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Scenarios and Ethnography: Infrastructural Futures as Windows into the Present

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Abstract

Large-scale infrastructures are typically part of development projects that are global in ambition and local in their impacts. While anthropology has a decent track record of using ethnographic methods in the study of infrastructure, it typically lacks the capacity to provoke statements or attitudes regarding larger development plans. Scenario workshops, initially developed by researchers in the field of foresight studies, turn out to be productive tools in eliciting assessments of the present by talking about possible futures. The European Research Council project *InfraNorth* conducted scenario workshops in two locations in Canada and Norway in 2023, in which four scenarios were presented and discussed. Apart from speculations about what the future might bring, these discussions provided ethnographic insights that went beyond what we had found before through more traditional means of ethnography. We suggest that scenarios and scenario workshops have the potential to offer ethnographic windows into infrastructural presents by talking about the future.

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Introduction

The discipline of anthropology seems to have a checkered track record as to whether to include the past in its portfolio or not, while the present is always seen as the central target of our inquiries; the future, on the other hand, is rarely being paid attention to. Notwithstanding these critical voices, we submitted a grant proposal to the European Research Council in 2019, with the title "Building Arctic Futures: Transport Infrastructures and Sustainable Northern Communities" and the acronym InfraNorth. The proposal was approved in 2020, and the project commenced in early 2021. Topically, we are exploring what the role of transport infrastructures—from airports to seaports, from roads to railways—is in sustaining Arctic communities.

The ambition of the project is pan-Arctic, aiming to understand regional dynamics in the European, North American, and Russian Arctic. However, since February 2022, geopolitical developments related to the war in Ukraine have rendered the Russian Arctic inaccessible for our research activities. After having spent the first thirty months of the project with preparations and fieldwork in several Arctic locations, we conducted scenario workshops in two of those locations—in Churchill, Canada, and Kirkenes, Norway—in August and September 2023 respectively.

While a more detailed description of the workshops will be provided below, and a methodological analysis is forthcoming (Strelkovskii et al. forthcoming), our goal in this article is to explore the contribution of these workshops to our ongoing ethnographic activities, individual and group interviews, observations, surveys, and so on. That is, the overarching question of this article is to ask what can be learned from scenario workshops that other ethnographic methods might not afford, in other words, what is the added ethnographic value of scenario workshops? Following the lead of this special issue, we will explore the ethnographic potential of infrastructure studies. At the same time, we will argue that infrastructures—as objects of futurity—lend themselves to scenario-based ethnography.

The remainder of the article attempts to address these and other questions by introducing the theoretical and methodological considerations necessary to do so. After that, the scenario workshops are introduced in more detail, and the ethnographic results of these events are presented. The discussion of the workshop results puts an emphasis on information that went beyond what other fieldwork methods before and after the workshops had provided. This

is followed by a discussion of the temporal horizons of ethnography, while the final section returns to our starting questions and attempts to sketch what we have learned in the process.

Theoretical and Methodological Considerations

Foresight is the process of gaining knowledge about potential futures to inform better decision-making in the present (Cuhls 2003). While foresight encompasses various methods and tools (Popper 2008), scenario building has emerged as one of its primary approaches for addressing future uncertainties through transdisciplinary engagement (Petrov et al. 2021). Scenarios are "plausible, challenging, and relevant stories about how the future might unfold that can be told in both words and numbers" (Kok et al. 2006). Rather than attempting to predict a single future, scenario building aims to explore multiple plausible ones by examining how different uncertainties might play out—an approach particularly valuable where conventional forecasting falls short (Varum and Melo 2010). Scenarios may be *predictive* (forecasting based on trends), *normative* (envisioning desired futures and paths toward them), or *explorative* (outlining plausible alternatives without prediction) (Börjeson et al. 2006). In practice, these often overlap. The scenario building process typically engages diverse experts and stakeholders in a series of workshops to co-create plausible futures (Berg et al. 2016). This collaborative approach offers several key benefits for strategic planning: It enhances awareness of change by examining the interplay of trends and uncertainties; increases preparedness for unexpected developments; fosters mutual understanding and collaborative action among stakeholders; and improves policy robustness by challenging assumptions (Strelkovskii et al. 2020).

A critical aspect of successful scenario planning is the identification and analysis of key uncertainties. As demonstrated by Derbyshire and Wright (2017), systematic examination of causal relationships between factors can significantly enhance scenario development. While some studies have developed as many as twelve scenarios (Petrov et al. 2021), most recommend two to four for manageability (Chermack 2011). Each scenario should generate novel ideas, cover a wide range of uncertainties (including low-probability extremes), and remain plausible and feasible (Wilson 1998). The deliberative nature of scenario workshops allows participants to learn from each other and examine issues from different perspectives (Durance and Godet 2010). The value of scenario planning lies not just in the final scenarios produced, but in the process itself. The scenario building exercise stimulates thinking about different futures to "minimize surprises" and "broaden the span . . . of . . . possibilities" (Mietzner and Reger 2005). Scenario building helps participants explore

uncertainties, develop ideas, and assess opportunities across complex systems with multiple perspectives (Gokhberg et al. 2016; Lempert et al. 2006).

While scenario building has proven valuable in both private and public sectors, its application to infrastructure projects in an ethnographic context poses methodological challenges. Although such projects often have global ambitions, their most profound impacts occur locally, necessitating multi-scale approaches developed since the early 2000s (Kok et al. 2007; Rotmans et al. 2000; Zurek and Henrichs 2007) and recently applied in circumpolar communities (Falardeau et al. 2019; Nilsson et al. 2019).

Anthropology long paid little attention to the future (Heemskerk 2003; Munn 1992; Razak 2000), but recent years have seen a "profusion of an anthropology of and for the future" (Valentine and Hassoun 2019, 244). A significant early contribution is Textor's *Ethnographic Futures Research* (EFR) (Textor 1980; 1995), in which the ethnographer co-constructs three scenarios with the interviewees—an optimistic, a pessimistic, and a most probable. Importantly, EFR does not claim to "study the future" directly, but instead seeks to explore individuals' perceptions of "possible or probable future cultures," as well as their preferences among these imagined futures (Textor 1995, 464). Building on such approaches, anthropologists increasingly engage with the future through "futures thinking" (van Voorst 2025), defined by Cork et al. (2023, 29) as "thinking and practice that enable people to understand how the present might sit in relation to the past and possible futures, broaden their imagination about possible futures, foster a shared understanding of desirable or preferable futures, and explore pathways toward those and other futures." Futures thinking and scenario-based approaches represent a "reorientation from structure to agency" (Bryant and Knight 2019b, 193), contributing to anthropology's decolonization project "by providing methods that enable varied voices to shape knowledge creation and have practical impact" (van Voorst 2025, 19). According to van Voorst (2025, 15), these approaches contribute to anthropology in three main ways: They help anthropologists challenge dominant narratives, explore "possible worlds," and democratize knowledge production through participatory practice.

Building on this broader effort to "reclaim the future as a central dimension of our temporality" (Bryant and Knight 2019a), Bryant and Knight (2019b) advance an anthropology of the future that examines how present actions and perceptions are shaped by future-oriented imagination. At the core of their argument lies a renewed understanding of non-linear teleology, articulated through their concept of orientations—six "timespaces" through which "the future may orient our present" (Bryant and Knight 2019b, 2): anticipation, expectation, speculation, potentiality, hope, and destiny. These futural orientations provide an analytical framework for understanding how different temporalities of the future inform action and perception in the present.

In her work with the Suriname Maroons, Heemskerk (2003) presents "scenario planning" as a method for integrating ethnographic data into future-oriented thinking, particularly for addressing socio-cultural change. She argues that the approach serves both as a tool for anthropological reflection on long-term outcomes and as a way to enrich scenario planning with ethnographic depth. Building on such methods, "Indigenous futures thinking" has emerged as a field of "futures thinking with, for, and by Indigenous people" (Cheok et al. 2024, 1), where participatory scenario planning supports adaptation, local participation, and Indigenous nation-building. A specific example is "target-seeking scenario planning" (Cadman et al. 2023), which articulates ideal future visions and the steps to achieve them, empowering communities in the process.

Similarly, EFR has been used by anthropologists as a participatory method to explore community sustainability with Indigenous people (Gordon 2021). In this context, the emancipatory aspect of the three-scenario methodology (optimistic, pessimistic, and most likely futures) is highlighted as a tool for Indigenous communities to "identify what they need to change to make their community sustainable" (Gordon 2021, 251). Another take on EFR is presented by Candy and Kornet (2019). While EFR aims at "rendering people's futures 'visible' in words," the *Experiential Futures* (EF) approach attempts to make "particular futures 'tangible'" through integrating interviews and design.

Because our scenarios focused on the future of Arctic and Sub-Arctic (transport) infrastructures, a brief discussion of infrastructure and its temporality in the social sciences is warranted. According to Larkin (2013, 332), "infrastructure has its conceptual roots in the Enlightenment idea of a world in movement and open to change where the free circulation of goods, ideas, and people created the possibility of progress." This view explains why infrastructures are so closely tied to shaping modern society and realizing the future: They are "mechanisms to control time," whose provision came to define civilization itself through electricity, railways, and running water. In this sense, it is very difficult to disentangle infrastructures from evolutionary ways of thinking, not the least because this is such an intimate part of their appeal (Larkin 2013).

As Appel et al. (2018, 18) posit, the various phases of infrastructure's life cycle, including design, financing, construction, completion, maintenance, repair, obsolescence, and ruin, illustrate the operation of multiple temporalities and trajectories. The examination of decay, maintenance, and repair as specific phases of the temporal-material configuration of infrastructural life can provide insight into the evolving relationship between ordinary people, agencies of the state, and socio-ecological relations. Consequently, examining

infrastructure through a temporal lens presents the potential to discern when and where infrastructure may serve as a catalyst for political or social actions (Budka and Amatulli 2025). Temporalities are not merely moments in time; rather, they give rise to disparate material conditions, social perceptions, power dynamics, and socio-ecological relations (Ramakrishnan et al. 2021); for example, a new road can inspire confidence within a community, whereas construction delays may evoke despair (Harvey 2018).

Thus, infrastructures bridge distance and mediate time as sociotemporal projects unfolding across uneven temporalities (Appel et al. 2018, 17). Rooted in the past, they embody multiple modernities as well as collective identities, memories, and emotions (Povoroznyuk 2022), while also signifying futures through the desires, hopes, and aspirations embedded in them (Appel et al. 2018, 19). Many, if not all, infrastructures are unbuilt or unfinished, and such unfinishedness is less an exception than a norm (Carse and Kneas 2019, 9). Their temporality may therefore be understood as "project time"—a linear succession of stages oriented toward uncertain futures in which anticipation becomes a defining affective state of modern life (Carse and Kneas 2019, 19).

Since our study involves two field sites where scenario workshops were organized, a note on comparison is necessary. Candea (2019) describes comparison as "the impossible method," yet, following Fox and Gingrich (2002), who outline a range of qualitative comparative methodologies (12), we engage in what they term "explicit comparison" by examining regional variation across our two workshop sites (20–21). We adopt a simple form of "binary" (Gingrich 2015, 412) and "lateral" (Candea 2019, 15) comparison—that is, a juxtaposition of two distinct sociocultural settings, neither of which represents our "own."

Developing Scenarios and Conducting the Scenario Workshops

To explore discussions and discourses around possible futures of transportation in Churchill and Kirkenes, the InfraNorth project co-developed future scenario narratives related to transportation infrastructure and community development. More specifically, we employed a multi-scale scenario-building approach to consecutively develop scenarios at three nested scales: global, regional, and local (Zurek and Henrichs 2007). In doing so, we ensured both recognition of global trends by adapting existing scenarios that incorporate global dimensions (Rovenskaya et al. 2024) and local relevance by grounding scenario content in prior ethnographic fieldwork

and local stakeholder consultations. To ensure internal scenario consistency across scales, we used morphological analysis (Zwicky 1969). The scenarios were developed as follows (for more details, see Strelkovskii et al. forthcoming):

Step 1: Global Point of Departure

We began with the five existing future scenarios (Rovenskaya et al. 2024), which incorporate global and Arctic dimensions. These scenarios served as a framework for addressing issues that transcend community boundaries, such as climate change and geopolitics.

Step 2: Regional Adaptation

Each scenario was adjusted for the Canadian and Norwegian North by incorporating additional drivers such as governance regimes, available technologies, and infrastructure investment in consultation with secondary data and policy documents.

Step 3: Local Translation with the FAS framework

To bridge the "last mile" from the regional to the community level, we applied a *Factor–Actor–Sector (FAS) framework* (Kok et al. 2006). Local factors (e.g., population, types of available infrastructure), actors (e.g., municipal governments, Indigenous organizations), and sectors (e.g., transportation, mining, tourism) were distilled from previous ethnographic work. Following morphological analysis methodology, these dimensions were then cross-tabulated against the global and regional envelopes in the morphological matrix to ensure internal scenario consistency across scales (Zwicky 1969).

Step 4: Consistency Check and Scenario Pruning

Following Zurek and Henrichs (2007), we employed a coherent strategy of linking scenarios between scales: global and regional developments were treated as boundary conditions, but local variables could vary as long as they did not contradict the overarching narrative. This yielded four distinct local scenarios per site—enough to cover the uncertainty space yet few enough for workshop manageability. Each scenario was then developed into a narrative of approximately 200 words.

These narratives were then used to inform four workshops, two in Churchill in August 2023 and two in Kirkenes in September 2023. In both

locations, local artists visualized the scenario narratives, and the visualizations were presented in poster format at the workshops. These workshops were organized with the support of local stakeholders—the Town of Churchill and the Barents Institute, the Municipality of Sør-Varanger, the Regional Development Agency, and the Municipal Library in Kirkenes and involved local facilitators. The events brought together local residents and professionals from the fields of administration, transportation, regional development, tourism, environmental, and other relevant organizations to discuss and evaluate possible and desirable futures (Strelkovskii et al. forthcoming). The two communities were selected based on assumed comparability and, most importantly, on local interest in holding scenario workshops. Although the scenarios were developed by project researchers in consultation with local experts, there was enough space for local intervention and creation of their own interpretations of the past and future scenarios at the workshops.

Churchill, a town of 870 people on Hudson Bay in northern Manitoba, is notable for its unique transportation infrastructure. Although the town is not accessible by road, it is home to Canada's only Arctic deep-water port directly connected to the North American rail system. The Hudson Bay Railway links Churchill to the town of The Pas and points further south. Churchill also has a large airport, originally built by the Canadian and American militaries during World War II. After the military left, the airport became a key hub for tourism, helping to establish Churchill as the "Polar Bear Capital of the World." Since 2021, and for the first time in history, a consortium of 41 northern communities—OneNorth—has owned the Hudson Bay Railway and the Port of Churchill. OneNorth manages these infrastructures through the Arctic Gateway Group (Budka 2023; 2025).

To develop relevant and plausible future scenarios for Churchill that could stimulate discussion among workshop participants, the project team drew on ethnographic data from Budka's previous fieldwork alongside other expert input. This process resulted in four scenario narratives, each depicting a different transportation-related future for the community over a roughly twenty-five-year time frame. In August 2023, Schweitzer, Povoroznyuk, and Schmid traveled to Churchill to meet with Budka and local facilitator Claudia Grill, finalize the workshop organization, and conduct two scenario workshops: one held in the evening for the general public, and another the following morning for transport professionals, including regional airline employees and tourism industry representatives. Both workshops were well attended, with fourteen to sixteen participants in each, and participants engaged enthusiastically in discussing and evaluating the four possible futures.

The four future scenarios developed for Churchill reflected contrasting trajectories shaped by climate, policy, and infrastructure. In one, Churchill

becomes an extractive hub with pipelines, extended shipping seasons, and a growing population due to military presence. Another envisions a modernized and connected town driven by tourism and expanded infrastructure. A third scenario imagines a shift to sustainable ecotourism amid stricter environmental protections, with a smaller, seasonal population. The most dystopian scenario depicts a community in decline, facing severe climate impacts, infrastructure collapse, and near-abandonment apart from a renewed military presence.

Two more scenario workshops were held in Kirkenes, a borderland town of approximately 3,500 residents located in the Sør-Varanger municipality of Finnmark County in northeastern Norway, near the Finnish and Russian borders. While Norwegians constitute the majority population, the community is home to Indigenous Saami, as well as to Russians, Finns, Kvens, and other ethnic minorities from neighboring countries and, more recently, from more distant parts of the world. We chose the town as a site for a scenario workshop because of its strategic and currently insecure borderland location and a seaport modernization ambition connected with its importance for the Northern Sea Route (NSR).

The history of the liberation of East Finnmark from Nazi occupation by the Soviet army ensured stable relations between Norway and its big neighbor during the Cold War period. In 1993, the countries sharing the Barents Sea—Norway, Finland, Sweden, and Russia—signed the Declaration on Cooperation in the newly established Barents Euro-Arctic Region in Kirkenes. The town was proud of its role as the Capital of the Barents Region, cultural diversity, high mobility, a fluid place identity, and infrastructure projects building on collaborations with Russia. For example, one of the most prominent infrastructure projects has been a new deep-water seaport. The project is rooted in the vision of Kirkenes turning into an NSR logistics hub. Originally, this plan was connected to the transportation of oil and gas from West Siberia. While the project was suspended, it remained part of the planning documentation, public imagination, and discourses.

When Povoroznyuk and Schweitzer first came to Kirkenes with the proposal of scenario workshops, several local organizations expressed interest in acting as co-organizers of the events. Together with Meyer, we worked closely with Bjarge Schwenke Fors, Aileen Espiritu, and Anne Figenschou from the Barents Institute, who helped customize the scenarios, elaborate the narratives, and co-organize the workshops as our main partners. At the same time, the Sør-Varanger Development Agency and the Sør-Varanger Municipality were actively involved in the organization and promotion of the workshops, and the Sør-Varanger Library hosted the two events. Both workshops, one for professionals and one for the general public, took place on

September 21. Each of the workshops attracted twelve to sixteen participants, with some people joining and leaving in the process.

Kirkenes, in the first scenario, transforms into an industrial center focused on iron and steel production. This industrial expansion displaces Sami communities and degrades traditional lands. New transport infrastructure, including a railway and port, serves both commercial and military purposes. Geopolitical tensions limit the use of the NSR. The population grows moderately through incoming industrial workers. Tourism declines as heavy industry takes precedence. In the second scenario, Kirkenes emerges as a strategic transportation hub connecting Europe and Asia. Improved Russia-Norway relations establish the town as a gateway to the NSR, supported by modern port infrastructure and a railway link to Rovaniemi. The town experiences significant growth and urbanization, becoming a center for commerce, research, and education. While advanced technologies help manage climate impacts, the green industrial transition encroaches on traditional Sami territories. In the third scenario, Kirkenes embraces environmental stewardship and Indigenous rights. The closure of the iron mine and abandonment of major infrastructure projects reflect a decisive shift toward conservation. Strict environmental regulations govern all activities, from tourism to transportation. The port exclusively services sustainable cruise vessels under stringent quotas. The economy diversifies toward eco-innovation and regulated tourism, though the permanent population slightly declines. In the fourth scenario, Kirkenes deteriorates under severe climate impacts and geopolitical pressures. Infrastructure is devastated by flooding and avalanches, while escalating tensions lead to border closure with Russia. The economic decline triggers population exodus, particularly among non-Indigenous residents. The town's strategic importance prompts military expansion, and security concerns force relocation of the town center, leaving behind a shrinking "old town" area.

Finally, all discussions from the four workshops held in Churchill and Kirkenes were recorded and subsequently transcribed for analysis. To capture the richness and complexity of participants' perspectives, two complementary qualitative methods were employed: ethnographic content analysis (Hammersley and Atkinson 2019) and thematic analysis (Braun and Clarke 2006). Ethnographic content analysis was used to remain attuned to contextual meanings and the situated nature of dialogue, while thematic analysis provided a systematic way to identify and interpret recurring patterns across the dataset. Both methods are highly flexible and well-suited to exploring the nuances of workshop-based, dialogical data.

Summary of Workshop Results

In Churchill, the scenario workshops prompted wide-ranging discussions that revealed not only locally specific concerns but also generalizable insights into how remote communities understand and navigate the interplay between climate change, infrastructure, and economic sustainability. The workshop method—centered on speculative scenarios—proved particularly effective in eliciting grounded reflections about possible futures. Rather than simply expressing opinions about the present, participants engaged in forward-looking thinking, linking climate dynamics, economic aspirations, and governance structures in complex ways.

One of the most striking themes to emerge was the vulnerability of the tourism sector to climate change. Participants highlighted how Churchill's economy is tightly coupled with seasonal wildlife, particularly polar bears in the autumn and beluga whales in the summer. These animals are not only emblematic of the town's identity but also serve as the primary draw for tourists. The prospect of an extended shipping season due to diminishing sea ice was seen as a direct threat to these species and, by extension, to the community's economic lifeline. As one participant explained, "And, because of the decreasing ice, sea ice and increased shipping, the expectation would be fewer polar bears here. And beluga whales probably would be disturbed by increased shipping and things like that. So [. . .] the town would lose part of its attraction, [. . .]." This scenario-based discussion brought into focus a causal chain—climate change leading to wildlife disturbance, which, in turn, undermines tourism—illustrating how environmental, infrastructural, and economic futures are tightly interwoven.

Participants also reflected on the ecological and social trade-offs of infrastructure development. While some saw improved connections to the south, such as a new road, as a means of enhancing access and growing tourism, others were more cautious. They warned not only of environmental degradation but also of social challenges. Critics of the road expressed concern that easier access might bring individuals into the community who are not welcome, potentially contributing to increased crime, drug use, and violence. Such changes were perceived as risks to the town's safety, cohesion, and sense of control over its own future. These concerns were rooted in lived experience and underscored the broader point that infrastructure is never merely technical; it is a conduit for social, cultural, and political transformation. The scenario format enabled participants to debate these trade-offs in concrete terms, grounding their visions of the future in the physical, social, and ecological realities of their region. Infrastructure was not discussed as a neutral good, but as a deeply consequential force that could either support or undermine the community's long-term viability.

The discussions further revealed concerns about the limits of local agency in sustaining critical infrastructure over time. Participants repeatedly emphasized that the challenge lies not only in building infrastructure but in maintaining it—a task that often depends on stable government investment and long-term political commitment. As one participant put it, "It's easy to build something, but how do you maintain it? We saw that with the railway. We saw that with every road. It's got to be a government commitment to put a road in here [. . .]." This observation pointed to a broader structural issue common to many northern and remote communities: the reliance on external actors for the upkeep of essential systems, even when those systems are vital to local livelihoods and survival.

This concern with sustainability extended to questions of population and employment. Several participants expressed fears that Churchill might continue to decline if it cannot secure more stable, year-round employment opportunities. The seasonal nature of tourism and shipping was seen as insufficient to sustain a growing or even stable population. One participant articulated a vision for long-term viability by emphasizing the need for economic diversification: "[We need] medium to large industry, which provides year-round gainful employment, which attracts ancillary businesses, and increases population. Because with [more] population, we can pay for the infrastructure." The scenario discussions made clear that infrastructure, population, and employment are understood locally as part of a mutually reinforcing system—each element dependent on the others to create a resilient future.

In both workshops, participants also sketched and discussed their own preferred visions for Churchill, often drawing on the town's historical role as a regional transportation hub. These visions were not limited to the movement of goods; they included cultural exchange, increased regional cooperation, and stronger ties with neighboring communities. The railway, in particular, was repeatedly described as the backbone of this desired future—not just a logistical asset but a symbol of connection, identity, and continuity, that is, as a social lifeline and not just as a technical system. Tourism, when paired with reliable infrastructure, was seen as a possible pathway to a more diversified and sustainable economy.

Ultimately, the workshops made it possible to surface how participants think across scales and systems: connecting wildlife conservation to economic resilience, or national politics to local infrastructure maintenance. The scenario approach did more than generate interesting discussion—it enabled participants to articulate the structural conditions under which Churchill might thrive or decline. These conversations revealed that for remote communities like Churchill, the future is not determined by any single factor, but by the interaction of climate, infrastructure, governance, and the capacity to imagine—and work toward—alternative futures.

In Kirkenes, the workshop discussions centered on a feeling of being at a crossroads, resulting from an identity crisis and economic and social changes and challenges caused by geopolitical tensions, including the war in Ukraine and the subsequent deterioration of relations with Russia. A related concern about the potential for a new Cold War was associated with the military presence in the town and discourses of a new potential military threat. Downsizing of the local mine and, more recently, implications of the war and the sanctions on fishing, tourism, and creative industries and trade, causing economic uncertainties, were other narratives reiterated during the workshops. Imbalance and outmigration of youth because of the lack of education, employment, and recreation opportunities were discussed as a huge problem undermining the sustainable future of the town and the municipality. Finally, our scenarios highlighted the overall societal dilemma of finding a reasonable balance between infrastructural development, on the one hand, and nature conservation and Indigenous Sámi land rights, on the other.

Our scenario workshops in Kirkenes have shown that the war in Ukraine has dramatically impacted the residents of Kirkenes and that the community is living through a period of rapid changes and uncertainties. Ever since the beginning of the war in Ukraine, Kirkenes and its residents have been rethinking their place identity and re-aligning their future prospects in collaboration with Finland and Sweden (Povoroznyuk this issue). While the ambition of becoming a transportation hub is not completely gone, it is now being revisited in connection with the growing tourist flows from Finland and plans for urban redevelopment. The residents of Kirkenes and the surrounding areas were generally positive about almost every type of new transport and urban infrastructure that would improve local quality of life and not harm nature. To put it in the words of a workshop participant, "I think we need everything. Everything has its benefits. So, all kinds of transportation. Yes, we need roads to go to other parts of Finnmark, but we also need the connection with the other countries. Yeah, maybe, a railway. . .And we need to exercise—we need all those trails."

Participants of the Kirkenes workshops have shared a collective sense of being at a crossroads. They described Sør-Varanger as experiencing an "existential" or "identity crisis," highlighting uncertainties surrounding the region's future development, related both to recent economic and geopolitical changes (Povoroznyuk et al. 2024). One of the participants expressed it in the following way: "What is our society's identity? We have had the mine for over one-hundred years, but it hasn't been running for the last eight years, and we don't know if it's going to start up or not. So, what is our real, deep identity in this society? I think we have to focus on that before we can point out our direction." There was a feeling of decline, and a search for strategies to make

the region attractive for people to settle and stay. Transport infrastructures—in the form of a new airport or sea port or better road connections—were seen by many as a means for future prosperity and community well-being.

The workshops also proved valuable in highlighting locally significant topics that had been overlooked during the scenario development and that did not come up in our interviews. In discussions about the Innovative Polar Reserve scenario, some participants observed that the scenarios presented nature conservation and the rights of reindeer herding Sámi as being in opposition to industrial development. This framing, they noted, positioned reindeer Sámi in conflict with proponents of economic growth, thereby exacerbating existing conflicts in the local communities. Furthermore, several participants emphasized that research and education could serve as a sustainable economic sector with the potential to attract young people to the region and help combat depopulation. Discussions of the Global Transportation Hub scenarios have illustrated the conflict between the value of technological innovations for sustainable infrastructure and energy transition and the concern about economic burdens and social inequalities between the South and North in this transition. Even the "dark" Kirkenes scenario, predicting severe climate change impacts and a predominantly military town, kept most workshop participants more engaged than we had expected, as they saw parts of the present and of the Cold War past in these future projections.

The final exercise, "ideal futures," gave workshop participants more freedom to draw, in the literary and figurative sense, their own pictures of Kirkenes and Sør-Varanger that combined elements of the existing scenarios with individual imaginaries of the future. The resulting stories, short essays, and drawings represented the town and its surroundings as dynamically developing spaces of innovation, creativity, cultural exchange, and opportunities, which would keep young people and attract new people.

Discussion: Future Scenarios as Windows into the Present

The scenario workshops in Churchill and Kirkenes opened discursive spaces about local and regional (transport) futures and community development, which complemented our ethnographic fieldwork and also helped to solicit new information. Although a full comparative analysis of these two ethnographic sites is beyond our scope (Strelkovskii et al. forthcoming), we will identify and discuss some key similarities. Both sites faced economic and geopolitical uncertainties—from the closure of the Churchill port to the repercussions of recent crises for borderland communities like Kirkenes.

These crises are closely linked to processes of depopulation and socio-economic challenges. Both scenario locations identified the need for population growth to sustain their communities, for example, through year-round employment opportunities in Churchill or through strengthening the research and education sectors in Kirkenes and in Churchill.

Environmental and social issues featured prominently in both Kirkenes and Churchill. In Finnmark, reindeer-herding Sámi interests conflicted with wind-farm and other energy-infrastructure projects, while in Churchill, conservation priorities—particularly among ecotourism providers—often clashed with economic-development ambitions. Such tensions, closely tied to sustainability debates, shaped how participants imagined their communities' futures. Tourism was a shared theme: Kirkenes seeks to revive visitor flows disrupted by the pandemic and the war, whereas Churchill, already crowded during polar-bear season, hopes to maintain a fragile balance between environment and economy. For local residents in Churchill, the discussions underscored a long-standing capacity to live both with and from the surrounding environment through tourism. Although this point surfaced occasionally in interviews or informal conversations during ethnographic fieldwork (Budka 2025), it became far more apparent in the workshops, where climate change and the natural environment were not the primary focus.

Most scenario methodologies in anthropology are explorative and participatory (Cadman et al. 2023; Nilsson et al. 2019). While our scenarios were also explorative—aimed neither at prediction nor prescription—they were intentionally developed with the participation of external and some local experts rather than through full co-production. This design served a distinct purpose: to evoke reflection and generate ethnographic insight into the present. Presenting "pre-made" futures acted as a structured stimulus, prompting participants to articulate tacit hopes, fears, and temporal orientations (Bryant and Knight 2019b) that might otherwise have remained unspoken. In contrast to participatory approaches emphasizing stakeholder co-creation (Reed et al. 2013) or Indigenous-led scenario development (Gordon 2021), our externally developed scenarios functioned as provocative devices. This methodological choice aligns with what Candy and Kornet (2019) call "experiential cues" in ethnographic experiential futures—using tangible future artifacts to elicit responses that reveal present concerns and values. Research in Arctic foresight similarly demonstrates that experiential cues and visual prompts enhance participant engagement and elicit richer discussions than text-only briefs (see also Nilsson et al. 2019), underscoring the value of scenarios as powerful elicitation tools. Our workshops likewise employed visualizations of the scenario narratives to stimulate discussion and deepen participant

engagement. The workshop format further enabled participants to engage with these futures collectively, generating what Özkaynak and Rodríguez-Labajos (2010) describe as "inter-scale interactions" between local knowledge and broader regional and global temporal–spatial narratives.

As we have shown, future scenarios can provide us with windows into the present. At the same time, they expand the horizons of ethnography by opening up new options to engage with and to talk about. This fits well with the "Futures" work of other anthropologists (Bryant and Knight 2019b; van Voorst 2025), even when the connection between future and present is not at the center of their attention. However, the question still remains as to why one should go to such trouble to learn about things that anthropologists and other ethnographers routinely talk about and explore. The experiences from Kirkenes and Churchill showed that being confronted with future scenarios prompted reflections about the present that went beyond those evoked by interview questions and conversations in the field. The scenarios worked as mirrors, enabling participants to examine their present from an imagined temporal distance and to consider the projected results of current actions, choices, and developments. In addition, to go beyond the prepared scenarios, we encouraged participants to draw or narrate their "desired futures."

The focus on the topic of the future of transport infrastructures in the scenario workshops demonstrated the importance of other themes and issues to the local communities, such as climate change and the relationship between the fragile Arctic and sub-Arctic ecosystems, and tourism. In sum, the scenario workshops proved to be a valuable additional ethnographic tool for better understanding the infrastructural realities in the respective areas. By responding to "possible futures" of their hometowns, residents of Kirkenes and Churchill were prompted to engage with what they wanted in the present. Conversations during the workshops moved seamlessly between future, past, and present, moving across temporal fields to gain insight into how various scenarios may evolve over time. While the past often served as the experiential or comparative toolbox for imagining the future, the needs of the present clearly defined the assessment of these scenarios. In this way, scenarios helped participants "orient themselves to the indefinite teleologies of everyday life" (Bryant and Knight 2019b, 20).

As ethnographers, we were thus presented with a much richer temporal array of local perspectives, helping us better understand the past and present by talking about the future. At the same time, we feel that many of our interlocutors experienced a similar "added value," as compared to interviews or other forms of conversations. By being presented with specific future scenarios in word and image, residents were able to engage with the specifics of these imaginaries, link them to past experiences, and thereby formulate their

visions of local development. In short, while talking about the future, both residents and ethnographers learned more about the past and present. This process, from "foresight to insight," can also mean "disturbing the present" (Curry 2009, 119).

In this mutual learning process, infrastructure emerged as a focal point for understanding the multiple temporalities and orientations of large-scale projects. Seaports, railroads, roads, and other infrastructure undergoing planning or renovation play a literal and prominent role in the public imagination and in debates about possible futures. Their physical presence makes them impossible to overlook, yet infrastructures are also good to think with—serving as a foil for the needs and aspirations of the present articulated in the language of future potentialities. The processual character of infrastructure—from planning and construction to disuse and decay—further lends itself to ethnographic practices that move beyond the snapshot and align closely with the cross-temporality of scenario work.

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References

Appel, Hannah, Nikhil Anand, and Akhil Gupta. 2018. "Introduction: Temporality, Politics, and the Promise of Infrastructure." In *The Promise of Infrastructure*, 1–40, edited by Nikhil Anand, Akhil Gupta, and Hannah Appel. Duke University Press.

Berg, Chelsea, Shannon Rogers, and Madeleine Mineau. 2016. "Building Scenarios for Ecosystem Services Tools: Developing a Methodology for Efficient Engagement with Expert Stakeholders." *Futures* 81: 68–80. https://doi.org/10.1016/j.futures.2015.10.014.

Börjeson, Lena, Mattias Höjer, Karl-Henrik Dreborg, Tomas Ekvall, and Göran Finnveden. 2006. "Scenario Types and Techniques: Towards a User's Guide." *Futures* 38, no. (7): 723–39. https://doi.org/10.1016/j.futures.2005.12.002.

Braun, Virginia, and Victoria Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. (2): 77–101. https://doi.org/10.1191/1478088706qp063oa.

Bryant, Rebecca, and Daniel M. Knight. 2019a. "Orientations to the Future: An Introduction." In *Orientations to the Future,* edited by Rebecca Bryant and Daniel M. Knight. *American Ethnologist* website, March 8. Retrieved August 30, 2025, from http://americanethnologist.org/features/collections/orientations-to-the-future/orientations-to-the-future-an-introduction.

Bryant, Rebecca, and Daniel M. Knight. 2019b. *The Anthropology of the Future*. Cambridge University Press.

Budka, Philipp. 2023. "Anthropological Notes on Transforming Transport Infrastructures in Canada." In *Arctic Sustainability Transformation: What Is it, What Can it Be, and What Does it Need to Be?,* edited by Janina Priebe, Hanna Lempinen and Hanna Vikström, 23. Umeå University. https://www.umu.se/globalassets/organisation/fakulteter/humfak/ide-och-samhallsstudier/forskning/forskningsprojekt/blickar-fran-periferin/sept-19_arctic-sustainability-transformation_small.pdf.

Budka, Philipp. 2025. "Infrastructural Disruption, Entanglement, and Change in Northern Manitoba, Canada." *Anthropologica* 67, no. (1): 1–25.

Budka, Philipp, and Giuseppe Amatulli. 2025. "Introduction: Narratives and Temporalities of Infrastructure in Canada." *Anthropologica* 67, no. (1): 1–20.

Cadman, Rachael, Jamie Snook, Todd Broomfield, Jim Goudie, Ron Johnson, Keith Watts, Aaron Dale and Megan Bailey. 2023. "Articulating Indigenous Futures: Using Target-seeking Scenario Planning in Support of Inuit-led Fisheries Governance." *Journal of Participatory Research Methods* 4, no. (2). https://doi.org/10.35844/001c.77450.

Candea, Matei. 2019. *Comparison in Anthropology: The Impossible Method*. Cambridge University Press.

Candy, Stuart, and Kelly Kornet. 2019. "Turning Foresight Inside Out: An Introduction to Ethnographic Experiential Futures." *Journal of Futures Studies* 23, no. (3): 3–22. https://doi.org/10.6531/JFS.201903_23(3).0002.

Carse, Ashley, and David Kneas. 2019. "Unbuilt and Unfinished: The Temporalities of Infrastructure." *Environment and Society* 10, no. (1): 9–28.

Chermack, Thomas J. 2011. *Scenario Planning in Organizations: How to Create, Use, and Assess Scenarios*. Berrett-Koehler Publishers.

Cheok, Jess, Julia van Velden, Elizabeth Fulton, Iain Gordon, Ilisapeci Lyons, Garry Peterson, et al. 2024. "Framings in Indigenous Futures Thinking: Barriers, Opportunities, and Innovations." *OSF Preprints*. https://doi.org/10.31219/osf.io/364xf.

Cork, Steven, Carla Alexandra, Jorge G. Alvarez-Romero, Elena M. Bennett, Marta Berbés-Blázquez, Erin Bohensky, et al. 2023. "Exploring Alternative Futures in the Anthropocene." *Annual Review of Environment and Resources* 48: 25–54. https://doi.org/10.1146/annurev-environ-112321-095011.

Cuhls, Kerstin. 2003. "From Forecasting to Foresight Processes—New Participative Foresight Activities in Germany." *Journal of Forecasting* 22(2–3): 93–111. https://doi.org/10.1002/for.848.

Curry, Andrew. 2009. "From Foresight to Insight: Using Scenarios Well." *Journal of Futures Studies* 13, no. (3): 119–22.

Derbyshire, James, and George Wright. 2017. "Augmenting the Intuitive Logics Scenario Planning Method for a More Comprehensive Analysis of Causation." *International Journal of Forecasting* 33, no. (1): 254–66. https://doi.org/10.1016/j.ijforecast.2016.01.004.

Durance, Philippe, and Michel Godet. 2010. "Scenario Building: Uses and Abuses." *Technological Forecasting and Social Change* 77, no. (9): 1488–92. https://doi.org/10.1016/j.techfore.2010.06.007.

Falardeau, Marianne, Ciara Raudsepp-Hearne, and Elena M. Bennett. 2019. "A Novel Approach for Co-Producing Positive Scenarios That Explore Agency: Case Study from the Canadian Arctic." *Sustainability Science* 14: 205–20. https://doi.org/10.1007/S11625-018-0620-Z.

Fox, Richard G., and Andre Gingrich. 2002. "Introduction." In *Anthropology, by Comparison*, edited by Richard G. Fox and Andre Gingrich, 1–24. Routledge.

Gingrich, Andre. 2015. "Comparative Method in Anthropology." In *International Encyclopedia of the Social and Behavioral Sciences*. 2nd ed., edited by J. D. Wright, 411–14. Elsevier.

Gokhberg, Leonid, Dirk Meissner, and Alexander Sokolov, eds. 2016. *Deploying Foresight for Policy and Strategy Makers: Creating Opportunities Through Public Policies and Corporate Strategies in Science, Technology and Innovation*. Springer International Publishing.

Gordon, Heather Sauyaq Jean. 2021. "Ethnographic Futures Research as a Method for Working with Indigenous Communities to Develop Sustainability Indicators." *Polar Geography* 44, no. (4): 233–54.

Hammersley, Martyn, and Paul Atkinson. 2019. *Ethnography: Principles in Practice*. 4th ed. Routledge.

Harvey, Penny. 2018. “Infrastructures in and out of Time: The Promise of Roads in Contemporary Peru.” In *The Promise of Infrastructure*, edited by Nikhil Anand, Akhil Gupta, and Hannah Appel, 80–101. Duke University Press.

Heemskerk, Marieke. 2003. “Scenarios in Anthropology: Reflections on Possible Futures of the Suriname Maroons.” *Futures* 35: 931–949.

Kok, Kasper, Reinette Biggs, and Monika Zurek. 2007. “Methods for Developing Multiscale Participatory Scenarios: Insights from Southern Africa and Europe.” *Ecology and Society* 12, no. (1): 8. https://doi.org/10.5751/ES-01971-120108.

Kok, Kasper, Dale S. Rothman, and Mita Patel. 2006. “Multi-Scale Narratives from an IA Perspective: Part I. European and Mediterranean Scenario Development.” *Futures* 38, no. (3): 261–84. https://doi.org/10.1016/J.FUTURES.2005.07.001.

Larkin, Brian. 2013. “The Politics and Poetics of Infrastructure.” *Annual Review of Anthropology* 42: 327–43.

Lempert, Robert J., David G. Groves, Steven W. Popper, and Steve C. Bankes. 2006. “A General, Analytic Method for Generating Robust Strategies and Narrative Scenarios.” *Management Science* 52, no. (4): 514–528. https://doi.org/10.1287/mnsc.1050.0472.

Mietzner, Dana, and Guido Reger. 2005. “Advantages and Disadvantages of Scenario Approaches for Strategic Foresight.” *International Journal of Technology Intelligence and Planning* 1, no. (2): 220–39. https://doi.org/10.1504/IJTIP.2005.006516.

Munn, N. D. 1992. “The Cultural Anthropology of Time: A Critical Essay.” *Annual Review of Anthropology* 21: 93–123.

Nilsson, Annika E., Marcus Carson, Douglas S. Cost, Bruce C. Forbes, Riina Haavisto, Anna Karlsdottir, et al. 2019. “Towards Improved Participatory Scenario Methodologies in the Arctic.” *Polar Geography* 44, no. (2): 75–89. https://doi.org/10.1080/1088937X.2019.1648583.

Nilsson, Annika E., Niklas Eklund, Marie Jürisoo, Ekaterina Klimenko, and Lize-Marié van der Watt. 2019. “Regional Futures Nested in Global Structures.” In *The Politics of Arctic Resources: Change and Continuity in the “Old North” of Northern Europe*, edited by Carina H. Keskitalo, 221–39. Routledge.

Özkaynak, Begüm, and Beatriz Rodríguez-Labajos. 2010. “Multi-scale Interaction in Local Scenario-building: A Methodological Framework.” *Futures* 42: 995–1006. https://doi.org/10.1016/j.futures.2010.08.022.

Petrov, Andrey N., Marya S. Rozanova Smith, Andrey K. Krivorotov, Elena M. Klyuchnikova, Valeriy L. Mikheev, Alexander N. Pelyasov, et al. 2021. “The Russian Arctic by 2050: Developing Integrated Scenarios.” *Arctic* 74, no. (3): 306–22. https://doi.org/10.14430/arctic73242.

Popper, Rafael. 2008. “How Are Foresight Methods Selected?” *Foresight* 10, no. (6): 62–89. https://doi.org/10.1108/14636680810918586.

Povoroznyuk, Olga. 2022. “Soviet Infrastructure in the Post-Soviet Era? Building a Railroad and Identity along the Baikal-Amur Mainline in East Siberia.” PhD dissertation, University of Vienna.

Povoroznyuk, Olga. This issue. "Towards a Comparative Ethnography of Arctic Seaports Projects: Local Impacts of Expanding Maritime Infrastructure in Alaska, Norway, and Russia." *Journal of Contemporary Ethnography*.

Povoroznyuk, Olga, Alexandra Meyer, and Peter Schweitzer. 2024. "Four Futures for Sør-Varanger: Reflecting on the Infranorth Scenario Workshops in Kirkenes." Retrieved July 17, 2025, from https://infranorth.eu/blog/four-futures-for-sor-varanger-reflecting-on-the-infranorth-scenario-workshops-in-kirkenes/

Ramakrishnan, Kavita, Kathleen O'Reilly, and Jessica Budds. 2021. "The Temporal Fragility of Infrastructure: Theorizing Decay, Maintenance, and Repair." *Environment and Planning. E: Nature and Space* 4, no. (3): 674–95. https://doi.org/10.1177/2514848620979712.

Razak, V. M. 2000. "Essays in Anticipatory Anthropology." *Futures* 32, no. (8): 717–27. https://doi.org/10.1016/S0016-3287(00)00022-7.

Reed, M. S., J. Kenter, A. Bonn, K. Broad, T. P. Burt, I. R. Fazey, et al. 2013. "Participatory Scenario Development for Environmental Management: A Methodological Framework Illustrated with Experience from the UK Uplands." *Journal of Environmental Management* 128: 345–62. https://doi.org/10.1016/j.jenvman.2013.05.016.

Rotmans, Jan, Marjolein Van Asselt, Chris Anastasi, Sandra Greeuw, Joanne Mellors, Simone Peters, et al. 2000. "Visions for a Sustainable Europe." *Futures* 32, no. (9–10): 809–31. https://doi.org/10.1016/S0016-3287(00)00033-1.

Rovenskaya, Elena, Nikita Strelkovskii, Dmitry Erokhin, and Leena Ilmola-Sheppard. 2024. "Future Scenarios of Commercial Freight Shipping in the Euro-Asian Arctic." *Futures* 163: 103446. https://doi.org/10.1016/j.futures.2024.103446.

Strelkovskii, Nikita, Philipp Budka, Dmitry Erokhin, Nadejda Komendantova, Alexandra Meyer, Olga Povoroznyuk, et al. Forthcoming. "Multi-scale Scenario Building for Community Development: Exploring Transport Infrastructure Futures in the Circumpolar North." *Futures*.

Strelkovskii, Nikita, Nadejda Komendantova, Sergey Sizov, and Elena Rovenskaya. 2020. "Building Plausible Futures: Scenario-Based Strategic Planning of Industrial Development of Kyrgyzstan." *Futures* 124: 102646. https://doi.org/10.1016/j.futures.2020.102646.

Textor, Robert B. 1980. *A Handbook on Ethnographic Futures Research*. 3rd ed. Stanford University.

Textor, Robert B. 1995. "The Ethnographic Futures Research Method: An Application to Thailand." *Futures* 27, no. (4): 461–71. https://doi.org/10.1016/0016-3287(95)00011-K.

Valentine, David, and Amelia Hassoun. 2019. "Uncommon Futures." *Annual Review of Anthropology* 48: 243–60. https://doi.org/10.1146/annurev-anthro-102218-011435.

Varum, Celeste Amorim, and Carla Melo. 2010. "Directions in Scenario Planning Literature – A Review of the Past Decades." *Futures* 42, no. (4): 355–69. https://doi.org/10.1016/j.futures.2009.11.021.

van Voorst, Roanne. 2025. "Futures Thinking as Collaborative Practice in Anthropology." *Anthropology Today* 41, no. (2): 15–9.

Wilson, Ian. 1998. "Mental Maps of the Future: An Intuitive Logics Approach to Scenarios." In *Learning from the Future: Competitive Foresight Scenarios*, 81–108, edited by Liam Fahey, & Robert M. Randall. John Wiley & Sons.

Zurek, Monika B., and Thomas Henrichs. 2007. "Linking Scenarios across Geographical Scales in International Environmental Assessments." *Technological Forecasting and Social Change* 74, no. (8): 1282–95. https://doi.org/10.1016/j.techfore.2006.11.005.

Zwicky, Fritz. 1969. *Discovery, Invention, Research Through the Morphological Approach*. Macmillan.

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