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Colonization of Nature in the Soviet Union. State Ideology, Public Discourse, and the Experience of Geologists

Alla Bolotova*

Abstract: This article combines two perspectives on the history of geology in the Soviet Union. Soviet policy not only transformed the geological profession from a marginal group of intellectuals into a booming field of applied science. State ideology also celebrated the geologists' colonization of nature, putting them on a par with cosmonauts and pilots. The hegemonic discourse defined nature as meaningless unless it was exploited for human needs. However, the geologists' everyday experiences looked remarkably different. During month-long stays in the natural environment, the official doctrine gave way to other perspectives: hardships and starvation, unexpected encounters with men and beasts, and the quest for discoveries in spite of all difficulties. Geologists also enjoyed nature as visual harmony, and even found a small corner of freedom in nature as the "taiga laws" of behavior, friendship, and hospitality made for an honest atmosphere around the campfire. For Soviet geologists, nature was not simply the "house of treasures" that official rhetoric cherished but also an archipelago of freedom.

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All in a man, everything for a man! Only a human being exists.

All the rest is produced by his hands and brain.

Maxim Gorky¹

In every society, nature is not only an irresistibly material environment but also a subject of interpretations and reinterpretations. In the Soviet Union, the notion of a conquest of nature was part of state ideology, and yet it is important to recognize the paradoxical consequences that this notion could produce in Soviet life: for example, people sent to "wild nature" with the idea of conquering it were also embarking on a venture that brought them beyond the sphere of state control. Therefore, an inquiry into interpretations of nature in politics and everyday life in the Soviet state is well advised to combine a study of official statements with an investigation of the ideas and practices of specific groups. This article intends to provide such an inquiry by focusing on geologists, a group that is especially well suited for a case study on the constructions of nature in Soviet society. Most importantly, it is the duality of the Soviet geologists' public image that deserves attention in this respect: s/he is seen as both a vanquisher and a relative of nature. "Hold on, geologist, hold out, geologist, you are the brother of wind and sun" - these are the words of a popular Soviet song.² Voices of this kind ascribe a special kinship with basic symbols of nature, like wind and the sun, to the community of geologists while at the same time celebrating them as representatives of humankind who explore nature for building future industrial centers and belong to the world of scientific rationality in its professional identification. In fact, geologists became a cult figure in Soviet society in the 1960s, standing on a par with cosmonauts and pilots. Romanticizing exploration and exploitation of nature was a characteristic of the Soviet epoch.

Soviet newspapers, films, songs and books often described geologists as pioneers and path-breakers in the exploration of new territory. In representing their professional work, special attention was given to descriptions of struggle with nature, constant encounters with and success over difficulties. The field life of geologists appeared as an everyday adventure in taiga, tundra, mountain or river settings that ultimately had been created to serve human purposes. At the same time, reports depicted geologists as brothers to elements, wanderers, romantics: a group of people who were close to the world of nature. However, while this kind of report provides ample evidence for the Soviet hegemonic concept of nature, it is equally important to include the practical experiences of "Soviet geologists" in this discussion. Two different types of sources were used

¹ Maksim Gor'kij. Na dne (On the bottom). Quoted by: M.Gor'kij. Izbrannye sochinenija. M., Hudozhestvennaja literatura, 1986, pp. 890-951.

Geologi (Geologists), 1959. Text by S. Grebennikov and N. Dobronravov, music by A. Pachmutova.

for this article: first, the hegemonic discourse on nature was reconstructed on the basis of newspaper and literature analyses³; second, autobiographies of professional geologists and fifteen interviews with geologists who had worked in expeditions during Soviet times provided information concerning the geologists' interpretations of nature.⁴ Taken together, this material allows an analysis of the different dimensions of interaction with the natural environment in the practical experience of "Soviet geologists" directed by the state to search for natural resources: What did conquest of nature mean in practice? Were there alternatives to, or at least deviations from, the hegemonic discourse about nature in the USSR? In which ways did the material environment influence social constructions of nature? As distinct from the state view on nature as a "senseless" storehouse full of resources, the geologists' views of nature were much more diversified, filled with events, meetings, values, and meanings; they comprised bears and Chukchee⁵, the military and the banished, landscapes, scientific discoveries, hunger, and the death of friends.

Compared with research on the United States and some Western European countries, the literature on the environmental history of Russia and the Soviet Union is still quite limited. Douglas Weiner carried out important research on the history of environmental movements in Soviet Russia. Also, publications by Paul Josephson, Bernd Stevens Richter, and David Turnock pay attention to some aspects of the Soviet Union's environmental history. However, given the size of the Soviet Empire and its importance for the world history in the twentieth century, it will readily be seen that these works, in spite of their merits, can only scratch the surface. Readers are invited to read this article as a contribution to the research field of Soviet environmental history.

The methodology of discourse analysis was used for the newspapers analysis. Five newspapers were analysed from the 1930s to the 1960s. This article presents an analysis of 1960s material only.

⁴ The interviews were conducted by the author in 2002 and 2003. Transcripts are in the author's possession.

⁵ An ethnicity, indigenous population living in the Magadan region of Russia.

Oouglas Weiner, Models of Nature. Ecology, Conservation and Cultural Revolution in Soviet Russia (Bloomington: Indiana University Press, 1988); Douglas Weiner, A Little Corner of Freedom. Russian Nature Protection from Stalin to Gorbachev (Berkeley, 1999).

Paul Josephson, Industrialized Nature. Brute Force Technology and the Transformation of the Natural World (Washington, 2002); B. S. Richter, "Nature Mastered by Man. Ideology and Water in the Soviet Union," Environment and History 3 (1997), pp. 69-96; David Turnock (ed.), East Central Europe and the Former Soviet Union. Environment and Society (New York, 2001).

1. The State: Conquering Nature in the USSR

He proudly steps on the pole, And rivers directions changes, And high peaks of mountains moves, A Soviet everyman.

From a Soviet song⁸

The slogans on the conquest and subjection of nature were among the most important ideological frames of the Soviet state. The idea of human dominance over nature, and the call for humans to subdue, modify and reconstruct a chaotic and meaningless nature in order to regulate natural processes supplemented the overarching goal of a total reconstruction of the social order, making for an intrinsic link between state policy and the ideology of conquering nature in the USSR. After a few remarks on the institutional development of geology in the Soviet Union, this article will present a discussion of the hegemonic and other discourses on nature and geologists between 1930 and 1980.

1.1 Soviet industrialization and its impact on geology

The exploration of unknown territory had long been a standing feature in the history of Tsarist Russia, as countless explorers readily show. However, explorations gained a new urgency with the declaration of a massive industrialization program in the 1920s, and state authorities set out to explore the distant territories of the country in order to get resources for industrial development. Weakened by the long civil war and the devastation it had brought, the strategic aim of the Soviet state was to dispose of the necessity to import mineral resources, assuming that resources of this kind could be found in abundance in the country's vast unexamined territory. Geologists were in the forefront of the "explorers" of the new lands. They were often the first to come to places where, depending on the results of their investigations, a new industrial complex could arise.

This situation, and especially the forced character of development, defined the numerous features of the science of geology in the USSR. In institutional terms, geology started in Tsarist Russia in 1882, when a decree of Alexander III.

I. Grigoriev (red.), Sovetskaya geologia za 30 let (Soviet geology for 30 years) (Moskva, 1947).

Sovetskij prostoj chelovek (The Soviet everyman), 1936. Text by V. Lebedev-Kumach, music by L. Shtrejher.

created a Geological Committee. 10 Interestingly, this occurred only three years after the creation of the Geological Survey in the United States of America.11 Before the revolution of 1917, there were also a number of geological associations in Russia, usually groups of predominantly male intellectuals who belonged to the scientific elite of Russian society. After the revolution, geology quickly turned into an applied science, with close connections to industry and the military. To be sure, the military-industrial complex had a great influence on the development of geology and other earth sciences in other countries as well, but the Soviet Union probably stood out in the speed of the transformation. Just before the revolution, the Geological Survey of Russia comprised a total of 72 persons, making for an urgent need for qualified geologists. 12 In order to boost education, many rabfacs (specialized courses for workers), technical schools and departments at the universities were organized by Soviet authorities. Special scholarships and high salaries served to increase the attractiveness of geology.

Distribution of the graduates was centralized, and depending on the state's need for qualified personnel, a graduate of any institution could be sent to any part of the country. It is noteworthy that this was a typical feature of the Soviet state that made for a complete transformation of the category of space in the USSR. Any citizen of the country could be directed to any place, and often was, making for a rapid rise in both geographic and social mobility. The state monopolized the power to transform the territory and to distribute specialists in accordance with its needs.

Different types of geological surveys were conducted systematically on the entire territory of the country beginning in the 1920s, resulting in a constant expansion of the institutional structure of geology. As a result, the geological branch comprised more than 10,000 specialists with higher education in 1947, a figure that does not include sub-professionals and technical workers. 13 By the early 1950s, geologists of the Soviet Union accounted for about one half of the total number of geologists in the entire world. 14 The state exercised a strict control in defining the types of mineral resources to be found, the regions where expeditions had to take place, and priorities of work. The geological surveys focused predominantly on the country's far north, Siberia, and the

¹⁰ O. Petrov, A. Zhamojda, GEOLKOM - VSEGEI v razvitii Geologicheskoj sluzhby i usilenii mineral'no-syr'evoj bazy Rossii. 1882-2002 (GEOLKOM - VSEGEI in the development of Geological Survey and strengthening of a mineral base of Russia) (St. Petersburg, 2002).

¹¹ M. Rabbitt, The United States Geological Survey: 1879-1989 (U.S. Geological Survey Circular 1050, Washington, 1989).

I. Grigoriev (red.), Sovetskaya geologia za 30 let (Soviet Geology for 30 Years) (Moskva, 1947).

¹³ Grigoriev, Sovetskaya geologia.

¹⁴ L. Graham, What Have We Learned About Science and Technology from the Russian Experience? (Stanford, 1998).

Russian Far East. With the data obtained during field expeditions (where the majority of the Soviet geologists spent about 5-6 months every year), the "white spots" of the country's geography continued to shrink, and countless deposits of mineral resources were stricken and tested. However, given the environmental conditions of Siberia, it becomes clear that there was a need for an enthusiastic corps of field workers. Therefore, agitation started in the 1920s for the "struggle with nature," with newspapers and the literature alike seeking to incite people to be enthusiastic about being directed to distant backwoods regions to "master the land."

1.2 Literature, revolution and nature

When we alter the history, We can't give geography a miss! Soviet poet A. Zharov (1904-1984)¹⁵

Literature played an important role in the ideological conquest of nature. It were literati – writers, political writer, and poets – who in the post-revolution decades defined the general terms of the rhetoric of the Soviet hegemonic discourse on nature, which newspapers later adopted and turned into an articulate mythology of conquering nature. At the same time, Soviet leaders were developing ideas of altering nature as well; perhaps the best known example is the "Stalin Plan for the Transformation of Nature." The literary style commonly known as socialist realism became a major source of the evolution of the ideology of conquering nature. In essence, socialist realism set out to transform ideological frames of reference into works of art.

The Soviet hegemonic discourse on nature was a creation of revolutionary romanticism and pathos. Nature was a metaphor for the struggle with and the ultimate conquest of the old order and the construction of the new one. With that, nature was defined as wild and hostile. Interpretations of nature during the first years of the Soviet regime often carried allusions to revolutionary rhetoric and romanticism; they became tales of revolutionary struggle, of renovation and reconstruction. After the Second World War, notions of "war with nature" and "conquest of nature" became more prominent. One could argue that romanticizing the struggle with nature is a general characteristic of large industrial countries like the Soviet Union and the United States. Both countries favored a

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¹⁵ Izvestija of September 12, 1931. Zharov A. "Volga vpadaet v Moskvu" (Volga meets Moscow).

This is a widely-used term in Soviet journalese for the governmental rule from October 24, 1948. The plan had to be implemented over a 30-year period, and envisioned a series of forest belts across a huge part of the south of the country whose purpose was to hold back and tame the harsh winds from the deserts of Central Asia.

way of understanding and exploring nature that one might call "colonization of nature," as distinct from the "civilization of nature" that took place in Western Europe over the ages. While civilization of nature envisioned a domestication of "nature as my backyard," colonization sought a conquest of "wild, alien land."

The changes to the natural environment in accordance with the needs of Soviet society were closely connected with the idea of "forming a new (Soviet) man." "Changing the nature, a man changes himself" - this was a slogan proclaimed by the Soviet writer Maxim Gorky in the 1930s. 17 As Lev Trotsky, an early Soviet leader who was later murdered in exile, wrote in an essay of 1924, "Under socialism a man will become a Superhuman, changing courses of rivers, heights of mountains and nature according to his needs and, after all, changing his own nature." This rhetoric depicted the Soviet struggle with nature as a continuation of class conflict and as supporting the struggle with the capitalist world. It is worth quoting Maxim Gorky again, since he promoted the idea of the conquest of nature in the first decades of Soviet power: "In the Soviet Union there is a struggle of a reasonably organized will of the working masses against the forces of nature, against the elemental natural constituent in people which is nothing but an instinctive anarchism of a personality brought up through the ages of pressure placed on it by the class state." Gorky depicted people's energy in the construction of different industrial objects as opposed to wildness and the spontaneous natural forces: "Our brave and mighty activities directing the physical energies of the people to the struggle with nature allow the people to feel their true purpose: to gain possession of the forces of nature and to tame its fury."²⁰

Vladimir Mayakovsky became the first poet who enchanted the struggle with nature. He entirely accepted both the revolution and the ideology of conquering nature: "Build / at full working agility, / don't regret when breaking for building! / If Kazbek²¹ balks, / disrupt it! / Never mind, since it's not seen / in a fog!" The revolutionary rhetoric implies contempt of everything and a call to brave the elements. A mountain beyond the view of man is considered senseless, so man's aim is to reorganize, to order, to supersede natural beauty with a new, iron-made beauty produced by humans. In another poem, Mayakovsky writes, "We, / the carriers of the new belief, / giving beauty the iron tone, / for

²¹ A mountain in the Big Caucasus region of Georgia.

¹⁷ Quoted from Weiner, Models of Nature. Gorky's words were used as an epigraph for the book entitled Belomor-Baltic channel, a collection of essays of Soviet writers – Gorky was among the editors – enchanting the famous forced labor project.

Lev Trotsky, Literatura i revolutsiya (Literature and revolution). (Moscow, 1924).

¹⁹ Gorky, A.M., Sobranie sochinenij (The Collection of Writings), vol. 26 (Moskva, 1953), p. 20.

²⁰ Gorky, Sobranie sochinenij, vol. 27, p. 43.

²² V.V. Majakovskij, Vladikavkaz-Tiflis. // Sobranie sochinenij (The Collection of Writings), vol. 1. (Moscow 1950), p. 216.

not polluting squares with sickly natures / we put ferroconcrete to the sky."²³ And further more: "Here explosions will cackle / dispersing bear bands / and the huge 'Giant' factory / will break the ground with mines."²⁴

In 1926, Vladimir Zazubrin delivered a lecture to the Congress of Siberian Writers which mirrored the mood of a lot of authors for whom it was not easy to accept the ideology of conquering nature. After all, this ideology called for a break with the long tradition for "love of nature" in the Russian literature, represented by the names of Pushkin, Chekhov, Tolstoy, and others. They ultimately followed suit on the new priorities, but not without some hesitation, as Zazubrin's remarks make clear: "An idea of city, of city culture, of clangs of plants and factories, is heavy for us who are in 'animal love' with the taiga vastness of Siberia. However, so let it be, let a human being in us kill an animal, haul it. Let the green mellow breast of Siberia be cased in cement armor of cities, be armed by stone craters of factory chimney, be bound with iron railroads. Let taiga be burnt out and stripped of its timber, let steppes be trampled down. So mote it be, and it will be inevitable. It is only cement and iron that can become a fundament of iron-made fraternal union of all people, the iron-made fraternity of the whole humankind."

The ideas of struggle with nature and reconstruction of nature gradually took root in that segment of the Soviet literature that survived the repressions of the 1930s. External censorship of literature decreased in importance as it was replaced by self-censorship: writers, as well as the editors of newspapers and magazines, had learned what they were expected to write, and how they could avoid getting arrested. Literature in the socialist realism style became the key proponent for the struggle with nature. As a matter of fact, the ideas of mastering and reconstructing nature dominated in the Soviet literature until the 1960s and 1970s, when the political "thaw" allowed critical voices to come forward.

1.3 Nature in Soviet newspapers: the meaningless taiga

Between the 1920s and the 1960s, the hegemonic discourse on nature was practically unchallenged; Soviet newspapers were full of calls for action against nature during these years. The ideas of man's power over nature and the necessity of struggle with nature were implicit in the vast majority of articles, and newspapers routinely carried glowing descriptions of drastic alterations of

²³ Cited after V. Borejko, Sovetskaja literatura kak glashataj bor'by s prirodoj (The Soviet literature as the proclaimer of struggle against nature), in: V. Borejko. Belye pjatna v istorii prirodoohrany. Sovetskij Sojuz, Rossija, Ukraina (White spots of history of nature protection. The USSR, Russia, Ukraine). Vypusk 1. (Kiev, 1996), pp. 108-132.

²⁴ V. V. Majakovskij, Rasskaz Hrenova o Kuzneckstroe i o ljudjah Kuznecka (The Story of Khrenov about Kuznetskstroj and about people of Kuznetsk), in: V. V. Majakovskij. Stihotvorenija (Moskva, 1980), pp. 239-241.

²⁵ Cited after Borejko, Sovetskaja literatura.

the environment in correspondence with humans' needs. In fact, the style of writing about nature became homogeneous to an extreme extent: going through the newspaper articles over the decades, one could gain the impression that they were all written by the same author. Articles on the issue routinely adopted a pathetic style, used a certain set of metaphors and standing phrases, and even employed similar grammatical constructions. The representation of nature in Soviet newspapers is remarkably close to Russian fairy-tales: Soviet people appear as symbolic inheritors to the Russian fairy-tale hero Ivan: they always win in struggles with insidious elements and life's rigors. This is particularly important in the articles on geologists, the Soviet heroes of the 1960s. Stories on the geologists' work are commonly narratives on the exploration of, struggle with, and conquest of nature. Most prominently, nature was interpreted as a Senseless Emptiness, a Treasure-house, and a Warden of Treasures. A few excerpts from newspaper articles will serve to illustrate these discursive lines.

1.3.1 Nature as Senseless Emptiness

According to the hegemonic discourse, nature does not make sense by itself: it is devoid of any inherent rationality, let alone intrinsic value. It gains its meaning only through the activity of civilized man, who grants a certain locality character and meaning through developing or using it. From this point of view, natives living in these places and non-human beings did not have their own rationality, or in fact any interests that the Soviets would have to take into account.

In accordance with this general idea, newspaper articles describe nature as undifferentiated, dark, and senseless. Here is a typical example: "A uniform and dark taiga was everywhere around; this was a kingdom of impassable swamps and gnats. [...] How much time will it take for people to get here, to deepen riverbeds and dry the swamps, to clear the taiga, to build roads and cities." The Soviet man is a creator, the Lord of the land, he changes space to his convenience and therewith animates it, awakes sleeping, passive nature, creates variety, brings light. Another example is the following: "In the evening, sitting around the campfire with live coals, the discoverers were talking about the future, about the life that Soviet people will bring here, to the 'land of eternal silence'." 27

In order to awake nature from its sleep, a lot of energy was needed. Therefore, the discourse of conquering nature was directed most prominently to the youth capable of answering the call of the authorities to go to distant land to explore new territories. Articles juxtaposed the wild and desolate land with the

²⁷ Sovetskaja Rossija of June 16, 1961: "Druz'ja solnca i vetra" (Friends of sun and wind).

Pravda of April 2, 1967: "Novyh uspehov, pervoprohodcy! Nas zhdut otkrytija1" (We wish you successes, explorers! Discoveries are waiting for us).

enthusiasm and energy of young people: "Young scientists in the search for new deposits of minerals needle their ways in the taiga, mark out places for future cities, establish production of the most valuable metals. Their labor transfigures the formerly unsettled, neglected land." The titles of many newspaper articles reflected the Soviet cult of everything New and First: "They come first," "We wish you new successes, discoverers!"

1.3.2 Nature as a Treasure-House

The notion of nature as a house of treasures was closely linked with that of it as senseless emptiness. In a way, one could combine the two discourse lines in the oxymoron of "rich emptiness." In other words, while many articles stressed the emptiness of nature and saw territory as meaningless until it showed traces of human activity, they also depicted nature as rich with natural resources that were waiting to be exploited.

"A way is traced on the map only. Here, in the taiga there are only animals' paths, only wild thickets and swamps, and clouds of mosquitoes. It is necessary to go through all this to find a treasure-trove carefully hidden by nature. For the sake of this the discoverers go through the taiga, and they are called 'geologists.'" In Soviet journalese, "treasure," "treasure-trove," and "storehouse" were the common metaphors for describing natural resources. Geologists were finding treasures for the sake of the country, treasures which were very hard to come by since they often had to be recovered from natural forces. The geologist went without roads, but roads – the main symbol of the territorial exploration by humans – and cities were built just behind him.

A typical feature of the representation of nature in Soviet newspapers is its wildness. The absence of roads serves as illustration of this characteristic. Nature is often referred to as "untrod" and "impassable" in reports on geologists. The implicit logic was that where there were no roads, there was no life either. "They go in their life on untrod paths, through the intrepid taiga and impassable deserts. There where they pass, life starts; earth gives its treasures to people." Geologists give meaning to a place, with life starting after their coming.

1.3.3 Nature as a Warden of Treasures

In spite of the fact that nature was usually portrayed as devoid of senses - i.e. deaf, sleeping, and silent - newspapers still depicted it as an actor. Appearing

²⁸ Komsomol'skaja pravda of January 19, 1962, p.1: "Kladovaja otkrytij" (Treasure-house of discoveries).

²⁹ Trud of April 6, 1969; Pravda of April 2, 1967.

³⁰ Izvestija of April 18, 1961.

Trud of April 6, 1969: "Oni prihodjat pervymi" (They come first).

as an active agent, nature was in a position to hide and guard its treasures, and to fend off human intrusions. "High and deep, in the very heart of the mountains nature hid one of its treasures, molybdenum. It was not easy to get to, and it was even more difficult to wrest it from the stone storehouse. But there came to the mountains the bearded people. They built roads in the mountains, constructed walls of shop floors and houses, snatched off locks from storehouses. Humans turned to be more durable than the most durable stone. And in reward for their insistence, nature gave to people its treasure; valuable ore started to flow in powerful streams."³²

As a scientist, the geologist longs for discovery: he wants to know. Nature opposes him and keeps its silence: "The earth setting its teeth kept its secrets. He, tall and bearded, with his eyes bright and lustrous, he cried to the calm and stately river: 'You, tell me, where the treasure is buried? Tell me!' But the Ob' river kept its silence." The beard serves as a symbol of the geologist, while the glitter in his eyes is characteristic of the scientist. He will surely find oil; he is a hero, trailblazer and explorer, he just can't fail to win over the resistance of wild nature. After all, a man is a much more powerful actor than nature. Nature only hides or guards, while a Soviet man invades, conquers and builds. "The treasures of the Yakutia entrails were guarded by impassable mountain chains, taiga, frost, pergelisol, saults on rivers for centuries... Soviet people have conquered the nature."

Based on this discussion, it is possible to draw some conclusions on the dominant interpretation of nature in the Soviet Union. The hegemonic discourse depicted nature as a passive, meaningless matter lacking a creative constituent. It saw the Soviet people as totally detached from the world of nature, aspiring to get free from dependence on natural processes; the Soviet people possessed the ability to turn the chaotic, elemental, and often alien environment into order. In this perspective, nature is not simply an entity in need of being researched, and then used in accordance with the needs of mankind; in the Soviet interpretation, nature is also an alien that needs to be fought and conquered. It is only in this fight that man can find his true self, and become a Superhuman, a Lord governing the natural world and himself/herself.

In evaluating this hegemonic discourse, it needs to be stressed that the ideology of conquering nature was far more than "just words." It is a characteristic of authoritarian states that they meet few obstacles in the implementation of ideological concerns. Therefore, it is important to realize that the ideology of conquering nature was intimately connected with the massive transformation of the country's landscape over the 74 years of Soviet power. As a result of the forced industrialization in the decades after the revolution of 1917, the country transformed from an agricultural economy to an industrial one. However, the

33 Sovetskaja Rossija of July 20, 1969: "Rozy v tajge" (Roses in taiga).

³² Izvestija of September 17, 1961.

³⁴ Leningradskaja pravda of November 17, 1956.

precarious position of many industrial (often mono-industrial) cities is more evident in hindsight, as many of them have been basically hanging between life and death since the collapse of the Soviet Union. Cities dependant on one type of enterprise often thrived in Soviet times, while nowadays most of them are suffering from economic depression and poverty. Numerous territories in today's Russia are considered "environmental disaster areas" — another consequence of the hegemonic discourse of conquering nature. It is obvious that the social construction of nature in the Soviet Union entails perceptible and visual consequences.

2. Geologists: The Explorers' Everyday Life

Representations of nature produced by a hegemonic regime do not provide an exhaustive picture about how people interacted with nature in everyday life. Authoritarian governments always seek a monopoly of producing meaning, but fortunately, they have proven unable to control this process in its entirety. Social actors, who are active users and producers, do not simply adopt the hegemonic discourse but rather incorporate them into a complex set of meanings and representation that includes personal goals, life strategies and tactics, and everyday practices as well. Soviet geologists, being called upon by the state to master distant regions, have only slightly shared the conquering pathos of the Soviet hegemonic discourse on nature. They have developed their own interpretations and meanings of nature. The following ethnographic analysis of the geologists' profession seeks to contribute to a better understanding of the interpretations of nature and interaction with the natural environment in the USSR.

2.1 Peculiarities of the geologists' labor in the USSR

A distinctive feature of geologists' labor in the Soviet Union was the combination of creative scientific work and the different kinds of physical work on geological expeditions. For the geologists' profession, the field season could take up to eight months, and expeditions often took the geologists into remote regions. Lengthy stays with a small number of people in a natural environment exercised a huge influence on the character of social relations in the professional community, contributing greatly to the formation of a powerful professional subculture. To be sure, expeditions were not entirely beyond the reach of

Soviet Russia in the 30s (New York, 1999); K. Petrone, Life Has Become More Joyous, Comrades. Celebrations in the Time of Stalin (Bloomington, 2000).

³⁵ Cf. M. de Certeau, The Practice of Everyday Life (Berkeley, 1984); S. Kotkin, Magnetic Mountain: Stalinism as Civilization (Berkeley, 1995); S. Fitzpatrick, Everyday Stalinism:

civilization since geologists were interacting on a regular basis with a number of local actors during field expeditions: local authorities, local inhabitants (sometimes indigenous population), former and current prisoners, the military and border guards. However, expeditions had encounters with Chukchees and bears with about the same frequency, and it is interesting to note that such encounters were often registered in the field diary.

The published memoirs of Soviet geologist Vojnovsky-Kriger provide a typical description of the geologists' field work: "It did happen to be difficult. It did happen that we starved and froze. We have been extremely tired. It was difficult not to know for months what was happening in the world, what was happening at home. But all this was compensated by interaction with nature, the wonderful sleep under the sound of the mountain river, the morning wash up in cold river water. And, most importantly – by interesting routes, discoveries and findings, which offered the fascinating scientific challenges and puzzles that resisted solution." In some respects, this quotation summarizes the essence of life on a geological field expedition. One can describe the main components of a geologists' life by four words: hardships – nature – science – people.

In the Soviet Union, a geologist's life typically fell into two different parts: "field life" and "city life," with the key feature of the former being the monthlong stay in a natural environment. In general, it needs to be stressed that there was a wide array of ideas about nature and interaction with the natural world within the geologists' professional community. Of course, the hegemonic discourse on nature was also present on the micro-level, but it overlapped and mixed with other notions and interpretations. One can distinguish a number of different views of nature in the geologists' everyday life. Some of them were conflicting quite a bit, and yet it is important to realize that divergent interpretations of nature could get along easily in everyday life. From an analytical standpoint, one can distinguish four parallel discourses on nature in the geologists' daily life.

2.2 Nature as a Scientific Mystery

The most obvious part of the geologists' everyday life was the conduct of scientific research: the reconstruction of geological processes that had taken place in a given location over time. Geologists routinely kept diaries of observations in the field, where they described their findings in geological terms. Geologists made drafts and collected rock samples, carefully documenting their locations on a map, together with initial descriptions. The samples were to be analyzed thoroughly later on under stationary conditions; this was a typical "city" activ-

³⁶ K. Vojnovsky-Kriger, Vospominanija (Memoirs), in: Jakovenko A. A. (sostav.). 1987. Iduschie vperedi (Going ahead). Sbornik statej. Syktyvkar: Komn knizhnoe izd-vo.

ity during winter. Based on all these findings, geologists wrote their project reports and developed their theoretical models.

Without the aid of laboratory tools, geologists often encountered difficulties in the field when attempting to interpret data. What was more, drilling a hole in order to take samples was rather difficult and expensive, resulting in a limited use of this option until the material and technological base of geological institutes was strengthened in the 1970s. Therefore, geologists often had to contend with what they called "rock outcroppings," i.e. unmixed mountain rocks visible on the surface. In swamps and lowlands, where crust rock exposures were usually nonexistent, their situation was even more difficult. Therefore, many geologists said that simply collecting pieces of evidence did not suffice for successful field work: to become a good geologist, one needed a "geological imagination" as well, the ability to assemble findings on the basis of an incomplete and somewhat ambiguous set of evidence. The following quotation from the memoirs of Mihailov provides a fitting demonstration of what "geological imagination" meant in field work: "The local rocks had already been familiar to me. Certain interconnections between them started to come to light. I wondered, why do particular minerals appear in the same combinations in a strictly determined order - in 'mineral associations' or 'mineral paragenesis'. Moving on from trench to trench day by day, I tried to draw the general picture, to identify certain principles."37

An important category which was related to this discourse and connects it to the hegemonic discourse on nature was discovery. The notion of discovery combined the scientific desire to understand nature with the interests of the state in identifying deposits of valuable minerals and thus locating natural resources. Therefore, making a discovery led to a higher status among fellow scientists and material rewards at the same time, with the USSR being quite generous regarding the latter. As a result, there is a whole host of stories in Soviet geology that deal with false claims to discoveries, often implying the prosecution and repression of people involved.

2.3 Nature as Habitat and Place of Work

During a field expedition, nature is the material setting for the geologists' everyday life. Work is the main content of life during this time, and all work is directed towards fulfilling the expedition's task. Unlike indigenous people, geologists did not see tundra or taiga as a setting for their whole life. The geologists' routine life in the field differed significantly from that in the city. Key characteristics were their mobility, the temporality of their life in the field, their special practices, and their everyday hardships. Perhaps it is best to discuss the

³⁷ D. Mihajlov, Taezhnye memuary (Taiga memories). Opublikovano avtorom (published by the author), 2003.

routine on a geological expedition, and the way that human practices interacted with the natural world, under four general headlines: encounters, local knowledge, living conditions, and hardships.

Encounters. During an expedition, geologists regularly interacted with a number of actors. Some contacts took place during the preparation for an expedition, such as meetings with local authorities that the geologists had to inform about the work they planned and their arrival to the expedition site. That brought geologists into contact with regional secretaries of the Communist Party, the police, and the boarder patrol in some areas. Quite often, geologists were requesting the officials' cooperation during these meetings. In order to ensure food supply and transport, geologists were often dependent on the help of local authorities.

During field work, geologists routinely met with a wide spectrum of local actors:

- Local residents: mainly hunters and fishermen, who were often indigenous people. These meetings often occurred unexpectedly and at a great distance from civilization, as hunters and fishermen were often moving from one place to another during the summer in the pursuit of their prev.
- Inmates: geologists sometimes hired former inmates for physically demanding work, and sometimes worked with current inmates if there was a GULAG camp in the area, which was frequently the case in Siberia. As one geologist noted in his memoirs, "In geological parties, trenches were dug out by inmates so it was impossible to avoid communication with them."
- Employees of the NKVD (People's Commissariat on Internal Affairs, the Soviet Secret police): they sometimes helped geologists to solve transportation problems and sometimes were guarding inmates who were assisting the geologists. In an interview one geologist notes in retrospect, "In those days Siberia was packed with GULAG camps."
- Other geologists: by the 1950s, the Geological Service of the USSR had evolved into a highly developed structure, with departments and offices in every region of the country. As a result, geological teams often crossed each others' paths. Geologists exchanged information on these occasions and sometimes helped out with food. Of course, there was also some competition between teams on occasion.
- Animals: the most memorable were encounters with bears, about which
 a number of unbelievable stories and jokes circulated among geologists.
 Bears were feared and respected, and geologists saw them as the lords
 of the taiga. If geologists were hunting a bear, they did so only with
 great caution and after careful preparation. In case of success, they took

³⁸ Mihajlov, Taezhnye memuary.

- a photo of the trophy which became an object of special pride for the group. However, geologists also met elk, deer, hawks, moose, foxes, partridges and other animals during expeditions. Whether these animals became an object of hunting or visual observation depended on the group, individual personalities, and the situation of the food supply.
- Tourists: depending on the region, geological expeditions could encounter backpacking tourists. They sometimes helped them with food, matches, transportation, and maps.
- Tramps, a category of people that is easily overlooked: they lived in the woods and occasionally showed up at the geologists' camps. Out of necessity, tramps were also hunters or fishermen, but they were usually not native people; among the tramps were often escaped inmates of the GULAG. Geologists were generally afraid of this group.

Local knowledge. Interactions with the locals were of great importance to geological expeditions. Local inhabitants often possessed an intimate knowledge of the area, an invaluable resource for geologists. Therefore, geologists often hired locals as guides for expeditions and as transportation specialists since locals could often work with reindeer and dogs. For the local population, a geologist was usually a representative of the state who could draw on the state's resources, and locals were eager to tap these resources in exchange for services or information.

Living conditions. Organizing a way of life in the field was not an easy job. The site of the camp often moved on a daily basis, requiring a mobile organization of everyday life. In some cases, a tent and a sleeping bag counted as great comfort; they were used only at the base camp, from which teams departed for hikes that varied in length from several days to several weeks. On these hikes, geologists often did not take tents and sleeping bags with them as they slept near the fire place on a sleeping place formed from branches, turning from time to time from one side to the other to keep warm. Considering that the field season lasted at least from May until October, these were tough living conditions indeed. Since it was impossible to move from one place to the next with heavy luggage, leaving behind "unnecessary goods" was often an insistent need; geologists usually carried only food and their equipment. Many geologists brought diversity to their rather unexciting food supply through fishing and hunting. In the years after the war, this was practically a necessity as geological teams were very meagerly supplied during that time. Also, hunting and fishing supplied the geologists with food that they did not have to carry with them from place to place.

Hardships. In the memoirs and reports of geologists, their work appears as a constant battle with difficulties. Supplies and transportation were essential for every geological expedition, and both were often difficult to come by. Especially in the early years, these issues were often dealt with on an ad-hoc basis and with the help of locals: the directors of kolkhozes, fishing cooperations and

co-operatives, the military and the authorities of camps. At the beginning of the field season, geologists spent a significant amount of time with preparations: the search for appropriate means of transportation and staff. Depending on local conditions, the former could be horses, reindeer, mules, boats, dogs, and sometimes camels. Since the 1960s, the use of cars, helicopters, all terrain vehicles and airplanes became more common. It is worth quoting one recollection during an interview of transportation problems on a particular expedition that used horses as means of transport. "The horses were overloaded, they could not go and fell. We had to help them getting back up. Mosquitoes, gnats were eating us, and them. We did a lot of stops. Oh God, what a pain to them! And to us!"

Many stories and reports of geologist deal with delayed home-transportation at the end of the field season. For the members of an expedition, this meant distressing waiting periods, inactivity, a growing shortage of food and uncertainty about rescue. Hunger is an omnipresent subject in interviews and memoirs; practically every geologist experienced hunger to a more or less serious extent. In these situations, geologists described nature as cruel and indifferent towards their own suffering.

2.4 Nature as Visual Harmony

This perspective on nature assumes the presence of an observer who admires the visual harmony and beauty of a certain place. Usually, these observations take place on a hill that offers a panoramic view on the area. Geologists often include an account of the viewing of a stunning landscape from the top of a mountain, alongside their tales of the long and difficult way to that destination. In these cases, the beauty of nature serves as a compensation for the strains of the voyage and a reward for the geologists' exhausting work. In many cases, these observations also betrayed the geologists' professional inclinations, and the delight over the beauty of nature mixes with geological observations and presumptions about the area's natural history, as in the following quotation: "Emerald sea, green volcanoes, sea terraces at various levels in bays, beautiful Trias conglomerate outcropping, sandstone with enclosed weathering produced unforgettable impressions ... The shore of a bay that extends for several kilometers is framed by beautiful outcroppings of white two-mica granite. At the shore there is a gorgeous white beach and a beautiful lagoon lake. And the water in the bay is clear and of greenish-blue color! Here there was only us and seagulls. On the western shore an escarpment lined out, which had risen from sea level as a result of the sea's regression."³⁹

Geological field expeditions often attracted artists and writers during Soviet times. Driven by the chance to see beautiful natural areas, they were hired as

³⁹ N. Organova, Chuvstvo Rodiny. (The Feeling of the Motherland) (Vladivostok, 1998).

working personnel in geological parties, thus giving them the opportunity to travel a territory that otherwise would have been inaccessible to them. In his song "I am seeking a fog" of 1965, Urij Kuckin, a famous bard in Soviet times who had worked in the geological expeditions for several seasons, described some reasons why people chose the geologists' profession. He portrayed himself as an original that joins an expedition for fog, mountains, firs, and the smell of taiga. "Some people travel on business. Some people look for money, or an escape from boredom and debt, but I am going to search for the fog, just for the fog, for the fog and the smell of the taiga."

2.5 Nature as Freedom

This interpretation of nature was an indirect result of the persistence of the Soviet system for more than 70 years. The suppression of civil liberties, the absence of public space for criticizing the powerful, the state's persistent attempts to control the private life of citizens made nature into a sphere of freedom. Going out to nature offered a chance to escape from the control of the system, if only for the duration of the expedition. In interviews and memoirs, geologists routinely point to the absence of snoopers in the field: at the fire place, nobody listened in, there were no spies, and everybody was honest. Even more, one of the hallmarks of geological expeditions was the absence of bosses: at the fire place, everyone was equal, and everyone ate out of the same pan. At least during field work, geologists were free to work almost without authorities. Therefore, the fire place stood as a symbol of social equality during the expedition, and a symbol of trust and honesty. By putting a physical distance between themselves and the authorities, geologists enjoyed an escape from state control, thus fostering a type of quiet protest against the system that has become known as "internal emigration." Becoming a part of nature and participating in the life of a small collective gave geologists a feeling of freedom from the "things not true": from cities, the petty bourgeoisie, and boredom. Nature served as a place for confirmation, a confirmation of themselves and others. For many geologists, embarking on a field expedition also meant embarking on a search for uniqueness, honesty in relationships, and real friendship.

3. Conclusion

For geologists in the Soviet Union, taiga was more than the name of a type of vegetation: it was a word with almost magical connotations. To many geologists, the taiga meant a way of life, a landscape that produced its specific "taiga laws" of behavior, friendship, and hospitality. The taiga seemed to dictate certain everyday practices and forms of social life, in a way unifying different

social positions and levels. It consists of the complicated network of people, creatures, artifacts, and their respective trails. Such an inhabited taiga brought together geologists, inmates, local NKVD officials, party secretaries, tourists, and bears, all living in the same terrain and in accordance with its laws.

The hegemonic discourse presented a completely different view of the taiga. For the state, the taiga appeared as an utterly simple, even primitive environment. It is easy to ignore the complex world of the taiga in the wake of the hegemonic Soviet discourse on the natural environment. However, while the notion of conquest of nature found its expression in elaborate schemes of regulation and control, it is important to consider that there were everyday practices, local interactions, and an abundance of microcosms comprising the production of other meanings of space. In spite of the intention of the authoritarian state to dominate and control the production of meanings and interpretations within its boundaries, the political actors' dream of total control was, fortunately, impossible. Living their lives, individuals and communities participated in the production of social order, inventing thousands of microscopic ways to construct their own life-world within the dominant system.

At the same time, the "production of natures" is not just a discourse, but also implies physical changes of the natural environment. In a way, the history of geology in the Soviet Union resembled that of Orientalism, a profession that arose, according to Said's famous narrative, out of a genuine interest in the culture of the "countries of the East" and yet supplied the knowledge necessary for the colonization of these countries. ⁴⁰ In a strikingly similar way, the scientific knowledge of nature obtained by geologists who were in many cases "in love with nature" provided the foundations for Soviet projects of colonizing and subduing nature. The ideology of conquering nature found its most extreme expression in the "projects of the century" that sought a transformation of nature on a grand scale; the Siberian River Diversion Project was the best-known example. However, the projects ultimately found its critics even within Soviet society, and towards the end of the Soviet regime, protest was even voiced openly, especially by intellectuals.

Protest is accumulated in society by microscopic actions of citizens producing social order in their own way, beyond the purview of the ruling class. The microscopic transformations of the social system happen every day and every moment, and each individual participates in the process simply by living his or her own life. In the case under consideration here, the state ideology of conquering nature led to the creation of an "escape" for citizens to nature as the last archipelago of freedom⁴¹ in the first place, and later contributed to some extent to the generation of the first ecological protests in Soviet society.

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¹⁰ Cf. E. Said, Orientalism (New York, 1979).

⁴¹ Cf. Douglas Weiner's metaphor of a "little corner of freedom," which describes a sphere of freedom for biologists in national nature reserves. (Weiner, Little Corner.)

Soviet Geologists: An Overview of Discourses on Nature

Soviet hegemonic discourse on nature

Ideology of nature conquest. Nature is considered as a natural resource. Economic rationality. Activity: to master, to use, to modify.

Alternative interpretations of nature within the geologists' professional community

- Nature as scientific mystery. Scientific rationality. Activity: to discover, to research, to reveal laws of nature.
- Nature as place of work and living. Rationalities of life. Activity: everyday practices, interaction with social and natural world. Peculiarities of geologists' field life: temporality, periodic character of this way of life.
- Nature as visual harmony. Observation of visual harmony of a land-scape. Action: passive contemplation.
- Nature as freedom. Implicit protest against the authoritarian state system. Actions: escape from the state control, geographic distancing from authorities.