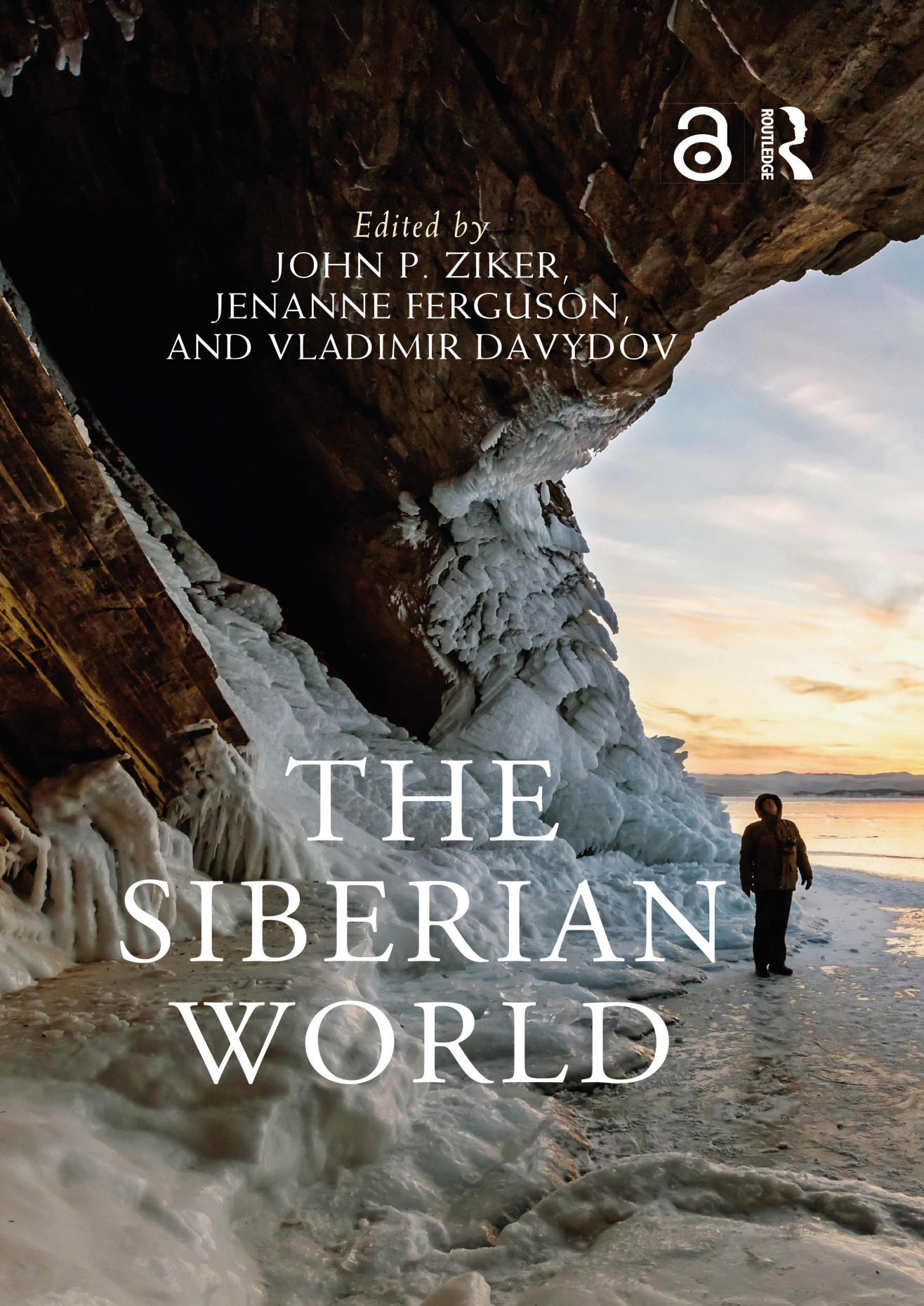
ROUTLEDGE
Edited by
JOHN P. ZIKER,
JENANNE FERGUSON,
AND VLADIMIR DAVYDOV
THE SIBERIAN WORLD

THE SIBERIAN WORLD

The Siberian World provides a window into the expansive and diverse world of Siberian society, offering valuable insights into how local populations view their environments, adapt to change, promote traditions, and maintain infrastructure.

Siberian society comprises more than 30 Indigenous groups, old Russian settlers, and more recent newcomers and their descendants from all over the former Soviet Union and the Russian Federation. The chapters examine a variety of interconnected themes, including language revitalization, legal pluralism, ecology, trade, religion, climate change, and co-creation of practices and identities with state programs and policies. The book's ethnographically rich contributions highlight Indigenous voices, important theoretical concepts, and practices. The material connects with wider discussions of perception of the environment, climate change, cultural and linguistic change, urbanization, Indigenous rights, Arctic politics, globalization, and sustainability/resilience.

The Siberian World will be of interest to scholars from many disciplines, including Indigenous studies, anthropology, archaeology, geography, environmental history, political science, and sociology.

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INTRODUCTION

John P. Ziker, Jenanne Ferguson, and Vladimir Davydov

THE CHALLENGE OF SIBERIA

Spanning eight time zones and thirteen million square kilometers, Siberia is home to Indigenous Siberians—the so-called "small-numbered native peoples of the North" (*korennye malochislennye narody Severa*), more populous Indigenous Siberian ethnic minorities, Russian old settlers, and newcomers and their descendants from all across the former Soviet Union and east Asia. Siberia as a region has been geographically defined in slightly different ways throughout history and different regimes; at its broadest delineation (which we take here) it encompasses all of northern Asia from the Ural Mountains in the west to the sea of Okhotsk and Pacific Ocean in the east, the Arctic Ocean in the north and the borders of central-east Kazakhstan, Mongolia, and China to the south. Around 37 million people call this vast space home as of 2022, according to estimates made in late 2021 (Goskomstat, 2022).

Siberia consists of seemingly endless boreal forests (taiga), large rivers that empty into the Arctic and Pacific Oceans, and vast wetlands critical for migratory birds. The region contains a variety of ecological zones from temperate grasslands, savannas, and shrublands to Arctic marine biomes and polar desert (tundra). Much of Siberia is underlain with permafrost—ground that is permanently frozen for two or more years—although with global warming trends differentially affecting the north, the extent of permafrost and its depth is changing quickly. With its population living in remote communities across the tundra and taiga, towns and regional centers, areas of intense industrial development, and large cities mainly along the trans-Siberian highway, the Siberian world is a human mosaic as well as environmental mosaic—one that is as dynamic as it is expansive.

This is not the first attempt at capturing the cultural diversity of the region. One of the inaugural English-language volumes on the ethnography of Siberia was Maksim G. Levin and Leonid P. Potapov's (eds.) *Peoples of Siberia* (1964), first published in Russian in 1956 (Levin & Potapov, 1956). Dedicating a chapter to each of 30 Siberian Indigenous groups, and also touching on the Russian population of Siberia, the archaeology of the region, and physical anthropological characteristics, the Levin and Potapov volume is a comprehensive descriptive account leveraging Russian (Soviet) ethnography of the region at that point in time. It is organized in a very straightforward, descriptive manner, with each chapter covering

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livelihoods, dress, dwellings, food, religion, social organization, etc. for a specific group. However, *Peoples of Siberia* does not engage with anthropological theory or provide much cross-cultural comparison outside of the region. This volume is not meant to be an update of Levin and Potapov, but rather, our authors have contextualized their work in respect to theoretical discussions in anthropology and history, and they engage in deeper, multivocal ethnographic description rather than a stock summaries of the ethnographic present.

This book traverses socio-cultural diversity and human-environment systems across Siberia along six major research themes, each discussed in detail below. Thus, instead of trying to capture each and every corner of this vast social and geographic space, this book is organized along contemporary themes of anthropological research in Siberia, providing rich case studies within each thematic cluster. By focusing on these themes emerging in the current research, we can go beyond a collection of encyclopedic entries in order to learn more about the dynamics of change and perceptions of local peoples.

A region of such diversity deserves to be discussed by an inclusive set of researchers. This volume has a diverse mix of contributors, representing an international group of authors from locations such as North America, Europe, Russia, Japan, and China, among them Indigenous anthropologists. We also present young scholars alongside established researchers who have been working in Siberia since the 1990s or earlier. This varied set of contributors provides more variation in methodological approach and theoretical orientation than one might find otherwise; having this diverse methodological and theoretical background is a benefit for interpreting the complex and varied social-cultural processes in the region and assessing new shifts and developments from multiple angles and perspectives. By bringing together this international group of scholars of Siberia, we hope to contribute an enduring reference volume on current research. By examining these research themes and identifying the linkages between them, we also have some insights into research questions and applied research problems that we think will be relevant for the near future.

In this introduction we will first review the topics covered in this book, highlighting significant points of the contributions within each section. Next, we draw out and highlight overarching themes that cut across many of the case study contributions. At the conclusion we present some insights drawn from these materials and contextualize them in light of the future of Siberian studies.

RESEARCH THEMES

This volume is organized around six research themes: Indigenous language revival and cultural change; land, law, and ecology; co-creation of people and the state; formal and grassroots infrastructure and Siberian mobility; religious mosaics in Siberia; and conceptions of history. As mentioned above, we have attempted to capture some of the major areas of research and theorization within the field of Siberian studies. These themes came about through a variant of grounded theory (Inaba & Kakai, 2019). We started out with a research question: how can we best represent the Siberian world today? With the original proposal for this book, we had divided up the chapters into more than double the number of themes based on author abstracts. However, as the chapters started to arrive, we realized that some themes were failing to produce relevant case studies. Also, in a number of cases, the chapters originally

planned for two separate themes ended up being closer than expected, so the themes were combined. We had an initial theory of how we might answer our question. As we collected our data (the chapters), we pulled out the relevant concepts and grouped the chapters into our research themes. This process also helped us to identify the relationship between themes.

In the sections that follow, we provide a short introduction to each theme and highlight the major points of our contributors. While these themes are separated out, the reader will notice numerous spaces of overlap and interconnection throughout as these divisions are more for ease of organization than definitive categorization. For example, it is difficult to talk about land and ecology without also talking about relations with the state, as well as religion and worldview. Relations with the state are also tied up in issues of infrastructure and mobility, for instance, or due to state influences at various points in history, communities may be now initiating processes and programs that aim to revitalize language and culture. Our aim in providing these categories is to give the reader a place to begin their exploration. When reading chapters from different sections, we hope that the salience of these interconnected themes will clearly emerge and shine through.

INDIGENOUS LANGUAGE REVIVAL AND CULTURAL CHANGE

We begin the book by addressing the region's linguistic and cultural diversity and revitalization movements. Current trends in Siberian language documentation and activism, coupled with the importance of not only research on language, but also cultural knowledge, rituals, and practices are discussed in this section. While relatively sparsely populated, Siberia is actually quite linguistically diverse. Aside from the ubiquitous Russian language, approximately 30 languages (not counting their numerous dialects) from at least 7 language families (and four language isolates) are spoken across the region. While many of these languages share certain areal features common to other parts of inner Asia, a number of these languages—particularly the Paleo-Siberian languages and some of the isolates—have unique typological features rarely seen in the area or the rest of the world (see Vajda, 2009, for more linguistic details). Taking both linguistic and anthropological approaches into consideration, the chapters of this section investigate both language contact and resulting change, as well as efforts for revitalization and maintenance. While some languages spoken in Siberia—notably Sakha, with up to ~450,000 speakers, Tuvan with ~280,000 and Buryat with ~265,000 speakers (Goskomstat, 2010)—are considered to be in a more stable position, we also find others (e.g., Itelmen, discussed by Degai et al., this volume) which are much less widely spoken at present, with just dozens of speakers. Language endangerment and revival, a highly relevant issue and phenomenon worldwide, is considered in light of social and political shifts in Siberian history as well as contemporary phenomena such as globalization. In this section we see both the echoes of language loss as well as linguistic transformation. The variety of situations that set these processes in motion are considered in light of theorizing what language vitality might look like for speakers of these languages.

After the first three chapters (Grenoble et al.; Kantarovich; Degai et al.) dealing more closely with language change, documentation, and revival, the following three chapters (Mamontova et al.; Laptander; Davydova) in this section engage with

notions of cultural preservation and change. Increasing globalization and connection to other parts of the Russian Federation, and the world, which have only accelerated more and more swiftly in the last few decades are leading to shifts in how people travel, engage in subsistence activities, and otherwise make a living. However, as we will see, knowing the land—how to navigate within it, how to gather sustenance, and engage with its various fellow beings—still remains important for many Siberian communities. Amidst new and transforming practices, old ones do persist, and the cultural knowledge related to these activities remain valuable, and valued.

To begin this section of the book, the chapter by Grenoble, Vinokurova, and Nesterova discusses the situation of minority Indigenous languages in the Republic of Sakha (Yakutia). Using the Language Vitality Network Model (Grenoble & Whaley, 2021), the authors show how disruption in one part of the network can lead to language shift and language loss. The authors consider stressors, protective factors, and their interactions, and how these factors play into the vitality and sustainability of Indigenous languages. As a specific example, the status of the Even language and culture is discussed as an illustration of how these factors come together. The authors discuss ways to increase protective factors to offset the impacts of ongoing cultural and linguistic disruption.

Next, Kantarovich discusses linguistic features used by speakers of Modern Chukchi revealing the changes occurring in this polysynthetic language in recent years. After reviewing the sociohistorical context and presenting a discussion of the social positioning of contemporary Chukchi speakers, Kantarovich outlines the reasons for the linguistic changes in the structure of Chukchi. Some of the linguistic impacts turn out to be the result of contact among ethnic groups, while other changes are due to shifts in social life (from small, tightly knit communities to urbanized spaces increasingly connected to a globalizing world).

Degai, Koester, Bobaljik, and Ono provide a rich case study of language revival in their discussion of a years-long effort at language documentation and revitalization among Itelmen communities in Kamchatka. While the language is still spoken, active speakers are few and far between. The chapter reviews the history of Itelmen language documentation, showing how it has intensified significantly since the 1980s. In particular, the chapter highlights the collaborative efforts of the authors with Itelmen scholars and enthusiasts. In addition to field research by Ono and Bobaljik, a gathering of speakers and cultural knowledge bearers from across Kamchatka was organized in 2012. The chapter presents a snapshot of these efforts and the meanings created by such revitalization events.

The next chapter reveals the interplay between language and understandings of the land and water. The river as a landscape feature is a core concept in Evenki culture, among many other Indigenous and non-Indigenous Siberians. Rivers have long served as the reliable water routes helping Evenki to travel, orient, organize, and make sense of space. Mamontova, Thornton, and Klyachko describe the naming principles and toponymic affixes for riverine names in two Indigenous Evenki communities—one in Khabarovskii Krai and the other in the Republic of Sakha (Yakutia)—in their chapter on the phenomenology of riverine names and hydrological maps. The chapter contributes to understanding how hydrological networks contribute to navigation, migration, ontology, and subsistence among Siberian Indigenous peoples, and what can be revealed by language.

We then move into intersections of language and culture by examining a case of humans communicating with an other-than-human force—in this case, fire. Laptander focuses on Nenets women's fire rituals which she knows intimately as a Nenets woman and anthropologist. Laptander shows how women interpret the language of fire that brings omens to their family and community life and hunting luck. Fires are a paradoxical force in tundra life: a domestic fire can be protective, but without human control, fire is destructive and dangerous. In Nenets culture, the hearth is physically and symbolically associated with women, family wealth, cooking, heating, needlework, and childbearing. Thus, it follows that women are responsible for making the fire, along with all rites connected to the fire and smoke. The Nenets regard and respect for fire is reflected in folklore, cosmology, and many religious rites; parallel rites are also found in numerous other Indigenous groups in Siberia.

Another key realm of cultural change and revitalization involves food. Research on the consumption of food across the region reveals how "modern" technologies, the loss of collectivization and social structures collide with a desire for nostalgic food, creating new intersections for the revival and recreation of foods associated with the past. In our final chapter in the section, Davydova describes the transformations of gathering practices, cooking, and food preservation technology among reindeer herders of Chukotka. Davydova's chapter begins with an analysis of how local people employ refrigerators, sugar, and salt in food conservation in the village of Amguema and in the surrounding Amguema tundra in Iul'tinskii raion. The appearance and distribution of these consumer goods has led to a change in both the technology of cooking and the composition of products gathered in the tundra. The chapter examines how these changes, which are rapid, significant, visual, and lived by the people on a daily basis during the mealtime, are reflected upon by the local people, and which role the food memory plays in their present life.

The chapters in this section all point to the increasing importance of both ethnographic and applied projects geared to document and revitalize Indigenous languages and related cultural practices. Identifying the pressures that endanger—as well as the conditions that bolster—the maintenance of such traditions is also deeply intertwined with social and ecological sustainability in these communities. As we will cover in the next section of the book, Siberia, like the rest of the world's Arctic and Subarctic region, is already being intensively affected by processes of climate change; urbanization and industrialization happening concurrently continue to exacerbate processes of change on the land. Siberian communities are actively dealing with these impacts as they affect both the practical aspects of their daily lives and the ways that they engage with and relate to the land.

LAND, LAW, AND ECOLOGY

In this section we have a selection of chapters that present the diverse ways that people interact with ecosystems in Siberia. The relationship between human populations and the environment is now conditioned by formal legal rights (Fillipova et al.) and administrative processes (Safonova and Sántha), whereas in the distant past (Takakura) resource distributions were largely determinant. Traditional systems that regulate access to resources and social relationships in society are pluralistic in nature and often involve non-human actors facilitating individual action and community

well-being (Novikova). Resource distributions are still important today, and the changing climate also changes available resource distributions and the perception of these changes, even within one region and one Indigenous population (Terekhina and Volkovitskiy). Different strategies can develop over time depending on the climatic and legal-political environment (Oehler). Finally, the type of knowledge ecology that develops is likely dependent on the type of resource being discussed (Mertens). In all, the land, legal, and ecological relationships are an important element to success in Siberia. The nuances of these studies show that traditional knowledge systems play important roles in regulating social and environmental interactions.

Traditional subsistence activities tie local peoples to the land and the dynamics of reproduction of its flora and fauna. Rather than seeing the natural and human systems as semi-autonomous but interconnected systems, Indigenous peoples in Siberia widely view the world as a multitude of inter-relationships and connections. Ingold (2002) and Anderson (2000) first developed this relational perspective between human and non-human persons in the cosmos, environment, and home based on materials in the Eurasian Arctic, and many researchers in this section follow in this tradition.

This characteristic holistic worldview is no less apparent than in Indigenous Siberian customary law. Customary law is commonly thought of as a set of traditions and rules that regulates natural resource use and social relations in a population. With decades of research in the arena of legal anthropology, Novikova (this volume) discusses examples of customary law across several Indigenous groups in Siberia where she has conducted both basic ethnographic work and applied research. Novikova argues that customary law is relevant to Indigenous status, regulation of social relations, equality, and justice in natural resource management, and sustainable development. Furthermore, Novikova suggests that customary law can be successfully incorporated into a pluralistic legal framework within Russia in order to ensure cultural continuity among Siberian Indigenous people.

Turning to a more formal aspect of the Russian legal system that impacts Indigenous people trying to maintain traditional lifeways—the creation and registration of Indigenous enterprises—Filippova, Fondahl, and Savvinova (this volume) examine specific Russian federal and regional laws relevant to land rights for Indigenous Siberians. Such enterprises, known as *obshchinas*, depend on legal rights to traditional lands for their traditional economic activities, such as reindeer herding, hunting, and fishing. As it turns out, the implementation and experience of these laws varies across jurisdictional spaces as discussed in the chapter. Some regions have been more amenable to Indigenous land rights whereas in others, Indigenous peoples have no choice but to make concessions to industrial developers. Both chapters are relevant to understanding the sustainability of traditional economic strategies in light of ongoing industrialization in Siberia.

Continuing our glimpse into the impacts and shifts stemming from industrialization, Safonova and Sántha deliver a case study of a now-defunct Indigenous Evenki jade-mining enterprise in eastern Siberia. Traditional activities such as reindeer herding allowed the enterprise to access mines in remote areas and sell their semi-precious stone to buyers in China. The focus of the chapter is how the manipulation of the enterprise's accounting became a unifying element for members of the enterprise.

We then confront the impacts of climate change on Indigenous perceptions and trace the way that different communities are responding to its ecological impacts.

Climate change in Siberia is having immediate and often devastating effects on local livelihoods and subsistence; many of the impacts and scenarios seen in the Arctic parts of the world are providing a prophetic glimpse of what may occur if decisive steps are not taken to stall warming processes. Rising summer high temperatures are driving the rapid melting of permafrost which covers most of Siberia; the melt releases formerly sequestered carbon dioxide and greenhouse gases, contributing to a cycle of even warmer temperatures (for a recent study on sites on Lena river delta, see Melchert et al., 2022). Hot temperatures combined with drier weather in the summers also spur on the development of vast fires which destroy the taiga forests and further exacerbate permafrost melting. Melting destroys grazing area for reindeer and horses, turning it into swamplands dotted with sinkholes—herders must then adapt quickly to these often unpredictable shifts. The next several chapters engage with the dynamic accumulated bodies of knowledge that herders possess and how they apply and modify their practices in accordance with changing ecological conditions—both those related to climate change as well as industrialization and other kinds of environmental degradation.

Terekhina and Volkovitskiy find that Nenets views on environmental change emphasize the temporality of crucial climate and weather events as these events impact reindeer herding. As Nenets reindeer herders' success is closely tied to their reindeers' success and environmental variations, their understanding of the timing of the seasons as well as the increasing frequency of extreme weather events is something they pay close attention to for decisions around migrations.

Takakura examines ecology from a long-term perspective. He discusses how a particular constellation of environmental variables in eastern Siberia provided opportunities for ancestral Sakha to migrate northward while maintaining their horse and cattle breeding economic strategy. Introducing the concept of nature on the move, Takakura explains how people modify their economic strategies depending on the underlying ecological process.

Oehler's work in the Altai-Sayan region in southern Siberia with Oka-Soiot herders provides another example of the modification of economic strategies depending on changing environmental conditions. Oehler argues that such transitions are carried out through a process of experimentation in a diverse landscape. The result is that subsistence strategies can change over environmental gradients.

Moving from modification of economic strategies to ecological knowledge, Mertens (this volume) looks at the relationship between traditional ecological knowledge and two aspects of ecology among Evenki of the northern Irkutsk region: sable hunting and snow conditions. Mertens finds that there is a lot more variation in the explanation of sable behavior and the traditions associated with it than with the traditions of dealing with various snow conditions. Mertens looks at the individual variation in learned behaviors for specific topics, rather than simply attributing them to the "group" or "culture."

Thus, in periods of accelerating change—whether due to climate change or the push toward industrialization fueled by ever-intensifying globalization in the region—understanding the ways that people (and communities) adapt is vitally important. These adaptations never happen in a vacuum, but are influenced by forces beyond the communities themselves, such as those of the governing state (seen particularly in Filippova et al.'s chapter). We move next into an examination of relationships

between Indigenous Siberians and the state and how this has shaped and transformed group identities and practices over (and at various points in) time.

CO-CREATION OF PEOPLE AND THE STATE

Despite the popular outsider's image of Siberia as a remote, disconnected expanse of the globe, Siberian Indigenous groups have always lived in places with varying degrees of cultural interactions and contacts. Since the 1600s, these interactions have been dominated by the Russian Empire, Soviet Union, and Russian Federation. Prior to those times, however, extended trade networks connected Siberians to populations from the Greek colonies as well as states farther afield in southern Asia.

For the last 500 years especially, there were practically no places where Indigenous peoples would stay in isolation, without relations with their neighbors and the administrative bodies created by the state. In many respects the state institutions initiated specific developmental policies which gradually changed local people's way of life. The chapters in this section analyze complex interactions occurring in the context of different intentions, some of which people manifest due to the presence of the state. They are focused on the process of construction and failure of the Soviet project, qualitative changes in the public sphere, and local people's publicity and institutionalization of religious practices. A distinctive feature of these changes is the emergence of the events serving as the displays of ethnic identity. Official feasts and institutionalized ritual practices at public events are co-created by local people and the state institutions, gradually transforming social relations at different levels. In this section we highlight eight studies that examine co-creation of contemporary identity and economy as a result of interactions of Siberia peoples and the Russian state.

During the Soviet Union, the state sought to control and influence social relationships at all levels and phases of the life cycle. In the shadows of the formal economy people could often pursue their own economic interests via what authorities termed the black market. As the Soviet Union ended the black market essentially transformed into the free market across urban centers in Russia. In remote regions the economy faltered and the (likely) unintended consequence was increased reliance on informal social relations, such as Ventsel's food sharing networks and Crate's "cows-and-kin" strategy described in this volume became paramount for achieving economic aims, especially in the remote regions of Siberia. Locally, the provisioning families and communities with locally procured foods and other products from the taiga and tundra was paramount (cf. Ziker, 2003; Ziker, Nolin, & Rasmussen, 2016), alongside the distribution or sharing of consumer products and equipment. In this section we highlighted researchers working on the opportunities provided by state integration, as well as the pressures and effects of state development policies. State regulation of civil society still provides avenues for individual and collective expression such as in Watanabe's study of Buryatia and Peers study of the *yhyakh* ritual. Reification of hunting-and-gathering (Ssorin-Chaikov), gender differentiation (Rygovskiy), use of alcohol (Yarzutkina) are unintended consequences of Soviet and post-Soviet development.

Peers's chapter initiates this section through an examination of the interplay between state influences and spirituality, revealing how spiritual revitalization often intersects with national revival. The Sakha ritual *yhyakh*, a festival that formed a key

part of the Sakha yearly calendar in pre-Soviet times. Peers discusses how late-Soviet activists in the Republic of Sakha (Yakutia) revitalized this local and regional ritual which has now become a large, unifying event for the Sakha people. In addition, the revitalization of this ritual has gone alongside the revitalization of shamanic and spiritual practices overall, and Peers discusses the relationship between post-Soviet revitalization of spirituality and the revival and mobilization of Sakha national identity and ideas of belonging.

We then move on to a case study examining the interface between state-approved youth movements and individual self-realization. In the Russian Federation, youth organizations are managed by the authorities, and this results in sometimes ambivalent connotations for civil society. Watanabe's chapter examines publicity of a youth movement in the Republic of Buryatia in eastern Siberia. Considering both policies in the republic and the patterns of fragmentation of NGOs across Russia, Watanabe shows how even these administratively-mediated civil society movements can deliver ways to empower the self-realization of local citizens.

Gavrilova's chapter provides unique insights into the Russian petro-state. Gavrilova contributes to the theme of co-creation through a case study of Yamal LNG—a corporate state within a state—centered in the town of Sabetta on the Yamal Peninsula. Despite heavy restrictions on her work, Gavriliova's fieldwork at Yamal LNG (which engages in natural gas production, liquefaction and then shipping/transport) explores how it behaves as a sovereign actor governing its territory, including the spatial isolation of the site, infrastructural independence of the enterprise, a strict labor routine for shift-workers, and corporate gifts for nearby Yamal Indigenous communities. Nevertheless, this regime exists only through its participation in a symbolic competition with other sovereign actors that manifest their power over Sabetta, including the other national and regional actors.

While the first chapters in this section highlight how the state creates and facilitates ethnic identity, local communities, and organizations, the remaining chapters in the section focus on how local communities incorporate the dynamics of the state into their lifeways. Yarzutkina takes a biographical approach to alcohol and its consumption in an Indigenous community in Chukotka. Through her in-depth ethnography, Yarzutkina shows how alcohol is an actor—an actor that has become an indispensable element within mediations of the human-animal-spirit world relationships in this community. While not viewed as the most virtuous element in this Indigenous worldview, this "biography" of alcohol allows us to investigate the social environment surrounding its use and how the state helped make it so.

Ssorin-Chaikov then examines the role of failure in understanding Soviet and Russian developmental policies in Indigenous Siberia based on ethnographic and historical work with an Evenki community in central Siberia. The goal of state development policies was to turn Indigenous Evenki lifeways from "primitive" to "scientific" communism. As it turns out, however, the failure of development resulted in the creation of an Indigenous underclass and new forms of hunting and gathering, including hunting Soviet welfare and gathering from the infrastructure of these projects. Ssorin-Chaikov's study identifies the ways that the failure of state-sponsored development co-creates the conditions among contemporary Indigenous groups.

Ventsel examines the effects of increasing regulation of big-game hunting in northern Sakha in a Dolgan-Evenki community. Since the early 2000s the state has

increasingly regulated hunting activities through requiring the purchase of hunting licenses. Thus hunting has moved from an informally-managed, common pool resource to a specialized activity among just a few hunters operating on a commercial basis. The remaining hunters have turned their pooling efforts to fishing. This is a common story across the Arctic and other regions around the world as well, as fishing can be a low risk activity even in harsh climates (Dombrowsky et al., 2020). Ventsel's longitudinal insights in this Indigenous community illustrate the flexibility of local subsistence and food sharing strategies given the changing dynamics of state intervention.

Similarly, Rygovskiy examines gender relations in an Old Believer Chasovennoe community, asking how "traditionality" is produced and transformed through interactions with the state. Siberian Old Believers are now more restricted than during Soviet times, and more closed as a group than prior to the Revolution of 1917. Rygovskiy shows how the growth of informal economic relations in Old Believer communities paralleled the building of official Soviet society. The so-called traditional gender division of labor in taiga villages—where women were supposed to keep the household while men were providing resources (e.g., furs, fish, etc.)—constituted a part of that informal, horizontal economy.

Crate rounds out this section of the book with her longitudinal work on changing social networks in a Sakha community. In the 1990s Viliui Sakha adapted to the dissolution of the state farms and disruptions in the local food supply by developing intra-household food production strategies that Crate famously called "cows-and-kin" (Crate, 2006). As the Russian economy became more globalized in the 2010s and climate change made access to pastures more difficult, parents were encouraging their children to leave rural areas and explore opportunities for education and employment in urban centers. The Viliui Sakha have changed from a risk-minimizing buffering subsistence strategy to investment in embodied capital. It remains to be seen how this strategy of urbanization will develop with the Russian state's military actions in Ukraine and resulting isolation from the global economy.

FORMAL AND GRASSROOTS INFRASTRUCTURE AND SIBERIAN MOBILITY

Contemporary energy problems in Siberia acquired a systemic character in connection with the processes of globalization. As will be demonstrated in the chapters in this section, the problems of choosing a direction of modernization and finding new resources are questions that remain unresolved. This makes the study of changes in the local communities, resources, their utilization and conservation, as well as the adaptation of the local people to the socio-economic and environmental changes, especially timely and relevant. In this section of the volume, we have collected texts reflecting different kinds of infrastructural innovations in Siberian context. It aims to consider the exploitation of resources in Siberia in the context of the functioning of industrial development projects, the rationalization of local economic practices, and the effects of the introduction of new technologies and equipment. Some authors cover the history of huge development projects, urbanization, the use of infrastructure and how it changes mobility patterns, whereas others provide fine-grained case studies of locally generated infrastructural systems. The chapters dealing with large

scale infrastructures (Davydov; Povorznyuk & Schweitzer; Zamyatina; Saxinger et al., this volume) reflect on how people adapt to infrastructure development or the meanings these developments have for their lives. The chapters that focus on grassroots infrastructure (Kapustina; Rakhmanova; Vasilieva; and Agapov, this volume) illustrate the ways that people come together to form infrastructure even where formal infrastructure exists in one form or another. This is reminiscent of informal distribution strategies that developed alongside market reforms following the collapse of the Soviet Union in Siberia (Ziker, 2006).

How do local people deal with the development of large infrastructure projects and how does it affect their mobility? Davydov starts off this section of the book with a case study in changing autonomies of Evenki hunters and reindeer herders. Autonomy regimes have changed over time due to a complex interaction between different infrastructures, new ways of organizing and timing human activities on the landscape, and interactions with the state. Reminiscent of chapters in the section on co-creation, this chapter delves deeper into what changing mobility strategies means for Evenki autonomy. Utilizing the concept of temporality Davydov shows how the use of certain key locations for reindeer herding and hunting have intensified over time.

Infrastructure development provides opportunities and constraints on local populations and thus becomes an agent of change. Taking a combined historical and ethnographic approach, Povoroznyuk and Schweitzer explore the social, demographic, and ecological effects of the construction of the Baikal-Amur-Mainline (BAM) railroad that passes through north of Lake Baikal, a region traditionally inhabited by semi-nomadic Evenki reindeer herders and hunters. The authors ask crucial questions about what difference a railroad makes in the lives of the local population. While the social costs and benefits are difficult to ascertain, one thing for certain is that the world as people there know it today would not exist without the BAM.

Kapustina develops the concept of translocal infrastructure with a case study of the grassroots infrastructure of Caucasian migrants to Western Siberian oil towns. Migrants from southwestern Russia's Republic of Dagestan, have established an extensive system for transportation of resources and persons. The chapter focuses on food, covering both the supply of specialty food items from originating communities as well as the establishment of cafes and stores in the destination that have become integrated into the wider lifeways of these oil towns. Translocal infrastructure helps to break down stereotypes of Caucasian peoples as militants and recipients of social welfare and establishes Dagestan as a source of healthy and environmentally-friendly food options.

How do urban infrastructures rise and fall in Siberia? And what are the conditions under which a transition from services focused mainly on resource extraction to new kinds of services prevent the fall of an urban development? Zamyatina's chapter describes the development cycles of Siberian urban centers with different resource exploitation histories. She examines the potential for a "Jack London effect" in development cycles in four different regions of oil and gas extraction (Khanty-Mansiyskii autonomous okrug "Ugra," the Yamal Peninsula, the northern reaches of the Yenisei, and Dickson on the northern coast). Zamyatina reveals how they are transitioning away from resource extraction to new services, such as new technology development.

Verkhnemarkovo is a small Siberian town located on an oil field in Russia's Irkutskaia oblast' that has long been plagued by bad roads and limited mobility. The chapter by Saxinger, Krasnoshtanova, and Illmeier describes how this community is stuck in between promises made by the oil companies and promises from the state. While the oil company should be making investments under the banner of corporate social responsibility as in other regions, the authors find that the degree to which they do is highly dependent on oblast'-level expectations and relationships. The result is that the community of Verkhnemarkovo has neither investment from the oil company or the state, and their transportation infrastructure is decrepit. The authors introduce the concept of "infrastructural violence" to describe the living conditions there.

We next move explorations of grassroots infrastructure and the varying kinds of quotidian interactions that locals have with these structures and processes. Examining what happens when things go wrong in an illegal fishing community, Rakhmanova describes how fishermen attract luck and enter into a partnership with it through rather counterintuitive means. Like Davydov, she employs concepts of temporality to discuss how these fishers on the Ob River anticipate the future, and essentially live "in the past of their future" through their planning for possible failures in their activities. In the process the fishermen create an infrastructure consisting of hierarchies of places and acceptable actions and practices that are employed in order to anticipate failure and maximize success at the same time. Rakhmanova's chapter is also a reflection on the role of the researcher and how they may also contribute to events of success—or failure—in the course of their fieldwork, and how that may lead to unexpected insights.

Vasilyeva develops the concept of "infrastructure brokers" in the context of the wild winter roads of the Taimyr region. She reveals how these "wild winter roads"—informally maintained ice-roads used for transportation in winter time—are a prime example of grassroots infrastructure that stand in contrast to official winter roads that are maintained by the state or private sector. Wild winter road drivers have a background for this kind of work, have mastered the technique of driving and maintaining an automobile, have wayfinding skills, and also have the social connections necessary to support the stable functioning of the infrastructure. Thus, these drivers are brokers of this informally organized infrastructure that facilitates mobility across the tundra.

Finally Agapov discusses another case of grassroots infrastructure, this time in northwestern Siberia's Yamal region with a look at the transport infrastructure on floating shops and winter roads. Agapov focuses on the role of the landscape in organizing channels for the flows of goods, money, and raw materials, and finds that the mobile commercial infrastructure is highly adaptive to the local environment.

In our next section, we move from physical infrastructures to a more metaphorical one—that of religion and worldview. In those chapters, we examine how religious revival intersects with broader sociopolitical concerns as well as the precarities of everyday life, creating another kind of "infrastructure" for living.

RELIGIOUS MOSAICS IN SIBERIA

The post-Soviet era in Siberia within diverse religious domains has been one of revival, recreation, and transformation; these chapters examine continuity and

change within different religious faiths, and the intersections of the macro (social and political forces and concerns) with the micro (everyday practices and activities) spheres of life in the region. While often strongly discouraged from public observance under Soviet rule, many practitioners and adherents maintained their various spiritual practices in private settings—despite threats of exile or even death in the case of many shamanic practitioners, for example. Contemporary religious revitalization often involves the public acknowledgement or performance of rituals and practices related to Indigenous Siberian shamanic or animistic belief systems, in which they are adapted under conditions of urbanization, or after years of dormancy (Sidorova; Bulgakova; Lykkegård). We also see the results of contact between faiths, both from the historic period (between Siberian Indigenous religions and Russian Orthodoxy or Tibetan Buddhism, the latter in Znamenski's and Beliaeva-Sachuk's chapters) as well as the contemporary era, which evinces the increasing contact with global religious movements (such as Evangelical or Pentecostal Christianity, as in Vallikivi's chapter).

To begin the section, Sidorova investigates a new generation of shamanic practitioners in the city of Yakutsk, in the Sakha Republic (Yakutia), focusing on the way that many new (often youthful) ritual specialists incorporate varying attributes from historic Sakha shamanic traditions. Using five brief case studies of the practitioners, Sidorova examines the impacts of both urbanization and globalized influences on the public and private practices within contemporary shamanism in a growing Siberian city. In all cases, even the innovative and "imported" aspects of the traditions all seek to reconnect urban Sakha with what is conceptualized as their spiritual roots, including features such as the connection to (home)land, to ancestors, and to an animate and ever-transforming world.

Znamenski's chapter focuses on the historical development of Altai nationalism in the early part of the 20th century where an ethnic self-awareness emerged. Located in the Mountain Altai region (an area nestled at the point where the Russian, Mongolian, and Chinese borders meet in southwestern Siberia), Indigenous Altaians wove together the narratives and identities of their "Oirot" past. Three strands where integrated: the activities of the local intelligentsia who worked to record folklore and other ethnographic material; the emergence of a prophetic, proto-nationalist religious movement (Ak-Jang or Burkhanism); and the development of Indigenous socialist forms (Bolshevism) combined with local iterations of nationalism.

Vallikivi then examines the encounters of Nenets reindeer herders with Christian missionaries along the Arctic coast. Examining the past and present transformations in language and faith brought by Evangelical and Pentecostal missionaries, this chapter looks at how ideas and ideologies about language, personhood, and relations with the state shift among Nenets who convert to these forms of Christianity.

Bulgakova has been conducting ethnographic research among the Nanai peoples in Khabarovskii Krai in the Russian Far East for 35 years. Complementing Sidorova's chapter by focusing on another regional context, she presents an overview of what Nanai shamans say about the changes that have occurred in their practices over the past few decades in a discussion of post-Soviet Nanai shamanism. Many modern Nanai shamans strongly object to being called "neo-shamans"—a term appearing in Russia in the post-Soviet period. Based on Bulgakova's rich ethnographic materials, the relevant contrast is revealed to be not one that contrasts "traditional shamans" and "neo-shamans," but between the "real, true" shamans and "fake" ones.

Lykkegård also presents rich ethnographic material, in this case on human-reindeer-ancestor relations among Siberian Chukchi communities. She focuses here on feeding *gi'rgir*—the spirit owners of the reindeer herd and ancestors—in the *kilvei* ritual. As with many traditional belief systems, sacrificial acts among the Chukchi have the goal of directing action in a desired way. The Chukchi she worked with are concerned with sustaining themselves and their reindeer, and Lykkegård skillfully demonstrates how the gi'rgir play a necessary role in the cultural and economic regeneration of the Chukchi.

Contemporary religious and secular festivals in Siberia originated in diverse Indigenous religious practices, institutionalized religion, and the secularized rituals of Soviet times. Public festivals, such as the Sakha *yhyakh* (see also Peers, this volume) and the ubiquitous Day of the Reindeer Herder serve as displays of ethnic identity. Feasting also includes intimate, local ritual practices sacrificial rituals, such as described by Lykkegård, or the widespread Siberian reference of the bear are part and parcel of celebrating and negotiating relations with supernatural, non-human agents. Dudeck shows how Siberian feasts and ritual practices represent, perform, and transform social relations in local communities and society at large.

To finish the section, Beliaeva-Sachuk delivers an ethnographic case study of Okinskii raion (Oka), Republic of Buryatia—one of the most remote and hard-to-reach regions of Buryatia, located southwest of Lake Baikal on the border with Mongolia. Domestic and wild animals play important roles in Oka religious practices which are a syncretic mix of Buryat and Soiot shamanic cults with Tibetan Buddhism. Domestic animals serve as ethnic markers, and Beliaeva-Sachuk argues that the treatment of domestic and wild animals and their place in the socio-cultural space of people is a reflection of the culture and social structure of Oka Buryats and Soiots.

The post-Soviet era has seen the revival of many social and spiritual practices and rituals that had been suppressed or secularized during the Communist period, as well as the continuing observation or reinvention of new holidays that arose during the time of the U.S.S.R. as replacements for religious festivals. These celebrations may be expressions of spiritual transformation and religious renewal or resilience and community solidarity; however, many displays of sociality also serve to reinscribe and reiterate distinct ethnic identities in multicultural spaces. Increasing access to the internet even in the more territorially remote regions of Siberia has meant that displays of social, political, linguistic, national, and ethnic belonging may be expressed multimodally in new ways, and Siberians may now perform these identities through new media across space and time for very different audiences across Russia and beyond.

CONCEPTIONS OF HISTORY

Previously well-known English-language works on the history of Siberia include James Forsyth's *A History of the Peoples of Siberia: Russia's North Asian Colony 1581–1990* (1994), which comprehensively portrays 400 years of history in the region, and Yuri Slezkine's popular book entitled *Arctic Mirrors: Russia and the Small Peoples of the North* (1994), which is a historical account that sheds light on the contacts and interactions between the Russian state and Indigenous peoples

of Siberia and the North. While a comprehensive and illuminating history of these relationships, these authors do not engage with contemporary ethnographic material; therefore, in this volume, we stayed away from trying to replicate Forsyth's and Slezkine's histories comprehensive focus, and have instead honed in on more specific elements.

In this final section, we highlight scholars working on thematic issues in Siberia's history including environment, economics, art, and Indigenous social relations. Each chapter deals with interpretations of Siberian history or prehistory, and reinterpretations based on new information or new theoretical lenses. Contemporary approaches to history in Siberia are also shifting to incorporate both international perspectives and Indigenous voices. At the same time, historical work is moving from coverage of historical periods to an approach based on themes recurring across history. Sirina provides a comprehensive and updated history of ethnography in Siberia, while in the chapters by Sasaki and Qu, we see the reinterpretation of previous assumptions about hunter-gatherer and herder lifeways and religion, focusing on trade in the former case and religious practitioners in the latter. Lbova and Rostyazhenko reveal the deep roots of prestige economies in Siberia through material culture, while Abbe and Jones, focusing on seasonality, and Brandišauskas, on rock art, use these frames as lenses to explore trends in environmental history and historical trends in Siberian ethnography, respectively.

We begin this section with Sasaki's reexamination of the santan trade in the Amur River basin in the 18th and 19th centuries. Sasaki demonstrates that ancestors of the Indigenous people of this region benefited from trading goods originating in China and ending up in the Japanese-controlled Sakhalin. Some of these traders were quite well-off in fact, and Sasaki thus challenges Russia's image of the Far Eastern Indigenous peoples as "primitive" hunter-gatherers.

Lbova and Rostyazhenko take us into much earlier human history in the region with their examination of paleolithic objects from Siberia. They argue that a growing prestige economy was characteristic of egalitarian societies at that time. More than a mere system of signs, certain ritualistic artifacts reflected a growing power differentiation in ancient Siberian communities. This finding is similar to Sasaki's although with a much deeper time-frame.

Qu then looks at how the archaeological record can be used to trace the origins of shamanism in Siberia. Much of the literature debates various prehistoric elements that can be used to define shamanism, but rather than focusing on these definitional debates Qu takes the perspective of animist ontology. He argues that artifacts reflect the animist ontology of the population in general and hunters in particular, rather than the existence of shamanic religious leaders specifically.

Brandišauskas's chapter reviews the history of ideas, perceptions, and interpretations linked to ancient rock art in East Siberia. His chapter describes how Siberian rock art inspired generations of scholars who made inferences about the peoples that created these sites. Various analytical schemes fed into differing interpretations about the history of the region and activities of past inhabitants. Brandišauskas shows that these sites are continuing a source of ritual and cosmological inspiration for Siberian Indigenous people.

Sirina's chapter dives into the history of Siberian ethnography from the 18th through 20th centuries. Sirina discusses the influence of prominent ethnographic

expeditions, methodological and ethical considerations, and various theoretical and political influences on Siberian research. Sirina concludes by pointing out the enrichment of ideas that have occurred through international collaboration and exchange in the realm of Siberian studies.

To conclude this section, Abbe and Jones use the metaphor of the seasons to review the environmental history of Siberia. Their chapter examines climatic fluctuations alongside disruptive human events. Indigenous Siberian and imperial Russian colonization are viewed as mutual shapers of the region's environmental history being involved in the introduction of new animal species, infectious diseases, and decimation of fur-bearing animal populations. Abbe and Jones also look at how energy-intensive technologies including urban housing and central heating influence perception of the Siberian environment and how some people are looking to the Siberian past to reengineer the ecology.

CROSS-CUTTING THEMES

Relating to the environment

A number of chapters including those by Rakhmanova, Laptander, and Mamontova, Thornton, and Klyachko, demonstrate the importance of perceptions of the environment as relational meaning systems that incorporate unseen forces. Ecologists and conservationists tend to view human action on the landscape as a separate system that interacts with and obtains benefits from the environment (Mace, 2014). Ingold (2002) argues that this separation is characteristic of a Western "Cartesian" perspective which is also at the root of humanity's contemporary environmental dilemmas. Our case studies emphasize the social relationships expressed through language of place (cf. Krupnik et al. 2004). Elaboration of such Indigenous viewpoints is important to understanding the sustainability and flexibility of Indigenous Siberian socio-ecological systems.

Often described in binaries of "traditional" or "authentic" versus "modern," several chapters deal with ecological knowledge or traditional ecological knowledge (TEK) in more nuanced ways, including those by Crate, Laptander, Lykkegård, Mertens, Novikova, and Oehler. These chapters reveal more complex approaches to the ways that resources are accessed and how such practices are re-negotiated in contemporary communities. These chapters connect the themes of perception of the environment, traditional ecological knowledge, kinship, cosmology, and social control.

A recent meta-analysis (FAO & FILAC, 2021) shows that real environmental outcomes, such as forest cover, for example, are better in Indigenous protected areas. The 2022 IPCC report states, "cooperation, and inclusive decision making, with local communities and Indigenous Peoples, as well as recognition of inherent rights of Indigenous Peoples, is integral to successful forest adaptation in many areas." A US Forest Service report (Vinyeta & Lin, 2013) recommends incorporating Indigenous TEK into climate change adaptation planning, albeit with concerns for protecting sensitive or proprietary information and existing cultural preservation efforts. Excluding people from areas to protect wilderness is problematic almost everywhere, especially where Indigenous people have lived in interaction with the land for millennia (Fletcher, Hamilton, Dressler, & Palmer, 2021).

Looking more closely at the component concepts of TEK, the first, a tradition, is something learned and copied from ancestors. It's handed down. Ecological refers to relationships between living organisms and their environment, from ancient Greek οἶκος house, dwelling. It's the earlier meaning—dwelling—that inspired Tim Ingold's (2002) dwelling perspective that has had a lot of influence in the field as evidenced by many chapters in this volume, including those by Agapov, Davydova, Novikova, Peers, and Rakhmanova. Finally, the earliest uses of the term knowledge refer to acknowledging or owning something, confessing something, and sometimes recognizing a person's position or title. These now-obsolete meanings emphasize relationships—an important aspect of knowledge that modern usage often overlooks but that is especially important in the context of tradition and ecology. Combining these three definitions helps to generate a hypothesis for Indigenous TEK: deference for ancestral ways of dwelling (Ziker, 2022). As a way of promoting deference in communities, TEK is operationalized as a discourse, not an insurance policy for sustainability. People discuss the connections between dwelling in a place and their behavior and the behavior of the people they are connected to. While careful and insightful observations of the environment are necessary, more than that TEK helps define and promote virtuous behavior relative to that environment (Ziker, 2015).

These and other aspects of life in the North depend on an environmental ethic founded on TEK, specifically, the idea that the real owners of the resources (i.e., spirits and deceased ancestors) are watching and reacting to the behaviors of the living (Steadman & Palmer, 2008). These spirit owners both punish and reward. These ideas are expressed by elders and leaders within maxims, aphorisms, and discourse about events and others' behaviors. Examples can be found in chapters by Laptander, Bulgakova, Brandišauskas, Dudeck, Lykkegård, Sidorova, Novikova, and Oehler in this volume, as well as in Anderson (2000), Ziker (2002), Wiget and Balalaeva (2011). Such discourses commend virtuous and prosocial behavior while connecting negative outcomes with selfishness. The ability of the real owners to take action makes sense because of the invisible connections that people maintain with everything they touch. These connections can be traced in the spirit world. This ties together concepts of kinship, social relationships, religion, and environment. Inter-related concepts like these are not isolated to Siberia. Much work has been done examining the parallels between ancestral systems of deference in Siberia, Amazonia, North America, and other regions inhabited by Indigenous people (Brightman, Grotti, & Ulturgasheva, 2012).

Mobility and connection

Geographically it is not surprising that issues of mobility and movement are at the forefront of thematic focus when it comes to a region like Siberia; the vastness of the region combined with the challenging terrains and a history of nomadic lifestyles among many of the Indigenous peoples of the region make it a central theme that many researchers have tackled in recent years. The routes and paths of reindeer herders and their approaches to wayfinding in various parts of the region have long been an object of inquiry (see Dudeck, 2012; Istomin, 2020; Istomin & Dwyer, 2008, 2009; Leete, 1997; Safonova & Sántha, 2011; among others); rivers as connective routes too have been a focus as we will also see in chapters by Agapov,

Mamontova et al., and Vasilyeva in this volume. Work by Argounova-Low on the state of roads and roadlessness (in Russian—*bezdorozh'e*) in Sakha-Yakutia has covered their intersections with narratives (2012a) and driving (2012b, 2021), as well as the "autobiographies" of roads (Argounova-Low & Prisyazhnyi, 2016). Roads, as Siegelbaum (2008) has discussed in examining infrastructure construction in the Stalin era, are also an inherently political project; the inability to travel on roads, too, may provide locals with both frustration and a powerful sense of connection, as Orlova (2021) notes in her discussions of "affective infrastructure" (see also Knox, 2017).

These themes are most overt in the section on infrastructure and mobility, and an in-depth overview is provided above. Davydov's chapter as well as that by Povoroznyuk and Schweitzer explore the impacts of new infrastructural projects on local communities' existing patterns of mobility, and their everyday lives and abilities to be mobile in ways that they choose; reindeer herders (and their reindeer), for instance, may have very different requirements and preferences for mobility than a town dweller or oil and gas worker. It is also worth highlighting, again, the connections of mobility and politics; Saxinger et al.'s chapter reveals how "infrastructural violence" through the lack of attention from both politicians and corporations, impacts both physical and metaphorical kinds of mobility for the inhabitants of a small Siberian town; the inability to move—or have agency over one's mobility—has profound impacts on quality of life. Winter travel is much different than that in summer, as Agapov's chapter shows how the same river is both a winter ice-road and a venue for floating shops in summer; the ice-road phenomenon is a key focus for Vasilyeva who also reveals the dynamics of "infrastructural brokering" and access to these spaces.

Themes of connection—both in terms of literal connections created over vast distances, as well as more abstract senses of connection and belonging—also weave their way through many of the chapters that ask questions about what it is that brings people together. For instance, food as a source of connection arises in Davydova's work—the convivial aspects of food are nearly always imbued with some amount of memory or nostalgia (Holtzman, 2006), and remembrances of how food "used to be" versus how it is now bring people together. In Kapustina's chapter, foods "migrate" along with people from Dagestan as they arrive in Western Siberian oil towns, and lead to changes in the local food culture as well.

Language is perhaps the most fundamental domain of connection, being that it is literally the medium through which we can communicate our connections to others. Language revitalization projects, such as those discussed in Degai et al.'s chapter on Itelmen revitalization gatherings, create spaces in which participants work on central goals together: not only to revive but to reclaim language, and through these spaces often recreate and reify senses of cultural, ethnic or community belonging. In Grenoble et al.'s and Kantarovich's chapters, language as a source of both individual and community well-being and connection is highlighted, even as language changes through the process of revitalization and reclamation. Language as vehicle of connection to the other-than-human world is revealed in Laptander's work on women's communication with fire in Nenets communities, and what language and naming tells us about the connection to land and water comes through in Mamontova et al.'s chapter discussing of hydronyms and movement on rivers in Evenki communities.

Religious practices connect people to each other, as well as to other beings and forces in the universe. Work on animist ontologies and the ways in which people and spirits interact in Siberia has been a central theoretical area of focus (see, among others, Brandišauskas, 2017; Vitebsky, 2005; Willerslev, 2007) Extensive work on Siberian shamanic traditions in particular has been conducted since the earliest ethnographers arrived in the region; some English-language volumes from the last 30 years that provide some overview include Balzer (1997), and Znamenski (2003). This volume engages with a multiplicity of kinds of connection with the spiritual world. Immediate connections between humans, and other-than-humans, as produced through rites, rituals and festivals are illuminated in the chapters by Dudeck on a variety of Siberian rituals and celebrations and Lykkegård on a rite in the Chukchi context; the strategies and methods for spiritual revival and connection—to ancestors, places, and spirits—emerge in the chapter by Sidorova on urban Sakha practices. The role of spirituality both ideologically and practically in creating a sense of national or ethnic connection and belonging emerges in Peers' and Znamenski's chapters as well (see also Balzer, 2012), linking as well to themes of change and adaptation that are explored in the following section.

Adaptation and change

Colonization first under the Russian Empire and then the Soviet Union (continuing through its successor state, the Russian Federation) has had immeasurable impacts on the lives of Indigenous peoples in Siberia, in every possible way: from language and religion, to political, legal and economic systems and subsistence strategies. It is the ability to adapt to changing conditions—be they environmental, political, or cultural—that helps ensure both community and individual survival; themes of adaptation are found in nearly all of the chapters, to a greater or lesser degree. Many of the pieces also engage with the efforts of many communities to revitalize cultural traditions that have been lost (or pushed underground) over the Soviet period (or earlier), revealing the dynamism and intentional action present in across the region to reclaim and reconfigure these elements to better serve their communities into a future that may often appear uncertain.

However, in the face of change, we also often find that there are also tensions that surface between desires to "return" to a past versus engage in cultural transformation; there is always a complex relationship between sameness and difference, the old and the new within cultural domains. This arises even in cultural forms like language where dynamism and change are also acknowledged as normal, characteristic processes; however, linguistic ideological debates are always present among speakers. We see this, for instance, in Kantarovich's examination of the use of Modern Chukchi in contemporary use; concerted efforts to revitalize the language, combined with contact-induced change via Russian, have led to a new form of the language becoming prevalent. As noted in other linguistic ethnographies in Siberia—e.g., Ferguson (2019) on Sakha, Graber (2020) on Buryat—new, "mixed" varieties sometimes may be officially critiqued for their changes and departures from older, "more authentic" forms. Nevertheless these new varieties or registers of a language are vital to continued use of the language. Grenoble et al.'s and Degai et al.'s also engage with themes of change more indirectly as they focus on the importance of revitalization

movements to cultural continuity and community well-being, themes also echoed in King's (2011) ethnography of Koryak negotiations of language and cultural revitalization in Kamchatka.

Many of these facets related to change arise within the section on Religious Mosaics. Contributing to Siberia-focused literature on religious dynamism, conversions, revitalization and change in the post-Soviet era in English (see also Balzer, 2012, 2022a; Bulgakova, 2009, 2013; Halemba, 2006, 2008, 2014; Peers, 2015, 2016; Peers & Kolodeznikova, 2015; Vagramenko, 2017, 2018a, 2018b; Vallikivi, 2009, 2014; among many others) are those chapters by Brandišauskas, Bulgakova, Peers, Qu, Sidorova, and Vallikivi. One key theme that recurs in cultural revitalization generally (not only in spiritual movements) is the attempt to capture what is "authentic" about the past practice and imbue that authenticity into the current and future iterations; while not always a central question, it often hovers around many such attempts. Bulgakova too addresses the tensions in the changing shamanic practices in a Nanai community, showing that it is less of a contrast between the "neo" and the "traditional," but between those considered "real" and "fake," thus complicating the expected dichotomies of the "new" being less authentic. Religious change also has ripples in other societal spheres; Vallikivi's chapter on Nenets conversions to Evangelical Christianity shows how changes in spirituality do not only involve religious practices, but can also transform interlinking cultural practices like language and political relations with a state.

Sidorova's and Peers' chapters both bring us case studies from Sakha religious revitalization movements, revealing different aspects of the intersections between spiritual revival and post-Soviet politics as well. And, like Balzer, who has written on various spiritual and political movements in Buryatia, Sakha-Yakutia, and Tyva, Peers' examination of the Sakha Yhyakh festival weaves together the dynamics of revitalization of national identity via the reclamation and reinvention of spiritual and cultural practices. Updating Humphrey's (1999) work on Buryatia with a case study from another region, Sidorova's ethnographic piece profiles how several citizens of Yakutsk, the capital of the Sakha Republic (Yakutia) are bringing diverse spiritual practices to other urbanites as they strive to reinvigorate and interpret the shamanic practices of rural ancestors.

Two other chapters also provide more "archaeological" approaches to spiritual persistence and changes over time; Brandišauskas's paper on changing interpretations of ancient rock reveal how ostensibly spiritual objects created hundreds or thousands of years ago remain cosmologically and ritually relevant (even if their original purposes may remain speculative). In examining the archaeological materials for elements of shamanism, Qu argues that despite centuries of change, much stays the same—we can find traces of animist ontologies existing in Siberia throughout the archaeological record.

Moving into the domain of ecology and cultural change, Abbe and Jones, Crate, Davydova, Oehler, Takakura, Terekhina and Volkovitskiy, and Ventsel all examine aspects of change and adaptation in light of how humans relate to their environments, in ways that range from environmental histories to ethnographic case studies. In two of the chapters, we have a long-view and a more compressed-view of Sakha herding for comparison; Takakura reveals a view of ecological adaptation through the migrations and adaptations of Sakha people over centuries, while Crate examines more rapid

changes due to increasing urbanization in the post-Soviet years. Flexibility has been a key survival strategy for communities in Siberia throughout history. As Takakura reveals, Sakha pastoralism shifted from being horse-dominant to cow-dominant as Sakha moved into their current locations and became more settled (as opposed to nomadic); another comparison can be viewed in Oehler's ethnographic work, which reveals similar adaptations among Soiot communities, who herd different animals depending on terrain and altitude. Abbe and Jones provide a broad environmental history of changes due to both climate shifts and sociopolitical events and policies, while Ventsel looks at intersections of economics and subsistence hunting within an ethnographic case study, looking at shifts to how changes to big-game hunting legislation have led to fewer hunters and more fishing in a Dolgan-Evenki community. Related to subsistence methods are the food practices of Davydova's chapter, as she details the food nostalgia as well as food transformations in a Chukotka community.

As we have noted in the section above detailing the chapters in the section Land, Law and Ecology, numerous parts of Siberia are experiencing an acceleration of climatic changes connected with the melting of permafrost and its impacts on the atmosphere. This has led many communities to reconsider the ways in which they engage with the environment, whether through hunting, fishing, gathering, and/or herding, and work to both anticipate and mitigate the kinds of drastic changes that they are experiencing. Terekhina and Volkovitskiy highlight how discourses around climate change also shape how Nenets herders describe their experiences with environments and landscapes, and how their comments reveal differing ideological explanations for the changes—this is an important contribution to worldwide Indigenous-focused research on climate change and ideology (see also Marino and Schweitzer, 2015, and Marino, 2015 for work in Alaska), and how connections to place may influence how climate change is viewed and discussed (cf. Devine-Wright et al., 2015 on Australian attitudes).

THE FUTURE OF SIBERIAN STUDIES (SIBERIAN ETHNOGRAPHY)

Ethnographic studies in Siberia are shifting to incorporate multiple perspectives and Indigenous voices following trends across the field of Anthropology. Incorporating Indigenous voices is the entry level for knowledge co-production. More authentic and deeper knowledge collaborations in which Indigenous peoples are involved in the design, data collection, and dissemination of findings are on the horizon. At least one of the contributions to this volume (Mamontova et al.) demonstrates a relatively high level of co-production of knowledge. Degai et al.'s chapter (this volume) on Itelmen community language planning in Kamchatka also shows similar integration. The lead author, Degai, is a community member and works with fellow members as well as linguists and anthropologists from multiple institutions on such projects. Knowledge co-production is enriching and necessary for scholarly disciplines as it allows for more relevant application of methods and theory to problems faced by local populations, especially as they face climate change and industrial development. There is demand for applied anthropological work in Russia already. Russian ethnographers are often hired to produce "ethnographic expertise" studies that are required alongside proposals for industrial development projects that provide assessments of impacts on local cultures and ways of life. Knowledge co-production can help in

efforts to sustain and revitalize Indigenous and other small-scale cultures across the Siberian World.

Another trend we identified is that scholarship in Siberia is moving away from periods to themes across periods. Ethnography in Russia developed as a subdiscipline of History, and the legacy of that has been a focus on practices in the past. Now, scholars in Russia are moving to integrate ethnography with anthropology, sociology and history with a focus on thematic issues such as infrastructure and mobility, social networks, language revitalization, interactions with the state.

Anthropological and ethnographic studies of Siberia are currently undergoing significant disciplinary transformations (Vakhtin, 2020: 60). Modern science requires new methods of research, as well as ways of making the results public and publishing the data obtained given human subjects considerations. Ethnography itself, which used to be associated more with the past, is becoming more and more clearly the science of the future (Golovnev, 2021). At present, the visualization and popularization of knowledge has great importance. Contemporary projects devoted to the study of heritage of the Indigenous peoples of Siberia are increasingly "revisiting" classical forms, such as atlases and encyclopedias (Davydov & Yarzutkina, 2021). These platforms are being made in an interactive way, designed to interact with audiences and consumers of these products. Key to the success of such interactive projects is the reaction of representatives of the Siberian Indigenous communities and the integration of their vision into the process of production and publication of knowledge about the studied groups. An example is the recent project launched in 2021 to create an interactive atlas of Indigenous peoples of Siberia, which is supposed to be a multi-level database on their life and culture (Rector of the Russian State University for the Humanities, 2021). Atlases and encyclopedias played a significant place in the history of Siberian studies (see Levin & Potapov, 1956, 1961, 1964). However, encyclopedic works, dictionaries, and generalizing publications require new forms. Anthropological science itself is very adaptive, and due to social, technological, and methodological shifts, it is regularly updated within the framework of different concepts and schools (Golovnev, 2021). Contemporary projects concentrate more on a dynamic, not static perspective.

In terms of specific themes, further work on interaction between Indigenous and minority groups and the state will continue to be relevant as policies change at the national level. For instance, regarding Indigenous and regional minority languages, policy changes recently occurred at the constitutional level that impacted the ability to include mandatory language classes in languages other than Russian. Building on already declining federal support for linguistic diversity in education (Zamyatin, 2012), the Federal Law No. FZ-273 "On Education in the Russian Federation" reduced the number of hours the languages are taught in schools, and forbid Republics from making minority language courses mandatory even if they are co-official languages; they must remain "voluntary." This makes it very easy to eliminate these courses altogether. Concern arose in many of the Republics of the Federation, with many feeling that this restriction on minority language instruction was merely a first step in further cultural assimilation of non-Russian ethnic groups after a period of relatively greater self-determination (see Zamyatin, 2018).

The increasing prevalence of federal ethnonationalism (see Kolstø, 2016) permeating the discursive sphere in Russia's current political situation brings up questions on

the status of Indigenous and minority peoples that is highly relevant to the Siberian context. Concerns about expressing self-determination and critiquing federal power have surfaced more and more often in recent years. Many scholars are troubled with the current political situation in Russia and openly criticize the actions of Russia in the Ukraine. Questions about working in Siberia for international scholars, even those with ongoing projects, remain open for the near future. Balzer (2022b) (also see Arakchaa to appear) has pointed to the repression of protesters, like the Sakha "warrior-shaman" Alexander Gabyshev. A major challenge for the future development of the Siberian studies would be the lack of collaboration between Russian and Western scholars, as well as the lack of international public events in Russia leading to politicization of science and a split within the academic community. In this context, the research of social networks and web-ethnography will be one of the possible options.

As discussed in chapters in this volume (Fondahl et al.; Novikova), customary laws and culturally-specific social norms—often termed "legal orders" by Canadian Cree Indigenous scholar Val Napoleon (2007)—continue to be important in the sustainable livelihoods in Siberia. Formal laws continue to be negotiated and invoked to protect traditional lands and activities but in some contexts they are used in a different way. More research is needed on how customary laws can be worked into existing formal laws at the local, regional, and federal levels, and how the Russian legal system is open to these key changes. Further to this, work on decision making within communities who seek opportunities for industrial development is also crucial, and likely to be increasingly relevant, alongside assessments of changing patterns in demographics and modes of sustenance as Siberians respond to the ongoing challenges both in rural and urban settings. Change to sustenance and livelihoods are of course intertwined with climate change, and must be assessed holistically and in light of unprecedented and unpredictable environmental impacts and changes.

In terms of everyday life and livelihoods, continued research on this ever-changing sphere will be relevant as infrastructure develops and new technologies are introduced that shift the kinds of mobility and connections Siberians have access to. Zuev and Habeck (2019: 80) note that access to many kinds of transport as well as technological infrastructure is not equally available across Siberia, and of course not comparable between larger regional centers and small villages in any given region: "These disparities not only affect the daily running of people's lives, but also strongly influence the ways in which communities and individuals frame their past, their current existence, and their aspirations." Many of the themes in this volume, noted in previous sections, will need further longitudinal study. For instance, informal social relations and economic ties are going to continue to be important for Indigenous peoples living in remote settings as well as their relatives and friends living in urban areas. How does an increased ability to travel physically—as well as community by mobile phone or online—shape these relationships and ties? How do these ties operate both between locations in Siberia, as well as beyond to other parts of Russia and the world, as more and more migration happens to industrialized areas of this region (as Kapustina's chapter in this volume reveals)? Alongside increased mobility and connection there is the development of tourism in Siberia, both geared toward Siberians themselves traveling as well as outsiders from other parts of Russia coming to explore for themselves; the role of leisure and travel in contemporary Siberia is a productive space for further work, building on discussions such as those by Broz

and Habeck (2019) and Zuev (2012, 2013), the latter of whom looks at online-based networks and practices such as Couchsurfing.

Another theme for further exploration is the role of local and national museums, archives, and private collections. Beginning in the 18th century, Siberian collections became an integral part of national museum collections, such as the Kunstkamera and The Russian Museum of Ethnography in St. Petersburg. Numerous explorers of Siberia brought valuable notes, maps, drawings, photographs to Russian cities, and these later became partly redistributed back to central and local museums and archives. In addition, village-level and regional museums had their own programs of museification of traditional Siberian cultures (Stammler, 2005; Turin, 2011). There is a rich opportunity for future scholarship on the way different kinds of Siberian materials were collected, redistributed and represented in museums and archives at different administrative levels. These collections also played a role in the elaboration of the scientific concepts for Siberian ethnography and anthropology as well as government programs (Anderson, 2011; Anderson et al., 2013). These materials are being integrated into a process of Indigenous representation and revitalization today. In this sense, future investigations could examine the process by which material objects and documents, brought from Siberia, became the main source for building ideas and discourses.

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PART I

INDIGENOUS LANGUAGE REVIVAL AND CULTURAL CHANGE

CHAPTER 1

LANGUAGE VITALITY AND SUSTAINABILITY
Minority Indigenous languages in the Sakha Republic

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INTRODUCTION: THE REPUBLIC OF SAKHA (YAKUTIA)

The Republic of Sakha (Yakutia) is the largest subnational governing region in the world, encompassing some 3,083,523 km^2, making it approximately 6 times the size of France. Occupying about 18% of the Russian Federation, it covers 3 time zones and climatic zones: Arctic, Subarctic, tundra, and taiga, with long winters and short summers. The Republic is known for some of the coldest recorded temperatures, and almost the entire territory is located in permafrost. Approximately 40% of its territory is located around the Arctic Circle.

The Sakha Republic is the largest of the 85 official federal subjects/regions/administrative units of the Russian Federation, but is relatively sparsely populated. Population density is low, not quite 0.32 people/km^2, with a total population of 971,996 as of January 1, 2020 (984,703 in 2021), and a full two-thirds of the population is urban (*Federal State Statistics*, 2020). The population dropped drastically after the break-up of the Soviet Union but has been increasing annually since 2000, with increasing numbers of people—including immigrants, in particular from Central Asia and the Caucasus, and natives of the Republic—moving into the cities. It is a dynamic demographic situation. There is high migration from Arctic regions to more urban settings due to a combination of factors, including the harsh Arctic climate, low standard of living, and relative poverty, with low wages and high unemployment rates, poor access to medical care, and an overall weaker educational system (Ignat'eva, 2020).

Sakha as a multilingual, multi-ethnic region

Data on the ethnic make-up of the Republic of Sakha (Yakutia) (RS(Y)) is somewhat outdated, as the last census data comes from the 2010 all-Russia census; the scheduled 2020 census was postponed to September 2021 due to the coronavirus pandemic. Drawing from the 2010 census then, the Republic is home to 126 different ethnic groups. The largest group by far is Sakha (48.67% or 49.1%), followed by Russian (36.9%); these two comprise 85% of the total population of the Republic. Then there is a significant drop in relative size, where the third largest group, Evenki, constitutes

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Table 1.1 Indigenous minority populations, 2010 and 2002

	2010	*2010*	*2002*
	Population RF	*Percentage RS(Y)*	*Percentage RS(Y)*
Russian	118,581,514	37.8	41.2
Sakha	450,000	49.1	45.6
Evenki	37,131	2.25	1.90
Even	21,830	1.57	1.20
Dolgan	7885	0.20	0.10
Yukaghir	1597	0.14	0.12
Chukchi	15,908	0.07	0.06

Source: Adapted from Ignat'eva (2020: 23) and All-Russia Census (2010)

2.19% of the population. The population can be classified into four groups: (1) the regional majority Sakha; (2) the national majority but local minoritized Russian; (3) minority Indigenous; and (4) immigrant and migrant groups. While 15% of the population is thus neither Sakha nor Russian, the local minority Indigenous groups still comprise only a relatively small percentage. Table 1.1 provides the numbers of the Indigenous minorities in the Russian Federation (RF) according to the 2010 census, with figures for the percentage of the total population in the Republic of Sakha (Yakutia) in 2010 and 2002.

As Table 1.1 indicates, there has been a decrease in the percentage of Russians in the Republic and a general trend in growth of the Indigenous groups, Sakha, and the local minorities. The growth can be attributed to a number of factors, including the continuing loss of ethnic Russians due to out-migration to other parts of Russia and continuing increase in the population size of ethnic Sakha. In addition, the increase in the percentage of the population constituted by Indigenous minorities comes thanks to a combination of factors, including not only an increase in birth rate and longer life expectancy, a small level of immigration to the Republic from other parts of Russia, and, critically for our arguments here, a positive change in a sense of ethnic identity (Ivanova, 2020). There are a number of factors that make the Republic attractive for relocation, such as higher rates of employment in Yakutsk, which serves to attract laborers, both temporary seasonal and permanent immigrants. The relatively high density of Indigenous minorities, as opposed to many other parts of the Russian Federation, and education and language policies that are supportive of non-Russians, make the Republic of Sakha an appealing place for relocation for these groups. In particular the "Language Law of the Republic of Sakha (Yakutia)" grants official status to the Sakha language throughout the Republic and to local Indigenous languages (Chukchi, Dolgan, Even, Evenki, and Yukaghir) in those regions where the ethnic populations live densely. This official recognition of the rights of languages other than Russian makes the Republic one of the more hospitable regions in the Russian Federation for minorities.

THE SAKHA LANGUAGE: A MINORITIZED MAJORITY LANGUAGE?

The Sakha language and people are a strong presence in the Republic and form an essential component of the sociolinguistic ecology, both at the level of the Republic

and at more local levels (in cities, towns, and villages). That is, Sakha culture is part of the fabric of life for all residents, Russians, immigrants, and Indigenous minorities, even for those living in Indigenous-dominant villages. Historically, the Sakha language was a lingua franca for the region, where not only minority peoples learned the language but also Russians. Imperial Russia had a relatively lax language policy, not paying much attention to the language situation in locations so distant from Moscow. This changed radically in the Soviet period, which began with focused attention on "developing" the languages and peoples of the Russian Far East and North, and changed over time to be largely Russocentric. By the late Soviet period, use of Sakha was actively repressed and Russian promoted to the exclusion of all other languages (Grenoble, 2003; Wurm, 1996). These policies led to language shift and to lower prestige for the language even among ethnic Sakha. The post-Soviet years have been characterized by changes in language attitudes to be more positive and embracing of Sakha language and identity, bringing about renewed interest in cultural and linguistic revival (Ferguson, 2016, 2019; Ivanova, 2020). Nonetheless, recent years see a downward trend in language proficiency among youth, with a shift to Russian. A pilot study conducted in 2017 showed that from a sample of 30 first- and second-year university students, all of whom identified as ethnic Sakha, 4 could not produce texts, and one-third produced texts with errors, as assessed by fully proficient Sakha speakers (Grenoble et al., 2019). A sociolinguistic questionnaire that asked them to assess their own abilities in Sakha showed their self-assessments to be fairly accurate: Those who reported weaker abilities could not produce texts and showed more errors in simple production tasks where they were provided the lexical items need to formulate sentences. Anecdotally, local faculty report an ongoing decline in language knowledge and proficiency among entering students since the study was conducted.

In many of the Soviet successor states, such as Belarus, the national majority language has been labeled a *minoritized majority language* because it is marginalized and perceived as underdeveloped, without prestige and inferior to Russian (Ozolins, 2003; Pavlenko, 2008). These attitudes reflect a power differential—social, economic, and political. This is a carryover from Soviet language policies that promoted asymmetric bilingualism, favoring Russian over all other languages.

Can Sakha be construed as a minoritized minority language? Arguably yes. Within the Republic of Sakha (Yakutia), it enjoys official status and is the regional majority. But it stands in juxtaposition to Russian and is overshadowed by the political and economic power of Russian, with its dominance in educational institutions and the media. Russian has the status of being the sole national language and lingua franca of the country, and it carries prestige as the majority language. Russian has so many more speakers, even L2 speakers of Russian outnumber L1 Sakha speakers by more than 40 times: In 2010 there were 18.9 million L2 speakers of Russian in the Russian Federation (versus 450,000 speakers of Sakha). Thus, Russian dominates at every level except where there is strong resistance by Sakha people who make a strong commitment to using the Sakha language in all domains where they have control over the language choice.

THE MODEL

In this chapter we use the Language Vitality Network Model (LVNM) proposed in Grenoble and Whaley (2020) as a theoretical approach to the study of the language

ecologies in the Sakha Republic. The model proposes that language practices are embedded social practices, a claim that is not controversial in much of social science but is rarely operationalized in linguistics. The LVNM is dynamic in nature, recognizing and attempting to model the fluidity of language practices. This is an obvious outcome of multilingual societies, where different speakers have different linguistic repertoires and invoke them in varying ways, depending on a complex set of factors, including their interlocutors, the domain, social setting, and the topic of conversation. Thus, language practices are tied to social practices; a social practice is represented in the model as a higher order node. Critically, for our purposes here, these nodes are interconnected, and disruption in one part of the model can cause disruption in other nodes, or domains. That is, changes in social practices can have an impact on language use, and vice versa.

A useful heuristic for identifying nodes in the context of the Republic of Sakha is to turn to

the framework developed in the Arctic Social Indicators Reports (Larsen et al., 2010, 2014). This project builds upon the preliminary work by the Arctic Human Development Report (AHDR I) and the United Nations Human Development Index (UN HDI), which identified a core set of indicators to evaluate Arctic well-being across six domains: 1) cultural vitality; 2) contact with nature; 3) fate control; 4) material well-being; 5) education; and 6) health/population. A summary of the technical definitions for each of these indicators is given in ASI-II (Larsen et al., 2014: 36), adapted in Table 1.2.

The indicators serve as diagnostic, representative measures for a given domain that can be used to gauge the overall strength of that domain. For example, infant mortality serves as one diagnostic for the overall health of a community; per capita income is a useful measure to gauge overall economic and material well-being. The domains and indicators here derive from surveys conducted in Arctic populations that show that *contact with nature* and *fate control* are core values held by Arctic Indigenous peoples.

Language is a core indicator that cuts across several different indicators, including not only cultural vitality but control over knowledge construction, and it is an integral part of education. Contact with nature is considered to be an indicator of well-being and, concomitantly, maintaining a traditional lifestyle is a factor that supports

Table 1.2 Definitions of Arctic social indicators by domain

Cultural vitality: language retention: percentage of a population that speaks ancestral language
Contact with nature: consumption of traditional food as a per capita intake of traditional food harvest (total weight harvested in given period)
Fate control: political control: percentage of Indigenous/local peoples in governing bodies; control over land/resources: percentage of surface lands legally controlled by Indigenous/local inhabitants; economic control: percentage of public expenses generated within the region raised locally; control over knowledge construction (= language retention rate): percentage of a population that speaks its ancestral language
Material well-being: per capita household income
Education: post-secondary completion rate
Health: infant mortality: number of deaths under one year of age per 1000 live births; net migration: difference between in-migration and out-migration

use of Indigenous languages. Moreover, for many Indigenous people, language and place (land, or sea in coastal communities) are deeply intertwined and cannot be separated; language is part of place, and together they form the core of Indigenous identity (Perley, 2020; Zenker, 2018).

Thus, the identification of core domains and values here relies on broad analysis of Arctic populations. The list of relevant domains could be expanded considerably and along multiple dimensions in a full implementation of the LVNM. Here we confine the use of the model to consider the balance of stressors and protective factors with specific regard to language vitality and usage in the Sakha Republic. The LVNM presupposes that disruption in one part of the network results in disruptions elsewhere. If we adapt these indicators to serve as major nodes in the LVNM and consider the impact of modern stressors on speaker communities, we can see disruption across all arenas. In the next section of this chapter, we show that these stressors are pervasive throughout the Sakha Republic. Where language (and culture) are robustly maintained, we postulate that vitality is supported by a set of protective factors. These are each dealt with within the next section.

STRESS FACTORS IN THE RUSSIAN NORTH AND THE SAKHA REPUBLIC

A number of stressors have been identified for Arctic communities (Carson & Peterson, 2016; Larsen et al., 2014). Here we focus on those stressors which seem to be most salient today for Indigenous communities, based on the stories and accounts we hear during fieldwork. We hear similar themes in different places and have chosen to focus on these particular themes. These differ from some other parts of the Arctic. For example, in Alaska and Canada, many people speak of colonization but few discuss the impact of World War II, and the opposite is true in Russia. In the same vein, in some parts of the Sakha Republic, we are more likely to hear stories about the labor camps, in other regions only sporadically, whereas the stressors listed here were repeatedly brought up in different regions and by different ethnic groups, including Sakha.

We divide the stressors into two categories, *historical trauma* and *modern stressors*, although the labels are somewhat misleading inasmuch as historical trauma has ongoing, continuing effects and is relevant in modern times.

Historical trauma

The factors listed here are well-known stressors throughout the Arctic. Particulars vary throughout the circumpolar region: Sami in Norway experienced significant displacement during WWII, and Nazi scorched-earth policies left continuing reminders in the landscape of their settlements today, something that Alaskan Indigenous peoples did not experience, as just one example (Grenoble, 2018).

WORLD WAR II

World War II had a profound and lasting impact on the Indigenous peoples of northeastern Russia; Turaev (2015) argues that its detrimental effect was far greater than

the Bolshevik Revolution or the political repressions of the 1930s and 1960s–1970s. Many Indigenous men were conscripted to fight in the Soviet army. There was a particular need for literacy in Russian, and so areas in the southern part of the Sakha region and beyond the region to the south were more deeply affected, where education rates and acquisition of Russian (written and spoken) were higher than in the Far North (such as Chukotka).

The conscription of Indigenous men had a major negative impact on the demographics of what were already small populations, which became even smaller as the males left to join the military. Conditions for those who stayed behind were grim, as the Soviet government was engaged in war, and it essentially left the far northern communities to fend for themselves, with medical personnel being sent to the war effort (Turaev, 2015). The people we encountered living in villages in the Sakha Republic told many stories of efforts to help the war effort (such as knitting mittens that were shipped to the front) and many more stories of hardships and hunger. Food in far northern regions is scarce to begin with, and people had stories of how meat and fish were confiscated by local (Soviet) officials who ostensibly shipped it off to feed the army. What is striking is the long-term effects of the war and how it is still fresh in the minds of people living some six time zones away from Leningrad (now St. Petersburg), which was directly under siege.

There are no exact figures, as ethnicity was by and large not recorded in conscription lists, although some approximations can be extrapolated from what we do know. These measures indicate that more than 8% of the total population of Nanai and Ul'ch joined the army, and the percentage of Even, Evenki, Nivkh, Oroch, and Udihe was not far behind. This left these communities without working-aged men, and of course a significant number did not return from the war. One major change was in gender balance. Prior to the war, the ratio of men to women was 100 to 97 in Indigenous communities, which subsequently flipped, so that by 1959 adult women outnumbered men, especially in the age range of 34–44, with a ratio of 100 men to 107 women across Indigenous peoples in the northeast. The net result occurred due to drops in birth rates and further decreases in population size. Beyond the devastating social implications, this had a major impact on the languages spoken by these people. Beyond the simple reduction of the speaker population, the gender imbalance fostered more intermarriage and the ensuing language shift.

BOARDING SCHOOLS

Part of the historical fabric of the experience of many Indigenous groups throughout the Russian North is the boarding, or residential, school system. As was the case with Indigenous communities in North America and other parts of the world, children were forcibly taken from their parents and put into schools. By the post-WWII period, if not sooner, the schools were actively repressing use of Indigenous languages; see Liarskaya (2013) for a succinct overview of the chronology of boarding schools in the Soviet and post-Soviet periods. In addition, the children who attended the schools were Russified, linguistically and culturally, and isolated from their homes and families. We have heard many stories about these experiences, from people who were punished and mocked for using their language and who never quite fit in anywhere, assimilating to the majority language and culture but not becoming Russian,

and feeling out of place when they returned to their homes, no longer Chukchi or Evenki. But we also know people who maintained their language and strong family ties despite the boarding school experience. And others told us that the school system helped support families more than many know, as the children received stipends and rations that they were able to send home to support their families.

Modern stressors

CLIMATE CHANGE

Changes in climate and weather have created serious difficulties for residents in the Sakha Republic and are one of the main drivers of urbanization as life in the villages or living off the land (hunting, fishing, herding) becomes less viable and increasingly stressful (Crate, 2013; Dets, 2020; Dybbroe et al., 2010). Studies conducted over a 50-year period from 1996 to 2016 show an increase of annual temperature of 0.3–0.6 °C every ten years, due primarily to higher temperatures in winter months. At the same time, changes in annual precipitation show an increase in approximately 70% of Sakha territory, with the greatest increases in southern regions, and a decrease in precipitation of about –15 mm/year in the tundra regions (Gorokhov & Fedorov, 2018).

These average changes mask the unevenness of the changes, so that in the western part of the tundra zones, the mean temperature in January increased by 5 °C. Taken as a whole, these changes have had a serious impact on the state of permafrost in the Sakha Republic. And they have significantly affected the people living there, who point to cold storage in the permafrost that is now dripping, melting of solid ice, and flooding, with standing water for weeks on end. People also remark on rising temperatures, even in the winter. One woman reported that in January it typically got down to –59 °C and stayed there for weeks, but in recent years the cold snap lasted only a few days, and it warmed up to –53 °C, as just one concrete example. People did not embrace this warming, because it came together with a number of troubles. The unpredictable weather has resulted in floods, summer fires, and major snowfalls. In conducting fieldwork in the Srednekolymsk region in Spring 2019, we heard many stories and woes about extremely large snowfall in the winter of the previous year. Even in the village of Berezovka reported how herds of elk and reindeer had perished in the snow, and in the Sakha-dominant village of Nalimsk people told many horror stories of horses drowning in the snow. Flooding was a major theme in 2019 as well.

URBANIZATION

Urbanization is a global trend and is proceeding rapidly in the Republic of Sakha, serving at once as a solution to, or escape from, the problems that plague small, isolated villages in the Republic, as well as being a major stress factor. Over the course of the last 20 years, the local language ecologies in the Republic of Sakha have changed significantly. Urbanization is a key factor in these changes. Yakutsk is the fastest growing city in the Russian North (Heleniak, 2016), with a population increase from 229,951 in 2002 to 311,760 in 2018. Urbanization has had some

positive effects on Sakha language usage in Yakutsk, as Sakha-dominant speakers have moved from more remote areas to Yakutsk, increasing the number of L1 speakers in the city (Ivanova, 2020), but at the same time there has been massive migration to Yakutsk by speakers of other languages from other parts of the country, drastically changing the local language ecology. Moreover, simply living in a city can be a stressor for Indigenous people (Grenoble, 2020).

A number of other stressors could be added to this list, including health issues, substance abuse, food security, and reliable and predictable employment. Recent years have seen an increase in catastrophic fires during summer months in the Sakha Republic, which cause immediate damage in terms of air quality but have longer lasting consequences in melting permafrost and carbon emissions (Pohl et al., 2020). And concomitant to changes in climate and fires has been a marked decrease in reindeer and elk populations. This represents a major stressor for those Indigenous peoples who live a subsistence or semi-subsistence lifestyle and rely on herding and hunting to eat.

Industrialization and resource extraction have taken a major toll on Indigenous communities, and those communities living in industrial areas are often assimilated to the point where they understand this assimilation to be a natural and inevitable process. Diamonds, gold, and oil are all found in parts of the region in abundance. Development of these resources is such a fundamental part of life in the Sakha Republic as a whole that it is rarely presented to us as a stressor but rather is presupposed as part of the social setting, and an unavoidable cause of language shift.

PROTECTIVE FACTORS AND THE LVNM

In this section we examine protective factors in order to understand the means by which minority Indigenous communities have continued to survive. One key factor is isolation. While isolation can make access to goods, medical care, and other services problematic and unreliable, it has also served (historically and to the present day) as a buffer against assimilation and external influences.

Working again from the core set of indicators identified in Table 1.2, we see a number of potential protective factors for Indigenous language vitality within our framework, including cultural vitality and ethnic identity. Although it may appear circular, the two are deeply intertwined, and strong cultural vitality fosters a strong and positive sense of ethnic identity, and vice versa.

There is a clear connection between the protective factors and the stressors, and where the balance between the two lies (or does not). Contact with nature is a core value of Indigenous communities; the loss of opportunities to have close or frequent contact with nature is a natural result of industrialization and urbanization, which are stressors in and of themselves. So, the presence of stressors can increase stressors in other areas, while protective factors can promote other protective factors. These interconnections may have mixed results. Isolation can provide a community with greater independence and less contact with outsiders, but can also make communities more vulnerable to changes in climate, as an example, where sudden changes can be nearly impossible to plan for and can result in extremely dangerous situations (fires, flooding, and loss of herds mean a direct loss of the food supply).

MINORITY INDIGENOUS LANGUAGES

Use of one's native language is guaranteed in the Sakha Republic. Its language law of October 16, 1992, N 1170-XII "On the languages of the Republic of Sakha (Yakutia)" recognizes the status of Russian as a national language and as an official language of inter-ethnic communication alongside the Sakha language which is an official state language (Articles 2 and 3). In addition, a number of minority Indigenous languages have special status in the Republic: Chukchi, Dolgan, Even, Evenki, and Yukaghir (classified here as one language) have a status on par with Sakha in those areas where the populations live densely, or compactly (Article 5). This status gives them certain rights and a certain visibility in society, and serves as a protective factor, in principle at least. The position of the Indigenous language changes in those places where the people do *not* live in high density, namely, in cities. Thus, urbanization has this additional consequence on language vitality by removing (or annulling) the protected status of the language. Nonetheless, these groups still enjoy recognition throughout the Republic and an elevated prestige for that reason.

Case study: Even

As a case study to illustrate the situation in detail, we take the case of Even (ISO 639-3 eve), a Tungusic language that is one of the five Indigenous minority languages with official status in the Sakha Republic. Seventy-two percent of all Even live in the Republic; it is their homeland. Although Even is under serious pressure from both the Russian and Sakha languages, one of the big questions is why the language is so robustly maintained compared to other minority Indigenous languages. We can make a quick comparison with the other minority Indigenous languages in the Republic in terms of percentage of the total population which speaks the language, given in Table 1.3.

The numbers of speakers are quite certainly inflated, depending on how one defines a speaker. Field linguists put the total numbers much lower; specialists estimate only 20 or so speakers of the Yukaghir languages combined, for example. But these are the official census data and provide a snapshot picture of what people reported at that time. Putting aside Chukchi, which is primarily spoken in the Chukotka autonomous okrug and quite remote, we see that Even language retention is relatively high. There is not an absolute correlation between language retention and urbanization, in

Table 1.3 Speakers of Indigenous minority languages and percentage of ethnic population

Group	*Speakers*	*Percentage (speakers in ethnic pop.)*	*Number in SR(Y)*	*Percentage in cities SR(Y)*
Chukchi	5095	32.0	670	26.1
Dolgan	1054	13.4	1906	13.6
Even	5656	26.1	15,071	33.7
Evenki	4802	12.5	21,008	39.1
Yukaghir	370	23.1	1281	43.6

Source: 2010 All-Russia Census, 2010

part because the problem is further complicated by the speaker population size. The smaller groups are more vulnerable. And yet Even stands out in terms of population size and overall retention, and it is striking that in the 2010 census more people self-reported as Even speakers than Evenki, despite the significantly larger Evenki population. Why is Even retention higher? What factors support Even vitality? What is the role of language in the daily lives of the Even people?

One preliminary answer is basic isolation. Even live, by and large, further north than Evenki. The village of Berezovka, where language retention has been high, is renowned for its near complete isolation into the 1950s. This is one factor that has helped them maintain language and cultural vitality longer than Even living in other regions (Robbek, 2005). Yet Even today, even in Berezovka, are leaving their villages in high numbers, for a variety of reasons. These include a desire for improved living conditions and economic advancement, and access to education, goals directly in line with the needs identified in the Arctic Social Indicators report. Another motivation is to unite with family members who have already moved to a city for these reasons. And in the last decade or so, extensive flooding has made many homes uninhabitable, forcing people to relocate. This is particularly true in Berezovka, which has been experiencing destructive flooding since 2002 (Filippova, 2017). In 2017, a massive flood destroyed 37 homes, the childcare center, the local hospital, and administrative buildings. Whereas some families moved to higher ground in the village, many left for the city.

The stressors given previously all apply to the Even situation. They are currently undergoing radical cultural and social disruption. Although the Even people have been living for centuries in multilingual communities, urbanization brings different kinds of language contact—historically contact with other Indigenous groups, often Chukchi, Evenki, and/or Yukaghir, and these neighbors generally had some command of Even. Now Russian has replaced these local languages and serves as a lingua franca for different groups, including Sakha. In 1989, 22% of Even lived in urban areas; by 2010 this number had grown to 33.7%, and there is every reason to believe it has significantly increased since then (All-Russia Census, 2010; Burtseva et al., 2014). In cities and large towns, Russian and Sakha dominate, as do other (non-local) languages. In particular, immigrants to the Republic of Sakha have brought their languages with them, and in a city like Yakutsk (home to approximately one-third of the Republic's total population), there are significant numbers of immigrants from other parts of Russia and Soviet successor states. There are currently more Kyrgyz and Buryats in the Republic than Even.

It is not just the languages involved in contact but the nature of multilingualism that has changed radically. Whereas previously language contact took place in face-to-face, person-to-person encounters, now the domains have changed, and much is over the Internet, television, cell phones, and social media, which have all transformed how people engage in multilingual practices (Aronin & Singleton, 2008; Cenoz, 2013). Input can be unidirectional, not bidirectional as in face-to-face conversation, and participation in these practices can be quite passive, such as watching a YouTube video or other online entertainment. This means that languages can easily enter the home even when they are not spoken in the vicinity of the recipient, i.e., not spoken in an individual's neighborhood in the Sakha Republic. A prime example is English, which can easily enter homes of Indigenous communities in the Far North.

A survey we conducted in 2017 found that English is the prime language for young people in Yakutsk when playing online video games.

These practices can thus facilitate language shift, but they can also support the use of local minority languages. They enable more people to participate in more languages even when they are not in the same location, and even when not all interlocutors understand them. Consider the context of ongoing conversations that span months from a WhatsApp group with approximately 30 people, a group that communicates in connection to a major research project. The participants write sporadically, at times intensely with multiple people writing in one thread, while at times a single individual posts information. The participants all use Russian as the primary language, but content (and especially greetings) is often in Sakha, sometimes Even, sometimes English, depending on the user and indexicality, regardless of whether the recipients can understand the specific language. An illustrative example is the WhatsApp message in (1), which uses four languages in a single message. The group is multilingual and multi-ethnic, and the research project that unites them focuses on building language and cultural vitality. Thus it is a set of users who view multilingualism favorably, and in that sense is a space for multilingual practices. The original text in the message is given in italics; note the use of two scripts and non-standard orthography for Even:

(1a)	Even	*Төөңкэриву А.В.! Дуус мэргэндук уй балдача инэҥидис эскэрэм!* Tööngkėrivu A.V.! Duus mėrgėndukuĭ baldacha inėngidis ėskėrem	"Dear A.V.! Deep from the heart I celebrate your birthday!"
(1b)		*Абгар, несэлкэн били!* Abgar, nesėlkėn bili!	"Be healthy and happy!"
(1c)		*Дьулэски аит бинив дьулиттэм, мээни одьаникан биддэс ньан.* D'ulėski ait biniv d'ulittėm, mėėni od'aninkan biddės n'an.	"Wishing you a good life in the future, and that you will take care of yourself."
(1d)	Russian	*Уважаемая А.В., от всей души поздравляю Вас с днем рождения!* Uvazhaemaia A.V., ot vseĭ dushi podravliaiu Vas s dnem rozhdeniia!	"Dear A.V., congratulations on your birthday from my whole heart!"
(1e)	French	*Joyeux anniversaire!*	"Happy birthday!"
(1f)	English	*Happy birthday!*	"Happy birthday!"

The intended recipient, A. V., does not speak Even, but Sakha and Russian. The use of Even in lines (1a)–(1c) indexes the author's identity as an Even user. The switch to Russian in (1c) provides a translation of the first line of the message (1a), but not lines (1b)–(1c), which the writer could not hope that A. V. would understand. The lack of Sakha in the message suggests that the writer is not proficient in it. However, she does switch to French in (1e), which at least indexes the addressee's identity as a specialist in the French language. It is unclear from the text whether the conclusion in English is to index the recipient's location at the time the message was sent, when she was in Montreal, a bilingual French/English city, or as a nod to the Anglophone members of

the list. Or perhaps it is just an enthusiastic flair, concluding the multilingual posting with yet another language, the global lingua franca.

Subsequently in the same thread, after several more greetings in Russian, another writer submits the following message in (2) to accompany the picture and (3) (Figure 1.1):

(2)

Дорогая	*А.В.,*	*примите*	*поздравление*	*на*	*татарском*	*языке* ☺
Dorogaia	A.V.,	primite	pozdravlenie	na	tatarskom	iazyke

Dear A.B., accept [my] congratulations in Tatar ☺

(3)

Туган	*көн*	*белэн!*
Tugan	kön	belėn!

"Happy birthday!"

The context of the birthday greeting makes the content understandable, even if the exact wording is not. This is particularly true in the Even text in (1), but here the exact sentiment is not as important as the length of the text, which signals that the author is a proficient user of the language. Both messages are visible to the entire group, who are listeners but not the intended recipients in this instance, and the author most certainly knows that some of them are proficient in Even. Her writing here is not standard, and does not follow standard orthographic conventions for Even, which would be visible and legible to anyone proficient in Even on the list. The unconventional (vis-à-vis the standard) writing suggests that the writer may come from a western Even dialect zone, where people are known to use non-standard writing; its usage indexes a western Even identity.

These are simple examples to illustrate how multilingual spaces are created in new domains. These spaces, and practices, are dynamic and fluid, changing with the topic and across individual users. They provide a partial solution of how to create domains for language usage when the speakers no longer see one another on a regular basis, when speakers are no longer neighbors and have minimal opportunities

Figure 1.1 Scanned image of a birthday card with a greeting written in Tatar.

for unplanned face-to-face communication and when they are embedded in a larger community dominated by the use of other languages.

DISCUSSION

Language cannot be extracted from the sociolinguistic ecology of its users. The LVNM provides a theoretical apparatus for modeling this interconnected system of cultural practices and how the different parts of the systems affect one another. In examining the stressors which Indigenous people in the Sakha Republic face on a daily basis, we find populations undergoing sustained stress. These populations are not positioned to eliminate the stressors themselves. Concretely, climate change has a direct and immediate impact on their lives and well-being; people can only react to its effects, they cannot stop it. In the LVNM model, disruption in one part of the model causes disruption in another. Indigenous people in the Sakha Republic are living under a constant barrage of stressors, and the resulting disruption is massive.

The situation of Even indicates the critical importance of features such as a strong sense of ethnic identity and value of one's ethnic heritage and culture as protective factors to offset the effects of these stressors. Positive language attitudes reflect a sense of positive self-worth, and these are essential indicators of cultural well-being. Bolstering positive attitudes becomes all the more important in urban settings, where they do not have access to some of the critical components that they independently identified as important for well-being (such as contact with nature and the ability to engage in traditional activities like hunting, fishing, and herding). Increasing pressure from climate change means that every year, more Even move to the city. Many migrate to Yakutsk, the capital and home to approximately one-third of the population of the Sakha Republic, where they must work deliberately to maintain a sense of community in a multi-ethnic city that is the epicenter and crossroads for migration and international travelers to the region. Social networks, in-person and virtual, gatherings, and celebrations of Even festivals are critical to maintaining a sense of self. WhatsApp groups are very popular, uniting Even from all regions, facilitating a virtual social network that creates unity across great distances. Even enthusiasts take advantage of social networks to come together; people use these spaces in particular to connect with elders to learn about language and culture.

There is a strong commitment to creating and maintaining sustainable spaces for Even language usage even in Yakutsk. The musical ensemble *Dolgchuncha* ("the Wave") provides the opportunity to participate in Even culture as performer or audience, and recent years have seen a surge of young artists who dance and sing in Even. There is a local society of Even from Berezovka, a far northern, Even-dominant village known for strong language usage. As climate and economic factors have uprooted people from Berezovka to Yakutsk, they continue as a community in the city thanks in part to this group. Critically, researchers at the Yakutsk branch of the Russian Academy of Sciences[1] are focused on activities that promote language and cultural vitality, including the creation of textbooks and other pedagogical materials and the creation of a digital archive of audio and visual materials. They support a folklore school *Mengnen toren* ("the Golden Word"), among other activities that foster the use of the language, culture, and folklore.

Such measures highlight the need for creativity and commitment to maintain robust language usage and cultural identity. To support the sustainable development of Indigenous languages of the Russian North in an urbanized setting, we need to work systematically to preserve a sense of ethnic identity; to teach and use the mother tongue beginning at an early age, preferably at home from birth, with further support in childcare and educational institutions; and to create the linguistic and cultural conditions for vitality. Language vitality is part of overall social and cultural vitality, and is deeply tied to well-being.

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NOTE

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CHAPTER 2

(SOCIO)LINGUISTIC OUTCOMES OF SOCIAL REORGANIZATION IN CHUKOTKA

Jessica Kantarovich

Although we often speak of "languages" as discrete entities that can be adopted and abandoned, they are more than just neutral tools that speakers pragmatically apply to different situations. Language is also not merely a constellation of grammatical features shaped by the constraints on human cognition and articulation. There is a demonstrable, intrinsic link between language and culture: languages do not exist without their speakers and are shaped by their speakers' lifeways in manners great and small. The ways that linguistic practices change in response to the circumstances of linguistic users have been well-explored in linguistic anthropology and studies of language contact, especially in cases of intense historical change and social upheaval. One of the outcomes of contact between speakers of different languages, especially when one group has greater political or economic capital, is *language shift*: the process by which a group ceases to speak their heritage language in favor of another language, whether due to explicit or tacit prohibition of the continued use of the heritage language or simply due to the favorability of the new language for participation in society. The implementation of measures to discourage or outlaw existing language use is a powerful strategy seen often in the initial colonial context that forms the backdrop of many cases of language endangerment. Throughout Siberia, the initial official position of the Soviet government was one of stewardship of the Indigenous languages and promotion of literacy in these languages (Forsyth, 1992, p. 283), and efforts were undertaken to train Indigenous Siberians to become educators in their own languages (Grenoble, 2003, Chapter 7). Language policy throughout the mid-20th century, however, tells a more complicated story. Russian language instruction was made obligatory in schools in 1938; in 1959, this policy was modified to allow parents to choose instruction in Russian or the Indigenous language (Forsyth, 1992, pp. 406–407). By this point, however, the devaluation and stigmatization of Indigenous languages were well underway, with most parents opting for Russian instruction over Indigenous instruction anyway. Thus, although Indigenous languages were not prohibited outright, they were edged out by language policy that favored Russian, on the one hand, and by practices on the ground at boarding schools where speakers were ridiculed or punished for using their Indigenous languages, on the other.

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