. As a chair of the TO KNK, Timofey E. Pakhotin had the authority to request the participation of competent authorities in any issue where People's Control encountered breach of the established norms.[538] Thus, he asked for the involvement of the North Ural Inspectorate of Use and Protection of Water Resources (the regional subsidiary of the Ministry of Melioration and Water Management of the RSFSR) to tackle the problem of petroleum pollution of rivers. In response, the North Ural Water Inspectorate issued a statement on December 10, 1970, in which it blamed the "departmental approach" for the dramatic pollution levels. What they meant here by the "departmental approach" (*vedomstvennost'*) is the unnecessary duplication of providers of services and materials, and in the fleet case, the overcrowding tank stations for the ships: "Typically you find as many tank stations on one route as there are departments involved in the navigation.[539]"

Timofey E. Pakhotin, with his NK network, set out to combat departmentalism as, in his view, it was the major systemic flaw and the source of all evils. In contrast to Novosibirsk scholars, who later also became concerned with departmentalism but merely resented its existence without providing any practical solutions, Pakhotin was the first to take concrete steps to combat the evils of the poorly coordinated inter-ministerial work.[540] In December 1970,

[536] *Nefteyuganskiy Rabochiy*, February 13, 1971, 3.
[537] Gorshenin, "Poteriam nefti - zaslon," 2.
[538] The major nature protection directives violated by Nefteprom were, among others, the Council of Ministers' "On measures to combat pollution of the Ob-Irtysh Bassin" from September 9, 1963 (source: GATO, f. 1810, op. 3, d. 26, l. 39-42), and "On measures regulating the use and enhancing the protection of water resources in the USSR" (Directive No. 425, April 22, 1960, source: ibid, l. 34-37.)
[539] GATO, f. 1810, op.3, d. 356, l. 21
[540] In his speech to a special session of the USSR Academy of Sciences in Novosibirsk in April 1971, country's leading economist, academician Aganbegian called the uncoordinated work of ministries a major hurdle for the development of Siberian industrial complexes: Abel Aganbegian, "Ob investitsionnykh programmakh perspektivnogo razvitiia raionov Sibiri i Sredney Azii," *Ekonomika i organizatsiya promyshlennogo proizvodstva*,

in cooperation with the North Ural Water Inspectorate, Tyumen KNK issued an action plan to counter the "inacceptable situation with petroleum content in Tura and adjacent rivers.[541]" It demanded an arrangement of a common bunkering base for all ships of all departments along the routes between Tyumen, Tobolsk, Ust-Akha, Surgut, and Salekhard.

The action plan prohibited the use of tanking facilities, which did not use closed bunkering. It required installing standard-conform bunkering bases along each route, which had to be connected to storage barges, designed for the mechanized reception of bilge waters from ships. The new directive reduced the number of tanking stations by 30% and abolished the principle "each department and each enterprise has its own tank stations." Also, upon the KNK suggestion, the Water Inspectorate obliged all involved departments to turn in bilge waters to the responsible collecting facilities on a contract basis and lamented the unwillingness of the construction unit of the Tyumen oil and gaz industry (*Glavtyumenneftegazstroi*) to recycle bilge waters for 3.62 Rubles per ton.[542]

To ensure the proper implementation of the action plan, Pakhotin organized a meeting "On the facts of petroleum pollution of the Rivers of the Ob basin" on April 22, 1971. As Pakhotin believed that pollution could only be stopped when all responsible industries and departments collaborated, he invited the following heads of the responsible departments and experts: [543]

no. 6 (1971), 9. Aganbegian repeated this thesis eight years later in his note to the deputy first *obkom* secretary Bogomiakov on December 6, 1979. However, again without any practical suggestions on how to combat departmentalism effectively. His only offer had a typical top-down character and had the potential to only expand the bureaucratic apparatus that provided a fruitful ground for departmentalism. The economist suggested appointing a special commission for the West Siberian oil and gas industry within the Minister Council in Moscow that would coordinate the work of various ministries from Moscow, source: GASPITO, f. 124, op. 219, d. 107, l. 120-122.

[541] GATO, f. 1810, op.3, d.356, l. 26.

[542] Ibid

[543] GATO, f. 1810, op.3, d. 328, l. 2

	Name	Position	Organization
1	Khudik V.T.	chief sanitary physician	Tyumen subsidiary of the Soviet Railways
2	Yakovlev E.S.	engineer	Maintenance division of the fleet of *Glavtymengeologiya*
3	Tolchayev Yu.G	Chief engineer	Maintenance division of the fleet of *Glavtymenneftegas*
4	Kutuzov V.I.	Deputy head, responsible for floating of timber	Tyumen Timber Combine "Tyumenles"
5	Negodova V.F.	Inspection engineer	North Ural Basin Inspection
6	Kislichnaya O.V.	Inspection engineer	North Ural Basin Inspection
7	Ugrebnikov Yu.A.	Chief physician	Sanitary & Epidemiological Service of the Tyumen Shipping Company, Member of the TO KNK task force
8	Trushenkov N.P.	Inspector	Nizhnevartovsk Fish Protection Inspectorate
9	Zhernovnikova G.A.	Biologist	Siberian Fisheries Research Institute (Sibrybniiproekt)

The inclusion of the versatile expertise generated a vast pollution data analysis attached to the TO KNK's resolutions. This method provided an alternative to the conformist reports on the state of environment issued by the departmental nature protection offices. According to Vartanov and Roginko, environmental research in West Siberia received funding mainly from the Ministry of Construction of Oil and Gas Industry Enterprises.[544] Such environmental protection departments functioning within the ministries' structure served more to cloud and conceal the real situation than to clarify it.[545] KNK created a viable counterweight to the "departmental" environmental (pseudo)expertise as it invited conflicting departments and enterprises as well as industry-neutral scientists to jointly discuss oil pollution and published significant amounts of pollution data.

[544] Raphael V. Vartanov and Alexei Yu. Roginko, "New Dimensions of Soviet Arctic Policy: Views from the Soviet Union," *The Annals of the American Academy of Political and Social Science* 512 (1990), 76. The Ministry of Construction of Oil and Gas Industry Enterprises was created as an all-Union ministry in 1972 to administer the work of laying pipelines and building other infrastructure needed for the oil and gas industry.
[545] Ibid.

KNKs cooperated with research institutes to have impeccable proof and reliable data on water, air, and soil quality. People's Control worked, among others, with experts from the water control board of the Ministry of Melioration and Water Management (North Ural Inspection of Use and Protection of Water Resources), with the local stations for Sanitary & Epidemiological Service and the Inspectorate for Fish Protection. This KNK's attempt to collect environmental data and expertise from several organizations of varying accountability and disciplinary profile is historically significant, as the State Nature Protection Committee (*Goskompriroda*) was assigned with such tasks on both all-Union and regional levels seventeen years later, in January 1988.[546] During Pakhotin's term in office, such conferences involving decision-makers from conflicting ministries as well as researchers and the district's public health officers (i.e., non-affiliated with a particular industry or enterprise) became regular both on the *oblast* and *raion* level.[547]

Cultural Constructions of Nature and Sibiriak Environmental Ethics

The scale of river pollution and especially the material loss resulting from fish extinction was so dramatic that it called the attention of the all-Union popular monthly journal "Priroda.[548]" The journal's entire 1968 February issue dealt with the risks that petroleum production posed to fish and marine environment both globally and in the Soviet Union. An article by B.G. Burdiyan, director of the department of fish farming and amelioration of Siberian Fishery Administration, tackled pollution of the Waters of the Ob-Irtysh Basin.[549] Dispelling the myth of resource abundance so deeply rooted in Russian and Soviet culture, the biologist demonstrated the vulnerability of the river and its inhabitants in the face of the petroleum threat:

> Not so long ago, in the 1950ies, the fish stock in the rivers of the Ob-Irtysh Basin was considered inexhaustible. Nowadays, many are puzzled by a question: where did the fish go? Since the beginning of the exploitation of the colossal deposits of oil and gas in the Tyumen Oblast, a real threat of an impermissible pollution with petroleum products is posed to the waters of the Ob-Irtysh basin… Thus, last fall [1967] due to negligence (*khalatnost'*), the prospecting expedition discarded 600 liters of fuel into the Novy Port bay directly onto the spawning grounds of Coregonus albula.[550]

[546] Laurent Coumel, "A Failed Environmental Turn? Khrushchev's Thaw and Nature Protection in Soviet Russia*," *The Soviet and Post-Soviet Review* 40, no. 2 (2013), accessed May 11, 2018, 185.
[547] For instance, the NK groups in the Nizhnevartovsk raion, an area notorious for the violations of measures to combat oil loss and general nature protection policy, organized such a meeting in March, 1972, Nefteyuganskiy raion – in April 1974, on the oblast level the next such session took place in 1976.
[548] The journal "Priroda," which translates as "nature" was issued monthly by the Academy of Sciences since 1912.
[549] B. G. Burdiyan, "Zagriaznenie Ob-Irtyshskogo Basseina," *Priroda*, no. 2 (1968) 88-89.
[550] Ibid., 88.

Although Siberian academia, similarly to the people's control, was concerned with the recklessness of petro-geologists, it focused on the declining productivity of the river as a fish provider, thus prioritizing the economic utility of nature. In contrast, it was not the material loss of the fish industry that caused the controllers' rage about the river pollution. Two main reasons for their indignation were the dramatic decline of their access to the local fishing grounds and the vanishing function of the river as a medium of cultural memory. Building on Guido Hausmann's thesis that rivers have been a complex space and an essential medium for national memory, and following Dorothy Zeisler-Vralsted's assertion that rivers as nation-builders co-construct a people's uniqueness, I argue that the Ob has developed as a place of local memories and cultural practices, constituting the otherness and non-conformism of Siberian settlers vis-à-vis Moscow.[551]

As the Ob was rapidly transformed into an infrastructural element of the petroleum complex, its cultural role as a holder of those memories of becoming a *sibiriak* was at risk. Precisely the fishing practice, that first developed as an expression of *sibiriak's* identity and ability to survive without Moscow's patronage, starting from the early 1970s mirrored the vulnerability of this aquatic landscape under petrolization. For West Siberian non-indigenous communities, fishing was a semi-subsistence activity which compensated for the insufficient state food supplies. The climate and soils of the Tyumen North were not suitable for traditional agriculture on a scale adequate to provide locals with sufficient nutrition. This scarcity required peasants to pursue additional forms of subsistence outside the short growing season.[552] Thus fishing became a significant method of acquiring food. Subsistence fishing persisted over centuries and became a central element of the *sibiriak's* relations with the local nature.

Siberian rivers determined the physical and socio-cultural wellbeing of the inhabitants of their shores. *Sibiriak's* connection to the river is one of the central elements of their cultural portrait drawn by Balzer, who defines the *sibiriak* identity as a product of the interactions between the Russian pioneers (predominantly such non-conformist subjects of the Russian state, as Old Believers, exiles, and peasants trying to escape authorities) and the indigenous peoples. As these interactions mostly took place along the rivers and in the backwoods settlements, the role of these landscapes for the formation of the *sibiriak* identity was crucial. Due to the Khanty dominance in the backwoods of the eastern and northern parts of West Siberia in the pre-revolutionary time their influence on the Slavic newcomers is identified as

[551] Hausmann, *Mütterchen Wolga*; Dorothy Zeisler-Vralsted, *Rivers, Memory, and Nation-Building: A History of the Volga and Mississippi Rivers,* The environment in history 5 (New York: Berghahn, 2015).
[552] Hartley, *Siberia*., 60.

"Khantization of Russians.[553]" It was Khanty who taught settlers from the Big Land to fish in the Ob. Russian settlers learned to apply Khanty fishing techniques, methods to cook and store fish, and adopted the indigenous ceremonies that accompany cooking and eating.[554]

Before being interrupted by petroleum exploration, this knowledge transfer from the indigenous to the settlers was continuous and persisted even during the Great Patriotic War and the first post-war decade. During the War, those population groups stigmatized as the national enemy, in West Siberia were seen as humans in need of help. When in 1941, the Soviet government deported Germans from the Volga region to Siberia (to avoid possible collaboration with Nazi invaders), the natives shared their supplies of dried fish with them and gave them fishing nets with the instructions on where and when to place them.[555] Left in the middle of taiga by the convoy, without any infrastructure or goods from the Big Land, all the exiles were equal before the natural world. When medical emergencies occurred, the only available medical care was Khanty healing practices. The reliance of the settlers on traditional knowledge and the eagerness to apply it were central elements in molding the deportees into *sibiriaki*. Here is how Vladimir Sedykh, a topographer from an oil prospecting expedition in 1962, described the role of indigenous knowledge in transforming the new settlers into *sibiriaki*:

> She [a Khanty woman] fed him [a Volga German deportee in a critical condition] with the local fish, gave him tea with cranberries, huckleberries, and blueberries, and made him into a *sibiriak*… How did Germans become *sibiriaki*? By marrying Khanty girls and having beautiful, strong children, like these strong guys (*molodtsy*) sitting at our table.[556]

Later such settlers identified as *sibiriaki* and viewed their mission in life twofold: following Marxist principles of socialist production based on communal means and shared produce and protecting Siberian nature that saved their lives and provided their community with all the necessities, including physical and spiritual health.[557] The distinctive feature of these newly-baked *sibiriaki*'s vision of state power – nature relation was their support of the regime. Not only did they not oppose socialist construction in the North, they even strove for the so-called "taiga communism," convinced that the local landscape and their subsistence agriculture offer a perfect setting for implementing the Marxist model.

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[553] Balzer, *The tenacity of ethnicity: a Siberian saga in global perspective*, 50.
[554] Zoya Petrovna Sokolova, *Legendy Vut-Imi: Puteshestvie Po Obi I Ee Pritokam K Khanty I Mansi,* Yugorskie rossypi (Surgut: AIIK "Severnyĭ dom, 1993), 26
[555] Sedykh, "Kommunizm v debriakh sibirskoi taigi," 171–73.
[556] Ibid.
[557] Ibid, 174.

The above excursus illuminates the difference between two categories of newcomers to West Siberia. "Settlers" who came with eagerness to live in harmony with the natural world, which in turn molded them into *sibiriaki* were worlds apart from the *neftainiki* (WSPC employees) brought to the region by the oil industry. Making sense of this difference in ways to view Siberian nature is fundamental to understanding the dichotomy "*sibiriak* versus newcomer," which became the leitmotif of the NK's involvement in nature protection. The "enemy" as the most coherent element of nascent ecology movements[558] in the Siberian case was the employee of the WSPC who arrived in the area to conquer nature and earn the so-called "long ruble" (*za dlinnym rubliom*).[559] Seasonal work at the WSPC enterprises was indeed a lucrative undertaking. Compared with the USSR salary average of 148 rubles, a 360-ruble average in KMAO in the late 1970s, as well as a 640-ruble average oilman salary in the Arctic areas of the Tyumen North, appear impressively high indeed.[560] In addition to the 70% "Nordic bonus" to their salary, and yearly 10% raise, the incoming employees of the oil sector received significant lump sums to settle in the climatically challenging areas of their new work and enjoyed various other benefits, such as longer paid vacations.[561] High salaries in the Siberian oil sector, on the one hand, attracted more and more seasonal workers to the area. On the other hand, Siberian bonuses raised the number of adepts of the philosophy of "tribute-taking,[562]" who headed to the region to earn money and viewed the fragile Siberian nature as a source of material wealth. Prioritizing the short-term economic advantage was often coupled with the disregard for dramatic long-term environmental costs:

> I saw sad and strong men arriving here obstinately to drudge for long rubles so needed to afford a *dacha* or a car. But, what was the price of this recruitment? A healthy soul. Had their soul remained healthy, they would have built differently.[563]

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[558] LeMenager, *Living oil*, 31.

[559] The lucrative character of WSPC employment became a widely known. The "long ruble" metaphor even entered contemporary poetry, see, for instance, Anatoliy Kukarskiy, *Mne Rasskazal Samotlor* (Sverdlovsk: Sredne-Uralskoe knizhnoe izdatelstvo, 1978), 14.

[560] On Nordic bonuses see, e.g. Rykun and I͡Uzhaninov, *Razvitie toplivno-ėnergeticheskogo kompleksa Zapadnoĭ Sibiri*, 73. For an example of wages in the oil producing enterprises located in the farthest Northern corners of Tyumen oblast, see Slavkina, *Triumpf i tragediya: razvitie neftegazovogo kompleksa SSSR v 1960 - 1980-e gody*, 99.

[561] The so-called "Nordic bonus" varied from 15 to 70% depending on the industry. From 1960 until the mid 1980s the highest rate of 70% applied almost exclusively to the wages of Nefteprom employees of KMAO and YaNAO, see Gavrilova, *Social'noe razvitie neftegazodobyvayushchih raionov Zapadnoi Sibiri 1945-1985 gg.*, 50.

[562] "Tribute-taking" as a concept applied to the relations of the Soviet society with the natural world is used in the sense coined by Douglas Weiner, see Douglas R. Weiner, "The Genealogy of the Soviet and Post-Soviet Landscape of Risk," in *Understanding Russian Nature: Representations, Values and Concepts*, 4 (2005), ed. Arja Rosenholm and Sari Autio-Sarasmo, Aleksanteri papers 4, 2005 (Helsinki: University of Helsinki Aleksanteri Institute), 4 (2005):216.

[563] Kukarskiy, *Mne Rasskazal Samotlor*, 14.

Such critique of the "tribute-taking" and notably its transformative effect on the Siberian rivers went beyond KNK reports to become a persistent element of the regional water narrative. As rivers run not only in the physical space but also in the symbolic realms of cultural identity and literature, the critique of *Nefteprom*'s exploitation of the river initiated by the KNK's resonated with the broader public and found its expression in local poetry.[564] The river's suffering under the burden of the petroleum industry became one of the themes in a collection of poems by a Siberian journalist and writer Anatoliy Kukarskiy. Since 1963, Kukarskiy worked in Salekhard (the administrative center of the Yamalo-Nenets National district in the Arctic part of the Tyumen Oblast, situated at the inflow of the river Polui into the Ob) as a correspondent for the newspaper "Tyumenskiy Komsomolets." In 1973, as a member of a "creative brigade" (*tvorcheskaya brigada*, a group of journalists and writers), Kukarskiy was sent to the legendary Samotlor deposit, to work on an epic poem about the oilmen.[565] Such literary assignments by the state were a normality of the time and a financial necessity for writers. Thus, the epic poem "Samotlor has told me" ("*Mne rasskazal Samotlor*") was published in 1978 as a state order (*gosudarstvenniy zakaz*). A classic of the genre, this piece was supposed to praise the success of the Soviet proletariat in erecting an unprecedentedly large oil complex in a harsh climate. All the more impressive is Kukarskiy's inclusion of the environmental dimension into this volume, particularly his portrayal of the river as a victim of *Nefteprom*, suffocating from oil:

Water's Voice [566]

From the Ob, the Tura, the Tobol,
Like the obedient cables of LEP,[567]
I flow, I follow you
I am water, I am water, I am water
I will spill as an unexpected song,
These river riches are forever yours.
Wash yourself and quench your thirst with me,
And let your steel horse drink.
I am happy when you touch me, while I am following you.

[564] For discussion of water's constant presence in Russian philosophy, literature and aesthetic imagination, see Jane T. Costlow and Arja Rosenholm, eds., *Meanings and Values of Water in Russian Culture,* Routledge studies in modern European history 34 (London: Routledge, 2017).
[565] "Poet iz Dalekikh Semidesiatykh," *Tyumenskaya Pravda*, issue 12, April 3, 2016, Available at: http://tyum-pravda.ru/obshestvo-main/3558-poet-iz-dalyokih-semidesyatykh, accessed August 08, 2017.
[566] Anatoliy Kukarskiy "Golos vody," in Kukarskiy, *Mne Rasskazal Samotlor*, 86–87.
[567] LEP, or *liniya electro-peredach*, is the Russian abbreviation of the power transmission line.

I am not asking for any rewards. Just be, just be, just be!
Don't play around by shooting at the living creatures.
I am telling you with all my heart:
If you wish I will endow you with sturgeon, sterlet and muksun.
There is no evil intention in it – you have a golden soul-
But under a rainbow-colored film of oil I sometimes cannot breathe.
Knowing your wisdom and zeal of your endless workdays,
I am begging you for mercy,
I am water, water, water.

In the first half of the poem, Kukarskiy portrays a subordinate nature, which serves the workers constructing an industrial giant on its shores by providing them with water, food and a transportation artery. Integrated into a petroleum complex, its waters began to flow obediently like electricity in the cables of the power transmitting lines. This metaphor shows the accomplished conversion of the river into an infrastructural element. When the river promises to reliably feed the oilmen with fish and quench their thirst with water, it echoes the KNK reports, notably, Trushenkov's "There is fish, but…" Resembling his landsmen, who volunteered for the KNK, Kukarskiy did not seek the comeback to the pristine nature but instead called to protect the more sustainable human-nature relations that the locals had established and practiced for centuries before oil. Thus, Siberian environmentalism was of a rather progressive type, inclusive of different forms of human and non-human coexistence. Sibiriak's moral principles required rejection of notions of linear progress, which constituted the baseline of the petroleum project. The issue of oil pollution brought to light by the people's controllers reverberated in Kukarskiy's poetry as an attempt to re-orient the society toward an immanent concern and care for nature in its non-industrial function.

To do his job as a Soviet journalist properly, Kukarskiy had to show the success of the project and the nature's adequate functioning within the newly built infrastructure. To fulfill his duty as a *sibiriak*, the author gave nature a voice, which gained an alarming tone, when in the second half of the poem, the river is depicted as being suffocated by the petroleum film. The "river's voice" is a channel for *sibiriki*'s concerns with the transformation of landscapes, which comprised their cultural identity. In the poetry designed to praise the oil workers, who were employed mostly from migrants and on a seasonal basis (*vremenshiki*), there was no place for an explicit critique or disappointment on behalf of *sibiriaki*, i.e., the dichotomy "Sibirian vs newcomer" would not have fit. Therefore, Kukarskiy made the water speak for *sibiriaki* and revealed a more profound emotional meaning of the river as a Siberian cultural landscape,

which did not vanish in the years of petrolization, but gained momentum in the discussion of the oil's dark sides.

As recent research has demonstrated, river narratives are essential parts of cultural history, as representations and perceptions of a river "play culturally key roles in the master narratives of Russian and Soviet history.[568]" The discussion of the burden *Nefteprom* inflicted on the West Siberian aquatic landscape went further to politicize the vulnerability of the *sibiriak* culture so deeply interwoven with the river. As *sibiriaki's* dealings with oil's impact on the river openly criticized the management of the country's leading and second strategically most important industry (after the military sector), they unveiled the collision between the *sibiriak* and the CPSU visions of nature.

The collision between the locals' and mercenaries' nature perceptions became a common theme for nearly all controllers' publications. This ever-present dichotomy "we the locals" vs. "they the newcomers" in the KNK reports backed by the KNK cadre statistics[569] indicates that most people's inspectors in the field identified as *sibiriaki.* Although it is virtually impossible to trace the *sibiriaki* roots for all people's controllers, whose environmentally critical reports were either published or stored in West Siberian archives, the discussion they initiated unveils their attachment to the natural environment and the related ethics of responsibility and care for it. In their portrayals of the environmental harm caused by *Nefteprom*, people's controllers expressed the fear of alienation from their "native" (*rodnaya*) nature. As Ursula Heise persuasively argues, modern societies generate this alienation and thus challenge the locals' sense of place.[570] In West Siberia, petrolization was the vehicle of this alienation, whereas in the *sibiriak's* eyes, the newcomers, brought to the area by the oil industry, were the agents of this process.[571]

Such ethic of stewardship towards Siberian nature was characteristic of the leader of the *oblast* KNK, Timofei Evtifeevich Pakhotin. Born in 1923 in the South of West Siberia in Voznesenskoe village (the Kurgan District) Pakhotin first became a devoted agricultural manager (in his position of the *raicom's* chairman) in Yalutorovsk, defending the raion's interests at the district level. Thus, he protected Yalutorovsk agriculture from the center's

[568] Costlow and Rosenholm, *Meanings and values of water in Russian culture*, 3.
[569] GATO, f. 1810, op. 3, d. 791a, l. 54, 57, 60, 61, 64,
[570] Ursula K. Heise, *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (New York, Oxford: Oxford University Press, 2008), 28–29.
[571] The population of the Khanty-Mansiisky Autonomous Region, where most of the West Siberian petroleum deposits are located, doubled from 1959-1970, as mainly due to the inflow of work migrants it grew from 123.8 to 270.8 thousand people in the respective years, see E. D. Malinin, A. K. Ushakov, *Naselenie Sibiri*, (Moskva: Statistika, 1976), 70.

irrational orders to increase the production of grain and flax, which would have been a disaster given the local climate.[572] At a plenary session of the Tyumen *obcom* on June 15, 1965, he convinced his superiors of not changing his raion's agricultural profile and let it further develop within its meat and dairy specialization as the local natural conditions favored. Thus, already at an early stage of his career, Pakhotin presented himself as a passionate advocate of the more sustainable management of Siberian natural resources.

Pakhotin's view of human-nature relations was likely to have been influenced by *sibiriak* religious tradition that, along with the Khantization, discussed above, absorbed a few elements of the Old Belief. A remarkable cultural pattern is visible in all loci of Pakhotin's career: all his places of work were centers of West Siberian Old Belief. The West Siberian settlements of Old Believers were situated, among others, in the Voznesenskoe village, in Yalutorovskiy, Berdiuzhskiy, and Tyumenskiy *raion's* – all stations of Pakhotin's biography.[573] Moreover, Pakhotin's patronymic "Evtifeyevich" indicates that his father's family originated from the Old Believer community.[574] The last name "Pakhotin" is categorized as a *ostrozhnyi* peasant name, who migrated to the Dolmatovskiy Raion (another center of the Old Belief) of the Kurgan District from the Mid-Urals in the late seventeenth century.[575] As the recent scholarship demonstrated, religion retained its place in the USSR. Since the labels "Soviet citizen" and "religious believer" described not two differentiated sections of society, but often the very same individual, figures like Pakhotin could pursue a political career as a Komsomol official and a chairman of the oblast KNK and act in accordance with his system of beliefs and the traditional

[572] Yalutorovskiy is situated in the forest-steppe zone in the South of the Tyumen Oblast and is characterized by continental climate with long cold winters and average precipitation rates of 360 mm/year, see: http://yalutorovsk-mr.admtyumen.ru/mo/Yalutorovsk-mr/economics/apk.htm, accessed May 23, 2017. These precipitation rates are quite low for flax production, which traditionally requires 450 to 750 mm of *rain*. Due to significant temperature fluctuations (with only 115 to 130 days a year having temperatures above zero degrees centigrade) the oblast is situated in the zone of risky agriculture. It has traditionally specialized in diary and meat production, with a stronger diary segment represented by a milk giant "Milk Combine Yalutorovskiy," founded in 1936 and overtaken by Danone in 2010 (http://www.danone.ru/o-kompanii/nashi-regiony/divizion-ural.html).

[573] For a detailed account on the topography of the Old Belief in West Siberia, see Vaselina A. Ryabceva, "Migracionnye Potoki Staroobryadcev V Zapadnuyu Sibir'," *Vestnik Kemerovskogo gosudarstvennogo universiteta kul'tury i iskusstv*, no. 24 (2013): 65. For Pakhotin's contribution to the development of the local agriculture, see: Dzhalinda Zavodovskaya, ed., *Tyumenskaya Derevnya. Dalekaya I Blizkaya,* 11 vols. 4 (Tyumen, 2010), 264; Nikolai Ol'kov, *Sineokaia Storona: Ocherki Istorii Berdiuzhskogo Raĭona Tiumenskoĭ Oblasti* (Shadrinsk: Shadrinskiĭ Dom Pechati, 2010), 37.

[574] On the religious origin of Russian names see: Serafima E. Nikitina, "Ob imeni sobstvennom v russkikh konfessionalnykh gruppakh," in *Semiotika, lingvistika, poėtika: K stoletiyu so dnia rožděniia A. A. Reformatskogo*, ed. Viktor A. Vinogradov (Moskva: Iazyki Slavianskoi Kul′tury, 2004), 547

[575] Aleksey G. Mosin, "Istoricheskie Korni Ural'skih Familiy: Opyt Istoriko-Antroponimicheskogo Issledovaniya" (2002), 18.

Siberian notion of nature.[576] Although no record of Pakhotin's religious practice was available for this study, the environmental ethics of the Old Belief left a conspicuous mark in his actions as the KNK leader. Pakhotin's biography speaks of his connection to the Old Believer ethics and "nativeness" to the place. The controller's emotional attachment to his native land, influenced by the Old Belief and practiced through wise agricultural management during his pre-KNK career, constructed the basis of his ethics of responsibility for this place.[577]

Oil-related Deforestation

As we have seen, the quintessence of Old Believer environmental ethics has been a reverential attitude toward rivers and protection of their purity. Similarly to river pollution with oil and petroleum products, clogging rivers with logged trees became central to KNK's nature protection activities. Influenced by a synergy of the Old Believer and the indigenous ethics, the locals honored the river, animated it in their narratives, compared it to a human body, and tried to preserve it by "removing dead trees and impurities.[578]" According to Klubnikin et al., the quite numerous West Siberian Old Believer communities until today carefully observe this tradition.[579] *Nefteprom* seriously challenged such practices by two major activities: firstly, by cutting the river-neighboring forests and discarding them into the water bodies, and secondly, by causing leaks of crude and petroleum products. Controllers reacted vehemently to such wrongdoings. Pakhotin's crew went out to the river shores and photographed the cases of *Nefteprom*'s negligent dealings with the local rivers. Thus, a series of eighteen photographs documenting unauthorized logging and dumping of unutilized timber and construction rubbish into rivers accompanied the KNK reports.

[576] On the co-existence of religion and Soviet ideology in the 1960s village see: Stone, ""Overcoming Peasant Backwardness": The Khrushchev Antireligious Campaign and theRural Soviet Union", 316. For a more region-specific study of Siberian religious landscape see: Gorbatov, *Gosudarstvo i religioznye organizacii Sibiri v 1940-e - 1960-e gody*.

[577] On the sense of place as a prerequisite for environmental awareness and action see: Heise, *Sense of place and sense of planet*, 33.

[578] Galina S. Lyubitskaya and Ivan L. Shevnin, "Religioznoe Mirovozzrenie Staroobryadtsev I Ikh Sotsial'no-Ekologicheskie Praktiki," *Vlast' i upravlenie na Vostoke Rossii* 81, no. 4 (2017): 226, doi:10.22394/1818-4049-2017-81-4-223-229.

[579] Kheryn Klubnikin et al., "The Sacred and the Scientific: Traditional Ecological Knowledge in Siberian River Conservation," *Ecological Applications* 10, no. 5 (2000): 1300.


Figure 21. Photographs of river clogging taken by People's Controllers in KMAO, 1973.[580]

In their investigation of river clogging, Siberian controllers opened one more thematical bloc in their environmental debate, as it was inextricably connected with yet another crucial natural realm, which often lay immediately at the river's shore. Following water pollution, in September 1973, the KNK began to tackle the oil-related deforestation and improper utilization of timber logged to clear up spaces for oil mining:

> Ministry of Construction of the Oil and Gas Industry Enterprises and the Ministry of Energy and Electrification of the USSR demonstrate their improvident attitude to forest riches. During the construction of pipelines and power transmission lines forests are not simply logged, but dozed, which results in heaps of wood on the roadsides and leads to the death of valuable timber.[581]

Tyumen people's controllers were the first to bring up the issue of oil-related deforestation in Siberia. They documented unauthorized logging in the proximity of oil fields. To free up access to the exploration and drilling sites, *Nefteprom*'s construction units often logged trees without the permission of the Forestry Department. Such practices resulted in massive unauthorized captures and the elimination of forests. According to the local subsidiary of the State Committee of Nature Protection (*Goskompriroda*), from 1964 to 1985, the oil and gas industry together received 580 000 hectares of forest land for drilling, deposit development and supporting infrastructure and "captured 28% of this amount additionally without the required

[580] Two of eighteen photographs of Torskoe forestry and the Malaya Sosva river taken by the KNK groups in Sovetskiy raion of the Khanty-Mansi Autonomous District in 1973, source: GATO, f. 1810, op.3, d. 356.

[581] GATO, f. 1810, op. 3 d. 328, l. 32

permission.[582]" Thus, a territory of 162 400 hectares, an area almost seven times as large as the Bavarian forest,[583] was unlawfully seized and deforested. All these unauthorized captures of forest lots were accompanied by illegal logging. The magnitude of such logging reported by the KNKs was tremendous. For example, only one enterprise of the WSPC, namely the Priob'e pipeline construction trust, while clearing the territory for its works on the right shore of the Ob logged illegally an average of 6 300 cubic meters of cedar, pine, spruce and birch per month in the Oktiabrsk raion of the KMAO. Also, the construction trust damaged over 90 000 young trees (under the age of ten years) of the same species per month.[584] Such "territory clearing" was a common practice among the prospecting, construction, drilling, and production divisions of the petroleum complex, as controllers regularly reported terrifying cases of forest destruction: logs were thrown into the river and blocking fish spawning routes.[585]

In their dealings with deforestation, people's controllers distinctly moved away from the utilitarian concept of nature. The KNKs advocated the culturally rooted understanding of *priroda*, connoting "all life in the biosphere" as well as a moral realm.[586] Therefore, in their eyes, neglecting *priorda's* inherent value was immoral. This understanding becomes visible in such expressions as "loss/death of timber," which first appeared in the KNK resolution on September 04, 1973, where Pakhotin emphatically described his concern about excessive logging by using the verb *"gibnet"* (dies): "Wood thrown indifferently next to the trails dies (*gibnet*), creating fruitful conditions for forest fires and pests.[587]" *Gibnet* is an emotionally strong verb describing an act of tragic death. The choice of this verb illustrates the protagonist's affection with the forest and compassion with a previously living organism. What is more, *gibnut'* implies an agency, demonstrating that *sibiriaki* animated the forest.

Controllers' vision of nature combined notions of utility and admiration. Therefore, in their eyes, delinquents were those indifferent to nature's beauty and its non-industrial meaning, those who could ruthlessly kill trees and leave them to rot. Consequently, those concerned about the forest and taking care of its inhabitants, for instance, local hunters, were worthy

[582] GATO, f. 2269, op.1, d. 24, l.40
[583] The area of the Bavarian Forest National park is 24 250 hectares, see: https://www.nationalpark-bayerischer-wald.bayern.de/ueber_uns/steckbrief/index.htm, accessed May 8, 2020.
[584] GATO, f. 1810, op. 3 d. 328, l. 49
[585] See for instance, the 1977 account by Nizhnevartovsk NK, reporting the deforestation on the shores of the Tromyogan river: *Tyumenskaya Pravda*, September 28, 1977, 2.
[586] On differences between "*priroda*" and "nature" see Nicholas A. Robinson, "Perestroika and Priroda: Environmental Protection in the USSR," *Pace Law Faculty Publications*, no. 385 (1988). For more on *priroda's* spirituality from a *sibiriak* perspective as expressed by Siberian writer Valentin Rasputin, see Aleksandr Anisenkov, ""Zhivu Edineniem S Prirodoi": Interview S Valentinom Rasputinym," *Chelovek i priroda*, no. 1 (1989), 11.
[587] GATO, f. 1810, op. 3 d. 328, l.30-31

human beings who were to protect the taiga from poaching oilmen. These perceptions of nature found expression in further KNK's newspaper accounts, such as the article by a free-lance controller and a hobby hunter P. Bashkirov. Already in the imperative title "You ought to love nature" ("*Liubite prirodu*") the inspector declared his emotional attachment to his native forest. The *sibiriak's* affection for the forest is even more conspicuous in the passages, where Bashkirov contrasted the *sibiriak's* caring and attentive behavior in the forest with oilmen's rapacious practices:

> The autumn hunting season brings great happiness to the genuine nature lovers. But to me, an old man, an experienced hunter, this year's autumn hunt brings disturbing thoughts. I am a *sibiriak*. Since my childhood, I have learned the life of the forest and the habits of animals and birds… But now I encounter some newcomers' actions, which contradict not only the ethics of a hunter but also those of a normally intelligent human.[588]

Bashkirov and his fellow-controllers condemned the unhesitating shooting of entire duck broods and other poacher-like practices, which they defined as unworthy of an (intelligent) human being. For *sibiriaki* being a human entailed living in a harmonious relationship with the natural environment and respecting the non-persons. Hunting and attentive observation of the forest inhabitants constructed the basis of *sibiriak's* conservationist ethics and "care" for the native place.[589] While observing the *vremenshiki*'s careless dealings with the local nature controllers, like Bashkirov, felt insulted personally, as Siberians do not separate themselves from nature:

> Although we are supposed to be grateful to them [incoming employees of the oil industry] for the reclamation (*osvoenie*) of our land, we cannot put up with their way to deal with nature: not always do they respect *our* nature and therefore us. They think that *our* fish and gain are endless. But it is not true. It is not such a rare case anymore to come across a human who barbarically exterminates wildlife. We cannot keep an eye on everyone and instruct every newcomer on the rules of behavior out in nature.[590]

Articulation of the antagonism "sibiriaki" vs "vremenshiki" was accompanied by a call to continue a more sustainable, based on *sibiriak* tradition, management of natural resources in such a way that "utilization does not become plunder, and use does not become using *up.*[591]" Siberian controllers did not oppose the development of the petroleum complex. Instead, by

[588] P. Bashkirov, "Lyubite Prirodu," *Nefteyuganskiy Rabochiy*, August 28, 1973.
[589] On the sense of place as a prerequisite for environmental awareness and action see: Heise, *Sense of place and sense of planet* , 33.
[590] Bashkirov, "Lyubite Prirodu"
[591] Christof Mauch, "The Growth of Trees: A Historical Perspective on Sustainability" (Carl-von-Carlowitz lecture 2013, Freiberg, June 2013), accessed August 6, 2019, https://www.carsoncenter.uni-muenchen.de/download/press/rcc-news/140805_mauch.pdf, 10.

unmasking the "heroes" of the conquest and the subjugation of nature, *sibiriaki* demanded that the Nefteprom adopt a more responsible and prudent approach to nature.

As oil transformed Siberian nature, those emotionally attached to it felt threatened and looked for the driving force and actors of this transformation. This vision of nature has had its historical roots in the settlement of Siberia and in the interaction of the arriving peasants and Old Believers with the indigenous. Before the oil age, settlers arriving in West Siberia for various reasons often had one vision in common. They viewed forest as a new reliable home, a refuge from the aggressive technocratic state, a place to find unity with oneself and nature, a source of physical and emotional health. Most literature dealing with Siberian identity suggests such socio-environmental "equations" as "Siberia is the taiga" and "taiga is home" explaining *sibiriaki's* particular culture, that constituted their otherness.[592] However, mentions of these equations in literature often lack concrete examples of *sibiriak's* everyday interactions with nature.[593] A look at such concrete practices and their reflection in the KNK narratives is essential for understanding the motives behind *sibiriaki's* engagement in the people's control conservation efforts.

The notion "forest/taiga as a home" illustrates, similarly to the river, the three levels of *sibiriaki's* bonds with the place: spiritual, corporal, and economic. Settlers who came here at different stages of relocation learned how to interact with the forest from Khanty and Mansi. Many refer to this encounter with the forest as a safe haven and "a blessed shore[594]" *(blagodatnyi bereg)* on their way after a long history of persecutions. Strongly influenced by the Old Believer views of nature, Siberians traditionally deified the local forest. In this religious tradition, one of the ways to find salvation (including the escape from political and religious prosecution in the European Russia) was to settle "in the dark faraway forests, in the deep caves.[595]" Peasant settlements in the remote, unpopulated taiga regions of West Siberia illustrate the implementation of this strategy. Thus, taiga was an ideal match to the image of "the spiritual paradise of a deserted, swampy Siberian land.[596]"

[592] Andrey E. Zainutdinov, "Civilizacionnaya Identichnost' Sibiri: Ot Oblastnichestva Rubezha XIX-XX Vekov K Sovremennomu Sibirstvu," *Zhurnal sociologii i social'noi antropologii*, 2 (61) (2012): 89.
[593] Among the few existing *sibiriak* studies only a handful mention the defining role of Siberian nature in shaping the locals' place attachment, but, unfortunately, do not go beyond a mere assertive mention, see, for instance, Elena V. Golovneva, "'Chuvstvo Mesta' V Sibiri: Emotsional'nyi Komponent Sibirskoi Identichnosti," *Vestnik Tomskogo gosudarstvennogo universiteta. Kul'turologiya i iskusstvovedenie*, no. 28 (2017).
[594] Sedykh, "Kommunizm v debriakh sibirskoi taigi," 169.
[595] Lyubimova, "Environmental aspects of Religious Beliefs and Ritual Practices of the rural Population of Siberia (the 1920s - Beginning of XXI Century)," 118.
[596] Ibid.

Sibiriaki maintained this spiritual connection with the forest even when, due to a work assignment (*raspredelenie*) or for other reasons, they had to leave taiga and moved to urban areas. This life-lasting bond found expressions in their regular returns to the taiga for hiking, hunting, cedar cone, and huckleberry picking.[597] From the perspective of a resident of Siberia's new urban spaces, the forest remained primarily a place of spiritual renewal and corporal recuperation from the hard-work in the city. Most Soviet northerners employed by the industries and inhabiting the towns emerging around the new industrial centers would traditionally look for escapes into the non-urban spaces in their free time: to go cross-country skiing, barbequing, or to hike, pick up berries and mushrooms, to fish and hunt. As Alla Bolotova rightfully asserted, exactly such practices fostered the growing affection with the place, which in turn created life-long bonds with the forest, transforming the former migrants into genuine Northerners, devoted to their new homeland.[598]

In *sibiriaki's* eyes (both with and without KNK affiliation), the growing presence of *neftianiki* in the local forest presented a severe threat to the forest's health and its role as a place for recreation and healing. Resenting the ever-growing cases of poaching by *neftianiki*, particularly the illegal cutting of cedar branches with cones for their further sale, a Nefteyugansk pensioner Panov, called for a responsible "master" (*khoziain*) to protect "the human's green friend.[599]" In the eyes of an average Siberian, the beauty of the forest and its superb qualities as a leisure and healing space lie primarily in its treasures, such as "huckleberries and blueberries, raspberries and bird cherries, and of course, mushrooms, and lots of cedar." However, after asking "Who will protect the cedar?", Panov insisted that the optimal protection is the rational management of forest resources, based on the careful observation of recuperative periods and on the eagerness to preserve the forest as a healing place for further generations.[600]

Echoing Panov's call and expanding the cedar narrative, Nefteyugansk controllers appealed to the readers of the local newspaper to "save the forest" as they revealed further cases of *Nefteprom*'s neglectful dealings with the natural world.[601] After listing the names of managers responsible for improper logging and oil spills, people's controllers addressed penalties resulting from these wrongdoings. As the forest was so significant to every Siberian,

[597] Regular conversations with Semen Egorovich Vedernikov (1924-2017), *sibiriak*, son of dekulakized parents, deported to the Surgut raion in February 1930.
[598] Alla Bolotova, ""Esli Ty Polyubish' Sever, Ne Razlyubish' Nikogda": Vzaimodeistvie S Prirodoi V Severnyh Promyshlennyh Gorodah," *Neprikosnovennyi zapas*, 97 (5) (2014).
[599] Panov, N. "Kto zashchitit kedr?" *Nefteyuganskiy rabochiy*, September 5, 1970, 4.
[600] Ibid.
[601] *Nefteyuganskiy Rabochiy, "*Beregite Les – Nashe Bogatstvo!," February 26, 1974.

Nefteyugansk controllers used it for the title of their article to call more extensive attention to a full range of environmental atrocities. Thus, in addition to illegal logging, the article in the February 1974 issue calling to save the forest dealt with oil pollution of rivers and lakes and the harm the oil leaks caused to the local fish populations.[602] An article with a forest title, it seems, would have a wider readership and would find more support among the local community precisely because the forest was such a defining element of the *sibiriak* identity. By urging the fellow Siberians to save the native (*rodnoi*) forest, often representing the entirety of life, the KNKs contradicted the *Nefteprom*'s call to conquer the hostile environment.

On the physical level, Siberians relied on foraging and hunting as sources of nutrition in an area with scarce transport infrastructure and insufficient state food supplies. Due to the challenges inhibiting food supplies to the remote oil-producing corners of the Tyumen Oblast, the food here was expensive, and it often reached its consumers in a non-edible condition.[603] Thus, *sibiriaki* had no alternative but to rely on the indigenous sustenance traditions. Sokolova, for example, mentions the participation of the non-indigenous Siberians in Khanty festivities, such as the bear festival, accompanying a successful bear hunt. Furthermore, the forest was not only used for hunting and foraging, but also as the only available pharmacy.[604] *Nefteprom*'s interventions undermined this reliance on the forest for human physical well-being.

Aside from the personal spiritual and physical meanings they attached to the forest, Siberians' perspective on the forest's economic function also diverted from that of the Soviet planners in the early 1970s. From the first sight, such expressions as "death of valuable timber" (*gibel' tsennoi drevesiny*), or "improper use of logs and other forest gifts (*dary lesa*)" appear quite utilitarian, as on the surface they seem like a mere resentment about the loss of yet another resource. However, the "nostalgia" about the forest servicing the socialist construction solely as a supplier of the timber industry can be interpreted as a longing for a more sustainable forest management. Still mainly based on the principles of the Stalinist forestry, famous for its unique conservation successes and preservation of the forest's ecological function,[605] the timber industry indeed could have been a more sustainable utilization of the forest riches than *Nefteprom*'s unauthorized logging, oil spilling, and flaring which all disregarded forest's regeneration needs completely. Thus, the NK's call to continue the traditional management of the forest in such a way that future generations "in 5 to 10 years could look at it and say: "We

[602] Ibid.
[603] Sokolova, "Sovetskii magazin: torgovlia i alkogol' na Obskom Severe (korennoe naseleniie v 1950–1980-kh godakh," 102.
[604] Boris E. Andyusev, *Sibirskoe Kraevedenie,* (Krasnoiarks: RIO KGPU, 2003), 26.
[605] Stephen Brain, *Song of the Forest: Russian Forestry and Stalinist Environmentalism, 1905-1953,* Pitt series in Russian and East European studies (Pittsburgh: University of Pittsburgh Press, 2011), 170.

have taken proper care of the forest [606]*"* was an attempt to retain Stalinist environmentalism[607] in order to preserve the ecosystemic function of Siberian forests.

In their writings, Siberian controllers uncovered how *Nefteprom* converted the eternal Siberian forest, the "safe haven" and the "green friend," into a service provider and a place without a future. The forest lost its future with every young tree having been ruthlessly cut out to free the way to the deposits. By stressing the dramatic scale of the undergrowth elimination ("*podrost unichtozaetsa polnost'yu*"), the controllers unveiled the risk the oil industry posed to the forest's existence on the one hand and to the *sibiriak* identity on the other. With resentful comments and photos documenting the undergrowth destruction, the controllers intended to alarm the government about the danger of the disappearance of Siberian forests due to *Nefteprom's* negligence. At the same time, they felt at risk, as with the disappearance of the forest's future, the place of *sibiriak* cultural memory was vanishing.

Mushroom and berry picking, hunting and fishing, as well as careful observation of flora and fauna during leisure time are practices that integrate a human into a "biotic community" and shape one's sense of place.[608] What Ursula Heise describes as a desirable goal of countering alienation from nature that industrial systems entail,[609] the Siberian People's Controllers brought along as a baseline of their confrontation with *Nefteprom*. Their integrity with the local natural world, hunting-, foraging, and fishing-based self-sufficiency, and rejection of high mobility (expressed in their opposition to seasonal work) constituted their pre-oil reality. By employing Tim Ingold's concept of affection for nature developed through dwelling practices, I claim that a *sibiriaks'* deep personal emotional involvement with nature both bodily and spiritually, underlay their care for the environment that found its expression in the KNK actions.[610] These affective bonds became a fruitful ground for a conservation initiative that went beyond the mere discussion and raising public awareness as it materialized in measurable reductions of petroleum pollution of water bodies as well as dismissals and fines for the responsible management, as the following sections will show. According to the statistics provided by the oblast Water Inspection, such steps initiated by the KNK, as reduction of the number of tanking stations, and obligatory installation and use of collectors for bilge and processed waters, resulted in the decrease of the concentration of petroleum products and

[606] N. Panov, "Kto zashchitit kedr?," *Nefteyuganskiy Rabochiy*, September 5, 1970, 4.
[607] Here "Stalinist environmentalism" is applied leaning on Stephen Brain's definition: Brain, *Song of the forest*, 4, 9, 170.
[608] Heise, *Sense of place and sense of planet*, 30.
[609] Ibid., 28.
[610] Tim Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (London, New York: Routledge, Taylor & Francis Group, 2011).

processed waters in the local rivers by 300% in the period from 1976 to 1980.[611] In the Khanty-Mansiisk area, the collection of waste oil, utilized in the drilling and exploration machinery, was put under strict control, and the quantities of discards fell by 200%.[612]

"Economizing and Thrift": How the Soviet State Planned to Combat "Oil Loss"

In contrast to processed and bilge waters and petroleum products (such as diesel fuel, benzine, and mazut), measuring the amounts of crude discarded into water bodies, swamps or onto forest soil required a legal and political framework. Indeed, claiming the disappearance of significant amounts of a resource that is being extracted and has not yet been adequately quantified, can be a challenging task. Hence, what political and economic setting enabled the Siberian controllers not merely to measure the oil loss, but also to initiate a public discussion about it?

A closer look at the Soviet economic situation and the developments in the nature protection strategy of the 1970ies provides answers. In 1970 the Soviet GNP grew by 7% and only by 3.8% in the following year.[613] Considering that the Ninth five-year plan (1971-1975) set a goal of GNP growth by 37-40%,[614] the average annual growth had to reach 7.4-8%. The performance of the national economy in the first year of the five-year-plan was lagging dramatically. The government was desperately looking for more hard currency earnings to inject into the collapsing economy. The Soviet prime minister, Aleksey Kosygin, used to call the head of the Tyumen Oil and Gas Industry, Viktor Muravlenko, crying for help: "Please give three million tons [of oil, V.R] on top of the plan. The situation with bread is awful."[615] Slower growth and crop failures of the late 1960s, together with growing military expenditures, posed a severe challenge to the national economy.[616]

Having to deal with such a critical economic situation, in 1971 the government began to issue a series of directives on rational and thrifty (*berezhlivoe*) use of natural resources. It was a new attempt to reinforce the implementation of the 1965 announced "Policy of economic rationalization and cost-cutting" developed within the framework of Kosygin reforms, but not yet implemented. The XXIV CPSU Congress ordered the rational use of natural resources and

[611] GATO, f. 1810, op. 3, d. 1194, l. 43
[612] Ibid.
[613] CIA, *A Comparison of Soviet and U.S. Gross National Products, 1960-1983,* 31 pages (1984), accessed September 24, 2020, https://www.cia.gov/library/readingroom/docs/DOC_0000498181.pdf, 3–4.
[614] *Nefteyuganskiy Rabochiy*, March 13, 1971, 1
615 Quoted in: Maria Slavkina, *Triumf i tragedia: razvitie neftegazovofo kompleksa SSSR v 1960-1980-e godi,* Moskva: Nauka, 2002, 143.
[616] Egor T. Gaĭdar, *Collapse of an Empire: Lessons for Modern Russia* (Washington: Brookings Institution Press, 2010).

restated the strategy of "economizing and thrift" (*economiya i berezhlivost'*) and encouraged the mass media to report the successes of the Soviet people in implementing the strategy. [617]

The ever slower economic growth triggered the recognition of the nonrenewable character of natural resources and called for a revision of the Marxist-Leninist concept of nature.[618] A real shift toward conservationism took place in the official discourse beginning from November 1967. Based on the findings of Soviet scholars, in particular, geographers and petro-chemists about "temporarily invisible consequences of the scientific and technical progress, which can have a dramatic impact on the character of natural forces and cycles,[619]" the CPSU leadership revised its definition of nature's role in the Soviet society. In his speech devoted to the 50th anniversary of the Great Socialist October Revolution, Brezhnev stressed nature's importance for the construction of the communist society with its both material and cultural needs and for the sustainable future of the entire humanity:

> The dynamic growth of science and technology makes the eternal problem of the relations between humans and nature especially topical… For us, nature has not lost its value as the primary source of material wealth, and as an inexhaustible source of health, happiness, love of life and spiritual wealth of every human… Thrifty and thoughtful use of natural resources, taking care of land, forest, rivers, and clean air, of the plant and the animal world – are our vital communist duties. We must preserve and enrich our earth for the current and future generations of the Soviet people. The more reasonably we use nature's riches, the better results our industry, agriculture, and science will achieve.[620]

As a component of developed socialism,[621] a healthy environment was essential to the Communist ideologues and therefore had to enter the modern Soviet legislation. For the first time the state budget for the ninth Five-Year Plan (1971-1975) included expenditures for environmental protection.[622] The Supreme Soviet ordered its both chambers in June 1970 to set up permanent commissions for nature protection. On December 29, 1972, a special Department of Nature Protection was established in Gosplan. Its main task was to design yearly plans of nature protection and rational use of natural resources and to monitor nature

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[617] Leonid I. Brezhnev, "Otchiotnyi Doklad TsK KPSS XXIV S"Ezdu Kommunisticheskoi Partii SSSR," in *XXIV S"Ezd Kommunisticheskoi Partii Sovetskogo Soyuza: Stenograficheskii Otchiot*, I, ed. KPSS, 2 vols. (Moskva: Politizdat, 1971), I:89–90.

[618] On the inexhaustibility of matter in motion and the projection of this concept on natural resources within the framework of dialectical materialism, see Vladimir S. Gott "Leninskiy princip neischerpaemosti dvizhyshcheisia materii," *Priroda*, no. 4, 1970: 29-33.

[619] Vladimir N. Glukhov, "Industria i Priroda," *Priroda*, no. 9, 1971: 29-35, 30. For a geographer's take on the need to review the paradigm of nature-society relations and adjust it to the needs of developed socialism, see I.P. Gerasimov, *Preobrazovanie prirody i razvitie geograficheskoi nauki v SSSR,Ocherki po konstruktivnoi geografii,* (Moskva: Znanie,1967),72.

[620] Leonid I. Brezhnev, *Piatdesiat let velikikh pobed sotsialisma,* (Moskva: Politizdat, 1967), 43.

[621] Brezhnev's ideological centerpiece during his rule (1964 - 1985).

[622] Paul R. Josephson, *An Environmental History of Russia*, with the assistance of Nicolai Dronin, STUDIES IN ENVIRONMENT AND HISTORY (Cambridge, New York: Cambridge University Press, 2013), 190.

protection activities at all levels. So, January 1, 1973, was the effective date of centrally formulated plan on nature protection to be "fulfilled" by regional administrations.

Neither the thrift strategy nor the Gosplan's nature protection outline foresaw any tasks for the People's Control. Neither did they introduce viable enforcement mechanisms for the measures limiting material loss and protecting the non-human world. They vaguely referred to the local administrations' responsibility to implement the nature protection and resource-saving legislature, entirely omitting mechanisms of this implementation.[623] Similarly vaguely described was the issue of accountability. This vagueness stemmed from the absence of the definition of environmental crime in Soviet law.[624] In such a legislative setting, the KNK attempts to call for accountability for the environmental wrong-doings form a remarkably progressive element in the civic engagement with the ecological cause.

In 1971 their home newspaper, the Nefteyugansk KNK announced its determination to follow the principles of economic rationalization and thrift: "Our duty is to impose *economiya i berezhlivost*' in everything, primarily in the use of fossil fuels, electric power, metal, timber and other natural riches."[625] Siberian controllers were eager to use "Economizing and thrift" as a legal framework to combat oil leaks and to inform the society about the wastefulness of oil extraction at various stages. In their newspaper articles, they revealed that in addition to pipeline ruptures, significant amounts of oil were lost at the initial drilling phases, as oil leaked from wellheads. According to the KNK monitoring, the most notorious local petroleum mining section allowing for the tremendous loss of oil through wellheads was Nizhnevartovskneft. It would regularly burn 150-200 tons of leaked oil per launched well. However, the notorious production unit lost even more oil, as not all the leaked oil was burned. According to the Tyumen Oblast KNK, in 1971 alone in the Nizhnevartovsk area (*raion*) as a result of pipeline ruptures and accidental oil leaks, 2000 tons of oil were lost.[626] As the 9th five-year plan (1971-1975) foresaw the drilling of 1300 production wells alone in the Nizhnevartovsk area, the approximate oil loss only for this area for the first half of the 1970s amounted to at least 260 000 tons. The estimated yearly rate of oil loss makes Nizhnevartovsk resemble Alaska's Prince William Sound, where the 1989 Exxon Valdez oil spill of 42,800 tons took place,

[623] S. S. Khromov et al., *Za Ėkonomiiu I Berezhlivost' Sbornik Dokumentov I Materialov* (Moskva: "Sov. Rossiia", 1987).
[624] On the lack of the notion of "environmental crime" in the Soviet legislation and late 1980s attempts to introduce it, see: Eugene N. Lisitsyn, "Environmental Law and Management in the USSR: A Reflection on Contemporary Reforms," *Review of Socialist Law* 17, 2 (1991): 136
[625] A. Maior, "Poteriam netfti – zaslon," *Nefteyuganskiy Rabochiy*, June 26, 1971, 2.
[626] GATO, f. 1810, op. 3, d. 433, l. 1.

which is still widely remembered as one of the most notorious in history.[627] Nizhnevartovsk area absorbed the Exxon Valdez amounts of oil yearly.

In the late 1960s and the 1970s, the WSPC management was not concerned with oil spills occurring in the capitalist countries, as according to the official Soviet doctrine, their very socio-economic structure was the reason for massive pollution.[628] What they cared about was the production plan and losses not exceeding the statistically permitted 0.1% of the extracted amount. Considering that in 1969 the amount of extractable petroleum in the Nizhnevartovsk area (*raion*) was estimated at 600 million tons,[629] the actual loss constituted 0.04% of the entire extractable amount, which in the eyes of executives and statisticians, was just fine, as it was significantly below the permitted amount.

To the people's controllers, the statistically low oil loss was unacceptable. Especially the scale of air pollution the burning of the wasted crude caused was not something that people's controllers could put up with. First, the Nizhnevartovsk controllers received the support of the *oblispolcom* to issue an order that demanded all local mining divisions to collect the leaked oil into mobile cisterns.[630] Second, they condemned what they called "*Glavtyumenneftegaz'* vicious practice" of discarding the "precious" oil and burning it. In their newspaper column, the controllers set out to explain the absolute value of the seemingly insignificant and "statistically normal" loss of oil through leaks.

Following the announcement of the thrift strategy, West Siberian controllers problematized the statistically "normal" oil loss: "The plan for 1971 foresees the production of 13.5 million tons of oil. We at People's Control realize that the loss of 0.1 % of it will amount to 13 500 tons! Therefore, the struggle for the reduction of oil losses is our priority![631]" In their article "Block the oil loss," Nefteyugansk Controllers explained the environmental danger of the seemingly insignificant 0.1% of the statistically normal loss of oil through spills and leaks.

Presenting the problem of oil spills as a deficit in the rationalization of the economy legitimized the publication of the oil loss statistics. If data could refer to the resource loss, it could serve as a reference to an obstacle on the way of "*economiya and berezhlivost*" and a stimulus for the implementation of the new rationalization strategy. The reform legitimized the use of pollution data and made it possible to make some of it available to a broader public. In

[627] For the comparison of oil leaks of contemporary West Siberia to Exxon Vladez see, for instance, Karsten Smid, "Bonjour TOTAL – Adieu Sibirien" (2004), https://www.greenpeace.de/themen/klimawandel/ursachen-des-klimawandels/oelmulti-total-oelpest-sibirien. According to Greenpeace, in 2004 the average amount of oil spilled in West Siberia daily amounted to 42 000 tons, which even Exxon Valdez.
[628] Charles E. Ziegler, *Environmental Policy in the USSR* (Amherst: University of Massachusetts Press, 1987), 138.
[629] GASPITO, f. 124, op.1, d. 4875, l. 52.
[630] Listok Narodnogo Kontrolia, *Leninskoe Znamia* (Nizhnevartovskiy raion), January 11, 1972, 4.
[631] A. Maior, "Poteriam netfti – zaslon."

this regard, KNK's case contests the commonly accepted thesis that the Soviet non-specialists were denied access to information about pollution and violations and were therefore unable to influence environmental policy in a meaningful way.[632] Their cooperation with non-enterprise scholars provided them with access to reliable data on pollution levels, based on which they could identify and report violations of the respective norms. Thus, this economic reform created a window of opportunity for the semi-civic agents like KNK to raise the environmental awareness of the general public.

By resorting to the official austerity rhetoric, KNK's attempted to dispel the Soviet resource abundance myth,[633] so eagerly exploited by the state propaganda to persuade the people of the advantages of the government's strategy to manage natural resources.[634] Siberian controllers drew an eye-opening picture of the magnitude of environmental harm that the 0.1% of "lost oil" in fact caused. "Oil loss" was the most frequently used official term to refer to oil spills, or pipeline ruptures, an euphemism in a sense. This is how the local party administration and the decision-makers in Moscow could quantify the material loss, associated with spills, and demand action to limit them. Siberian controllers also referred to the leaking oil as "oil loss" because by explicitly showing the party how much crude was wasted in ruble equivalent, they expected a quick reaction. However, in contrast to the utilitarian static "oil loss" of the official rhetoric, controllers showed its dangerous dynamics.[635] By specifying where that oil landed: in a river, a swamp, on the ground, or even in the air as a result of flaring, West Siberian people's controllers unmasked what this euphemism was covering up – multidimensional environmental pollution at a tremendous scale.

On the pages of the local newspaper, the Nefteyugansk controllers showed routes and dangers of the "lost oil." In March 1971, they initiated a joint water quality examination with

[632] Charles E. Ziegler, "Issue Creation and Interest Groups in Soviet Environmental Policy: The Applicability of the State Corporatist Model," *Comparative Politics* 18, no. 2 (1986): 185 For a more recent work re-stating Ziegler's finding on the lack of public access to pollution data, see Coumel, "A Failed Environmental Turn? Khrushchev's Thaw and Nature Protection in Soviet Russia*"

[633] The 1961 CPSU Program linked material abundance with communism and declared the resource cornucopia available to the Soviet people to be the attribute of the final segment of the road to communism. This paradigm dominated the official resource discourse even through the second half of the 1980s when the peak oil was reached. Soviet leadership persistently regarded oil depletion with skepticism: "'Limitation' of oil resources is a relative factor and can be overcome not only by prospecting activities, but also by technological improvements in oil extraction. Until recently, there was no particular urgency for elaborating such technology," see: A. S. Astakhov, A. D. Khaitun, G. E. Subbotin: "Socio-economic Aspects of Oil and Gas Development in West Siberia," *Annual Review of Energy* 14 (1989), 117-130, 124.

[634] The shift in the official discourse on availability of hydrocarbon resources took place only in 1981, when state propaganda stressed the limited capacity of oil and gas reserves and increasing costs of the extensive model of extraction, see: M. P. Gabdulina, ed., "Ekonomike Byt' Ekonomnoi," (1981), 19.

[635] Official rhetoric limited its dealings with the "oil loss" to listing its Rubel, benzin, rezin or plastic equivalents, ibid., 107.

the Surgut branch of the North Ural Water Inspection at the exploration sites. Based on the investigation's shocking results, on March 13, 1971, the Nefteyugansk city KNK published not only the oil loss numbers (700 tons for 1970) but also unveiled a contamination of 2000 square meters of the oilfield surface. Controllers named those responsible for the massive leaks and pointed out their deadly impact on the river fauna:

> But who is doing this harm to our rivers? This February, a bulldozer operator Moskalev damaged the pipeline in the area next to the Pimskiy tanking facility, which resulted in the loss of sixty tons of oil that later landed in the river. This is not the only case of negligence. In the past year alone in the Nefteyugansk raion, seven pipeline ruptures occurred. This means a double loss our country has to suffer: loss of petroleum, and pollution of water bodies, where fish and other species die.[636]

Ironically, the NGDU Yuganskneft, responsible for this oil loss, was awarded the Order of the Red Banner of Labor[637] for its achievements in the All-Union Priority Construction Project[638] in February of the same year and was praised in the previous issue of the newspaper.

How did Moscow react to such bold accusations? Keeping in mind the dynamism with which Pakhotin's team imbued the oil pollution, I will now analyze the KNKs' success in communicating the environmental risks of the petroleum complex to the central government. This analysis, however, does not aim to evaluate the impact of KNK activity on Moscow's environmental policy, as this would require a broader timeframe and a different approach. Instead, I look at the government's reaction to KNK reports in search of the possible inclusions of controllers' suggestions into the new regulations.

On March 24, 1975, the Council of Ministers issued a directive No. 179 "On serious deficits in the implementation of the RSFSR Law "On Nature Protection in the RSFSR" in the Tyumen Oblast."[639] The wording of its paragraphs that describe the concrete cases of environmental negligence is identical to that of Pakhotin's reports. For example, the summary of the situation with the oil-related deforestation begins with Pakhotin's phrase from the 1973 KNK resolution: "improvident (*bezkhoziaystvennoye*) handling of forest riches is seen in the actions of construction units of the enterprises of the petroleum industry.[640]" Similarly, the

[636]Yuri Gorshenin, "Poteriam Nefti – zaslon," *Nefteyuganskiy Rabochiy*, March 13,1971, 2.
[637] The Order of the Red Banner of Labor (*Orden Trudovogo Krasnogo Znameni*) was an award in the Soviet Union, established to honor great achievements and services to the Soviet state and society in the fields of production, science, culture, literature, the arts, education, health, social and other spheres of labor activities. Alongside with individuals, a few enterprises and factories, being particularly important for strategic and economic reasons in the Soviet Union, also received the order.
[638] *Udarnaya Stroika Nomer 1*
[639] GATO, f. 1810, op.3, d. 1030, l. 7.
[640] Ibid, l. 8.

expression "death of valuable timber" was also included in the Directive. This pattern indicates that the Soviet government took note of the controllers' observations. When calling WSPC enterprises "violators of Soviet law," Sovmin echoed with Siberian KNK:

> Major violators of the legislation on nature protection are the enterprises and economic units of the Ministry of Oil Industry, Ministry of Forestry and Timber Processing, Ministry of Gas Industry, Ministry of Construction of the Enterprises of the Oil and Gas Industry, Ministry of Geology of the RSFSR and *Glavneftesnab* RSFSR (Central Procurement Board of the Enterprises of the Oil Industry). In the areas of the deposit development, open emissions of oil and gas are permitted, pollution of water bodies with produced waters, which are simply poured out as a result of pipeline breaks and drilling activities. Significant amounts of petroleum products leave storages and enter the local water bodies during the flood season, but also as a result of improper handling of petroleum and its products.[641]

The directive illustrates a new step in Moscow's dealings with pollution inflicted by the industry that has remained a "sacred cow" throughout its late Soviet and post-Soviet era. This 1975 document and particularly its wording, are meaningful illustrations of the cooperation between the regional semi-civic agents and the legislative authorities in Moscow. The inclusion of controllers' suggestions into the directive is a case of non-specialist citizen participation in the production of Soviet environmental legislation. Evidently, KNK reports were read in Moscow, and Sovmin was interested in its function as a watchdog of nature protection.

Among the concrete measures to combat petroleum-related environmental damage, the Sovmin resolution introduced a censure on improper forest management by oil developers in the Tyumen Oblast.[642] Paragraph Sixteen informed that the RSFSR Public Prosecutor's Office would increase its control over the implementation of the RSFSR Law on nature protection[643] on the oblast territory.[644] For some *Nefteprom* managers this directive resulted in fines, reprimands, and even dismissal, whose implementation controllers ardently observed. Thus, from April 1975 to December 1976 in *Glavtyumenneftegaz* alone, 553 employees were charged with administrative penalties for environmental pollution. For the same period, based on the

[641] GATO, f. 1810 op.3, d. 1030, l.17.
[642] Ibid.
[643] Among the nature protection laws, whose implementation KNKs meticulously observed, central were the 1968 Law on land and soil protection No 3401-VII, the 1970 Water Protection Act, and the 1966 Charta of the All-Union Nature Protection Society (VOOP) applicable to enterprises, who became VOOP "collective members" (*kollektivnye chleny*), see *Nefteyuganskiy Rabochiy*, September 5, 1974, 2.

[644] GATO, f. 1810, op. 3, d. 1030, l. 23

facts of river pollution documented by KNK, alone the Lower Ob Fish Directorate charged WSPC companies with 2.5 million Rubles in fines.[645]

The executives of the WSPC enterprises did not always welcome such penalties caused by KNK activities. To avoid fines and dismissals that could result from NK investigations, some WSPC executives appointed their colleagues as chairs of the enterprise people's control groups. For instance, in 1975, the director of the Samotlor pipeline construction company (*Samotlortruboprovodstroy*), Reznikov, appointed his deputy Yurchenko to lead the company's control group. As a result, such control groups were mostly ineffective and facilitated corruption and embezzlement within the petroleum sector. As revealed by a *raion* KNK inspection in 1976, only for air transportation costs *Samotlortruboprovodstroy* overreported (report padding or "*pripiski"*) 16 000 rubles for 1975.[646] This investigation resulted in both Reznikov's and Yurchenko's dismissal.

Interestingly enough, the smaller NK groups and posts appeared to be more daring, than their colleagues in larger cities and published the revealed report padding more often in the local newspapers, than their higher-ranking fellow controllers in the oblast's centers.[647] On the one hand, KNK demonstrated a noticeable potential as a popular check against corruption and mismanagement in the oil sector.[648] On the other hand, the zealous citizen inspectors made enemies among the WSPC's executives, which bore a potential risk for their activism.

"Inside Critics" vs Prometheans

The controversies between the WSPC executive management and People's Control were strengthened by one more characteristic of KNK's pollution reporting. The controllers held the management and the engineers of the petroleum enterprises accountable for the poor implementation of the assigned measures to reduce oil leaks and discard of petroleum products. KNK claimed that the reason for massive oil leaks was the irresponsible and careless attitude

[645] GATO. f. 1810. op. 3, d. 565, l. 223, 225.

[646] GATO, f. 1810, op. 3, d. 585, l. 51. In order to evaluate the magnitude of this embezzlement a following reference to the prices and wages in the 1970s USSR is helpful. In the early 1970s a *Zhiguli* car (the internal market name of *Lada*) the first Soviet economy class car cost 5500 rubles, source: Chernyshova, *Soviet consumer culture in the Brezhnev era*, 84. At that time an all-Union average monthly wage in the industrial sector amounted to 170 rubles, in the Tyumen North it could reach 600 rubles. Slavkina, *Triumpf i tragediya: razvitie neftegazovogo kompleksa SSSR v 1960 - 1980-e gody*, 98-99. The scale such report padding was quite significant in comparison to wages and prices.

[647] See the NK column on p. 2 and 3 of the *Nefteyuganskiy Rabochiy* issues 1970-1979.

[648] The archives of the People's Control's Headquarters in Moscow hold a substantial record of embezzelement and fraud at the construction enterprises of the West Siberian oil sector, which cite reports of Pakhotin's team: GARF, f. A-420, op. 5, d. 2320 and 2450. However, not all cases resulted in prosecution.

of the incoming workers and their managers. Thus, for instance, V. Eremin from the Nizhnevartovsk KNK repeatedly stressed their "deliberate unwillingness to perform the necessary work to reduce petroleum loss.[649]" Their perspective on the accountability for oil's environmental calamities was based on the "*sibiriak* – newcomer" contradiction.

People's controllers' explanation of the growing pipeline ruptures and river pollution deviated from Moscow's view. The government was convinced that an effective method to prevent environmental damage was not combatting the *neftianiki's* negligence, but the application of proper technology. The high management of the local production and technology departments (most of whom arrived in the Tyumen Oblast from climatically very different old oil provinces in Azerbaijan and Volga-Ural regions) followed this Promethean line of thought. It blamed the equipment producers for manufacturing faulty machinery. This, they claimed, was the case with the Urengoy Oil Prospecting Expedition in 1977, particularly with the wells P-125 and P-130, where the low quality of metal used for lifting pipes must have caused massive leaks.[650] However, at least during the investigated period, no pipes were upgraded in Urengoy, as the country's pipe production had been failing to meet the growing needs of the petroleum industry since the early 1960s.[651] So, the designers and operators of the oil sector did not engage in the struggle for improving the pipe quality. The geologists and oil engineers co-shaped the sociotechnical imaginary initiated by the state, whose main feature was the belief in technology's benefits as unbounded while environmental risks were framed as insignificant and manageable.[652]

West Siberian controllers contradicted that view vehemently. They claimed that the main reason for frequent breakages and leaks were neither the mistakes of the equipment producers nor inappropriate materials, but the improper operation by the drillers. In their April 21, 1978 resolution on combatting high accident rate by expeditions of *Glavtyumengeologia*, Pakhotin and his team ascribed the poor quality of drilling primarily to the "dreadful discipline and irresponsible attitude" of the seasonal personnel at drilling sites.[653] To prove his accusation,

[649] GATO, f. 1810, op. 3, d. 356, l. 116.
[650] GATO, f. 1810, op. 3, d. 570, l. 98
[651] On pipe deficit due to shortages of steel and transportation challenges see, among others, GARF, f. A-491, op. 1, d. 1567, l. 143-144, 150-152, 159, 163, and GARF, f. P-5446, op.135, d.474, l.169 – 172, 180-181.

[652] The concept of sociotechnical imaginaries, although originally applied to Western capitalist societies, is a useful framework to facilitate understanding of the Soviets' promise and belief to create a better society with the help of endlessly perfectible technology that would enable the human to overcome all nature's limitations. For more on sociotechnical imaginaries see: Sheila Jasanoff and Sang-Hyun Kim, "Sociotechnical Imaginaries and National Energy Policies," *Science as Culture* 22, no. 2 (2013).
[653] GATO, f. 1810, op. 3, d. 570, l. 88.

Pakhotin reported that out of eleven drill accidents caused by the Urengoy petroleum prospecting unit in 1977 and the first quarter of 1978, only one was caused by faulty drilling pipes, whereas the rest resulted from negligence.[654] Furthermore, based on the inspections by the Urengoy NK posts, Pakhotin revealed cases of forgery by the prospecting expedition that reported an alleged installation of new conductors to stabilize wells and avoid leaks, which never took place.[655]

The WSPC administration and their superintendents in Moscow approached the problem of never-ending oil leaks by following the classical Promethean logic. They believed they could solve any problems in resource management, including environmental degradation, by applying technological innovation. So, the Ministry of Oil and Gas decided to supply WSPC with imported equipment to optimize the functionality of pipes used for oil transport. The Ministry even allocated sufficient funds, namely 400,000 rubles, to purchase an expensive compressor manufactured by the French company Creusot-Loire. This compressor was supposed to facilitate the inspection and ventilation of oil pipes to help reduce ruptures in the pipeline segment Nizhnevartovsk-Kuibyshev (a new segment of the Druzhba network). However, as the local controllers discovered, since its purchase in 1976 the compressor was never installed due to the absence of a technical specialist responsible for the device and reluctance of the low-key technicians to pick it up from the Manchem railway station where it was stored.[656] Remarkably, the deficient competence of the "newcomers" enhanced by inability and reluctance to perform their duties under harsh climatic conditions constituted the leitmotif of the controllers' critique of almost every aspect of exploration and production.[657]

Drawing on John Meyer's findings, I identify West Siberian people's controllers as "inside critics," i.e., ordinary citizens whose personal first-hand experience and acknowledgment of crisis became a vehicle of environmental action.[658] As citizen inspectors, they produced and published insider knowledge that contradicted the officially accepted technical expertise and revealed its flaws. Being emotionally attached to their socio-natural reality, People's controllers engaged everyday practices and experiences of the members of their community and were willing "to criticize these in terms that were heard by these same

[654] Ibidem, l. 89.
[655] Ibid.
[656] GATO, f. 1810, op. 3, d. 865, l. 117, 119.
[657] A telling example, that defines these two factors as the most important reasons for not fulfilling the drilling plan and for the high rate of accidents during the exploration phase, is the KNK report on the inspection of the deep drilling by the Urengoi Prospecting Unit from April 21, 1978: GATO, f. 1810, op.3, d. 570, l. 20-26.
[658] Meyer, *Engaging the everyday*, 76.

members."[659] "Inside" in the KNK case stands for the cultural ties to the pre-industrial nature and community and the local non-scientific knowledge about the place. Controllers' "criticism" went beyond reporting improper utilization of natural resources to embrace constructive structural critique that generated solutions. By fighting the negligence toward the environment, departmentalism, and corruption of the WSPC administration, the West Siberian inside critics pragmatically attempted reform from within institutions, aiming to make the *Nefteprom* structures more transparent and compliant with the nature protection regulations. Their structural critique stemmed from their attachment to pre-petrolia. Herein lies the crucial difference between the people's controllers and those agents of petromodernity whose careers and lifestyles ran on petroleum and who therefore foreclosed structural criticism.[660]

By promoting change, Siberian controllers did not oppose the regime. By acknowledging the proximity of an oil-triggered environmental crisis, the people's controllers problematized the heroism-laden discourse on nature conquest that glorified the alleged successes of transforming Siberian nature into a petroleum complex. These *inside critics* possessed the power and, in the case of the Soviet political system, the needed institutional framework, to limit ecological destruction effectively.[661] Precisely because they were ideologically compliant administrative overseers, whose coordinating structures and leadership were put in place by the government, their activities were effective in raising awareness and in communicating the necessity to limit *Nefteprom*'s environmental imprint. Generated on the periphery and outside the rigid party framework, the KNK reports were less saturated with ideology and propaganda and thus could vividly communicate the locals' concern with the environmental degradation brought along by the oil industry. Evidently, Moscow was interested in receiving such reports. Otherwise, it would have censored the KNK's work or replaced Pakhotin immediately. He chaired the oblast KNK for nine years and retired in 1979 at the age of 56 due to ill health, having exceeded the minimum of 25 years of employment necessary for a man to receive a pension in the USSR.[662]

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[659] Ibid., 8.

[660] I expand Stephanie LeMenager claim, that social groups dependant on consumption of oil foreclose structural critique, by adding agents of petrolization to those incapable of and blocking such critique, see LeMenager, *Living oil*., 24.

[661] On the significance of actors from the "inside critics" category for finding paths to escape ecological crises see: Mauch, "Slow Hope: Rethinking Ecologies of Crisis and Fear," 39.

[662] The retirement age for men in the USSR was sixty years. Timofey E. Pakhotin first known employment record dated 1950-1954 as the secretary of the Tyumen Oblast Komsomol section, see: A.H. Garifhanov and R.R. Urazumbetova, *Lyudi Zemli Tyumenskoi* (Tyumen: Aiveks, 2019), 147.

Who Stifled People's Controllers?

Although formally in 1978, the Tyumen Oblast KNK established a nature protection action group, the controllers' engagement with the conservation cause and its media coverage began to fade. By 1979 West Siberian KNKs stopped publishing their findings in the local newspapers altogether. Their vibrant column, "*Listok Narodnogo Kontrolia,*" disappeared from print media. The column's place was taken by propagandistic accounts praising pipeline and railroad construction successes as well as steady increases in production volumes.

НАШ ТЮМЕНСКИЙ МИЛЛИАРД!

Необычным был этот день для тюменских нефтяников: они вели добычу миллиардной тонны сибирской нефти со дня разработки месторождений области.

Для всех, кто завоевал почетное право стоять в этот день на рабочем месте, утро началось с митингов. На одном из них, состоявшемся в комсомольско - молодежной бригаде Ильдуса Савлова, бурильщик М. Фаррахов говорил:

— В своих обязательствах коллектив бригады наметил завершить программу трех лет пятилетки ко Дню нефтяника. Но, чувствуя постоянную

значительно больше намеченного.

В живописных окрестностях города, у одной из кустовых насосных станций состоялся массовый митинг трудящихся Нефтеюганска. Открывший митинг секретарь парткома объединения Юганскнефтегаз А. В. Губанов поздравил собравшихся нефтеюганцев с большой трудовой победой всего Среднего Приобья.

В своем выступлении генеральный директор объединения Юганскнефтегаз Р. И. Кузоваткин отметил большие задачи, которые стоят перед нефтяниками области. В де-

задач, решение которых было бы не по плечу советскому народу, говорил первый секретарь городского комитета партии В. П. Зинченко. Добыча миллиардной тонны нефти всего за четырнадцать лет, в чрезвычайно тяжелых климатических условиях, вдали от крупных населенных пунктов и баз — разве это не подвиг?

Особенно радует то, что каждая пятая тонна нефти из тюменского миллиарда — наша, нефтеюганская. Я не ошибусь, если скажу, что каждый из нефтеюганцев внес свою долю в эту трудовую победу.

Figure 22. "Our Tyumen Billion!," Nefteyuganskiy Rabochiy, June 1978.[663]

In the late 1970s, public discussion of nature protection issues was gradually outsourced to the Nature Protection Society (VOOP), who reduced the regional environmental discourse to listing such petroleum-unrelated topics as the greening of towns and waste paper collection (*sbor makulatury*). Interestingly, in 1974 KNK reports dealing with environmental problematique were placed in the newspaper section "Human and Nature." Other topics covered by the people's control, such as work discipline and embezzlements, sill occupied the special KNK column.[664] This categorization shows that people's controllers overtook the function of the country's nature protection agency before or instead of the VOOP and were more efficient. The regional VOOP subsidiaries were reportedly less active than the KNK in

[663] "Our Tyumen Billion!," Nefteyuganskiy Rabochiy, June 1978. Such articles appeared more frequently in the local newspapers and often took the place of the eco-critical accounts by the people's controllers in the late 1970s.

[664] For instance, the issue of *Nefteyuganskiy Rabochiy* on March 28, 1974.

dealings with the ecological imprint of the oil industry. According to the people's controllers, the local VOOPs were not only inactive but even supported the nature degradation by soliciting poacher activities of the incoming oil workers.[665]

Why did the controllers stop the public debate of oil's environmental impact, and why did the tone of their internal communication change so dramatically? The decline in the KNK nature protection activity, and especially its media coverage, was likely to stem from five developments. First, the ever-growing economic and (geo)political role of Soviet petroleum, 64% of which at that point originated from West Siberia,[666] increasingly demanded for crude production to seem like a clean business. The production of a commodity so vital for both the country's economy and its international standing had to have an impeccable reputation. Besides, the 1978 ushered a slowdown in the growth of oil exports to West European countries as the conservation efforts of the West Europeans began to bear their first fruit.[667] Under such circumstances, to present itself as a reliable trade partner and a supplier of "clean" oil to the ever more environmentally aware West European trade partners, Moscow had to stifle the debate on the environmental drawbacks of the West Siberian oil industry that the people's controllers initiated in the media in 1970-1977.

Secondly, a precarious situation in Afghanistan following the coup in April 1978 and KGB's leadership's debates about a possible military intervention[668] meant that critical discussions of any aspects of Soviet life, including the industrial impact on the environment, became subject of stricter censorship. In such a geopolitical setting KGB's chairman's Yuri Andropov's concern with the ideological conformity and discipline in the Soviet society became ever stronger.[669] At the same time, in July 1978, with Andropov as its chair, KGB gained even more power and became no longer subordinate to the government. This new status of the Committee of State Security automatically expanded its chairman's powers, thus setting no more limits to Andropov's obsession to control all spheres of Soviet society. These developments in foreign policy and national security materialized into a mid-1978 shift towards "KGB's 'law and order' agenda in public life" as part of its attempt to reform the Soviet system

[665] Trushenkov, "Ryba est, no…"
[666] For oil production statistics, see: Galina Y. Koleva, "Strategiya Razvitiya Zapadno-Sibirskogo Neftegazovogo Kompleksa (1960-1980-E Gg.)," *Vestnik Tomskogo gosudarstvennogo universiteta*, no. 302 (2007), 38, 40.
[667] CIA, *USSR Energy Atlas* (1985), www.cia.gov › library › readingroom › docs › DOC_0000292326.
[668] For a detailed account of these debates that followed immediately after the April 1978 events, see Manfred Sapper, *Die Auswirkungen des Afghanistan-Krieges auf die Sowjetgesellschaft: Eine Studie zum Legitimitätsverlust des Militärischen in der Perestrojka,* Studien zu Konflikt und Kooperation im Osten 2 (Münster: Lit, 1994), Zugl.: Frankfurt (Main), Univ., Diss., 1994, 62–75.
[669] Leonid Michailovich Mlechin, *Yurii Andropov: Posledniaia nadezhda rezhima* (Moskva: Centrpoligraf, 2008), 110.

and in support of Andropov's bid for power.[670] Andropov's fear of subversive activity in the atmosphere of a heating up discussion of a military intervention in Afghanistan was also likely to stifle the discussion of shortcomings of such a strategically important sector as petroleum production.

The third reason for the discursive shift might lie in the generation change within the KNK leadership. Pakhotin retired in January 1979 and his successor Ugrak lacked the enthusiasm for environmental cause so characteristic of Pakhotin. Although controllers stopped their media coverage of *Nefteprom*'s environmental wrongdoings, under Ugrak they continued filing them to the regional administration. The pollution numbers they documented were alarming for the remaining years of KNK existence.[671] Remarkably, the accounts lost the emotionality and the apocalyptic tone that distinguished the work of Pakhotin's team. For instance, the reporting of the average oil concentration in the Ob Basin around Surgut that exceeded the permissible norm by 32 times in 1979-1980, was not accompanied by any resentment so characteristic for the writings of Pakhotin and his regional crew.[672]

Fourth, the WSPC management's growing discontent with revelations by controllers could have blocked the development of KNK's nature protectionism. The notorious negligence so often unmasked by Siberian controllers, revealed more and more corruption, reaching up to the highest party and administration levels. Such powerful enemies had sufficient resources to stifle the whistleblowers. Graft, report padding, mismanagement, and other illegal activities that KNKs brought to light were so tightly interwoven with the tissue of decision-making and power that unmasking the powerful delinquents could be risky.[673]

Finally, the newcomers, drawn to West Siberia by Northern bonuses, soon outnumbered Siberians. As shown above, the temporary success of the citizen controllers of the Tyumen North relied mainly on the *sibiriak* environmental ethics and rhetoric, which meant the ability to speak in a manner that resonated with the fellow-citizens. Had the proportion of the *sibiriaki* in the Tyumen Oblast remained constant, a more expansive environmental criticism could have emerged and resonated more broadly and deeply because it was "attuned to the concerns, frustrations, pleasures, and fears that animated us [sibiriaki in this case, VR] every day."[674]

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[670] Simon Young, "'An Honourable Task for Chekists': The Moscow Olympics and the Role of the Security Services in Late Soviet Politics, 1975–1980," *Russian History* 43, 3-4 (2016), 411.
[671] The Congress of People's Deputies of RSFSR dismissed the institution of people's control in July 1990, Sovetskaya Rossia, July 19, 1990, 2.

[672] GATO, f. 1810, op. 3, d. 1030, l. 89-90.
[673] On the extreme magnitude of Soviet corruption and the powerlessness of such organizations, as KNK, to combat it see: Clark, *Crime and punishment in Soviet officialdom*, 109.
[674] Meyer, *Engaging the everyday*, 172.

However, the numbers of these fellow-*sibiriaki* rapidly became insignificant, as they were exceeded by *vremenshiki*, whose philosophy of converting nature into monetary wealth soon dominated the human-nature relations in the region. *Sibiriak* environmental ethics alone could not tackle the environmental crises effectively. The enforcement mechanisms for environmental protection in the USSR were weak or partially missing, and the administrative liability and fines were ineffective, as they were too insignificant compared to the profits.[675] Despite all the KNK's successes in limiting *Nefteprom*'s environmental damage, the *sibiriak* ethics as a driving force was rather pale compared to the state-initiated conquest of nature.

The West Siberian people's controllers are a remarkable case of a working-class acting as citizen scientists who generated environmental knowledge, made it public, and used it to initiate action limiting environmental harm. In a technocratic society, like the Soviet Union, which stressed the importance of scientific knowledge and technical expertise, the influence of non-specialists on policymaking was traditionally minimal. In such a setting, it is hard to overestimate the importance of the KNK as an institutional framework and political leverage available to ordinary citizens, who sincerely wished to better the management of the state, and in the TO KNK case, to manage the industrial infrastructure in a more environmentally friendly way. Their effective participation was, in fact, only possible through officially approved, state-sponsored organizations. Thus, the institution of the People's Control became a mechanism of participation in policymaking as it motivated locals who often due to insufficient formal education and lack of affiliation with the CPSU had otherwise few channels of interest articulation. The locally existing (*sibiriak* identity) and centrally created framework *(economia i berezhlivost)* allowed the environment to become a thematic focus of such interest articulation. Particularly smaller NK groups in more remote locales with even fewer mechanisms of political activism available to them but with a stronger connection to the pre-petroleum nature demonstrated a remarkable zeal in voicing the *sibiriaki's* disagreement with the rapacious practices of the oil industry. KNKs represent a hereto unstudied agency of largely voluntary nature protection that initiated a counter-discourse to the "conquest of nature." In a society where outside official channels no pressure groups existed to lobby on environmental issues, KNK's activities presaged the regional opposition to the government's environmentally destructive undertakings of the perestroika years. Thus, the West Siberian oil province,

[675] Sharon Krause calls these liability mechanisms "political respect" and claims that the ethical respect for nature alone without the political respect is a non-reliable check on human domination over the natural world, Sharon R. Krause, "Politics Beyond Persons: Political Theory and the Non-Human," *Political Theory*, June 2016, 8.

alongside gaining economic and geopolitical weight as the leading energy supplier, became home to progressive visions of nature protection and growing awareness of oil's environmental impact.

Conclusion

The story of the participation of locally working scholars and provincial residents in the discussion of nature and culture transformation by the oil industry highlights the existence of local-level, and not solely scientist-driven Soviet conservation initiatives emerging as early as in 1962. Due to the tangible character of petrolization's environmental imprint, the deficits of the oil project and the underlying socialist construction in the North became visible and generated a vivid public discussion.

This thesis has asked how and why the local actors reacted to the oil-induced transformation of nature and society. In search for answers, I discovered that some scholars working locally expressed their critique of the petroleum complex as they revealed its environmental and cognitive injustices. The second category of responses that I identified stemmed from Siberians. These responses were rooted in the pre-petroleum nature. The origin of these responses I explored in chapter two. Here I came to a conclusion, that various types of settlement in West Siberia established one common pattern in human-nature relations: in order to survive, state peasants, old believers and liberated detainees alike had to learn to honor Siberian nature and to seek harmonious co-existence with it. To achieve this, the settlers learned to rely on the traditional ecological knowledge of the indigenous peoples and adopted their practices. Thus, West Siberia's pre-petroleum natural world co-shaped ideas and identities, which later became a fruitful ground for ecological critique and conservation endeavors. Siberians' visions of nature and identities embedded in the pre-petroleum reality differed significantly from concepts of nature and of ideal Soviet citizens underlying Moscow's reclamation strategies. This divergence pre-defined petrolization's social engineering tasks. Prior to the petroleum development, the attempts of the Russian and Soviet state to master Siberia' s natural resources did not entail such drastic transformations of nature and culture. Here I showed that industrializing West Siberia was a controversial undertaking. On the one hand, for centuries, the Russian and the Soviet rulers had been attracted by Siberia's natural riches. On the other hand, earlier colonization and images of the region it generated presented the local nature as an active adversary of human modernization attempts. Through this resistance Siberian nature has shown itself as an agent of its history. To the decision-makers in the center, it appeared to be hostile and fearsome. One of the consequences of this intimidation was the deficit of scientific knowledge about its nature and people.

Chapter three outlined the first dramatic and dangerous manifestation of this lack of expertise in the conflict between the proponents of hydropower and hydrocarbon plans to develop West Siberia. By analyzing this confrontation, I showed that building an oil complex in West Siberia was a contested project. At the same time, this first phase of the struggle for oil demonstrated that environmental matters served as a compelling argument in political confrontations and economic development decisions in the 1960s Soviet Union. In particular, at this stage, transformation of nature through industrial complexes sparked lively discussions in the media and in the offices of both regional and central party administration. However, these actors instrumentalized nature transformation in their discussions to achieve their political and economic aims. In contrast to their superiors in Moscow, West Siberian hydrologists, geologists and politicians, or petrogeologists turned politicians, were more inclined to bring up functions of their native nature that went beyond providing services to the petroleum complex (timber industry and fisheries). However, their discourse on Siberian nature and its function within the petroleum complex failed to consider its non-utilitarian cultural value and remained within the paradigm of maximizing nature's economic worth. Here I disagree with Douglas Weiner, who interpreted this episode and particularly Sergey Zalygin's stance on it, as a call to appreciate the cultural value of land. Applying John Meyer's classification, I define Tyumen petroleum lobby, including hydrologist turned writer Zalygin, as "inside players" and prove that their vision of Siberian nature originated within the same conquest paradigm as that of their opponents from the hydropower camp and their superiors in Moscow. I demonstrated that playing the environmental card became an effective method to achieve political goals and receive funding for costly projects. Such environmental PR did not entail going beyond utilitarian into the realm of cultural value. More importantly, the victory in this struggle made the construction of the petroleum complex seem like a "green business." Against the backdrop of the failed "environmentally precarious" hydropower scenario, oil production was presented as a blessing for the environment and the economy. Thus, revealing its "dirty" sides became an uneasy task.

The first group of actors who dared to publically reveal oil's dirty sides was the new cohort of Soviet ethnographers. By analyzing the fieldwork results of Zoya Sokolova and Yuri Strakach I discovered a critical "semi-insider" perspective on the ecology of the petroleum project. Ethnographers, hired initially to facilitate the integration of the region's indigenous peoples into the petroleum complex, came up with conclusions that contradicted the mainstream postulates. I showed that "backwardness" of lifestyles and practices interwoven with the natural world, which the Soviet petromodernity was expected to replace, was

instrumentalized as a political tool. By demythologizing the concept of "backwardness," I contributed to the ongoing scholarly debate about the Soviet civilizing mission, nationalities policy, and Russia's semi-peripherality.[676] I demonstrated that the junction of petroleum infrastructure and ethnographic research turned out to be an early bonanza of understanding of the deficits of Socialist construction, in particular, its cognitive and environmental injustice. More importantly, the dialogue between such critical scholars and the local CPSU administration showed that the communist planners were willing to revise the socialist modernization project critically. The recognition of the sedentarisation's poor results, which ethnographers highlighted, and the regional party's eagerness to report them as a deficit of central planning and as Moscow's negligence demonstrate, that the CPSU was not a monolithic bloc and a critical dialogue between its regional and central units was permitted.

Siberians went even further in developing this dialogue and took advantage of the institutional framework of the semi-party controlled semi-civic organization of People's Control to join and expand the discussion. The engagement of ordinary working-class Siberians in monitoring the environmental effects of the petroleum complex was effective. By pushing through the new regulations on bilge- and wastewater collectors, as well as reducing the number of tanking stations, and penalizing the responsible WSPC management, people's controllers achieved measurable results in combatting river pollution with oil and petroleum products. Taking advantage of the public discussion space provided by the "Economizing and Thrift" policy, controllers problematized the issue of oil waste as they called attention to oil's routes and imbued leaked oil with dangerous environmental dynamics. Leaning on the *sibiriak* cultural construction of nature in their evaluations of oil's environmental imprint, people's controllers conservation rhetoric and actions resonated with the broader public, thus widening the intelligentsia-dominated segments of society traditionally concerned with industrialization's ecological shortcomings. This interaction of voluntary controllers and the government meant that the Soviet state wished to be informed about the industry's environmental wrongdoings and considered relying on the local non-scientific knowledge, in addition to the scientific expertise, in its decisions to manage natural resources. At the same time, although the conservationist ethos that emerged in West Siberia did frame a criticism of nature's function foreseen by the petroleum complex, it did not challenge the Soviet state and its modernization strategy. Similarly to its capitalist version, the lure of Soviet petromodernity

[676] In addition to the discussion of "backwardness" as an object of the Soviet civilizing mission and nationalities policy, the discussion of Russia's semi-peripherality offers new insights into the term's relevance, see: Olga Malinova-Tziafeta, "Semi-peripherality discourse and water infrastructure in St. Petersburg/Leningrad (1864-1927)," *Jahrbücher für Geschichte Osteuropas* (forthcoming).

expressed in the tales of "leap into progress" fueled by oil and of "ideal Soviet citizens" emerging from the builders of the petroleum complex, foreclosed large-scale structural criticism.

This study has focused on critical voices revealing the oil complexes environmental downsides and visions of nature feeding these voices. On a macro-level it informs the field of Soviet history about five important nuances in the nature-society relations in the USSR. First, my dissertation dispelled myths about Moscow's untrammeled authority in defining nature-society relations. I showed that various paradigms of human interactions with the natural world existed in the Soviet Union. Some of these paradigms originated in the provinces and engendered the local cultural experience with the environment. The early history of West Siberian petrolization alone produced a multi-faceted discourse on the value of nature: from utilitarian notions in the GES contradiction to nature as a source of irreplaceable indigenous knowledge to "unindustrialized nature as home and healer" in the *sibiriak* discourse channeled through KNK. Petrolization triggered articulation of the importance of these knowledges about nature. Thus, studying the vital regional identity in the peripheral locales can help understand Russia's history and find the key to a functioning political system and environmentally conscious society. In this respect, my work offers an insightful alternative to those seeking to understand the ecological concerns of the Soviet society from the perspective of the center.

Second, my research has contributed to the expanding revisionist trend in the histories of the Soviet environment that questions the prominence of the state-imposed Promethean imperative to master nature. I contributed to the field by proving that already in the 1960s and 1970s, there was room for criticism of the state strategies to manage natural resources and of the methods to construct socialism in various environments. What is more, I showed that the Soviet state itself encouraged such criticism as it was searching for more sustainable models of resource use. Thus, the dissertation not only revisited the starting point of late Soviet environmental discourse but also showed the willingness of the Soviet state to engage the local agents in optimizing its resource management. By doing so, the study also contributes to the histories of provinces and their interaction with the center. It shows the eagerness and the opportunities taken by the regions to engage in dialogues with the central power. The dialogue of Siberian people's control with the Council of Ministers in Moscow, informed by local expertise suggests a more productive framework to apply to the studies of the Soviet regions, than the overused "civil society" conversation.

Third, the analysis of the reactions to petrolization helped me restrain the triumphant narrative of oil's virtue as a vehicle of progress and a source of wellbeing for all members of

the society established in Russian historiography. I demonstrated that from its very start, petrolization disturbed livelihoods, sharpened injustices of socialist construction, and caused meaningful ecological critique. Except for the struggle between hydropower and hydrocarbon lobbies, all other actors in my dissertation struggled rather to protect the pre-petroleum function of the landscape. No one struggled against oil and rejected petromodernity. Rather, locally working scholars and Siberians alike sought to confer this modernity more inclusiveness as they struggled to preserve traditional bonds to nature within the petroleum complex.

Fourth, the thesis analyzed the hereto unstudied policies and institutions that facilitated interactions of the state decision-makers with agents of scientific and local knowledge. Contrary to the existing narratives of ecocide by the Soviet state, this dissertation showed that communist planners did seek solutions to environmental problems caused by their industrial projects. They did so by providing opportunities for citizens to express their concerns about the environment and industrialization's shortcomings and to alarm the central powers. The designers of the petroleum complex both in Moscow and in Tyumen did not hinder ecological critique and even supported practical measures to limit the industry's environmental harm. Throughout the investigated period, the Soviet state was eager to receive first-hand knowledge about the condition of the natural world and to adjust this condition to the needs of the communities interacting with it and depending on it. However, these goals were never at the top of the agenda of Khrushchev's and Brezhnev's governments. Fulfillment of production plans and export obligations, as well as geopolitical aspirations, traditionally outweighed conservation and resource economizing policies.

Finally, my dissertation contributes to the studies of the global North and the Arctic, which have been criticized for ascribing an integrated relation to nature mainly to indigenous communities and leaving out the role of institutions that do not cohere with indigenous perspectives, including local government and "groups with blended denominations.[677]" By giving voices to the *sibiriaki* volunteering for the People's Control, I offer the field of Northern and Arctic studies a history of a group with a "blended denomination" that found channels to express the non-indigenous locals' environmental concerns, seek solutions to them and draw attention to the varying cultural constructions of Northern nature.

The engagement of Soviet non-academia with the environmental imprint of industrialization offers promising opportunities for future research. My results could lead to

[677] Justiina M.I. Dahl, "Assessments, Models and International Politics of the Arctic: Why the "New North" Narrative Includes Only Bomber, Polar Bear, Oil, and Gas Deposit Models, and No Original Parts or an Assembly Manual," *The polar journal* 5, no. 1 (2015).

further investigation of People's Control activities in other regions of the former USSR. A comparative study could, for instance, reveal whether Siberian controllers were unique in their desire to engage with the industry's environmental downsides and discover other regional nuances in KNK activity. Also, a detailed analysis of the role of geopolitical objectives in defining the Soviet strategy of transforming nature remained beyond the scope of my study. Pipeline construction could offer great opportunities for further research on oil's environmental history.

As we saw from Evgeniy Grishkovets' 2015 novel on Siberian rivers and from the historiography overview, both the *sibiriak* and the Promethean visions of nature continue to exist in Russia today. In contrast to the 1960s and 1970s, it seems, that now they are part of two parallel discursive worlds. The dialogue between the two is much needed for limiting the environmental harm the petroleum complex continues to cause. Unfortunately, in today's Russia, there is no such promising institutional platform like the 1970s People's Control that could become a place for this dialogue.

List of Abbreviations, Acronyms, and Russian Terms

Akademgorodk	Novosibirsk campus of the Siberian branch of the Soviet Academy of Sciences
Bolshevik	member of the left-wing of the Russian Social-Democratic Workers' Party
Bolshevik	The leading Soviet journal, the regime's ideological mouthpiece that was renamed *Kommunist* in October 1952
CPSU	Communist Party of the Soviet Union
d.	*delo*, file
Dekulakized	dispossessed
f.	*fond*, collection
GARF	State Archive of the Russian Federation
GASPITO	State Archive of Socio-political History of the Tyumen Oblast
GATO	State Archive of the Tyumen Oblast
GES	hydroelectric station
Gidroproekt	Designing and Planning Institute of the Ministry of Power Station Construction
Glavtymenneftegaz	the Chief Tyumen Tyumen Oil and Gas Administration, directly subordinate to the Oil Ministry, responsible for the regional oil and gas production
Glavtyumengeologia	the Chief Tyumen Geology Administration, the regional subsidiary of the Ministry of Geology
Glavtyumenneftegazstroi	the Chief Tyumen Tyumen Administration for the Construction of Oil and Gas Industry Enterprises
Goskompriroda	State Committee for Nature Protection
Gosplan	State Planning Committee
GULAG	Main Administration of Corrective Labor Camps
inorodtsy	non-Russian, mainly indigenous residents
intelligentsia	people of mental labor who accomplished higher education and possessed special knowledge in different spheres of science, technology, and culture; social strata traditionally contrasted with the working class
internat	boarding school
ITR	engineer or technical specialist
KGB	Committee of State Security
khoziaistvennost'	prudent, careful and thrifty way of managing a household, a husbandry

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Zusammenfassung

Die Dissertation beschäftigt sich mit der Umweltgeschichte des Westsibirischen Erdölkomplexes in den Jahren 1961-1978. Im Jahr 1974 wurde die Sowjetunion dank des Sibirienöls der größte Erdölproduzent der Welt. Für Westeuropa ist Russland bis dato der mit Abstand wichtigste Lieferant von Erdöl und Erdgas. Größtenteils werden sie in der westsibirischen Region Tjumen' gefördert. Diese Region, die aktuell über das höchste Bruttoregionalprodukt im Land verfügt, ist seit der Ölentdeckung in den frühen 1960er für ihre Umweltprobleme notorisch. Allerdings gelang die durch den Erdölkomplex verursachte Umwelttransformation und der forcierte Wandel von traditionellen Beziehungen zwischen Mensch und Natur in dieser Region bisher nicht ins Themenspektrum der historischen Forschung.

Um diese Lücke zu füllen, analysiert die Arbeit Reaktionen und Erfahrungen verschiedener Akteure mit Transformationen der Natur, die seit der Entdeckung erster Ölvorkommen in der Region im Jahr 1961 in Gang gesetzt wurden. Sie beschreibt die Kollision verschiedener Ideen über die Funktionen der westsibirischen Natur und ihre Vereinbarkeit mit Moskaus Plänen, Westsibirien in einen führenden Energieproduzent des Landes zu verwandeln. Die Fragen, wie und warum die lokalen Akteure auf den durch die Erdölentwicklung in Westsibirien verursachten ökologischen Wandel reagierten und was ihre Reaktionen von 1961 bis 1978 definierte, bilden den Fokus dieser Dissertation.

Auf der Suche nach Antworten auf die Forschungsfrage problematisiere ich den Begriff „Der Kampf ums Öl." Dieser Ausdruck etablierte sich schnell als Synonym für die „Transformation der Natur" in Westsibirien in den frühen 1960ern. Die Designer des Erdölkomplexes verwendeten diese Formulierung, um die Natur als Feind darzustellen, den das sowjetische Volk zu besiegen hatte, um Erdöl für seine glänzende kommunistische Zukunft zu erobern. Seit den Entdeckungen der ersten Vorkommen wurde die Landschaft, die zum neuen Energiezentrum des Landes werden musste, als „Frontlinie des Kampfes ums Öl" bezeichnet. Worauf zielte dieser Kampf ab und wer nahm daran teil? Kämpften alle Akteure des Kampfes für dasselbe Ziel, und was motivierte sie?

Um den „Kampf ums Öl" zu dekonstruieren, betrachte ich den Erdölkomplex nicht nur als industrielle Hardware, sondern als „Bündel von Beziehungen" und als Ort der Wissensproduktion. In dieser Arbeit wird „Wissen" nicht nur als wissenschaftliches Fachwissen verstanden, welches zweifellos in der neuen Erdölprovinz generiert wurde,

sondern als Wissen, das über formale akademische Erkenntnisse hinausgeht. Auf der Suche nach ambivalenten Überschneidungen von Wissen zeigt die Dissertation das praktische Wissen der Sibirier über die lokale Natur, Erkenntnisse von Ethnografen über Herausforderungen bei der Anpassung an eine Industrielandschaft und das wachsende Bewusstsein der Öffentlichkeit für Erdöls Auswirkungen auf die Umwelt. Die Betrachtung des Erdölkomplexes als „Bündel von Beziehungen" zeigt, wie eine Branche für manche zu einem Segen werden kann, für andere eine Umweltbelastung darstellt und die Produktion von kritischem Wissen durch eine dritte Gruppe stimuliert. Insbesondere die beiden letztgenannten Aspekte wurden in der Geschichte Westsibiriens bisher übersehen und bilden das Novum dieser Studie. Auch betritt die vorliegende Studie Neuland, indem sie neben den Reaktionen von Intelligentsia und Wissenschaftlern, die Versuche einfacher provinzieller Bürger, der Umweltverschmutzung entgegenzuwirken, untersucht.

Die Arbeit gliedert sich in fünf große Kapitel, die sich jeweils mit einer Phase der Erschließung Westsibiriens und mit einer kritischen Akteursgruppe befassen und sich dabei einer Kombination aus thematischer und chronologischer Herangehensweise bedienen. Das erste Kapitel setzt das Erdöl Westsibiriens in Kontext Sowjetischer Industriemoderne und analysiert die zentralen Tendezen von Chruschtschows Energiepolitik.

Das zweite Kapitel dient als Setting dieser Umweltgeschichte, in dem Tjumener Norden und seine Bewohner sowie der Ursprung ihrer Naturvisionen vorgestellt werden. Es bietet einen Überblick über die Akteure und Schauplätze der Erschließungsversuche vor der Petrolisierung, um das Ausmaß der Transformationen der 1960er und 1970er Jahre in einer historischen Perspektive zu bewerten. Das Kapitel argumentiert, dass die Art und Weise, die Motive der Siedlung sowie die Werte, die die nach Sibirien umgesiedelten Menschen durch ihre Interaktionen mit der Natur entwickelten, ihre Reaktionen auf die ölinduzierten Transformationen vorbestimmten.

Kapitel drei analysiert die erste Phase des Kampfes ums Öl in Westsibirien zwischen 1961 und 1963. Diese Periode war durch einen Konflikt zwischen zwei Entwicklungsszenarien gekennzeichnet: dem Wasserkraftwerk und dem Erdölcluster. Durch die Analyse dieser Strategien unter dem Gesichtspunkt der Beziehungen zwischen Mensch und Natur bewertet das Kapitel die Auswirkungen dieses Wettbewerbs auf Öls ökologische Image. Das Kapitel behauptet, dass die Argumente, die dem Erdölszenario zum Sieg verholfen haben, die Diskussion über die ökologischen Nachteile der Erdölindustrie behindert haben. Durch die Analyse dieser Konfrontation zeigt die Arbeit, dass der Bau eines Ölkomplexes in Westsibirien

ein umstrittenes Projekt war. Gleichzeitig hat diese erste Phase des Kampfes ums Erdöl gezeigt, dass Umweltfragen in der Sowjetunion der 1960er Jahre ein zwingendes Argument für politische Auseinandersetzungen und Entscheidungen über die wirtschaftliche Entwicklung waren. Insbesondere in dieser Phase löste die Transformation der Natur durch Industriekomplexe lebhafte Diskussionen in den Medien und in den Büros der regionalen und zentralen Parteiverwaltung aus. Diese Akteure haben jedoch die Naturumwandlung in ihren Diskussionen instrumentalisiert, um ihre politischen und wirtschaftlichen Ziele zu erreichen.

In der Atmosphäre von Erdöls Triumph als optimale Entwicklungsstrategie war es für die lokal forschenden Ethnographen eine ziemliche Herausforderung, sich mit Erdöls Ökologie und ihre Auswirkungen auf indigene Gemeinschaften auseinanderzusetzen, wie das vierte Kapitel zeigt. Dieses Kapitel konzentriert sich auf eine weitere Funktion der sowjetischen industriellen Megaprojekte - die kognitive Einschließung - und enthüllt die konkurrierenden Visionen über die Interaktion zwischen Mensch und Natur, die solche Bemühungen erschwerten. Es beschreibt den Kampf der Ethnographen für mehr ökologische und kognitive Gerechtigkeit für die indigenen Völker, die sich in das neue territorial-industrielle Komplex integrieren mussten.

Ethnografen, die ursprünglich eingestellt wurden, um die Integration der indigenen Völker in den Erdölkomplex zu erleichtern, kamen zu Schlussfolgerungen, die den gängigen Postulaten des sozialistischen Aufbaus widersprachen. Ich habe gezeigt, dass die so genannte „Rückständigkeit“ von mit der Naturwelt verwobenen Lebensstilen und Praktiken, die die sowjetische Petromodernität ersetzen sollte, für politische Zwecke instrumentalisiert wurde. Durch die Entmythologisierung des Konzepts der „Rückständigkeit“ trägt die Arbeit zur anhaltenden wissenschaftlichen Debatte über die sowjetische Zivilisationsmission und Nationalitätenpolitik bei. Das Kapitel deckt auf, dass sich die Verbindung von Erdölinfrastruktur und ethnografischer Forschung als eine Bonanza für das Verständnis der Defizite des Aufbaus von Sozialismus im Norden, insbesondere seiner Umwelt– und kognitiven Ungerechtigkeit, herausstellte. Der in der Arbeit analysierte Dialog zwischen solchen kritischen Experten und der lokalen Parteiführung zeigte, dass die kommunistischen Entscheidungsträger bereit waren, das sozialistische Modernisierungsprojekt kritisch zu überarbeiten. Die Anerkennung der schlechten Ergebnisse der Sedentarisierung, die von Ethnographen hervorgehoben wurden, und die Bereitschaft der Regionalpartei, sie als Defizit der zentralen Planung und Moskaus Nachlässigkeit zu melden, zeigen, dass die KPdSU kein monolithischer Block war.

Nach der Auseinandersetzung mit den Bemühungen der Ethnographen, das Bewusstsein für die Ungerechtigkeiten des Erdölkomplexes zu schärfen, wendet sich die Dissertation an Akteure außerhalb der Intelligentsiakreise. So befasst sich Kapitel fünf mit dem Kampf der Volkskontrolleure um einen umweltfreundlicheren Erdölkomplex. Auf der Suche nach der Motivation eines Sowjetbürgers, sich freiwillig für die Volkskontrolle einzusetzen, analysiere ich die Naturvisionen der Sibirier. Um die Gründe für die Entstehung eines solchen Aktivismus auf Makroebene zu erörtern, wird das Kapitel in den Kontext der bisher weitgehend von der Fachliteratur übersehenen Breschnews Politik der „Ökonomisierung und Sparsamkeit" gestellt. Diese Analyse liefert neue Einblicke in die Versuche Moskaus, ein nachhaltigeres Ressourcenmanagement zu etablieren, das die breite Einbeziehung von Bürgern aller sozialen Schichten förderte. Schließlich untersuche ich die Gründe für das Verblassen der Initiative.

In Anlehnung an die sibirischen kulturellen Konstruktionen der Natur bei der Bewertung von Öls ökologischen Einfluss, resonierten die von Volkskontrolleuren initiierten Maßnahmen in der breiten Öffentlichkeit und erweiterten so die von der Intelligenz dominierten Gesellschaftsschichten, die sich traditionell mit den ökologischen Mängeln der sowjetischen Industrialisierung befassten. Dieses Zusammenspiel von freiwilligen Kontrolleuren und der Regierung demonstrierte, dass der Sowjetstaat über die Umweltverstöße der Industrie informiert werden wollte und sich bei seinen Entscheidungen zur Bewirtschaftung der natürlichen Ressourcen neben dem wissenschaftlichen Fachwissen auch auf das lokale nichtwissenschaftliche Wissen stützen wollte.

Die Arbeit basiert auf einer breiten Quellenbasis, die Perspektiven verschiedener Akteuren beleuchtet: von der zentralen Regierung in Moskau und der obersten staatlichen Planungsagentur, über lokale Administration, über Berichte von gesellschaftlichen Organisationen bis hin zu Feldforschungsdokumentation und Korrespondenz lokal tätiger Ethnografen, wurden verschiedenen Arten von Quellen ausgewertet. Außerdem, stützt sich die Arbeit auf Analyse von literarischen Werken, von Wissenschaftlern und Bürgern initiierten Diskussionen in der Presse, Karten der neuen Erdölfeldern und der gegründeten Siedlungen, sowie Fotoaufnahmen, die die durch die Erdölindustrie verursachte Naturtransformation und entsprechenden gesellschaftliche Reaktionen veranschaulichen.

Die Dissertation ist disziplinär an der Grenze zwischen den Fachgebieten der Umweltgeschichte und den Energy Humanities angesiedelt. Darüber hinaus werden auch die Forschungsfelder der politischen Ökologie und den Science and Technology Studies herangezogen. Der Fokus auf verschiedenen Akteursgruppen, sowie die separate Betrachtung

der Erdölgeschichte von Erdgas, ermöglichen dieser Arbeit, sich von dem in der Sibirienforschung etabliertem Top-down Ansatz zu distanzieren und somit die bisher kaum erforschten Perspektiven der einfachen sowjetischen Bürgern auf Naturtransformation zu beleuchten und neue Facetten des Staat-Gesellschaft Dialogs in der UdSSR aufzudecken.