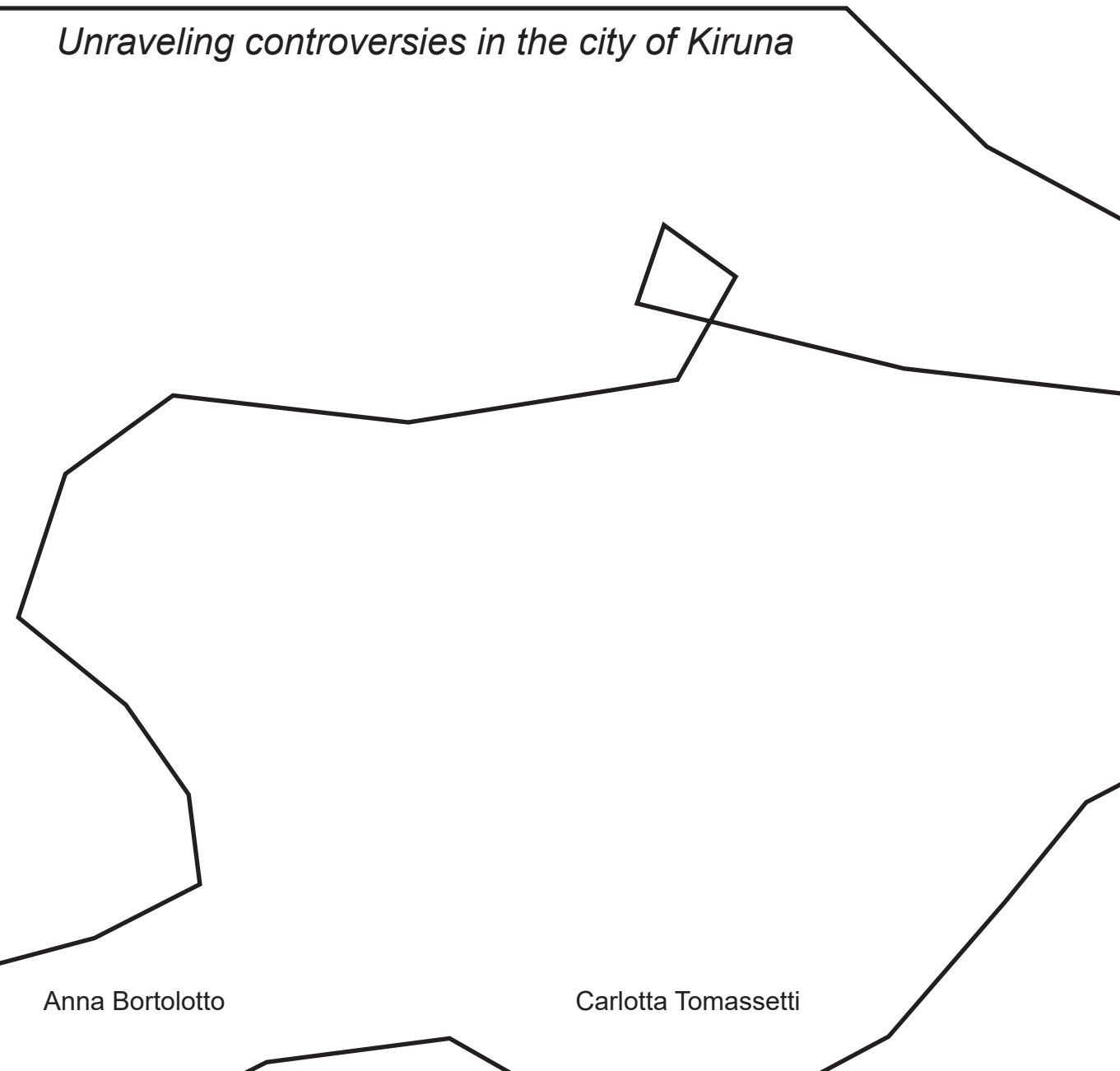
FOLLOWING THE FRAY

Unraveling controversies in the city of Kiruna



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Abstract

Centered in Kiruna’s evolving landscape, “Following the fray. Unraveling controversies in the city of Kiruna” traces the present controversies that can be seen in the city, while analysing the ones that could appear in the future where Kiruna is headed.
The possible future brings attention to the opening of Per Gejer, the upcoming Capital of Culture 2029 and, lastly, the new red line with the city’s expansion. The analysis showcases the complexities hidden in the city’s future and, therefore, brings a new perspective to what is occurring. Simultaneously, the present traces are analysed and visualized through an atlas, with which the aim is to represent the controversy under investigation under all its facets.
The narrative of a town that is relocated due to the expansion of the mine is the most known and the one that is most often brought to the fore. Urban development is a contractual act and buildings become goods. How can this narrative still be supported when only a few buildings are actually being moved and the new city centre is being built from scratch?
Could the city survive independently from LKAB? Could the decoupling of its identity from the company reveal new possibilities and bring forth a hopeful future? And could these identities sustain the complex environment they are occurring in?

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BEFORE WE BEGIN

FUTURES OF KIRUNA

RESET : PRESENT

GIVING VALUE

BEFORE
WE
BEGIN

BEGIN
WE
BEFORE



C01
Train stop in Kiruna
(picture by authors).

Introduction

When we first arrived in Kiruna, it looked like a winter wonderland.
It was a freezing morning in late February and we had spent the night before travelling on a night train. It was so cold that the condensation on the windows had frozen.
The temperature was - 17 and, as we got off the night train that took us there, we thought “wow, finally we are really here”.

In Kiruna, we stayed in a small apartment in the old city centre, at Malmfältens, from where we would walk everyday to the new one. We saw buildings being built and being torn down in the span of two days, we looked at old colorful residential homes next to tall shiny ones and we felt the earth shaking, as the mine blasted, late at night.
But in the meanwhile, we also got to know people: painting and chatting on saturdays’ art workshops, going to the library so much that the guard recognized us and greeted us everyday and participating in collective moments, most of them organized by the KinMuseum, just to hear everyone out (most of them were held in Swedish, but we still tried).
One of the most impactful experiences happened at the very beginning of our stay, and it was participating in the screening of “Scars of Growth”. The film portrays the contradiction of the most polluting industries becoming an ally in the fight against climate change, following the question: *Do we need to get dirty before we go green?*
Afterwards, a moment of reflection followed, during which Karin Kvarfordt Niia, reindeer herder from the Gabna Sami community and a member of Sweden’s Sami Parliament, narrated her first hand experiences.

Talking about the city and what was happening wasn’t easy. A lot of citizens were exhausted from hearing the same questions, and rightfully so.
However, we still met someone willing to talk about it once more and that helped us understand the environment beyond the article titles.

How is it possible, then, to describe the local controversies and implications that are tangled in the urban context of Kiruna, which are simultaneously shaped by external (global) forces?

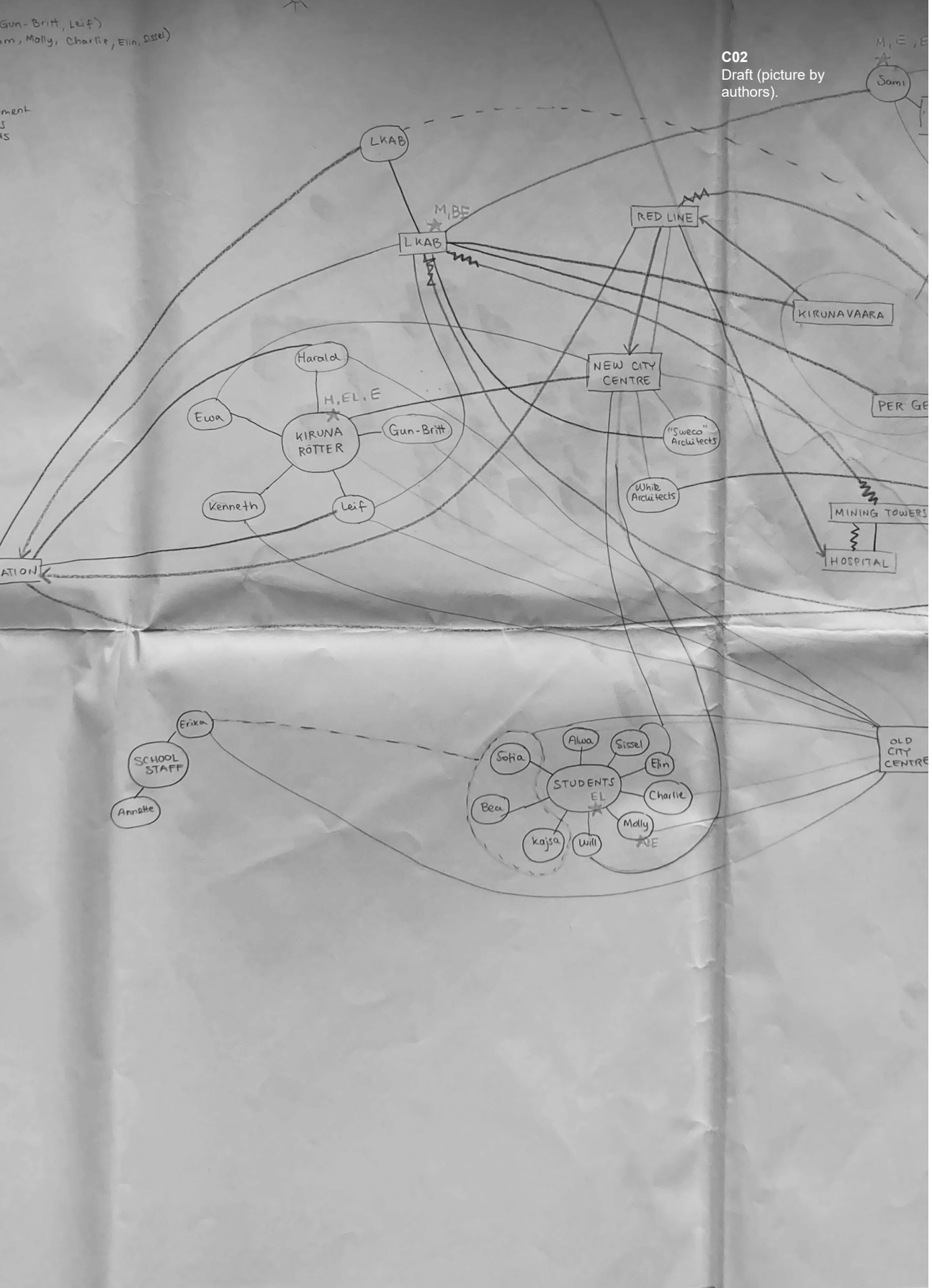
“Following the fray: unraveling controversies in the city of Kiruna” is a sort of pandora vase. We are not borrowing this term in its literal sense from Greek mythology, but more in a proverbial way, so as to unravel meanings, thoughts and feelings.
The research thesis focuses on revealing the controversies, social and urban, that are present in Kiruna’s evolving landscape. It is situated

and covers a specific moment in time, in which the revelation takes place. The content is divided into two main blocks.

Given the amount of research that has been carried out in the past years, the first chapters act as a “levelling phase”.
Firstly the *“State of the art”*. When and how was the city mentioned? What has been already done? What sources helped us deepen our knowledge? What have we already done?
Secondly, *“Futures of Kiruna”*. It is a hinge that integrates the existing literature with the novelties of Kiruna’s landscape. It traces three narrative threads that constitute the main points of contestation.
“The new red line” follows what has happened since the new publication of the deformation line with the resulting relocations.
“Out of sight, out of mine” tracks the city’s role in European regulations, more specifically the Critical Raw Material Act and the possibility of opening a new mining site.
“Capital of Culture 2029” traces and questions the path of success in winning the European Capital of Culture title, while proposing the eventual effects on the city and its inhabitants.
To conclude, a timeline summarizes the events of these three narrative threads and shows how their main actors are interconnected.

Built besides the first phase, the second half of the thesis acts as a “crafting phase”.
“Reset : Present” jumps back to present time and reveals the surface before moving on.
“Mapping Controversies” revolves around the concept of controversy mapping in architecture, what it entails and how it can be achieved. In this context, the aim of mapping is to explore the spatial experience, as well as perspective and concerns, of actors (both human and non human), in a way that their voices are the ones that are heard, instead of the researcher’s bias (Montalbán and Álvarez 2022, 134-135).
To achieve this, “From mine to mind” tries to unpack the controversies in Kiruna, using as a starting point the outcome of interviews and texts that contributed to the creation of the “Archive of the Everyday” (see “Identifying the research gap”, 33).
Lastly, *“Giving Value”* tries to interpret the outcome of the controversy atlas and to translate it into an architectural proposal. After an introduction of “Tuollovaara’s mining history” and the importance that it has today in “Post-industrial landscape”, we propose a space (hybrid between museum and community space) that puts a highlight on the everyday: objects, stories and transformations.

Our thesis is synchronic, in the sense that it narrates and maps events that are currently taking place. It is meant to be a starting point and not a destination.
The word fray in the title has a double meaning: it can be the loose threads at the edge of a cloth, as well as a noisy conflict or dispute. With this word we are suggesting the act of “grabbing” the loose thread of the controversy and pulling.
Afterall, for those who remember the myth, there is still one thing that hasn’t escaped the vase. The lid is off.



C02
Draft (picture by authors).

Methodology

The theoretical background that permitted us to synchronically map the controversies of Kiruna focuses on Actor Network Theory (ANT). Overcoming the critiques of Bruno Latour's theory, Venturini and Yaneva develop a researches which consider the underlying role of time in a controversy.The first part of the thesis utilizes Yaneva's approach described in her book *"Mapping Controversies in Architecture"*, written in 2012 which suggest that a controversy is a "complex-phenomena" (Yaneva 2012, 84) that describes a process whereby there is a "situation of disagreement among different actors over a design issue" (Yaneva 2012, 96). In her theory, the author specifically brings examples of buildings to describe and graphically display their controversies. Therefore mapping controversies becomes a process of tracing "architecture as it unfolds in time'' (Yaneva 2012, 65) revealing its 'hidden social and political dimension' (Yaneva 2012, 85). To do this Yaneva takes a variety of buildings (Sydney Opera house, the Glasgow parliament, the eiffel tower and the London Stadium for the 2012 olympics) and begins tracing selected actors. By textually describing the process, a line is pulled from past to present. This allows her to question former actions and decisions, while contrasting them with the contemporary situation of the building. The research culminates with the integration of parametrics capable of visually mapping the controversy by displaying "the actors trajectory diagram" (Yaneva 2012, 93) in time.

Based on this approach we asked ourselves if the controversies surrounding Kiruna could be traced in time. We thus identified three concrete occurrences that are happening in Kiruna and a series of actors to trace their development in time, from the past to the present. This resulted in our *"Futures of Kiruna"* chapter allowing us to trace the possible future effects of the city alluding to diverse outcomes and possibilities. As the controversies occurring have recently (within a span of 4 years) emerged, we decided to limit the portrayal of the futures to a textual analysis. Furthermore, their past is also limited as the current heating of these debates results in difficulty in finding information publicly available. This was specifically evident for *"The new Red Line"*. We are aware that the 2.0 masterplan is being designed. However, in contacting the architects they have informed us of the project's very preliminary stages and thus the unavailability of the materials for academic thesis publications.

On the other hand, Venturini's work aided in the visual representations of the controversy. If Yaneva wants to detach herself from creating a strong relation between society and architecture, Venturini's work in *"Controversy Mapping"* completely discards the architectural aspect,

focusing solely on the controversy. In his book, he explains how “controversy mapping” does not mean “resolving a controversy”. The process therefore becomes a tool to investigate public discourse, when social fabrics are exposed to changes (Venturini et al. 2015). An explanation of how to choose and visually map the controversy is explained throughout his work. “Mapping controversy” is the dedicated chapter in our thesis which explains Venturini’s approach, before developing our own research following the same approach.

The combination of these two methods therefore allowed us to conduct an analysis that traced the actors through past time till today. Permitting us to map textually and visually the controversies, while questioning the relationship between the mine and the mundane, and the effects the global and local forces could have on the city, as we move forward in time.

The methodology used in the thesis is based on qualitative research, which uses a case study strategy of inquiry to approach the research question. A case study is therefore “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Darke & Shanks 2002, 111). Within this strategy one uses a combination of methods, varying from document analysis to interviews, and participant observation (Darke &Shanks 2002, 111). Our research uses all of these methods.

Textual analysis of documentation was primarily used in *“Futures of Kiruna”* and *“Depositories”*. *“Future of Kiruna”* is divided into three subchapters each one with its independent sources. “The new red line” contains official LKAB documentation, for detailed information in regards to deformation forecasts, and municipal announcements for advances in the decision making process. It utilizes national and local news for a further introspection of the current political and social situation in Kiruna. “Out of site, out of mine” analyzes European documentation and LKAB’s manufacturing process (of iron-ore and other materials) to contextualize the position of the company in the “green transition”. It further investigates the possible future impact of the mine, on reindeer herding and Kiruna, with previous studies conducted. Similarly “Capital of Culture 2029” uses past European reports to evaluate the validity of the award, and a comparative analysis between past ECoCs is conducted to anticipate eventual effects. Towards the end ‘Depositories’ collects a variety of political letters, municipal and historical documentation to trace the modifications and complexity of the TGA mining site. Specifically the sub chapters “Tuollovaara’s mining history” and “Post industrial landscape”. Conversely to the “Futures of Kiruna” chapters in this one we were able access the documentation solely on site, as it is an on-going debate.

The fieldwork conducted in the city of Kiruna introduced us to the

community and to the urban environment of the city. Based on an ethnographic case study approach we conducted interviews and followed a participative observative standpoint. In our approach we were the ‘participant as observer’ (Bow 2002) as we participated in a series of events occurring in the city to comprehend the situation in which the citizens found themselves in. Nonetheless our limited knowledge of the Swedish language limited our interaction to groups of citizens that spoke English, or were present in an event. This is further explained in the chapter ‘from mine to mind’ where we describe how to map a controversy one needs to experience it.

Interviews were conducted during the fieldwork and the workshop project “Archive of the Everyday”. The aim of the interviews was to comprehend the mundane experiences of the citizens, as only the inhabitants can describe living in the environment of Kiruna. Conducting a semi-structured interview, we would begin with a series of questions but would further inquire the participant on the topics being discussed. This resulted in an overall homogeneity of information with nuances of diverse facts, expanding and personalizing the scope of the conversation.

The methods of our case study strategy have showcased how we have utilized a general Actor Network Theory to map the controversy, while diversifying between textual and social research techniques to obtain a homogenous analysis of the current controversy and their future impacts.



C03
Demolition of building in the old city centre (picture by authors).

State of the Art

This first chapter of the thesis is a reflection on previous academic work that has been carried out in Kiruna and that represents a starting point from which our research thesis develops.
Each contribution has helped us to uncover new facets on the history and the events that are under development in the city of Kiruna, under different points of views, as they were written by professionals coming from different backgrounds.

Build out Kiruna
"Build Our Kiruna: From a Mining city to a city with a mine" is a thesis written by Federica Borgogno and Alberto Pozza published in 2016, by Politecnico di Torino. Originating from a general theme of a city's necessity to change, the authors initially delve on Valencia's history before discovering Kiruna and choosing to research the motivations behind this change. With Kiruna's premonitory need to change, their research aims to uncover if the necessity to move is the only feasible solution in order to come to terms with the state owned mining company LKAB (Borgogno and Pozza 2006, i-vi).
The research focuses on a case study approach [001]. The authors spent a period of two months in between Stockholm and Kiruna, conducting field research and archival investigations. In Stockholm, the collaboration with the Kugling Tekniska Hogskolan (KTH) Royal Institute of Technology and with the urban planner and collaborator of Kirunas municipality, Goran Cars, provided insights to the city's initial relocation decision [002]. Moreover, in Kiruna a series of structured and semi-structured interviews were conducted to fully comprehend the situation and pose queries on the city's relocation. Furthermore, the authors prepared online questionnaires in both English and Swedish, and obtained 213 answers from citizens (Borgogno and Pozza 2006, 3).

001
Research approach that is used to gain an in-depth understanding of a complex issue in its real-life context.

002
These included the competition briefs and newspaper articles.

The thesis presents Kiruna in three general ways, all interlinked within each other and moving temporarily in time and in scale. Initially the authors present the history of Kiruna along with its relocation. The new city center and its hope for the future are modelled by the social and monetary interconnections and the collaborations Kiruna is hoping to achieve. Followingly, the authors widen the view and conduct an analysis of the Norrbotten region. Here, the case of Malmberget is presented and an analysis of Kiruna's unique challenge is conducted. The resilience that Kiruna must have in order to open new paths that

differ from the mining industry begins to appear. In the final chapter, the authors present new possibilities for Kiruna, changing its course to a city with a mine and not a mine with a city (Borgogno and Pozza 2006, 115-121). In this final chapter, the author brings forth a discourse on heritage and power hierarchies that has not been so deliberately exposed in the other texts, other than in Elisa Maria Lopez's thesis on territorial inequalities.

The definition of heritage Borgogno and Pozza used to identify Kiruna's built environment derives from Harvey, Tunbridge and Ashworth. Harvey defines heritage as "first and foremost a process" that lasts in time (Harvey 2001, 335), while Tunbridge and Ashworth reinforce this notion emphasising that heritage is "thus a product of the present, purposefully developed in response to current needs or demands for it, and shaped by those requirements" (Tunbridge and Ashworth 1996, 6). The authors identify the current needs of Kiruna as the necessity in creating a bond with the past, that lives collectively among the citizens. They identify the 1984 conservation plan as an initial measure to establish a connection with the past. After LKAB's announcement and the city's relocation the plan is propagated in the present [003], from which additional detailed plans were produced to identify the individual buildings that needed to be moved (Borgogno and Pozza 2006, 108-109).

The authors further expose that the needs of the city nonetheless mix with the needs of the company. Even though both parties do not reveal their needs completely, the authors identify that in a hierarchy of power LKAB still prevails over even the highest powers at play, as well as the citizens. They further expose that the collaborative planning which citizens believe to have power in, is only a distorted vision of the occurrences, which are ruled by the monetary power LKAB holds over the municipality (Borgogno and Pozza 2006, 110). The results from the questionnaires further display this. 72.3% of the inhabitants believe that the mine is essential to the survival of Kiruna, nonetheless a mere 25% have participated in municipal workshops to help create the new city centre (Borgogno and Pozza 2006, 99) (Borgogno and Pozza 2006, 119).

The authors further reveal that citizens maintain such a strong belief that they do not decontextualize the situation or call in question LKAB's role in the "social transformation". Whilst LKAB will continue to promote positive attitudes, and new future outcomes the authors insist that at the current moment in time in which the thesis was written, there was no possibility for the city to oppose the move. Moreover, if the city wants to break away from the mining-town definition it has imposed it has to invest in independent monetary paths that sustain the youth

003
The present in *"Build Out Kiruna"* is identified as 2016.

population and move its course "from mine to mind." (Borgogno and Pozza 2006, 124).

Kiruna Forever

"Kiruna Forever" is a book published by ArkDes & Arkitektur förlag in 2020 and it narrates the relocation of the city of Kiruna. Each chapter is written by a different professional (architects, urban planners, artists, writer) and therefore, it is organized into several thematic sections that tackle different aspects of the history of the city of Kiruna and reflect on different questions that can arise from a project of relocation of a city.
The book uses a multidisciplinary methodology, combining qualitative [004] and quantitative approaches with historical/archival work. Rather than relying on a single academic field, it integrates architectural theory, historical analysis, social surveys and residents and Indigenous perspectives to narrate the relocation of Kiruna and the broader industrialization of Northern Sweden.

The first part of the book deals with the history, the event and what entails the process of "moving a city". *"Kiruna Forever"* (Carrasco 2020, 32-38), provides a comprehensive overview of the project to move the Swedish city due to the underground ore mine expansion. It opens with the symbolic move of the traditional Sámi wooden door handles from the Old City Hall to the new one, as a metaphor for the broader transformation where multiple elements are moving simultaneously: from one third of the population, that has to find new homes, to historical building units, the church, the ground and the iron ore itself.
The city was founded in 1900 to house the workforce of the iron ore mine, but a major paradox comes therefore to the forth: the mine that created the city is now the cause of its relocation. The process of "moving a city" took 15 years of planning and it intertwines several layers of difficulty: economic, legal, social and political spheres as well as negotiation regarding land ownership with the Indigenous Sami communities, whose ancestral culture and traditions are often at odds with the mine's expansion. The relocation forces citizens' to wonder about identity, sacrifice and the limits of economic growth. What constitutes a city? How far can a city centre be, without losing its identity? Who has the right to own a city?
The author argues that this situation requires a total redefinition of values regarding global warming, migration, sovereignty and a reconsideration of the ways in which economic growth is privileged above all else. In this context, architects and urban planners have to imagine alternative futures and new forms of mutual support and collaboration.

"More Than One City" (Sotoca 2020, 75-81), situates Kiruna within a broader context, that is the "Northern Technological Megasystem", explaining that Kiruna is not an isolated event but is part of a larger

004
Research methodology that explores and analyses non numerical data, such as words, meanings and subjective experiences.

process of industrialization of the Arctic (though mines, hydropower and transportation networks) that took place over a span of 125 years. One of the main implication of moving a city concerns the necessity to provide new structures and houses, which, in the case of Kiruna, requires a careful consideration on the microclimatic conditions of Arctic and Sub-Arctic environments (Sjöholm 2026): in this context liveable urban settlements cannot originate from planning principles and design ideals from southern contexts. (Hemmersan 2021)

"The Architect who claimed the Arctic" (Maudsley 2020, 123-127) focuses on the architectural and urban planning theories by Ralph Erskine in extreme Arctic climates. Erskine developed a vision of the "ideal" town in the North, that could protect the residents from the harsh climate while also fostering sociality to combat isolation. The application of his vision can be observed in different case studies, such as the Ormen Långe in Svappavaara, Resolute Bay in Canada and in Kiruna, where he designed the Ortdrivaren quarter by using high-rise buildings to the north to protect from the cold winds and low-rise buildings to the south, to enhance sunlight. The growth and planning of these towns in the Arctic is inevitably linked to resource exploitation and extraction, where the "success" of Erskine's project often depended on the economic "peaks and valleys" of these areas. However, the author underlines how Erskine's vision of the Arctic is in contrast with the cultural practices and traditions of the local population.

The final part of the book addresses the social implications.
"A Photograph is Not Always Enough" (Sjöholm 2020, 201-209) explores the controversies related to the city's architectural and cultural identity that can arise from the urban relocation. In this context, the main theme is the disagreement between the municipality, the mining company (LKAB) and the heritage boards over which buildings should be preserved. While the 2006 initial comprehensive plan suggested saving as many buildings as possible, a selection of approximately 50 structures had to be made, due to budget disputes, leaving the majority of the town centre behind to be demolished.
The chapter/author highlights how this decision "provoked" major losses, in particular the Kiruna City Hall, of which only its clock tower and Sami door handles have been moved to the new location. While there is "great acceptance" (Sjöholm 2020, 207) that the mine must continue, the text denotes a significant feeling of grief among the residents, over the loss of the "very special" urban fabric (Sjöholm 2020, 208). Moreover, as the move is happening alongside other major transformations, like the stripping of the hospital, the closure of Radiotjänst and the rise of new industries like space research and tourisms, an important question arises: can cultural heritage still play a role in strengthening the town's identity, even among these shifts?

(Sjöholm 2020, 208)
As the title of this chapter suggested, although documentation (like photography) can be useful to commemorate, it cannot replace the reality of the urban "mesh" and the experience of a place that has evolved gradually. (Sjöholm 2020, 208-209)

"Who are you?" (Öhman 2020, 237-246) is a critical re-evaluation of the history of Northern Sweden through the lens of Sami colonization, state-driven land theft and industrial exploitation. The history of Modern Sweden began with the colonization of Sami territories, to exploit land and water to fuel industrialization. However, the Sami civilization advanced long before the state intervention. For instance, in Vivungi (80 kilometres east of Giron/Kiruna/Kieruna) iron was produced 2000 years before the LKAB mining operations started in 1890. (Öhman 2020, 238)
The chapter links the historical greed of the Swedish State and Church to the modern destruction of ecosystems, as industries like hydropower and large-scale forestry have caused detrimental impact to the environment, poisoning waterways, decimating salmon populations and creating fire-sensitive tree plantations. The author questions whether the long term viability of the "Western settled culture of abundance" in the face of climate change and suggested that society should be guided by a "realtionship-based Sami way" of looking at nature, instead of the destructive western approach. (Öhman 2020, 240-246)

How to move a city
"How to move a city. Mapping the process of Kiruna relocation" is a thesis written by Giovanni Ceselli and published in 2024. The thesis analyses the urban relocation project in Kiruna, the Swedish city located above the Arctic Circle, that must be relocated due to soil instability caused by the underlying iron ore mine. The author documents the process of urban metamorphosis with a methodology that combines the analysis of documents (approximately 200, published between 2004 and 2024), semi-structured interviews with residents and direct fieldwork (Ceselli 2024).

The thesis can be divided into two main phases with a "hinge" connecting them.
The first one is an initial analysis phase, focusing on mapping and narrating the relocation of Kiruna, as well as providing a general overview on the geographical, historical, economic and social context of the Norrbotten region. This part is based exclusively on documents that have impacted the urban environment and that have been arranged into 17 stories, which organize the history of Kiruna's relocation from 2004 to 2024 into distinct thematic threads.

The first thread, “A slo-mo earthquake” details the technical and institutional events that led to the relocation of the city, focusing on the phenomenon of ground subsidence caused by mining. It narrates the initial communication from the mining company regarding the ground deformations and it covers the evolution and shifts of the “Red Line” boundary (Ceselli 2024, 50-61).
“Where to move the city” explores the complex technical, legal and social challenges involved in selecting a new location for Kiruna’s new city centre (Ceselli 2024, 62-76). Although Kiruna is the largest municipality in the European Union by land area, it faces a “space paradox” (Ceselli 2024, 64), as there is actually very little space available to relocate the city due to three overlapping national interests: mineral extraction, cultural heritage and reindeer herding. Several location hypotheses were analyzed between 2004 and 2011 (Ceselli 2024, 67-76).
“A master plan for Kiruna” details the pivotal phase of the relocation process between 2011 and 2014, when the city transitioned from selecting a location to defining the actual shape and financial structure of the new city centre. After deciding to move northeast, the municipality announced an international architecture competition to develop a new masterplan, according to which a functional integration with the old city and climate-specific challenges, like creating shelters from the Arctic winds, had to be addressed. The winning project titled “Kiruna Forever”, by White Arkitekter and Ghillardi+Hellsten, focuses on urban density, a strong relationship with the surrounding environment and is designed to continue to expand eastwards (Ceselli 2024, 78-95).
An important aspect in the relocation process is in regards to compensation agreements. Residents and business owners could either sell their property to LKAB for 125% of market value or be relocated to an equivalent building in the new centre (Ceselli 2024, 96-99).
Lastly, some specific design features of the new city centre are analyzed, like the reconstruction of the City Hall and the Scandic Hotel, as well as the history of the railway relocation (Ceselli 2024, 100-128)
“Media attention” explores how the relocation of Kiruna has been portrayed globally and how this narrative has influenced the transformation process. Starting in the mid-2010s, the city’s identity shifted from being known for Sami culture and Northern Lights to being portrayed as the “city that moves” (Ceselli 2024, 131). If, on one hand, the global spotlight has served as a driver for development (Ceselli 2024, 133), media coverage has also often been superficial and dramatic (Ceselli 2024, 132-133). To highlight the power of media, the author compares Kiruna to Malmberget, a city that has faced almost identical subsidence issues from another LKAB mine. Despite it, the city receives almost no media attention. This “invisibility” has led to direct material effects, for instance Malmberget is not being rebuilt as a distinct town, but its buildings are being absorbed into Koskullskulle

and, compared to Kiruna, significantly fewer historic buildings are being preserved or moved (Ceselli 2024, 135-138)
Lastly, “A memory worth preserving” focuses on the emotional and physical efforts to maintain Kiruna’s identity and heritage as the old city centre is being dismantled. It describes the gradual demolition of the old city centre as a “slow cataclysm” (Ceselli 2024, 141) and the emotional impact of this process, as the urban fabric and its buildings are not viewed just as concrete structures but as emotional spaces. This section also deals with the political and technical process of selecting historic buildings to physically move to the new city centre, focusing especially on two cases: Kiruna’s Kyrka and Living room (Kiruna Town Hall) (Ceselli 2024, 141-176).

The second phase is the Software Design Phase and it transitions from the analysis to the development of a practical digital tool called “Kiruna Explorer”. The tool is designed to narrate the ongoing process and track past documents as well as future forecast, serving as an interactive archive and planning support for urban planners and residents (Ceselli 2024, 191). It details a specific design methodology involving user categories (Urban planners, residents, visitors and urban developers) and operates through two interconnected graphic interfaces that allow users to switch between social and spatial perspectives (Ceselli 2024, 193-201). The tool is designed to adapt its priorities based on two potential future scenarios. In scenario 1 (the past), if Kiruna becomes European Capital of Culture, the tool emphasizes the historical reconstruction for visitors, focusing on the history of relocated buildings and the urban transformation (Ceselli 2024, 223-231). In scenario 2 (the future), the tool would introduce “document forecasts” to schedule upcoming events and actions (Ceselli 2024, 233-241).
The “hinge” that ties together the first phase with the second is the synchronic diagram, that is the result of the historical analysis and provides the foundation for the software functionalities that are described in the second phase (Ceselli 2024, 180-187).
In conclusion, the author argues that the thesis is not intended to be a manual on how to move a city, as it aims to provide a comprehensive snapshot of the city’s “complex reality” (Ceselli 2024, 250). By using tools like storytelling, diagramming and software design, the author seeks to map a process that is often unknown to those who are directly involved in it and underlines how the methodology and digital tool created in this thesis can be replicable for other complex urban transformations (Ceselli 2024, 244-249).

Transforming Kiruna

“Transforming Kiruna: Producing Space, Society, and Legacies of Inequality in the Swedish Ore Fields” is a Ph.D. thesis in Cultural

Anthropology produced and published by Elisa Maria Lopez in 2021. The main part of the research bases its approach on anthropological studies while aiming to examine and explain how iron ore mining is the core constituent in the production of social relations, structures of power and conceptual models of space, nature and society. (Lopez 2024b, 22-25).
The theoretical background that was used in the research followed the French scholar Henri Lefebvre's definition of the production of space (Lopez 2024b, 244, 55-56). He described space as the product of three processes:
Spatial Practices: The everyday routines, activities, and movements within a society. Where the labour produces the society's space.
Representations of Space: Also known as conceptual space, is the one produced by "scientists, planners, urban urbanists, technocratic subdividers and social engineers" (Lopez 2024b, 244)
Representational spaces: Fluid and dynamic spaces that are challenged by imaginative concepts and are lived through their symbolism.

Lopez used the definitions as a touchstone to analyse how space is being co-produced along with the expansion of the mine, and within various actors in Giron Kiruna. As the research focused its approach on ethnographical fieldwork, Lopez brought forth, primarily, the Čohkkiras Sámi reindeer herders' perspective and the inequalities they experienced in history and today in the 'Urban transformation' of Giron Kiruna. In her 15 months of fieldwork Lopez investigated both the spatial and the societal transformation induced by the mining expansion and its company LKAB. (Lopez 2024b, 44-48)

In her analysis, Lopez identifies that within the co-production occurring in Giron Kiruna, there is a relationship between nature and society that changes within each actor's interaction. Engaging with the work of anthropologists and geographers, she investigates how 'nature' is a component in the production of space and, therefore, is managed by political and social implications, with their independent definition of "nature". This, in addition to Anna Tsing's concept of zones-of-not-yet [005] that characterize the city, were measures used to modify space (Lopez 2024b, 126-131).

In her final remarks, she moves from a theoretical space to the physical one, displaying how the "reproduction of extractive space" takes on different forms. The physical place or space is identified in the irreversible transformation of herding lands and other lands along with the urban expansion. The emotional ones, on the other hand, were seen through the interviews and in the citizens' sense of security and ambition for the future (Lopez 2024b).
Lopez has continued her research in Kiruna. This has led her to publish a research paper, "Tears of Blood for the Cracking City: Urban Infrastructure of Extraction and Everyday Life in Kiruna, Sweden" in 2024 (Lopez 2024a), and contributed in the book "Kiruna Forever", with the chapter *"Moving just a little"* (López 2020, 153-164). Derived from interviews conducted in 2012 and 2013, a substantial fracture in the "societal transformation" of the city begins to emerge. While in her postdoctoral research (Greening the Arctic: (Re)Making Northern Industrial Cities) she researches the green transitions in two Nordic cities, and their projects transformations of "social, spatial and temporal scales". (Lopez n.d.)
If in *"Build Out Kiruna"* people justified the measures implemented by LKAB as an ultimate resource to keep the city alive, in *"Transforming Kiruna"* citizens are beginning to question such modes of power, causing increased "feelings of indifference and powerlessness" (Lopez 2024b, 251) to the changing urban area.

Our research begins with these feelings and the uncovering of the conflicts that stand behind them.
Reinforced by the other papers, conflicts of many forms have always been noted. In Ceselli's thesis conflicts are identified within higher power relations specifically among technical documentations. This reinforces the notion that the social sphere is not as present as the technical one. Furthermore, in Kiruna Forever's text the notion of conflicts are present, but still remain in the higher levels of hierarchy. In all these texts, conflict is present in varying forms. The social notion is mentioned, but never truly analyzed (other than in Lopez's thesis).
The work conducted for the Kiruna Hotspot, under the supervision of Valeria Federighi, brought us closer to this concept and confirmed the research gap we have identified while reading the texts.

Kiruna Explorer
The Kiruna Hotspot initiative was produced for the TICCIH 2025 conference "Heritage in Action", between the 25-30th August.
The macro topic of the 2025 conference was, "Heritage in Action: legacy of industry in future making". The theme alludes to a concept that considers the utilization of industrial heritage (as well as other forms of heritage) to support the diverging needs of contemporary society (Karlsson et. al 2025, 7). Within this theme, Kiruna, and specifically the TGA mining area, were chosen as a location to conduct the conference. In addition, the committee behind the TICCIH organized the Kiruna Hotspot to serve as a "platform for dialogue" (Karlsson et. al 2025, 9) about the past and the future. Citizens were welcomed to participate in discussions, answer questionnaires, and comment on the exhibitions being displayed.

005
"Spaces not yet mapped, planned, or regulated – even as they are being actively mapped, planned and regulated" (Lopez 2024b, 245).

Part of these exhibitions was the work of the Polytechnic of Turin with a beta version of a digital tool, Kiruna Explorer, and a spatial installation. The tool was developed in a collaboration between the Department of Architecture and Design, Computer Engineering and the Land and Infrastructure Engineering. Its aim was to digitally visualize the decision-making process that is shaping the urban process in Kiruna.

Following the concepts of Operative Mapping (Paez 2019) the spatial installation developed in three cartographic synchronic maps and a diachronic timeline. The objective of these maps was to act as a "toolbox" to "broaden the conception of reality" (Paez 2019, 21) for the citizens of Kiruna, while sustaining the visualization of urban changes and their interlinks in decision making, sustained by technical documents. In addition, in Kiruna's stratified landscape the maps became a tool to reveal the stratigraphy that composes its urban fabric, temporarily and socially. As the future of the city is not necessarily clear, and the cultural background of its citizens derive from differing pasts (Borgogno and Pozza 2006), the mapping aided the community to visualize their own history in a different and simplified approach, capable of communicating its intent to both technical experts and not.

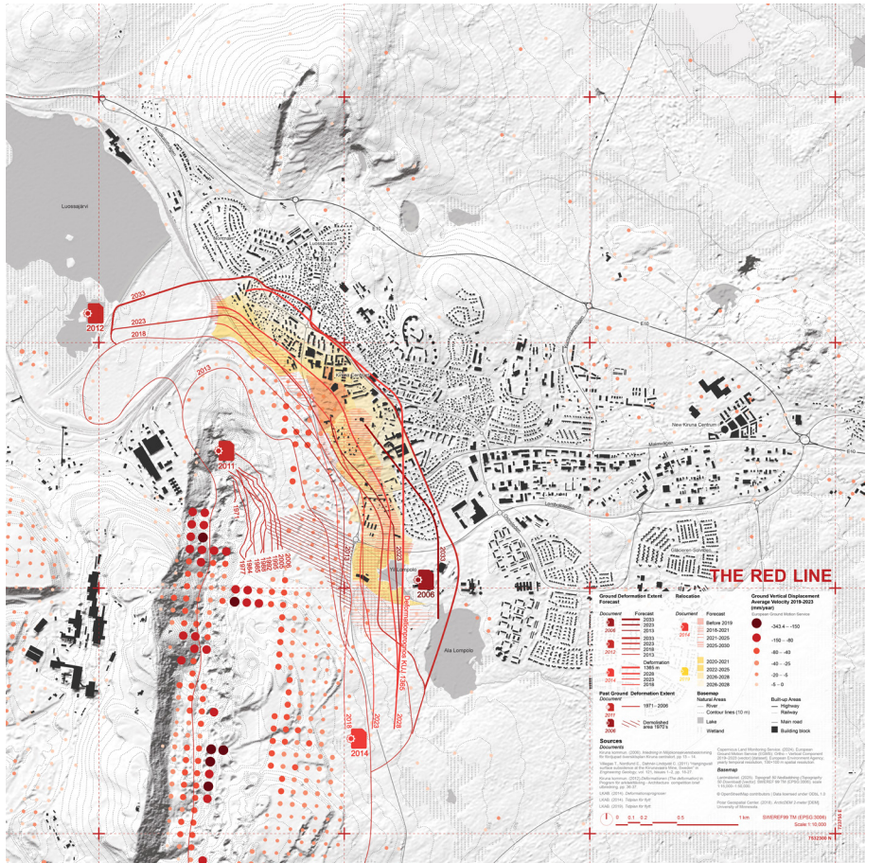
To produce such maps, we collaborated with Ilaria Tonti, Elisabetta Colucci, Fabio Giulio Tonolo, and utilised a Geographic Information System (GIS system). Therefore, the maps were composed from a mixed variety of data and scales. These included documents, design projects, administrative and technical plans, geographic and spatial data, remote sensing datasets such as satellite imagery, from open sources, authoritative local, regional, national, and international geoportals. As the nature of these sources did not comply with one spatial normality, the difficulty resulted in finding a conformity suitable to use in the GIS system to produce a harmonised dataset. Most of the data was derived from the Swedish platform Lantmäteriet in the form of a vector format, which was then updated with Open Street Map sources or by manual visual aid. Whereas the DEM file was derived from Copernicus, as well as European Ground Motion Service [EGMS] by Copernicus. Subsequently, this base data was re-elaborated to modify the visualization, in Adobe Illustrator, to support varied forms of graphic possibilities.

Applying varying scales, which comprised both the territorial, urban and architectural, permitted the user to perceive the impact of the transformation from alternate viewpoints. The territorial scale highlights the relationship between the mining area and the city, exposing ground deformation trends, future locations and overall, the impact of the mine on the settlement. It also shows a convergence between future and past, the possible outcomes that the city could have chosen and the impacts the city still needs to experience. Zooming in the urban scale underlines the diachronic shift of the city centre and the development of the new urban areas. Additionally, it proposes a future that has not yet been built. Finally, the architectural scale focuses its attention, synchronically, on the individual building lots, exposing the changing heritage of the city.

Depending on the message intended, the maps created follow either one or two scales defined. Following a cause and effect process they highlight moments in time where a collection of documents can be clearly visualized in the city.

To open the exhibition, *"The Red Line"* exposes the changing ground deformation line in time. It is thus composed of deformation forecasts produced by LKAB (between 2014-2019), municipal reports (2006–2012), and measurements from the European Ground Motion Service (EGMS) by Copernicus (2019–2023). The process will undertake approximately 20-25 years, meaning that the latest displacements will occur around 2028, with no guarantee that they will propagate further in time, as we will see in the next chapters. The map therefore collects information from five sources that vary in a time span of 15 years. The projections of the mine seem to always cut the city in the same manner but once they are exposed the advancements and alterations of the urban fabric materialize.

Figure 1
The Red Line, for TICCIH 2025 conference "Heritage in Action" (authors, DAD - Politecnico di Torino).



The second map, Projected Futures, acts as a solution, displaying the narrative of Kiruna's possible futures, even after a choice has been already established. The map displays the possible locations which the municipality had chosen in 2006 when the city needed to relocate. These negotiated futures considered the creation of major transport corridors and the relocation of railways lines, to accommodate the new Kiruna. In 2012, the convergence of one spatial strategy resulted in a competition whereby 10 proposals were submitted. These are exposed in the map, along with the highlighted winning project, Kiruna 4-ever by White Arkitekter in collaboration with Ghilardi + Hellsten Arkitekter, Spacescape and Vectura Consulting. The map uncovered the imaginative spatial futures of Kiruna, exposing a perception of new possibilities that remains in the past.

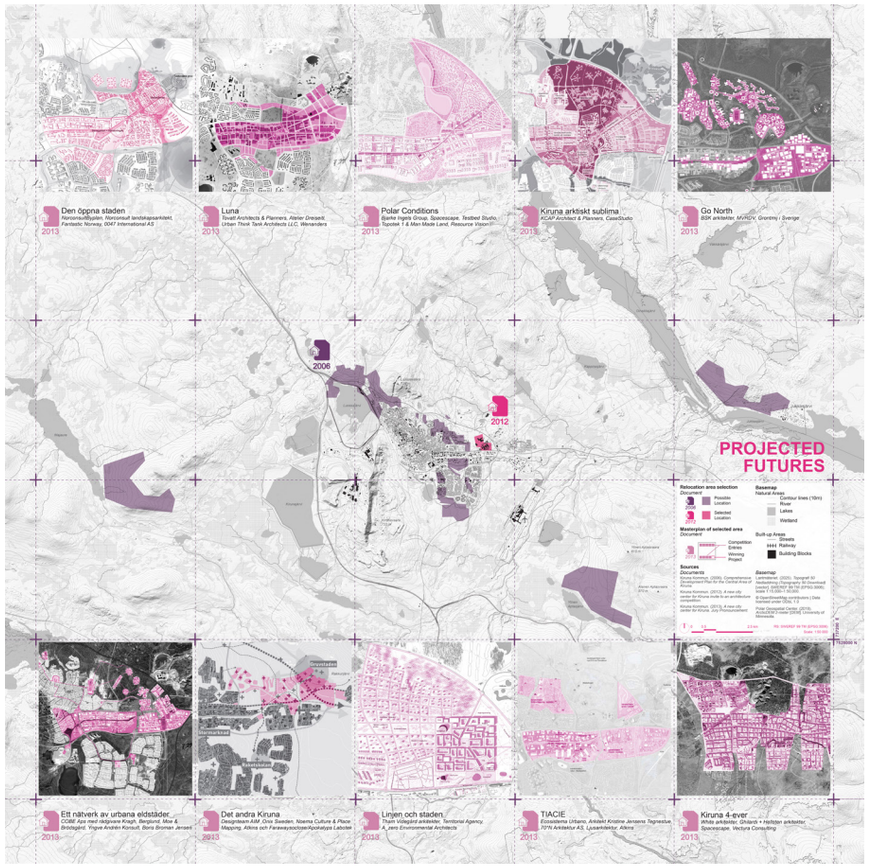
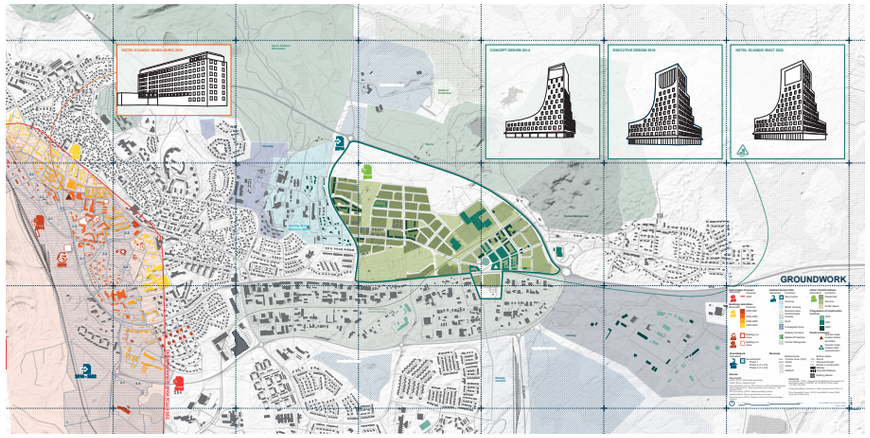


Figure 2
Projected Futures, for TICCIH 2025 conference "Heritage in Action" (authors, DAD - Politecnico di Torino).

The final map, Groundwork, is the resultant synchronic situation in which Kiruna found itself in (during the period of the exhibition) at the urban and architectural scale. Deriving mostly from municipal documents, the map contains a dataset of information derived from the General Plan FÖP Kiruna C (2014, updated 2024), the urban transformation areas [Stadsomvandling] (2023), the Analysis of Kiruna's Cultural Heritage Phase 2 (2014), and the deformation forecasts plan of LKAB (2019).

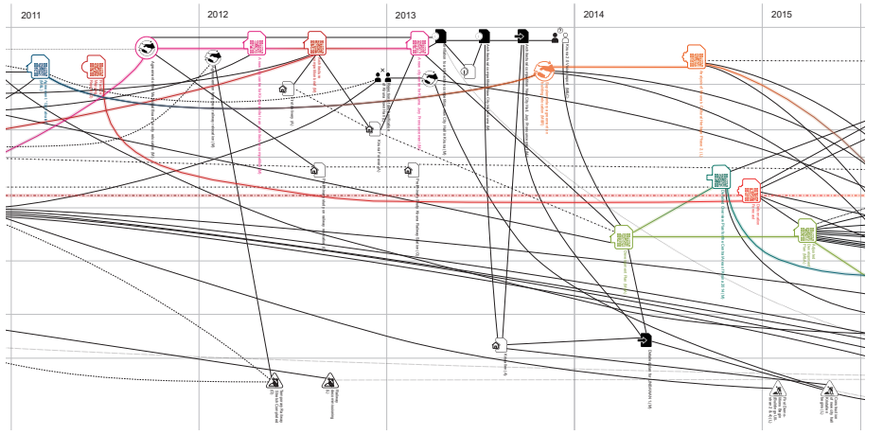
The double thematic overlap, couples the evacuated and demolished old city centre with the construction of the new urban area, revealing the intricate political and spatial measures behind Kiruna's future.

Figure 3
Groundwork, for TICCIH 2025 conference "Heritage in Action" (authors, DAD - Politecnico di Torino).



The timeline represents the background that is not revealed within the cartographic mapping. Derived from Ceselli's thesis *"How to move a city"*, the timeline presents documents and actions occurring in Kiruna that describe how the city has been moving.

Figure 4
Timeline, for TICCIH 2025 conference "Heritage in Action" (Giovanni Ceselli, re elaborated by authors, DAD - Politecnico di Torino).



Divided into four layers of information (text, concept, plan and blueprints) and seven types of categorization (Design, informative, prescriptive, and technical documents, plus agreement, conflict and consultation for the actions, as well as materialised actions), the documents constitute the environment in which the maps were created (Ceselli 2024). By highlighting the documents utilized in the maps their extraction becomes evident, and their interconnections reveal the stratigraphy that composes them.
Nonetheless mapping Kiruna means mapping a city that is in motion. The increasing mining activity only results in a constantly changing urban environment, characterized by planning strategies and

infrastructural changes. The synchronicity of the maps was updated to produce a visual essay. Whereby the documents described above were displayed as if the user were to unpack the diagram and uncover only the documents utilized in the maps.



Figure 5
Kiruna Explorer exhibition, for TICCIH 2025 conference "Heritage in Action" (Mimmi Mickelsen).



Figure 6
Kiruna Explorer exhibition, for TICCIH 2025 conference "Heritage in Action" (Valeria Federighi).

Identifying the Research Gap

Working on the elaboration of this material reinforced our understanding of Kiruna and the actors' complexity in conforming to an agreed solution. We began questioning this approach also with the understanding that this production is a very technical source. In the hierarchy of power the actors considered remain on the top decisional levels (the municipality, LKAB, architects, regional authorities and others). Nonetheless, the citizens were considered, but they were considered as a collective instead of individually. With our supervisor, we therefore began to question a more social dimension to the situation. The state of the art thus reinforced our notion and a research gap was identified.

Figure 7
QR Code of Archive of the Everyday for Kiruna project.

The work conducted for the *"Archive of Everyday"* aided in collecting data for our thesis. The collaboration with the ShiFT (Social Sciences and Humanities for Transformation and Climate Resilience) and Cost Action, as well as Charlie Gullström and Jennie Sjöholm, gave us the opportunity to collaborate in a 2-day workshop occurring in Kiruna, between the 28-29th of April. The aim of the workshop was to create an archive that would give meaning to the mundane, exposing the layered realities that construct Kiruna. The partnership with Hjalmar Lundbohmsskolan high school in Kiruna gave us the opportunity to interview students that were born into a city that was inevitably and already moving, as well as interviewing members of the Kiruna Rötter association, that instead have experienced the mundane before the imaginative necessity to relocate was yielded. The interviews conducted, along with other work, was followingly published in the Memory for All Archive (Memória Para Todos), where it follows an open-source domain. The Memory for All Archive project

"is a collaborative training and research program in citizen science that promotes the study, organization, and dissemination of historical, cultural, and technological heritage. It is developed in close collaboration with archives, institutions, municipalities, local authorities, schools, and local associations.

The content gathered (such as objects, photographs, audio and video testimonies, sounds, and other records) with the participation and involvement of citizens and institutions is made available online in open access." (Memória para todos 2025)

The international collaboration to develop the Archive of the everyday for Kiruna was thus developed by Jennie Sjöholm, Charlie Gullström, Valeria Federighi, Julia Bentz, Jelena Ristić Trajković, Taneha Bacchin, Verica Krstic, Ana Isa Mourinho and Joana Ralão and the authors.

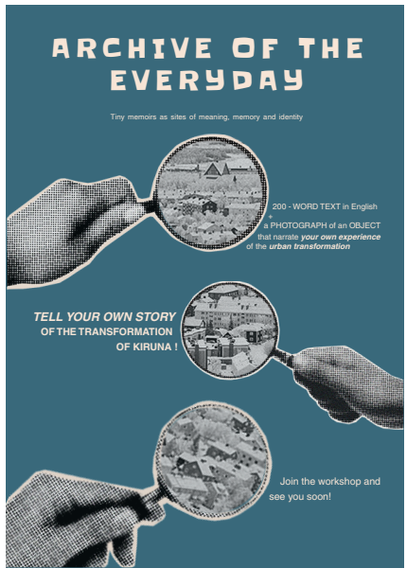


Figure 8
On the left, poster for the workshop held in April for the Archive of the Everyday (authors).

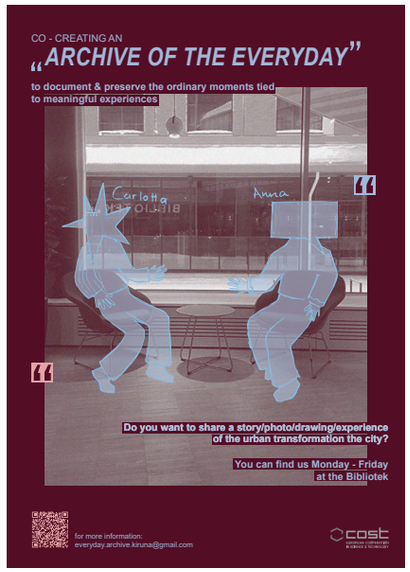
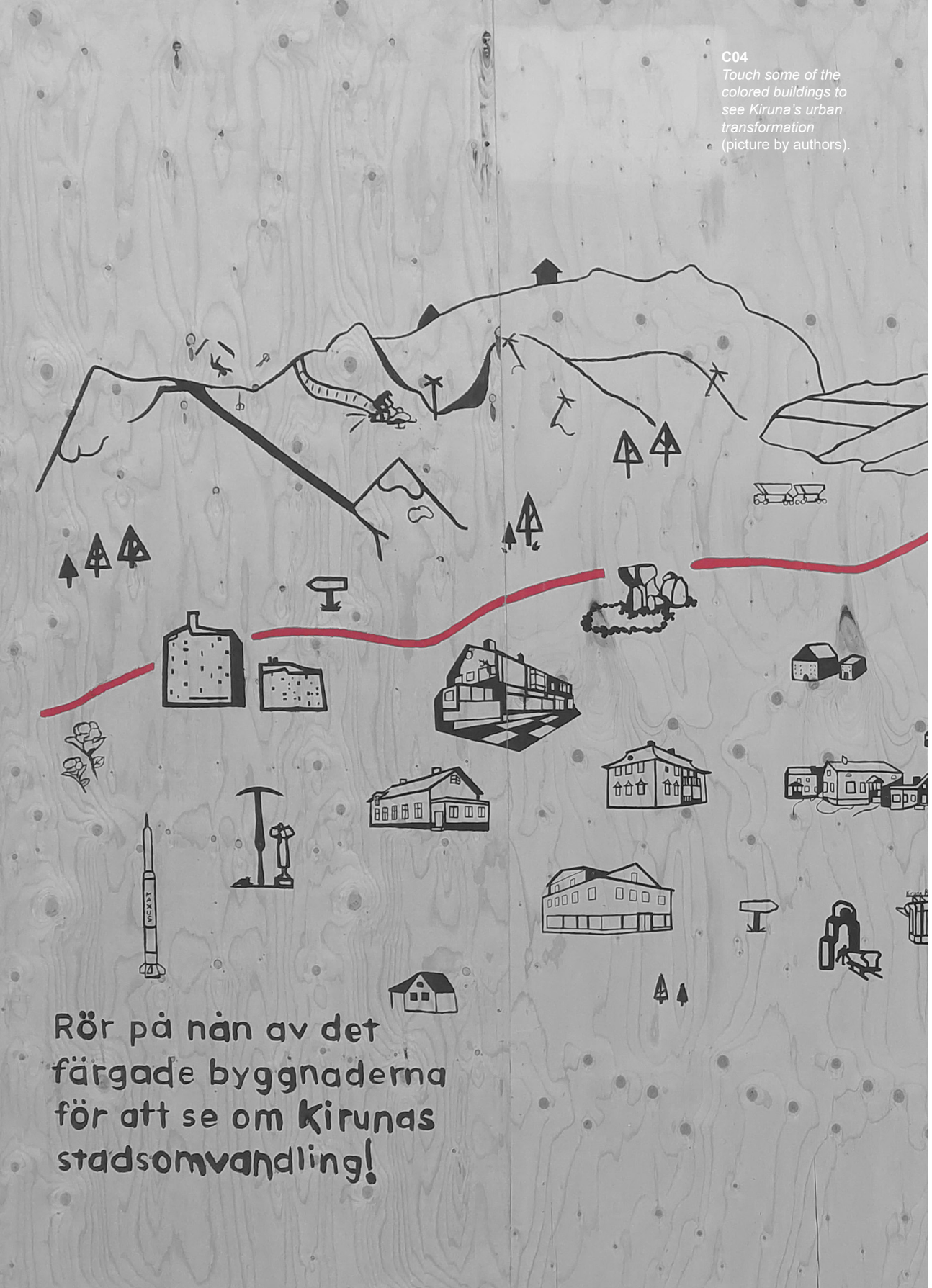


Figure 9
On the right, poster created for spontaneus interviews in Kiruna (authors).

FUTURES
OF
KIRUNA

KIRUNA
OF
FUTURES



C04
Touch some of the colored buildings to see Kiruna's urban transformation
(picture by authors).

The *New* Red Line

"EARTHQUAKE RISK! Thousands of people have to leave their homes!" - Ewa

On September 12, 2025, the citizens of Kiruna were informed of a new red line [006] that was going to fragment the city's landscape yet again. LKAB's announcement initially arrived during the TICCIH conference and was then published officially in the beginning of September. This further showcased the importance the conference had in preserving the historical value of Kiruna with the upcoming changes. The new red line therefore requires an additional 7,000 people to be displaced, and 650 homes and 20 businesses to be relocated or destroyed (Hilde-Gunn 2026.) This will amount to 13,000 people displaced in a span of 20/30 years (Hilde-Gunn 2026.) Figure 10 showcases the official document released by LKAB in May 2026, showcasing the phases of the relocation.



Figure 10
Deformation forecast with relocation phases (LKAB).

The reaction to the new red line was and still is an enormous shock for the citizens. As LKAB had not released a new red line since 2014, they were not expecting this new information. Informal interviews conducted during the fieldwork exposed a complete state of shock as citizens could not even comprehend what the new displacements meant. People were so caught up in the existing changes of the city, that they did not realize that their homes were, at times, the first in the new move. As seen in Figure 10, the past red lines were all in the vicinity of the previous one, with some variations mostly focused in the time span of its initial release (2006) and the competition details, which were then clarified in the following years (2012-2014). The new red line encompasses the majority of the old city centre and arrived ~20 years after, unsettling the city's plans for the future.

006
Ground deformation line.

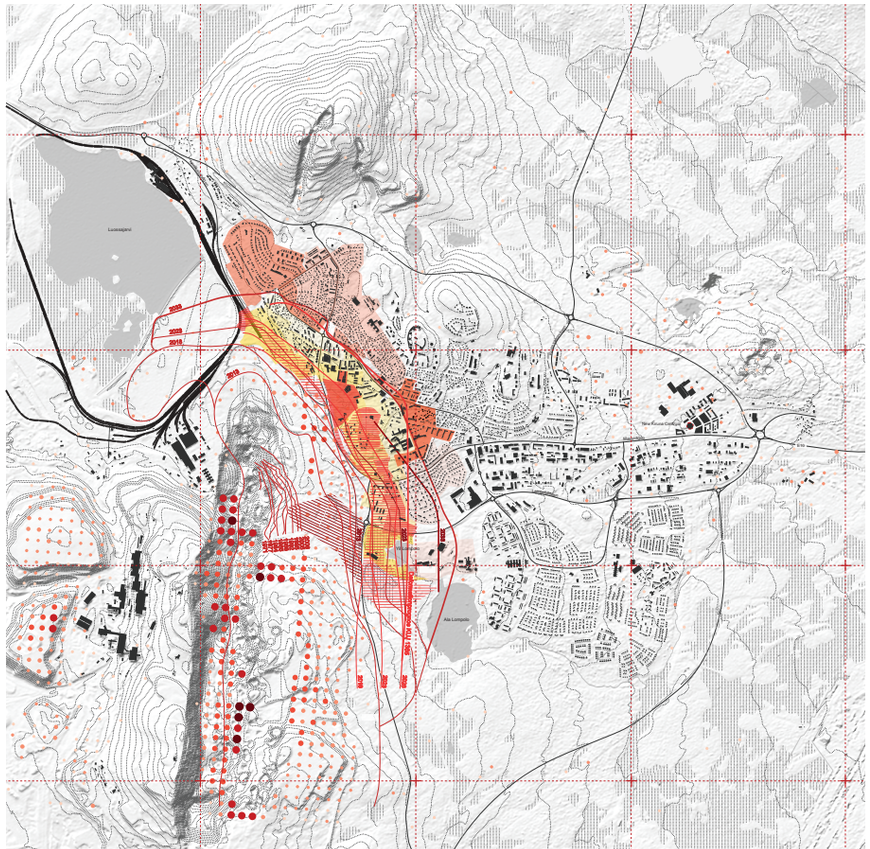


Figure 11
The new Red Line, for future publication (authors, DAD - Politecnico di Torino).

LKABs announcement thus gave rise to a series of reactions that reverberate across the city in a variety of forms, the most central, the new development plan. A development plan, defined by the municipality itself, is “an overall policy document that describes how Kiruna will develop and change in the long term” (Kiruna Kommun 2026), in both technical and social details, becoming the base of how the “community will be built, moved and grown” (Kiruna Kommun 2026). Since the first move the municipality and LKAB have been collaborating to create it, while engaging with other external firms. Following this approach the new development plan, for the cities 2.0 expansion, was planned. This meant that the municipality would have been the one purchasing the land and initially planning it, while gradually handing the entire planning areas over to LKAB, where the detailed plans would have been produced. Maintaining overall responsibility in the hands of the municipality, LKAB would oversee primarily the construction process (Hans 2026).
Intricacies of the development plan emerged early. A new city center requires resources, principally land for construction. Following a primary agreement between the two actors, who appeared to have decided for LKAB to purchase state owned land, on December 29th the municipality announced an application to the same plot of land. While LKAB believed that the situation had been settled, the municipality interpreted their actions as a measure to undermine “their self-determination and planning monopoly” (Sternlund 2026a) and

007
If the residents would have to pay for these costs, it would amount to 500,000 SEK per person.

008
The re-referral was not reached. A minimum of 12 votes out of 35 is necessary to approve the referral. The referral on the 24th of June obtained 11 votes.

therefore acted against it. This dispute displays an initial complication in the construction of the new city centre, highlighting the complexity of power hierarchies in its planning.

In May 2026 the municipality announced a financial crisis requiring LKAB to step in. An increase in relocation costs and construction, left the city with a deficit of SEK 1.8 billion to complete the relocation. Resolving the issue required LKAB’s interception. In the wake of planning the new city center, new monetary funds are necessary. On this account a novel agreement consisting of two sections was discussed and approved. First, and foremost the monetary shortage was settled. SEK 1.1 billion covered the completion of infrastructure projects, and their construction, which the municipality had already received compensation for during the first part of the urban transformation [007]. The second part amounts to SEK 700 million, incorporating land and property reimbursement for the next part of the urban transformation (LKAB 2026b).
The agreement does not only concern the monetary funds, but incorporates also the decisional scope. Constituting measures and clarifications on land, detailed plans, infrastructure and property development, the agreement “will regulate the division of responsibilities between LKAB and the municipality” until 2035 (LKAB 2026). Nonetheless, concerns from the urban planning department and the environmental and building administration flag “consequences for the municipality’s autonomy, planning responsibility and long-term opportunities to control Kiruna’s development” (Sternlund 2026b), in sharing greater decisional responsibilities with LKAB. Even though an appeal to conduct a re-referral was discussed [008], on the 24th June the deal was reached (Sternlund 2026c).

Housing Concern and its tenants
The new deformation line was accompanied by a revised compensation plan for the affected citizens. Previously citizens would choose to either obtain a monetary compensation, that would amount to the value of the home plus 25% of their home, or to relocate into a new rental home, provided by LKAB. Now, as most homes will be demolished, LKAB decided to maintain the monetary compensation while providing a new rental residence in the city centre. Derived from previous complaints regarding the housing disposition, LKAB has also said that it will pay the difference if tenants chose to move to a smaller home. Thus providing varied compensation plans for the citizens, including everyone affected by the move (LKAB 2026b)
Housing concerns in Kiruna also present a stratified complexity. Composed by topics of costs, power and time, these issues affect all three actors LKAB, the municipality, and the citizens.
Cost concerns derive directly from the land property issues previously discussed. In addition, citizens are concerned about raising taxes to maintain the new development of the city. As the municipality reassures the citizens of no increased taxes, it covers the costs through LKABs

agreement (Kiruna Kommun 2026). LKAB's own financial position, in turn, shapes its capacity to absorb these costs without transferring them back to the municipality or citizens.

LKAB therefore has a clear relation with the city, based on profits and costs. In the last two interim quarters (July-September 2025) LKAB has declared a decrease in its overall profits, caused by an on-going weakening of the US dollar, in addition to an increase in costs supporting the urban transformation. This amounts to SEK -2,423 million (actual figure in such a period. Furthermore, as previously analysed, LKAB has reached an agreement with the municipality which will result in a SEK 1.8 billion budget for the ongoing and future transformation (LKAB 2026b). In the publication of the deformation forecast (September 2025), LKAB had foreseen costs of SEK 4 billion assigned to the urban transformation, which have not yet been confirmed and will be uncovered as the transformation evolves. Nonetheless CEO Jan Moström is aware of the reliance on Kiruna, and that they "are laying the foundation" (LKAB 2026b) of their future competitiveness in investing in the city (LKAB 2026b). Costs have proven to be an underlying issue that create the basis for sustaining the relationship with the city, and pose major concerns for a state company.

Power is another underlying element that stir concerns among actors. Complexities in power hierarchies arise between LKAB and the municipality, and create disputes about what needs to be followed first, or who is in charge. This is seen especially in the development plan, or in the acquisition of land, as mentioned before. Furthermore the political background that governs any municipality showcases a variety of opinions and stances on the decisions being made (Sternlund 2026c).
The expansion of community engagement was approved by both LKAB and the municipality for the new development plan. Distributed in three encounters across autumn 2025, the municipality convened 300 residents to conduct workshops and answer questionnaires, concentrating on their views of the new city. Diverse matters came into play when reviewing the citizens' responses, varying from notions of education to ones of participation. Above all citizens feel the need for districts in the new city to be completed before the old city is completely closed down, thus compelling the municipalities future actions and agenda. They also emphasize the need for a "greater collaboration between actors" (Kiruna kommun 2026) and an increased outreach, specifically in the form of citizen influence, dialogue and participation (Kiruna kommun 2026). Highlighting an increased necessity for citizen collaborations, it is clear that they find the need for greater meaningful relationships that have an impact in the power hierarchies.

Time constitutes the most fundamental concern, as it underlies and paces nearly every other decision in Kiruna's transformation. LKAB is concerned about time. The time it requires for the new housing to be built, the time it needs for tenants to move in and the time it will take to acquire land. LKAB's CEO, clearly stated that an increase in the city's construction timeline will put a strain on the production of the mine, causing doubts regarding its profitability. As the first along the line of dominoes that create causes and effects in Kiruna, LKAB is the actor that marks the hour of Kiruna. The municipality, on the other hand, acts as a medium between the citizens and LKAB. Their concern of time jumps in between the need to provide a new town for its inhabitants, and the period in which the urban environment will appear as a construction city. The citizens are the actors that are undoubtedly concerned about time. Their approach to time is therefore a response to LKAB, but brings forth an emotional element that encompasses their experience of living in space. (Kiruna Kommun 2026)(LKAB 2026b)

If Borgogno and Pozza identified Kiruna unfit to stand on its own, without the source of the mine acting as a strict codependency, an urban cannibalism, the new deformation forecast has brought doubts in the support of such an idea. Could it survive independently from LKAB? Could the decoupling of its identity from the company reveal new possibilities and bring forth a hopeful future? And could these identities sustain the complex environment they are occurring in?
The new red line has definitely shuffled the situation and in the next chapters we will analyse how the new identities that split can nonetheless still foster controversies. Could they survive? Only time will tell.



C05
Picture from mining city park
(picture by authors).

Out of sight, out of *mine*

As the demand for key minerals is expected to grow significantly in the upcoming years, its supply chain has been a central subject of much discussion.
The European Critical Raw Material act is a regulation that aims to strengthen the EU's critical raw material capacities across all of its stages in the value chain. It identifies a list of critical and strategic materials that have been assessed as fundamental for technologies for the green and digital transition, as well as benchmarks to increase resilience, supply chain sustainability and circularity (European Commission n.d.).

Setting the scene
The context in which the CRMA [009] is introduced is twofold. The act is connected to the European Green Deal as a key legislative pillar to secure the supply of materials that are necessary for the EU's green and digital transition (Ehrmann 2026). While the Green Deal has set the goal of carbon neutrality by 2050, the transition to an economy with no-net emissions of GreenHouse Gases requires the implementation of technologies such as renewable energy, batteries, defense and electric mobility (European Commission 2020). Such sectors are highly dependent on specific minerals and metals, including the so-called Critical Raw Materials. These are of great economic value and play a fundamental role for the EU; yet they are of high risk of supply chain disruption (due to the concentration of sources and lack of substitutes) and are therefore vulnerable to geopolitical and geological uncertainties.
Only a fraction of raw materials used in the EU are actually extracted from domestic deposits. Europe consumes ¼ of the world's raw materials but produces only 3% (LKAB 2026a). In fact, for the most part, companies in Europe are heavily dependent on imports from other countries (Müller 2024), namely:

* 100% of EU's supply of rare earth elements (REE) is provided by China
* 99% of EU's supply of boron is provided by Turkey
* 71% of EU's need for platinum and platinum groups is provided by South Africa (European Commission 2024c)

009
Critical Raw Material Act.

From the data, it is noticeable how there is one country that is dominating and that has established itself at the centre of the critical raw

materials supply chain. Since the 1990s, the Chinese leadership has been pursuing an active industrial policy, but it is also through the Belt and Road Initiative (BRI) that this position has been further secured. The BRI involves mainly investments, along the old silk route, on infrastructure projects (such as roads and rail networks), accompanied by trade and transportation agreements. Although some of the CRM are extracted in China, many are actually not. They take a detour via the country that has secured itself a central role along the supply chain as a global location for processing and refining of these materials, in order to make them usable for industrial production (Pinheiro de Matos 2026) (STRADE Project 2018, 7).

The Russian invasion of Ukraine and the following energy crisis for oil and gas, as Russia cut 80 billion cubic metres (bcm) of pipeline gas supplies to Europe (International Energy Agency 2026), has made the European Union profoundly aware of its exposure to geopolitical risks in key supply chains.

Although the dependence on imported critical raw materials is very different compared to EU's reliance on fossil fuels from Russia (namely in terms of quantity, as fossil fuels are employed throughout the economy, whereas CRM are used in small quantities as ingredients in specific manufacturing processes), the risk that would be faced, in Europe's attempt to decarbonise the economy, would be replacing the previous dependency on fossil fuels with another one (Poitiers and Le Mouel 2023, 1-4).

The Act

This is the starting point of the CRMA, which was firstly introduced by the President of the European Commission, Ursula von der Leyen, during her 2022 State of the Union [010] speech, as a call to address EU dependency on critical raw materials and underlining the importance of securing a domestic and sustainable supply chain (by strengthening extraction, processing and recycling within the EU and diversifying imports of raw materials) to ensure EU's autonomy and sovereignty (Von der Leyen 2022).

The Critical Raw Material Act entered into force in May 2024. It is a regulation that aims at ensuring that the EU has access to a secure and sustainable supply of raw materials and at lowering EU's dependence on imports from single country suppliers (European Commission n.d.).

The regulation focuses on the most relevant raw materials and it therefore lists a set of critical and strategic raw materials (34 and 17 respectively), that have been identified as crucial for technologies for the green and digital transition. These lists also serve as guidelines to coordinate the Member State's efforts in a successful realisation of the goal of the act (European Union 2024, 2).

The list of strategic raw materials contains those materials which are identified with a high strategic importance for the correct functioning of the internal market, as well as key "ingredients" in the green and digital transition, and that can be characterised by a discrepancy between global supply and projected demand.

On the other hand,the list of critical raw materials includes, in addition to the strategic ones, any other raw material which is of high importance in the Union's economy and for which there could be a risk of supply disruption (European Union 2024, 20-21).

CMR are confronted with a growing global demand that is driven by the process of decarbonisation of economies. In fact, for example, the European demand for rare earth metals is expected to grow six-fold by 2030 and seven-fold by 2050 and for lithium, for instance, the demand will increase twelve-folds by 2030 and twenty-one-fold by 2050.

Without a coordinated and immediate response, a well-functioning single market, resiliency and competitiveness, industries across Europe and EU efforts to meet its climate objectives are therefore at risk.

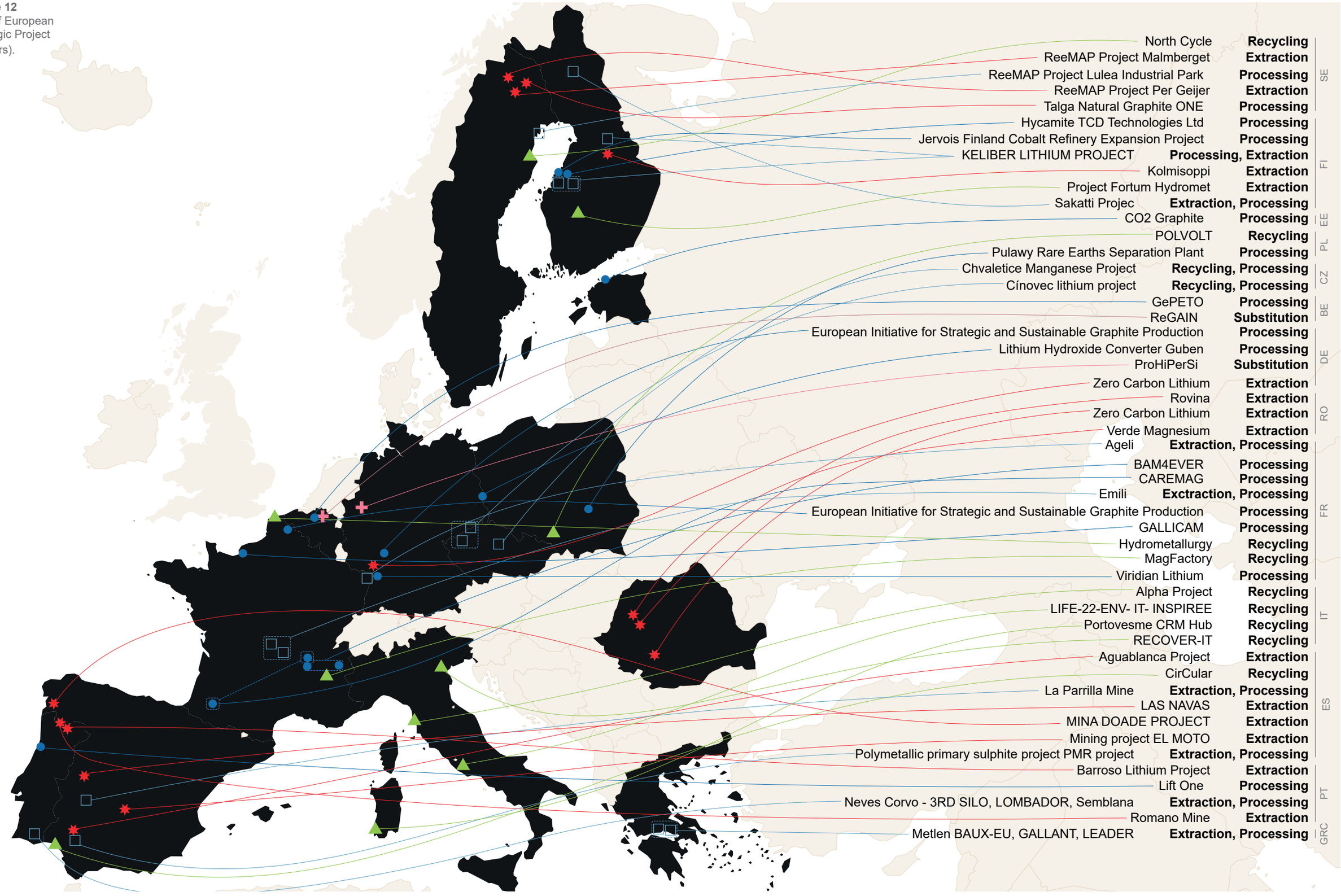
The solution to this, has been identified in the creation of this act, which should ensure that the EU can rely on a strong, resilient and sustainable value chain.

The following are key pillars of the act:

* "setting priorities for action", which refers to the development of not only a list of critical raw materials. but also a list of strategic ones, which have been recognized as the most crucial for technologies used in green, digital, defense and aerospace applications
* "setting benchmarks by 2030 for domestic capacities" along the strategic raw materials value chain and to diversify EU's supplies. The targets are the following:
  10% of the EU's annual consumption should be extracted in EU
  40% of EU's annual consumption should be processed in EU
  25% of EU's annual consumption should be recycled in EU
  65% of the EU's annual consumption of each strategic raw material should come from a single country outside the EU.
* "supply risk preparedness and mitigation", which aims at ensuring supply chain resilience. This can be achieved by monitoring and stress-testing critical raw material supply chain, coordinating strategic stocks and setting risk preparedness obligation on large companies producing strategic technologies
* "improving sustainability and circularity in the EU market", by incentivizing large-scale recycling. Each European country takes measures to improve the collection of critical raw materials-rich waste and ensures its recycling into secondary critical raw materials.
* "diversifying the Union's imports of raw materials", which underlines how international trade is fundamental to support global productions and ensuring the diversification of supply.
* "creating a secure and resilient supply chain" , which entails simplifying permitting procedures for critical raw material projects in Europe. In order to do this, critical and strategic projects can engage with a single point of contact in each EU country, which is responsible for the coordination of permitting procedures (European Commission 2024e).

010
Annual address delivered by the President of the European Commission to the European Parliament, which outlines the achievements and the strategic priorities for the upcoming years.

Figure 12
Map of European Strategic Project (authors).



S for “Strategy”

A “strategic project” is a key initiative that has been recognized as fundamental to achieve the benchmarks set out by the CRMA (Initiative for Responsible Mining Assurance 2026). According to the act, each member state had to create a national exploration program for critical raw materials.

Although the “strategic” is only a status that is assigned to a project, and therefore doesn’t constitute a permit, it will achieve a range of benefits, including fast track approval procedures, streamlining their application process and facilitating access to public or private financing.

To obtain the status, project promoters had to submit an application to the European Commission, demonstrating compliance with the following criteria:

* Contribution to the security of supply of strategic raw materials
* technical feasibility of the project within reasonable timeframe
* ESG (environmental, social and governance), to assess the “sustainable” implementation of the project, with plan to engage with local communities and Indigenous People, prevent and minimise adverse impacts upon human rights and Indigenous Peoples, create jobs, and employ best business practices to inhibit corruption and bribery
* Cross-border benefits of the project/production beyond the member state that is concerned.

The application period for strategic status began in May 2024, when 170 applications were submitted, spanning across the whole value chain (77 on extraction, 58 on processing, 30 on recycling and 5 on substitution) (European Environmental Bureau 2024, 12-22)

Almost one year later, in March 2025, the European Commission officially announced strategic projects, within the EU, under the CRMA (European Commission 2025). These are 47 in total (see Figure 12), spanning across 13 different countries and engaging in extractive, processing, recycling and substitution of raw materials procedures (International Energy Agency 2025), covering 14 out of the 17 strategic raw materials identified by the act. A month later, in June 2025, the Commission announced the list of the selected strategic projects located outside the EU, 13 in total, to not only diversify the Union’s supply sources but also to stimulate local value creation in third countries (Rota 2025).

Permitting Procedures

As mentioned above, the term “strategic” entitles a project of a status and not an actual permit. Nonetheless, projects with this grant are allowed a “fast lane”, especially when it comes to approval procedures.

In the context of Sweden, and especially the Norrbotten region, which is recognized as the EU’s leading mining nation in terms of extraction of primary metals and minerals, four initiatives have been granted the strategic project status (three of which are promoted by LKAB).

In Sweden, the traditional permitting procedure to convert a mineral deposit into mining activity can be summarized into a multi-step examination, which is based on three main regulations that are applied parallelly: the Minerals Acts [011], the Environmental Code [012] and the Planning and Building Act.

Exploration and exploitation of concession of minerals is regulated by the Minerals Act and its application is handled by the Mining Inspectorate. The exploration permit allows an investigation to ascertain the presence of valuable minerals that can be worth mining.

If the investigation is successful and the deposit can be utilized economically, an exploitation concession is required, which grants the right to extract minerals.

As mining is considered an environmentally hazardous activity, according to the Environmental Code, an environmental impact assessment is also required. The purpose of this environmental review is to determine which conditions must be met (in terms of impact and effects in relation to human health and the environment) for the mining activity to be conducted (Löf and Ericsson 2023).

This assessment, which has to be attached to the permit’s application, should describe the direct and indirect environmental consequences of the operation.

Lastly, since the mining activity implies that buildings and facilities need to be constructed, building permits (which are granted by the local municipal building committee) are required (Ekbäck, Persson, and Liedholm Johnson 2024) .

According to statistics from the Mining Inspectorate from 2018, the average length to obtain an extraction permit is 32 months, whereas the process to obtain an environmental permit, according to the Environmental code, takes approximately 3 to 6 years (European Commission 2019, 2). Under the CRMA, these timeframes will significantly accelerate. Member States should ensure that the permit-granting process does not exceed 15 months for projects involving processing and recycling, and 27 months for projects involving extraction, given the complexity and potential impacts involved, whereas currently the authorisation can take between five to ten years in total. For what concerns the requirement of an environmental impact assessment, it is the duty of the project promoter to prepare the report and submit it.

Norrbotten as strategic region

As mentioned above, in the Norrbotten region, in northern Sweden, 4 projects have been identified as “strategic”. They are, respectively, ReeMAP (Malmberget, Lulea, Per Geijer) and Talga Natural Graphite ONE.

The Talga Graphite ONE Project is an extraction project that aims to establish the first integrated battery anode supply chain in Europe,

011
The goal of the act is to achieve efficient and effective exploration and extraction in order to meet society’s needs for minerals.

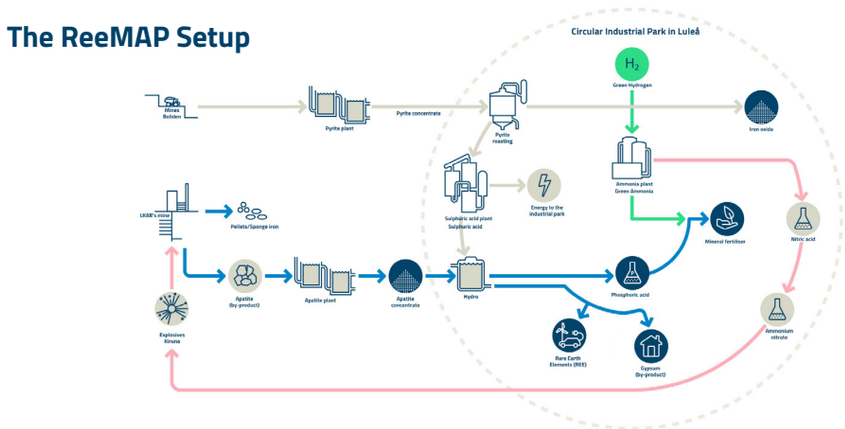
012
The goal of the environmental Code is to promote sustainable development but primarily to protect the environment and human health against damage and inconvenience.

based on the Vittangi graphite deposit in northern Sweden. According to the European Commission, the project will help the EU address its dependencies by establishing a secure supply chain of graphite concentrate, by meeting 2% of the demand for battery grade natural graphite in the EU by 2030. (European Commission 2025, 57)
ReeMAP is an integrated extraction and processing project promoted by LKAB, that aims at recovering critical and strategic raw materials as by-products from the iron ore production, as part of its ambition to achieve zero carbon dioxide emissions from all processes and products produced at their sites by 2045. The project spans across three locations that are, respectively, Malmberget, Lulea and Kiruna. (European Commission 2025, 51)
In Malmberget, the project plans to create a new industry for critical raw materials based on the already established iron ore mine. New processes will allow the simultaneous extraction of phosphorus and rare-earth elements from materials that are already being mined. At the moment, 1.9 billion tons of mineral assets have been identified in the area, which suggests that operations could continue for a long period of time (LKAB 2026a).
In Luleå, the project envisions the establishment of a hub for the refining and extraction of CRM through “innovative circular and fossil-free processes”. Apatite concentrate, that will be extracted in Kiruna and Gällivare/Malmberget, will be hauled by rail to the industrial park in Luleå. Here, in the hub, it will be processed in order to separate phosphorus, rare-earth elements, fluorine and gypsum as a by-product.
In 2024 the construction of a demonstration facility began, the first in Europe, which will allow the development of the technology that is needed for the processing of these elements (LKAB 2022).
In Kiruna, *“We have found more mineral resources at all our mine sites – Kiruna, Svappavaara and Malmberget in Gällivare. And there is more ore at greater depths. Not only that, but the Per Geijer deposit north of Kiruna is significant and contains more than just iron ore. In 2023 we reported volumes and concentrations of rare earth elements for the first time. As you might know, these elements are needed for our mobile phones, electric cars and wind turbines. For the green transformation of the industry and society. And, as a bonus, they are present together with the iron ore”,* says Anders Lindberg, Group Media Relations Manager LKAB (Lindberg 2024).

Although being primarily an iron ore deposit with high levels of phosphorus content (seven times higher than the Kirunavaara ore that it is mined today and other mining sites owned by LKAB), Per Geijer is also one of Europe’s largest rare earth metals deposits, as approximately 2.2 million tonnes of REE oxides have been found in the area (according to the PERC report of 2025). Investigations in this deposit are still at an early stage, although the expected permit approval should take approximately two years instead of the ten/fifteen standard procedure, given the fastening of approval of permits (LKAB 2026a). According to the *“REEMap Setup”*, the three projects are going

to work simultaneously. The process starts with the raw materials and its byproducts (INPUTS) obtained from the two main mining operations, that are from Boliden Mines (which produces material that goes into a Pyrate plant to produce Pyrate concentrate) and LKAB’s Mine (which produces primarily iron ore in pellets or sponge iron, but generates Apatite as a byproduct as well, which goes into an Apatite plant to create Apatite concentrate).
Once both concentrates enter the Luleå industrial park, they both undergo a series of interconnected chemical processes, which break them down into “raw ingredients”.
The Pyrate concentrate undergoes a baking process (pyrite roasting), from which two outputs are obtained: on one side iron oxide and on the other the fumes are turned into Sulphuric acid (in a sulphuric acid plant). This process generates heat, which is turned into electricity to power the plant.
The Apatite concentrate, on the other hand, is mixed with the created sulphuric acid, which breaks it down, creating: REE, gypsum and phosphoric acid.
Lastly, the phosphoric acid is combined with “green” ammonia (as it is created with renewable energy, green hydrogen). From the combination of the two, mineral fertilizer is obtained, which is used to grow food without the massive carbon footprint. Some of the remaining Ammonia is used to create Ammonium Nitrate, which is sent back to the starting point (in this case the Kiruna mine), to be used as blasting explosives (Jonsén 2023, slide 3)
According to the European Commission, the ReeMAP project is beneficial thanks to the production of materials that are essential for strategic technologies. Therefore it helps to reduce vulnerabilities to external supply disruptions and EU’s reliance on imports of rare earth elements from 3rd countries (European Commission 2025, 51). Moreover, instead of disposing mining tailings into waste dams, the ReeMAP setup acts as a “closed loop” system, turning environmental liabilities (pyrite and apatite concentrate) into resources like fertilizers, clean-tech minerals and industrial chemicals. If Per Geijer is able to reach full production in the upcoming decades, it could cover around 18% of Europe’s rare earth demand, according to LKAB.

Figure 13
The ReeMAP Setup, (LKAB).



Strategic projects for whom?

While the 17 metallic elements known as REE are not actually rare, but widely distributed throughout the Earth's crust, they aren't usually concentrated in deposits, making their refinement and separation processes complex. The findings at Per Geijier, from a political and geopolitical perspective, represent a huge step. Not only because "Lithium and rare earths are already replacing gas and oil at the heart of our economy" as stated by Ursula Von der Leyen during the 2022 State of the Union's Speech, underlining the political and economical role of REE in Europe (Von der Leyen 2022); but, as mentioned above, they also contribute to European economic stability, towards independence (Sellheim 2023) (from China.)

But how much could Per Geijer *actually* change?

For starters, Per Geijer is a deposit and not a producing mine, so a place where minerals are concentrated in abundance rather than the average crust (Perkins et al. 2023), and not an established mining operation actively extracting raw materials for immediate sale (Hiltz n.d.). As we can see from a timeline published by LKAB, exploration tunnels are still being driven and technical studies are being run. Even if the deposit could eventually supply, in the future, 18% of Europe's REE needs, China would still remain the central player in mining and processing.

Although the strategic label can fasten paperwork, it doesn't erase the fact that mining leaves a heavy footprint on the land and on communities and, when it comes to the city of Kiruna and its inhabitants, the green transition is translated into construction dust, new building units and longer commutes (Villellas 2026). While the project supporters underline new job opportunities (ca 500 positions, according to LKAB), tax revenues and climate benefits that could come from securing rare earths inside Europe, the promise of independence from China puts the Indigenous population in a complex situation, given that all of the strategic projects in Northern Sweden (Talga Graphite and ReeMap) are located on Sámi ancestral land, Sápmi [013]. The approval of these projects threatens not only the environment and the Sámi culture and way of life, but it also undermines the rights of Sámi people, prioritizing resource extraction over their fundamental right to free, prior and informed consent (Sámiráđđi, n.d.).

Green Transition or Green Colonialism?

"Green Transition or Green Colonialism" is the title of an issue, written by Christina Allard, which focuses on the re-industrialization process currently taking place in Sápmi. Colonialism can be defined as a form of domination over a territory and/or behavior of other individuals and groups, and usually tied to an (historical) influx of permanent settlers connected to the colonizing state or power. By adding the term "green", we are including "critical perspectives regarding policies that, under the guise of development, involve promoting and expanding practices like resource extraction and infrastructural development that implicitly rely on increased energy consumption" (Allard 2025, 8-12).

As previously stated, the green transition has been the objective, since 2019, with the implementation of the Green Deal, that has been pursued by Europe. The Nordic countries are considered to have a lead position in the green transformation (Sandström 2024, 126–138), but new industries and their infrastructure require land, used by the Indigenous Sámi people for reindeer herding.

In Sweden, reindeer herding is regulated by the concept of samebyar (Sámi villages), which follow the migratory routes of the animals but also constitute the administrative boundaries in which reindeer herders conduct husbandry (Sellheim 2023).

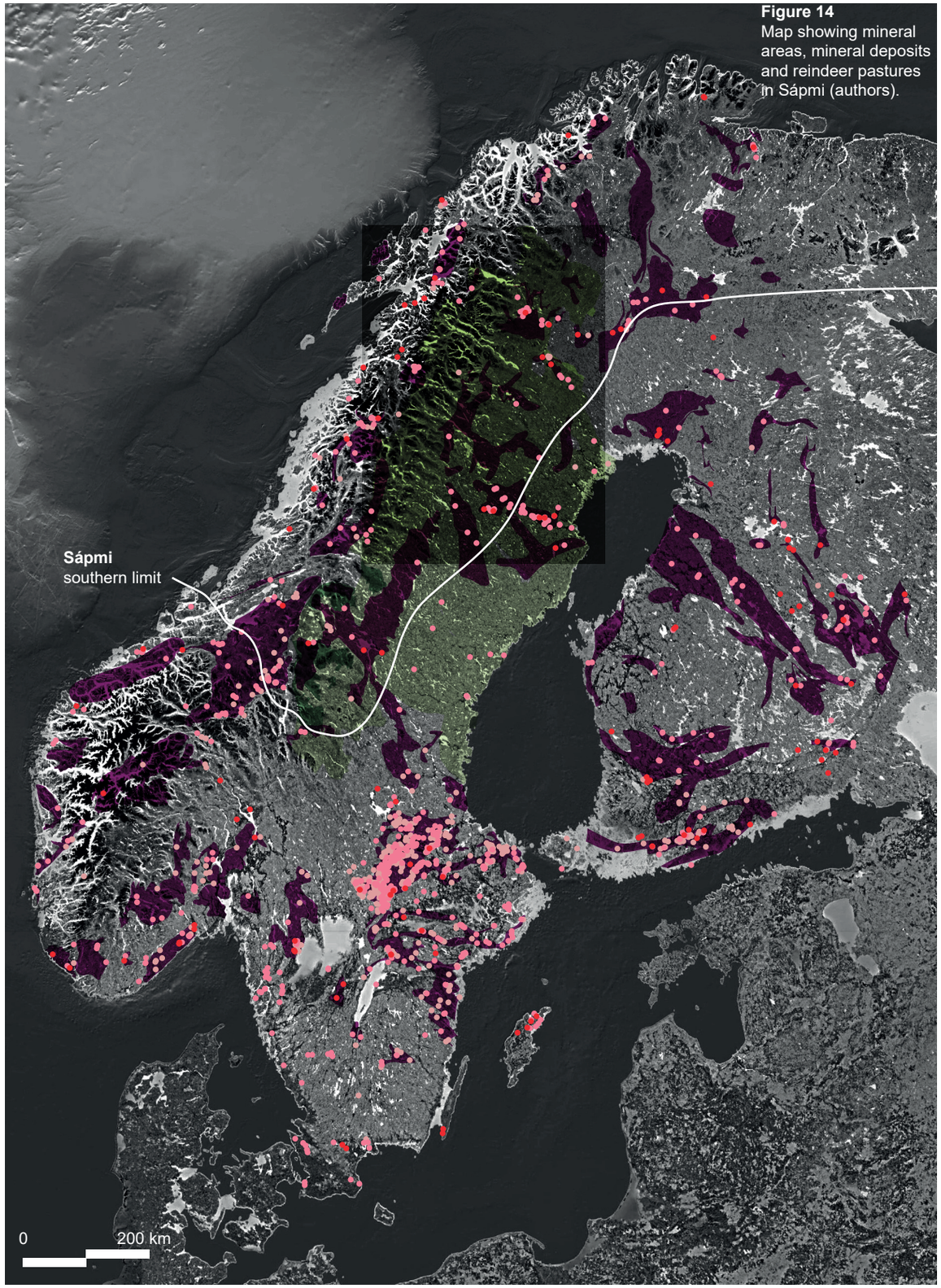
A study from 2022 has demonstrated how, in Northern Sweden, Norway and Finland, 60% of the land conceived for reindeer grazing was affected by multiple land use pressures; including land-based industrial facilities (like wind power and mines), intensive forestry, infrastructure, outdoor tourism and temperature change (Stoessel, Moen, and Lindborg 2022). As a result, these pressures are fragmenting the landscape, complicating the access to grazing areas. Herders are therefore forced to use trucks to move their herd between pastures, threatening traditional practices.

When it comes to Kiruna, the urban development and the mine have already taken up a significant part of the land. In this context, the Per Geijer deposit would decrease this corridor even more (see Figure 14 and Figure 15), complicating reindeer migration and dividing Gabna Sámi village into two parts (Sellheim 2023).

All of this could be summarised in the "paradox of green colonialism". Aili Keskitalo, the former President of the Sámi Parliament of Norway, explained that Sami lands are needed for the "green" industries and energy production, and that the Sami are expected to give up the traditional livelihoods to save the world, "A "green shift" is needed, but it must be just and fair, and it cannot be based on colonialist practices. We demand that Indigenous Peoples' rights are respected when combatting and adapting to climate change" (Saami Conference 2022). "Green" projects, in a way, represent a threat as they could risk reinforcing already existing power imbalances and could result in a further displacement and marginalisation of Sámi communities. It is therefore crucial to acquire more knowledge and understanding of the land use challenges across the Sápmi region, which, along its resources, has been sustainably managed by Sami Communities for generations (Allard 2025, 8-12).

013
Sámi name for the traditional Sami homeland region and it comprises northern areas of Norway, Sweden, Finland and the Russian Kola Peninsula.

Figure 14
Map showing mineral areas, mineral deposits and reindeer pastures in Sápmi (authors).



Winter pastures
Summer pastures
Resting areas
Active mines
Closed mines
Historic mines

Figure 15
Map showing active mines, historic mines and reindeer migration corridor (authors).



Mine impact area
Sámi village boundary
Resting areas
Dangerous passage



C06
Giron Future (Kären-Ann Hurri).

Capital of Culture

European Capital of Culture (ECoC), 40 years counting
Since 1985, the European Union has awarded the European Capital of Culture (ECoC) title to one or two cities in varying member states of the European Union. On December 6 2024, Kiruna won this representation and, along with Lublin, will represent the Capital of Culture in 2029.

Originating from Greece's Ministry of Culture, Melina Mercouri, the capital of culture title is now seen as a prestigious award, aimed at improving its host cities under numerous accounts. With 83 cities selected, in the last 40 years (García 2025), the title has undergone a variety of changes in order to fit to the changing needs in time of the European Union. Initially proposed as the 'European City of Culture', Mercuri's premise was to increase the interaction among Europeans while enriching the cultural content of the European project, shifting it from its previous utilitarian economic purpose. Therefore, in the first period, between 1985 until 1996, the programme was run as an intergovernmental panel and cities had two years to develop their cultural offer and gather fundings. The 12 cities chosen were thus selected without the use of external experts or formal assessments. Here, cities such as Glasgow (1990), Antwerp (1993) and Copenhagen (1996) were recognized for their innovative approaches and ability to take the programme forward (García and Tasmin 2013). Glasgow (1990) particularly became a model ECoC city, which intrinsically linked the idea of urban regeneration with the concept of (re)marketing the city by utilizing the ECoC title, to do so (West 2025, 3).

The second phase developed between 1997 and 2004 and is characterized by the arrival of the new millennium and the biggest enlargement of the European Union, which in 2004 became composed of 25 states (European Commission n.d.). In 1998 criteria selection and bidding deadlines were established, thus raising the ambition of the award. Due to its growing success, in 1999 the European Commission developed it in a community action. These measures have allowed the process to become more transparent while increasing European centrality and support the development of dedicated EU fundings. In 2004 these principles were enhanced with the reform. While maintaining the rotation system introduced in 1999, from 2004 on two cities in different countries were chosen to hold the title. The last phase, from 2005 to 2019, extensively bestowed the title to 29 cities in 29 countries and saw little variations in the process. A variation in the evaluation criteria and a strengthening of the appraisal process are the elements that characterize the time period. The latest impacting change occurred in 2017, whereby the commission decided to open the

competition to EFTA [014]/EEA [015], and candidate countries or potential candidate countries of the European Union [016], through an amendment decided upon by the European Parliament and all member states (the Council) (Garcia & Tamsin 2013, 37-47) (European Commission 2017, 4). Their participation showcases the importance that the recognition as 'European Capital of Culture' holds. Even though changes have been applied, becoming an European Capital of Culture still holds strong responsibilities in both management and application of culture, as we will see.

In 2022 the rotation elected Sweden and Poland to present a capital of culture, and in December 2023 their applications were published. Since then Kiruna has worked with municipal officials, politicians, associations, cultural practitioners, businesses, and the Norrbotten region, to earn the award (Kiruna Lappland 2024). In the winter of 2024, Kiruna was awarded the representation, surpassing the proposal from Uppsala, and becoming "European Capital of Culture 2029", along with Lublin, for Poland. (Kiruna Lappland 2024)

Kiruna's Movements, towards a winning concept

The process that a capital of culture has to undergo begins 6 years before the year-off (European Commission 2017). Kiruna began this process by submitting a formally written intention to participate in the bidding for capital of culture in the early December of 2023 (Swedish Arts Council (Kulturrådet) 2022). One month after, the cities that submitted such formal confirmation, had to submit their first bidding book, thus undergoing the first selection phase, with the attempt to be shortlisted for the capital of culture. In this initial phase the cities that had shown interest to participate were: Borås, Malmö, Lund, Uppsala and Kiruna (Paternoster 2023). Out of these, only two submitted the bid-books: Uppsala and Kiruna. Kiruna presented their theme of Movement (European Commission 2024b). In its notion they intended "movement as a social collectiveness" (Municipality of Kiruna 2023, 8), describing the strong imprint the Kirunaavara iron ore mine has on the citizens, while intending to "replicate the multi-dimensional nature" (European Commission 2024b, 7) of the city. A specific emphasis highlighted their forced necessity to move to a new city center three kilometers to the east of the existing one. Their concept of mobility highlights how movement occurs in the ground, on the surface and into space, emotionally highlighting the care with which this is done. On the other hand, Uppsala proposed the theme "Between the Lines", affirming its position in the path to sustainability. The city envisions the European capital of culture as a "catalyst to set things in motion and contribute to the change needed" (European Commission 2024b, 14), in both their way of becoming a global leader in environmental and climate transition, and in inclusivity and diversity, focusing on improving people's lives (European Commission 2024b).

014
EFTA: European Free Trade Association (European Commision).

015
EEA: Agreement on the European Economic Area (European Free Trade Association).

016
Potential candidates for the European Union: Albania, Bosnia and Herzegovina, Former Yugoslav Republic of Macedonia, Iceland, Montenegro and Norway (European External Action Service, 2017).

017
In the pre-selection report conducted between the 20-21st of February 2024, one panel member was excused from attending due to professional reasons, therefore the panel was composed of 11 members (European Commission 2024c, 5).

018
The bodies of the European Union represent; the European Parliament, the Council, the Commission and the Committee of the Regions.

In the following month the commission met on the 20th and 21st February, of 2024, in Stockholm to officialize the initial pre-selection phase (European Commission 2024b). Evaluated by a panel of 12 experts [017], 10 of which chosen by the European Union institutions and bodies [018] and 2 chosen by the ministry, both cities presented their bid-books and were subjected to questions by the commission (European Commission 2024f)(European Commission 2024b). The reports that derived from such gathering, evaluated the candidates under a set of six criterias; contribution to the long-term strategy, cultural and artistic content, european dimension, outreach, management and capacity to deliver (European Commission 2017, 13-25). In the case of Sweden, both cities were chosen to advance to the final selection stage, with a submission of the final bid-book by the beginning of November 2024 (European Commission 2024b). Ordinarily the pre-selection phase is followed by a selection phase which narrows down the final candidates (European Commission 2017). Poland underwent this procedure. In the pre-selection phase 12 cities presented their bidding, while in the final selection only 4 advanced to the following stage (European Commission 2024a).

The reports of the pre-selection stage presented a series of concerns and recommendations both for Kiruna and Uppsala. Even though the panel noted Kiruna's strong legacy plan and a clear artistic vision, their main concerns were concentrated on the cultural programme and its implementation. Noting the programmes' lack of "strong, obvious linkages" (European Commission 2024b, 9) in various areas of the bidding, the commission recommended the city to further integrate digital scopes and to actively involve the local artists in the process, therefore aiming to increase their European dimension while also improving the accessibility and impact of the programme at the European level. As previously noted, the European aspect appeared "conceptual rather than tangible" (European Commission 2024b, 10). Defined as merely conceptual, Kiruna's bid does not tangibly represent the European dimensions. But how can a criteria that by nature is conceptual be measured tangibly? Is it identified by each varying commission? Do they have an objective list, or is it purely subjective? Therefore, it is natural to raise uncertainties on what this European dimension truly means, and who defines it?

Conversely, issues concerning the managerial criteria were focused in areas of marketing, budgets and directive operations. The marketing lacked a clear focus on how to attract both national and international interest and there was an uneven budget distribution. Marketing expenses accounted for 7% of the total expenses and administration costs accounted for 25%. Furthermore, the unclear hierarchical division of decision making and responsibility concerned the commission, and urged the municipality to create a "clear governance structure" (European Commission 2024b, 12). As stated in the bidbook preparation guide, it has to have "clear mandate and mission statement given

from the city administration" (European Commission 2017, 25) for effective outcomes. Therefore, in addition to having a clearer directive distribution, Kiruna's municipality had to also provide a more balanced and revised operating budget, and a refined marketing approach for their final bid (European Commission 2024b).

Uppsala, similarly, had shortcomings both in the cultural identity and planning, as well as in the managerial sector. Focusing mainly on the inclusivity and diversity of an integrated community, Uppsala's theme (Between the Lines) focused on placing "mobility issues at its forefront" (European Commission 2024b, 14). Nonetheless, the panel noted the need to ground this "concept in a more artistic and identity-oriented approach" (European Commission 2024b, 14), to appropriately communicate the city' s artistic vision, giving it a stronger sense of uniqueness. Furthermore, as remarked in Kiruna's bid, a further integration of digital strategies were required to enhance the European dimension and enrich the cultural programme, which was noted to "lack of originality in event planning." (European Commission 2024c, 16). Also, similarly to Kiruna, an improved and cleared governance structure, as well as a directive operations plan, had to be detailed in the next stage. As the ECoC management was going to be integrated in the existing governance structure of Uppsala, a comprehensive overview of this process was necessary to ensure an "efficient execution and long-term viability" (European Commission 2024b, 20). On the other hand, Uppsala had a well balanced budget distribution, with only concerns regarding primarily the need to increase marketing and communication expenses [019], as well as increasing its overall budget size, to better accommodate the size and capacity of the city (European Commission 2024b, 20). Overall, through the European's commission review, both bids presented some concerns in various areas of the brief.

Following the November submission, the panel committee reviewed the candidates' improved proposals and undertook site visits from the 2nd to the 4th of December (2024) in both Uppsala and Kiruna. On the following days, 5th-6th December, the candidate cities were called upon to present their bidbooks and at its conclusion the commission presented the ECoC for 2029. Proposing the revised theme, Movement - Below Ground. On Earth. In Space, Kiruna was selected for ECoC. Moving the focus from the impact of the mine, the novel theme centralizes the community with its citizens and their everyday experiences. It connects the cultural and historical transformation to the surrounding nature, without forgetting about the traditions of the indigenous people who have always lived in Kiruna (Municipality of Kiruna 2024). Structured in three layers, the proposal aims to unpack the "concept from different thematic angles" revealing "layer after layer of how it wraps around Kiruna" (Municipality of Kiruna 2024, 4). In a time parallel they describe the movement below ground as the past, connecting it with their roots and history, the present is interpreted as "on earth", while the future is "in space" both physically and metaphorically in the citizens' hopes and dreams (Municipality of Kiruna 2024, 4). Translated from the concept, the artistic programme is divided in three macro areas; Seeds of knowledge, Art of transition and Endless Horizon, that follow the same time temporaneum of the concept itself. Seeds of knowledge, references the past, and its "being in touch with the collective wisdom and knowledge that has been shared in Kiruna" (Municipality of Kiruna 2024, 4). Art of transition, is about the movement on earth and the city's "transition from one state to another"(Municipality of Kiruna 2024, 4), therefore alluding to the present. The future is represented by the Endless Horizon of possibilities going forward in space and time. Using "a mix of contrasting elements" (Municipality of Kiruna 2024, 19), 21 were projects devised and allocated in the macro areas. Catering to a variety of users, the projects spanned from big theatrical events(e.g. Human Machine and Kultura Kiruna) to more intimate occurings (e.g. Culture Knocks on Your Door, Natural Gathering) (Municipality of Kiruna 2024). This diversified the cultural programme and was positively seen by the commission, highlighting "the potential of culture to act as a unifying force for the municipality's diverse population" (European Commission 2025b, 10). In this multitude of realities present in Kiruna, the convergence of ideas naturally causes controversies. How can each actor be taken in consideration equally? Who will benefit and who will pay for the actions of the choices being made?

Presented in the final bid, a reviewed and elaborated budget was displayed. As foreseen in the preselection the budget increased by € 6.8 million, bringing it to € 21.8 million euros. Starting from 2027, the national government will contribute €9.68 million euros, accounting for 54% of the budget out of the 82% covered by public administration. The city and the region will bestow € 3.5 [020] and € 3.4 [021] million euros, respectively. An increased participation to the monetary expenditure is seen from the preselection, showcasing a "strong commitment from these two levels of territorial governance"(European Commission 2025b, 14). Thus, rebalancing the budget over varying territorial entities. Figure 16 showcases the timeline of income with its varying sources, including a private fundraising plan. Aiming to cover € 3.96 million euros, Kiruna concentrates its approach in two main strategies, for private fundraising. Applying for European funds, and demonstrating to local artists the procedures and possibilities of these funds, is the first method. Here examples such as the European Culture Strand and Horizon Europe are presented for Behind the Gates, Making it Visual, Sounding Urban Place, or Boreal Crown, projects. The second regards the sponsors and their contribution. LKAB, Viscaria and Sparbanken Nord are important key players that have previously collaborated with the municipality and will continue to do so for the ECoC. Other sponsors include national companies such as Volvo, Vattenfall, Spotify, SJ, SAS and IKEA, as well as local organizations such as Kiruna Växer, Kiruna Lappland and Företagarna (Municipality of Kiruna 2024). Incorporating varying streams of income for the budgets, foresees a variety of financial risks, and mitigates its effects. Nonetheless as most

019
Budget allocation of first bid: 65% of the budget allocated to the programme, but only 15% for communication and marketing, and 20% for wages, overheads and administration. (European Commission 2024c).

020
City contribution in preselection bid: € 1.8 million (Municipality of Kiruna 2023).

021
Region contribution in preselection bid: € 1.35 million(Municipality of Kiruna 2023).

of the public administrative budgets have been confirmed in 2025, and will begin in 2026/2027 securing other sponsorships is necessary (European Commission 2025b).

Source of income	2025	2026	2027	2028	2029	Total	In %
EU		88 000 €	88 000 €	440 000 €	704 000 €	1 320 000 €	6%
National Government			1 584 000 €	2 200 000 €	5 896 000 €	9 680 000 €	43%
City	484 000 €	730 400 €	657 400 €	690 800 €	941 600 €	3 504 200 €	16%
Region	180 400 €	356 400 €	822 800 €	965 800 €	1 083 700 €	3 409 100 €	15%
Sponsors	264 000 €	440 000 €	440 000 €	1 320 000 €	1 496 000 €	3 960 000 €	18%
Other (tickets)		26 400 €	44 000 €	88 000 €	264 000 €	422 400 €	2%
Total						22 295 700 €	100,0%

Figure 16
Timetable for income of operating budget over the period 2025-2029 (Kiruna kommun).

Monetary concerns always ring alarms in each administrative department. Reminiscing Kirunas' situation, brings afloat the near bankruptcy that could have caused strains on the city, its services and its citizens. The growing costs for the relocation, even if partially covered by LKAB, do not relieve the municipality. The Swedish state declares that a municipality can not go bankrupt (Kommuninvest n.d.). At the same time they can request for monetary support solely for municipal investments. Could the ECoC bring a new form of income for the city? and will the support from the Swedish state truly relieve some of the monetary costs of the city, even after the ECoC is complete?

Kiruna's administrative organization for ECoC also underwent changes from the preselection bid. The ECoC organization will be a separate body from within the municipal administrative office, composed of both current municipal staff and new professionals recruited for the part-time project. Directed by the General Director Mieke Renders (Render 2026), the management is divided into 5 areas each run by a leading manager; communication manager, cultural manager, artistic director, city transformation manager and economy manager. Each manager will have three or two people appointed, as shown in Figure 17, thus reaching a team of 18 individuals at its full capacity. In its role the managing director acts as the link between the political structure and the ECoC City Board reporting to them and ensuring a communication that allows an appropriate distance between the two political structures. Furthermore, all decisions regarding budget and organization as well as other operational levels are under his responsibility (Municipality of Kiruna 2024). The ECoC City Board will constitute "representatives from both the majority and opposition parties", including "indigenous and minority culture representation"(Municipality of Kiruna 2024, 80), and has been put in place in 2025. Considering the national and local elections Sweden will face in 2026, the board has the role to ensure political stability and contingency throughout the ECoC timeframe, as well as monitoring the project, and acting as an advisory group. Aiming to carry on the legacy of ECoC, the board, along with the team, will be maintained collectively until 2030, as illustrated in Figure 17, showcasing staff hiring starting from 2025 (Municipality of Kiruna 2024). Thus ensuring an independent political and organizational structure

within the municipality, and ensuring effective collaboration between the two administrative bodies (European Commission 2025b, 13).

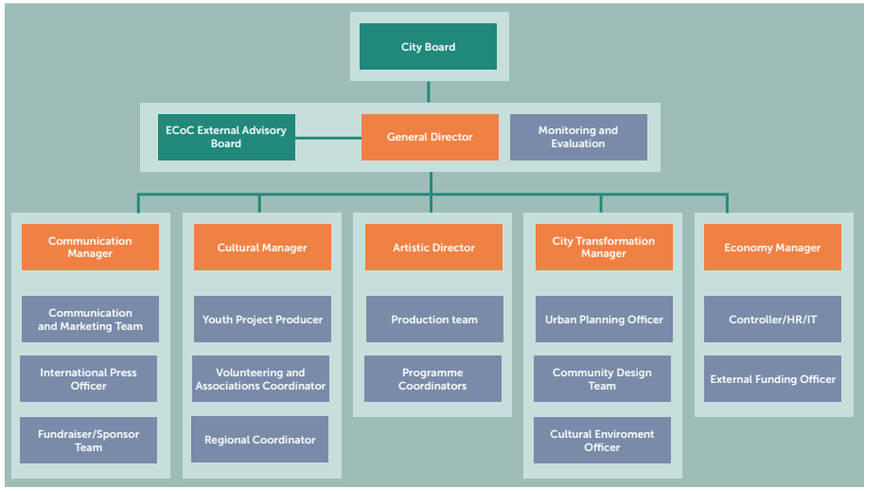


Figure 17
Hierarchical management disposition for Kiruna Capital of Culture 2029 (Kiruna kommun).

In the beginning of January 2025 the commission published a report, further confirming Kiruna's appointment, and reviewing both biddings. The report accounted for the improvements made from the previous bidding, while suggesting new implementations that the city will need to apply. With the cultural programme being approved, the artistic programme needed to be reinforced "to address with courage and creativity the controversial issues that resonate in Kiruna and in Europe"(European Commission 2025a, 17), further integrating the city in its European dimension.
Kiruna in between the two bids has continuously been improving this aspect by contacting current ECoCs, while also collaborating strongly with Lublin. So in what way could they increase their "Europeness"? The guides to the bidding don't specifically state a way to do this. They have attempted to improve this criteria but how could they further relate to other European cities? The complexity and uniqueness of their location poses challenges in fitting in the standard of a European city? Here, again we might ask what is a European city? Is it enough to be defined as such to fit in the 'Europeness' for the European Dimension?

Nonetheless, other recommendations address issues of management in regards to the mobility infrastructure and the administrative structure. Concerns emerged with respect to the practical and informational challenges that international visitors might encounter when visiting Kiruna, subsequently hindering their participation and engagement (European Commission 2025a, 18). While for the delivery structure, the panel advised to not start the work on the ECoC with a team too small. The commentary acted as the basis concerning the monitoring phase reviews and reports, which occur 3 years, 18 months and 2 months prior to the ECoC year (2029).
Characterized by the new announcement of LKAB, the latest monitoring

phase occurring in September 2025 identified issues regarding various parts of the six evaluation criteria. Concerns were raised in areas regarding “monitoring and evaluation, European dimension, outreach strategies, staffing, and funding”(European Commission 2025a, 12). In regards to the monitoring and evaluation phase, the panel highlighted the lack of an evaluation baseline, which directly risks to delay the ability to measure the long-term impact. The collection of benchmark data, conducted by either RISE or the Luleå Technical University, would begin a year later. This could have a direct impact on the results of the evaluation reports undertaken at the conclusion of the ECoC, skewing the reality of its effect. The European dimension highlights the need to collaborate more with European partners, as well as enhancing the existing cross-border collaborations such as the Sami communities in Norway and Finland, and past ECoCs’ such as Oulu, Bodø, and Umeå. The panel highlighted a top priority urgency in this matter. Similarly, the commission noted a required shift in assuring the overcoming of citizens’ scepticism regarding the ECoC. This includes creating tangible benchmarks for outreach evaluation milestones, and strengthening a “for the people” (European Commission 2025a, 11) approach of the programme. Furthermore, the outreach incentivizes Kiruna to establish these benchmarks for both Sami, and other minorities, as well as for the general accessibility. Subsequently, concerns on understaffing were justified by Kiruna’s limited budgeting, especially for the communication department. The commission further specified the changes in the overall staffing plan, and the need to increase its capacity as the team still results as understaffed. By mid-2027 Kiruna had specified a 10 person team, whereas by its end they will be composed of 15 members. The panel issues to change this. Overall, Kirunas’ team confirmed the operating budget given by the Norrbotten region, and notified the commission of the ongoing discussions with the state administration to secure funding, regardless of the impact the future elections might have. A detailed budget considering the issues mentioned above, as well as an updated national funding commitment is required by the panel for mid-2026 in a new organisational plan (European Commission 2025a).

In the last monitoring report the commission urged Kriuna to increase their team, while also urging budget deals. The budget has nonetheless been established initially, and while changes are bound to happen, the city is already struggling to obtain monetary support, therefore an increased budget could pose new problems for Kiruna. Furthermore even a larger team would also require new income budgets, or could a bigger team be part of the current budget? In such a case will the budget portions change, possibly bringing strains in other parts of the programme? Following the recommendations given by the European commission is a necessary task for Kiruna. The future reports and monitoring phases will continue to support and guide the city to the ECoC title, if followed appropriately. Even though the city has been selected to wear the title, to be awarded the monetary grant the commission has to evaluate the city as ready to support the event. This occurs during the last monitoring phase, 2 months before the ECoC year, therefore in October/November of 2028. Only then will Kiruna truly be an European Capital of Culture.

What to expect? Possible impacts on Kiruna

Obtaining the title of capital of culture would provide Kriuna with an increased cultural capital that would directly benefit its community and the people passing by. Nonetheless, a necessity of improvement is required to proceed. The municipality of Kiruna presents in their bidding also a section regarding the possible risks the city might face in their path to becoming an ECoC, as requested by the European commission. Focusing mostly on managerial and administrative risks, the city notes the importance in maintaining a well functioning team to promote inclusive and effective events throughout the years. Conversely, the social risks take into consideration the outreach of the events towards minority groups, rural communities and younger audiences, and are considered as improbable by the municipality. They therefore aim to solve them through targeted educational programmes, and co-production. The opportunities these solutions could present would support the administration in developing projects centered around a “for the people” approach, that as seen in other ECoC’s, can have a longer lasting effect on the community. Showcasing the reason behind Kirunas’ desire to become Capital of Culture.

Studies have shown that culture can help improve various aspects of daily life in the fields of health and well being, while giving a sense of security and satisfaction to the community. The ECoC will therefore bring an improvement to the cultural programme and will nurture these aspects, improving subsequently also the daily life of its citizens, as seen in the past ECoC of Wroclaw (2016).

In regards to health, Sanetra-Szeliga (2022) notes that culture through active participation can “reduce stress thanks to detachment from everyday life,” giving the individuals a “feeling of freedom, and the possibility of discharging negative energy.” (Sanetra-Szeliga 2022, 6). She showcases how this was achieved in the ECoC 2016 in Wroclaw. The microGRANTS project allowed local NGOs, artists and other individuals to apply for monetary support, as well as other logistical, administrative and organizational welfare to create the event. Attracting, and supporting 405 projects, between 2014-2016, the microGRANTS helped develop *Gateway to the Future*, a project which directly involved the local community and helped break the general attitude of indifference. Through the collection of memories [022], supported by the organization of a photography competition and the staging of local legends, *Gateway to the Future* helped rediscover a forgotten part of the city. Reinforcing the sense of place and giving importance to the uniqueness of the neighborhood, while directly involving the local community in the organization of such events. This

022
In the form of stories, photos, documents.

gave them a sense of freedom whilst reducing stress by detaching from the everyday life continuum (Sanetra-Szeliga 2022, 6). *Arctic fire*, a project for Kiruna's ECoC 2029, directly finds an affinity with this type of scheme. Supported by Norr Organisers Association [023] (Editorial staff 2025), *Arctic Fire* will be a festival organized by and for young people, centered around the exchange of culture between people and between nature (Municipality of Kiruna 2024). Structured through a series of workshops, the other main focus of the event will be the fireplace, which will gather "young artists, performers, and storytellers from around the world to share stories, music, and ideas." (Municipality of Kiruna 2024, 37). The parallel between the two projects mirrors the independence and freedom experienced by the user in each occurrence, emphasizing the success that Kiruna's event could have. In addition the support gained from the ECoC projects stimulates the community to engage and participate in the organization of the events, giving value to the work of the local community and increasing community outreach.

The implementation of co-creation projects in the ECoC cultural programme can lead to an increased community engagement consequently strengthening social ties over time. The analogies found between the projects of past ECoC's and Kiruna, along with their use of co-creation, showcase the effects of this approach. An effective project of Wroclaw 2016, saw the direct use of co-creation to integrate art and culture in the homes of their citizens. Backyard Door featured the collaboration of 61 artists and 40,000 citizens to create 32 [024] projects in 42 backyards and 7 housing estates. By varying their approaches each neighborhood had a different experience. Sanetra-Szeliga (2016) notes that the success factor was also given by the positive connotation these artworks had, and the value the citizens gave to them through their participation. A project conducted in Jednoÿci Narodowej street was part of this larger approach, whereby two artists, Cecylia Malik and Niedzielni, dedicated their artwork to building a tree-house in collaboration with the community of the neighbourhood (Banaszak 2017)(Nowok, 2016). This engaged a variety of age groups; children, parents and grandparents, "who often didn't know each other" (Banaszak 2017, 31) collaborated together and engaged in a learning process. Reciprocally also the artists, and the people watching the construction learned something, therefore there was an equivalent exchange of knowledge between the stakeholders (Banaszak 2017). As a result this process led to the creation of a social tie that through time has strengthened. Indeed, residents' testimonies conducted at the end of the ECoC exemplified the social ties that were created (Sanetra-Szeliga 2022, 11). "When I go through the backyard children shout greetings. It is an amazing change" (Sanetra-Szeliga 2022, 11).
Kiruna's projects favor similar approaches on a variety of occasions that, nonetheless, differ in results. *100 Stages* is a project that aims to create stages in unusual venues to challenge the conventional idea that culture needs to be exhibited in official settings. Whereas *Culture Knocks on Your Door?* brings theatre at home, and will make the viewer

023
Norr Organisers Association has opened a call for younger generations.

024
Link to the type of projects that were present https://contemporarylynx.co.uk/wroclaw-backyard-door

an active participant in the performance (Municipality of Kiruna 2024). Based on a similar idea to *Backyard Door, 100 Stages and Culture Knocks on Your Door?* allows artists to join forces directly with the local community, by making them part of the artworks itself. This is further emphasized with the concept of Visions of the North, which takes community outreach to the dispersed areas of rural Kiruna and the Norrbotten region (Municipality of Kiruna 2024). Promoting culture in a variety of settings, while collaborating with the local community, can strengthen social ties in a similar way through which *Backyard Door* did. The exchange of knowledge with the artists, and with each other gives importance to the work being done for ECoC, and aims to create social ties and connections through lived experiences (Sanetra-Szeliga 2022). In Kirunas' changing environment, where citizens are, and will be moving, from one center to the other, these projects become an opportunity to create a sense of community in the newly opened areas, that otherwise would remain isolated from each other.

Figure 18
A house on an ash-tree (Cecylia Malik and Niedzielni).



The testimony from past ECoC and their positive results in community action acts as a premonitory of the positive outcomes that the capital of culture could have on Kiruna, if structured and managed appropriately. Nonetheless, even though the variety of co-productions methods that will be used can obtain positive results for the community, the previous co-creation phases could uncover complexities. Centered around co-creating events, Umea's 2014 capital of culture exposed some possible complications. The concept of co-creation aims to "democratize and decentralize the practice of culture in the city" (Hudson 2017, 10) (Carpentier 2012), breaking the traditional approaches to mega-event planning. By analyzing the various projects that occurred in the ECoC year Hudson, Sandberg and Schmauch found similarities and differences between them, and arrived to the conclusion of having three types of classification for co-creation:

* People working together to create cultural events
* People coming together physically, emotionally, existentially,
* Creating together to change relations in society.

The first approach relies on a collaborative space of production, where culture is assuredly widespread. For this to be effective a genuine collaboration between the relevant stakeholders needs to be assured, so roles and needs can be appropriately understood. However, as these events are organized within the context of mega-events, there is a risk of reproducing pre-existing power relations and hierarchies, thereby undermining their effectiveness as a tool for democratization. By including actors which have a limited influence there will not be an authentic collaboration as power relations will not shift (Hudson 2017). For Kiruna this could occur in instances where there are major stakeholders such as the Norbotten Museum, the Kiruna Kommun, and other official institutions, who manage the entire project, but still require the support of smaller local groups for a compelling integration (Municipality of Kiruna 2024).

A co-creation that uses emotions for artistic expression, is described by the second category. The idea of culture, in this case, is re-shaped and redefined in a way that describes a conversation or encounter that sparks discussions, enabling a rupture in the social and cultural boundaries (Hudson 2017, 12). Here, the individual is not in direct contact with creating or organizing culture but rather interacts with it, through shared experiences and emotions. This is what raises feelings of involvement for the participants. Nevertheless, there are two prevailing issues with this approach, firstly there is a "danger of over-emphasizing the revolutionary potential of people" (Hudson 2017, 12) and the effect they will have on the events (projects). Secondly, concerns regarding the quality of the interactions might emerge. These conversations could result in a polite exchange among strangers instead of effective discussions on tensions and conflicts of everyday life (Hudson 2017). Kirunas' bid presents a variety of projects which aim to spark conversation among individuals (Municipality of Kiruna 2024). Arctic Fire, and Behind the Gates are two examples of projects where these types of dilemmas might arise, therefore a special regard towards the issue is needed.

On the other hand, the on-field period conducted in Kiruna from March till April recognises differing outcomes to such co-creations. Bernd Krauß's exhibition, Tenskasven (*IKEApayback*), focuses directly on questioning the relation between the atmosphere of a space, with topics that foster creativity and encounters, as well as provoking discussion. As part of Kin Museums' first artist on-residence, the exhibition took place in accordance with a three day Art Workshop (Konstverkstan) (Kin Museum of Contemporary Art 2026, 4). Similarly to previous expositions conducted by Krauß, the workshop (also known as Art Academy) utilizes a make-do attitude that constituted a variety of work, which then composed the exhibition. The interaction between artists and citizens began with the personification of the city hall. Krauß moved on a fine line between amusement, mockery, and humour to spark a controversial topic and allow children and adults alike to "make their own small model of architect Henning Larsen's cylindrical building" (Kin Museum of Contemporary Art 2026, 4) by using a toilet paper roll as its resemblance. In contrast to Hudson analysis the co-creation project did not result in a futile meeting between individuals, but an indirect critique of issues in everyday experiences raising discussions and confirmations. Nonetheless this is only one project occurring in light of the Capital of Culture 2029, therefore certainties arising are merely a conception that requires future and constant observation.

Krauß's project also ties with the representation of the third type of co-creation, as the events organized articulate an active participation that is central to the project (Hudson 2017, 12). Citizens would partake through a process that will start before, and continue after the actual event. Actively participating in these events creates a sense of reflexive awareness in the participant, as questions of power arise, with the perpetuity of inceptively shifting the power hierarchies through event organization. Due to the difficulty in having effective shifts in power, only some events are planned following this structure. Nonetheless when they do they can have positive repercussions propagating in the future (Hudson 2017, 12).

In conclusion, a timeline showcasing Kiruna's past biddings has been described. Their simplistic theme which focused solely on the "Movement" aspect that characterizes the city was expanded and developed to re-focus the scope on the citizens and their community. As a result they were officially nominated for the European Capital of Culture and are working towards the year's event, 2029. In the process budget and administrative changes were also identified and explained. Finally, the risks were noted, and through the analysis of past ECoC's the effects that co-creation and co-production could bring were introduced. Cities such as Wroclaw and Umea were taken in consideration due to their relation and similar environment. The outcome of such an event depends strongly on the inhabitants and its location, according to the managerial organization that stands behind its orchestration, therefore the analysis conducted is a theoretical and historical approach aiming to highlight the controversies present throughout the biddings' progress, while proposing possible effects derived from past ECoCs. Therefore even though thousands of analyses can be conducted, only time will tell the accomplishments of the title.



Figure 19
On the left, *Untitled*, work done by students during the art workshop (picture by authors).

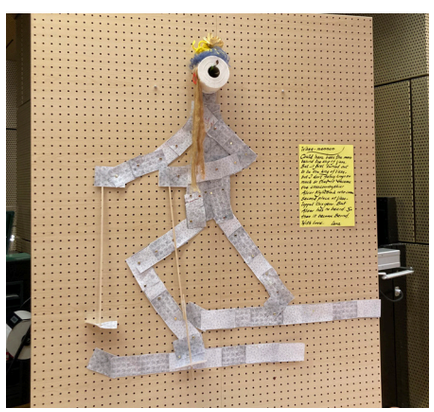
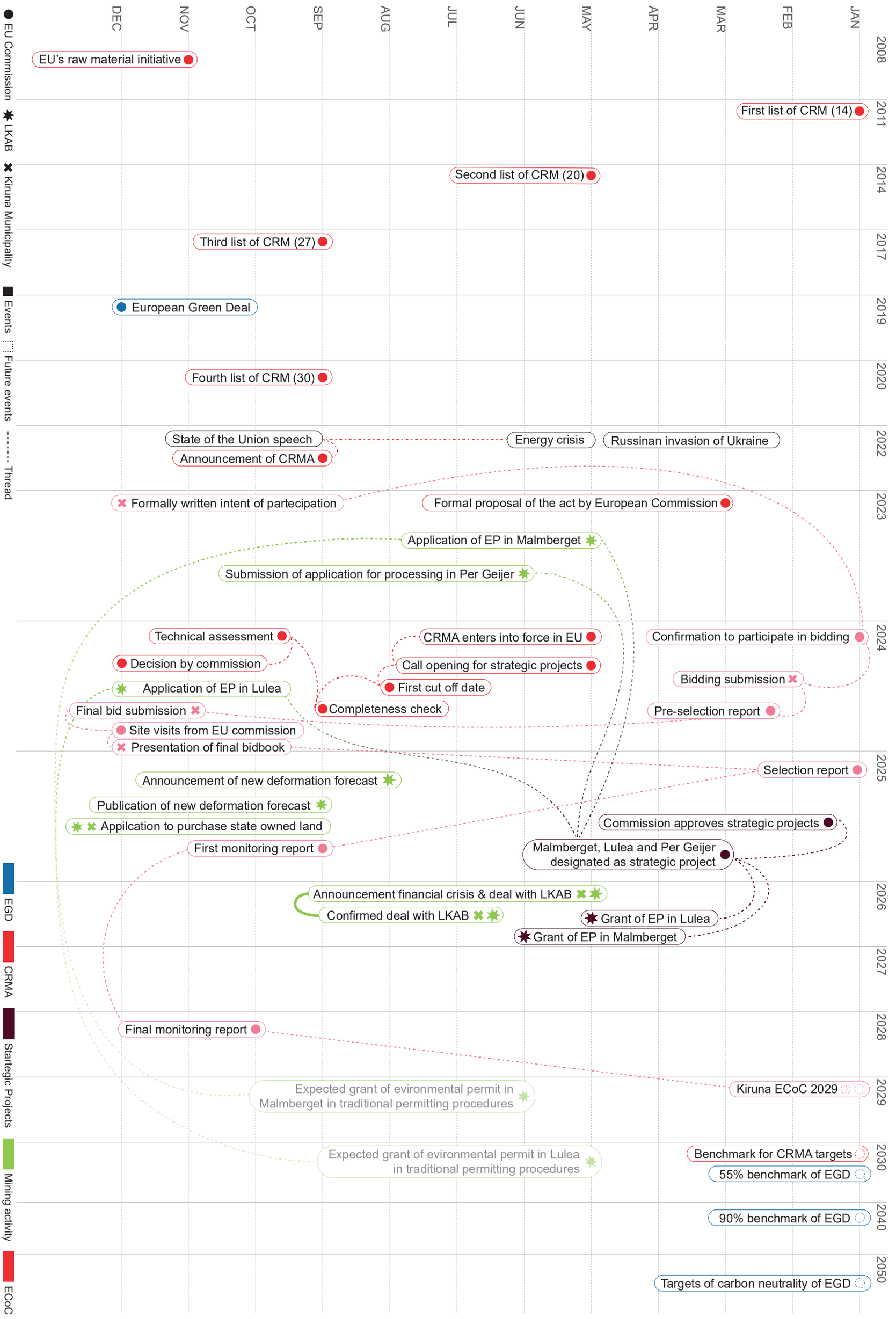


Figure 20
On the right, *Wasa-mannen,* created by Lena Rydström (picture by authors).


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2030
2040
2050
EU's raw material initiative
First list of CRM (14)
Second list of CRM (20)
Third list of CRM (27)
European Green Deal
Fourth list of CRM (30)
State of the Union speech
Energy crisis
Russinan invasion of Ukraine
Announcement of CRMA
Formally written intent of partecipation
Formal proposal of the act by European Commission
Application of EP in Malmberget
Submission of application for processing in Per Geijer
Technical assessment
CRMA enters into force in EU
Confirmation to participate in bidding
Decision by commission
Call opening for strategic projects
Bidding submission
Application of EP in Lulea
First cut off date
Completeness check
Final bid submission
Pre-selection report
Site visits from EU commission
Presentation of final bidbook
Selection report
Announcement of new deformation forecast
Publication of new deformation forecast
Appilcation to purchase state owned land
Commission approves strategic projects
First monitoring report
Malmberget, Lulea and Per Geijer designated as strategic project
Announcement financial crisis & deal with LKAB
Confirmed deal with LKAB
Grant of EP in Lulea
Grant of EP in Malmberget
Final monitoring report
Kiruna ECoC 2029
Expected grant of evironmental permit in Malmberget in traditional permitting procedures
Expected grant of evironmental permit in Lulea in traditional permitting procedures
Benchmark for CRMA targets
55% benchmark of EGD
90% benchmark of EGD
Targets of carbon neutrality of EGD
EU Commission
LKAB
Kiruna Municipality
Events
Future events
Thread
EGD
CRMA
Startegic Projects
Mining activity
ECoC

RESET :
PRESENT

PRESENT :
RESET



C07
Collection of road signs in the old city centre (picture by authors).

Mapping Controversies

What are controversies?
A controversy can be defined as a disagreement, often a public one, that involves different ideas or opinions about something, usually because it affects or is important to many people. It is not, therefore, a matter of a conflict that tries to manipulate public attention, but rather one that is concerned with the sociotechnical arrangements that are vital to our collective life (Venturini and Munk 2022). In this context emerges the concept of controversy mapping, which was conceived by Bruno Latour, as a method to instruct his students to observe and describe sociotechnical debates.
The main challenge for this method was and is to engage with the public of controversies, trying to give and answer to the following question (Venturini et al. 2015):

"How to explore the practical tools to represent, in a new way, scientific and technical controversies so as to equip the potential public and turn it into a real representative arena?" (MACOSPOL 2007, p. 8)

The objective of Controversy Mapping is not to intervene, resolve or channel debates, but rather to explore and unfold sociotechnical disputes in a conceptual space where its multiple actors (human and non-human) and issues can be weighted against each other (Latour 1995, 378-380). But why should one engage with controversy mapping? If we shift perspective and instead of treating controversies as problems that need to be fixed, we treat them as "generative events" (Whatmore 2009, 588) to investigate public debates when the social fabric is under transformation, controversy mapping can highlight their troubles rather than explaining them right away.
In order to start to think about mapping a controversy, the mapmaker must be aware that when mapping, it is inevitable to serve some interests over others. Therefore it is crucial to accept complicity as a mapmaker and to be transparent about one's intentions. Maps are not just tools for navigation but also instruments of power, because "to be on the map is to be acknowledged, given a position, accorded existence or an importance" (Hooper-Greenhill 2002).

The investigation of a controversy is not only justified by the size/ importance that they might take up in a discourse, in fact mapping can also be:
* A way to study science and technology in the making, allowing

us to observe current scientific paradigms and technological infrastructures
* A method for design and innovation, allowing us to understand the intended and unintended consequences of said paradigms and infrastructures
* A democratic inquiry, helping us take more inclusive and reflexive decisions about these consequences.

The first step now would be to choose the right controversy. Not every situation with a controversial angle is suited for controversy mapping, as it should follow four criteria introduced by Venturini and Munk (Venturini and Munk 2022), according to whom the right controversy should be in between binary and multiple, hot , specialized and accessible:

* Sociotechnical debates can be both binary and unbalanced discussions (where a well established position is challenged by a skeptic minority) to proliferating debates (characterized by the presence of a multitude of different opposing positions). A good controversy should stay clear from both extremes
* Mapmakers should prioritize issues that are hot at the moment of investigation, as it is difficult to study past debates by drawing from archives
* Specialized discussions with an expert component should be prioritised
* In order to be observed and mapped a debate must be available.

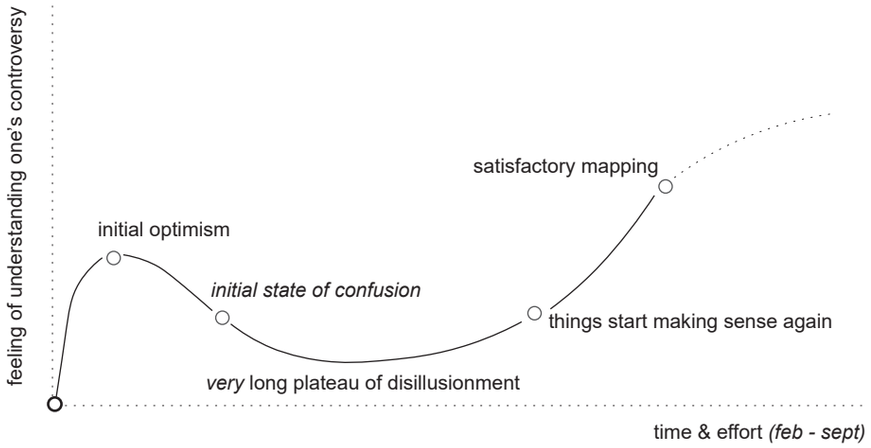


Figure 22
The hype cycle of controversy mapping (Tommaso Venturini and Anders Kristian Munk, re elaborated by authors).

How can we explore them?
As mentioned above, the objective of controversy mapping is to "unfold the sociotechnical disputes in a conceptual space where its multiple actors and issues can be weighted against each other", caring for all viewpoints while not giving the same credit to all of them and exploring collective disputes and making them more legible. To achieve this, Controversy Mapping draws on two traditions of social research that are Actor-Network Theory and Digital Methods.

ANT is a methodological tradition in social studies of science and technology, founded by Callon, Latour, Law and (Landezine, n.d.) in the 1980s.

In an ANT perspective, in order to understand controversies, it is necessary to suspend any a priori judgement and resist both realist [025] and relativist [026] conceptions of truth and power.
This is because, a realist viewpoint sees controversies as a hallmark of human imperfection, while a relativist position sees them as a symptom of a transformation in the balance of forces (Venturini and Munk 2022); while controversy mapping is built on the belief that truth and power are built together.

Digital Methods, on the other hand, are a research practice that is born as a reaction to the digitalization of the public debate, which has helped to make controversies more visible and collective iterations more traceable. According to Richard Rogers and his definition of digital methods, the intention is to "repurpose or build on top of the dominant devices of the medium, and in doing so make derivative works" (Rogers 2013). Moreover, Digital records also offer the opportunity to overcome the divide between qualitative and quantitative research (Venturini and Latour 2010). When we are studying situated phenomena, we are investigating the interactions in the specific context in which they take place, and which is experienced by the participants of said phenomena. Qualitative and quantitative methods allow researchers to participate with these specific interactions without being influenced and, at the same time, to be able to look at the big picture. However, this divide between quali/quantitative methods only works as long as specific situations are protected from the larger network of influences (Venturini and Munk 2022). Controversies constitute the moment in which this divide is mostly at "risk", as local phenomena are constantly influenced by external factors that interfere with local actions and quantification becomes problematic, because existing datasets are what is contested in the first place. Therefore, it becomes impossible to simplify a controversy because each action is intertwined within aggregation practices. As controversies overcome both situation and aggregation, new research methods are required, which have been labeled "quali-quantitative methods". Their purpose it's not to alternate between one and the other, but to work out new ways to investigate action networks other than with these two strategies (Munk 2019).

Controversy Mapping is a method that allows us to study collective situations through associations and oppositions that compose them, just like the two approaches mentioned above that constitute it.
In order to follow the multiple issues and actors, controversy mapping and ANT require flexible means of observation, so a method that is broader and able to respond "creatively in a world that is taken to be composed of an excess of generative forces and relations" (Law 2004, 9). This outlook is the characterising feature of ethnography [027],

025
The assumption that the truth is somewhere out there, just waiting to be discovered.

026
The assumption that truth is nothing but what is accepted at a certain point in time.

027
Ethnography is a qualitative research method where a researcher explores human society by immersing themselves in the group's natural environment.

which implies openness to the actors' own perspectives. Ethnography allows us to see the entanglements, looking beyond the conventional accounts of method and trying to understand the unconventional ways through which knowledge is produced (Law 2004, 19).
The dedication of the mapmaker to follow the actors in controversy mapping, implies not only curiosity, but also a commitment to remain sensitive to details and their implications.
This commitment can be summarized in three main operations, following a classification introduced by Harry Wolcott (Wolcott 2008), that are:

Experiencing, which is obtained through participant observation. It consists in being present in collective situations and interacting with the actors that constitute them;

Enquiring, which is obtained through interviews. It consists in requesting information that wouldn't be available otherwise. Although in ethnographic interviewing, the interviewee is allowed to influence the questioning, in controversy mapping it becomes important to follow the lead that emerges from the discussion, to respect the facet that are posed by informants;

Examining, which is obtained through archival work. It consists in the examination of written documents and records that have been created in the situation under investigation.

Nonetheless, a collection of observations has value only when it is organized in a way that is meaningful to the research question. The action of sorting the material and arranging them in a coherent story, derives from semiotics. Although at its core, its definition refers to the relationship between signs, their meanings and their interpretation; for ANT semiotics is "the study of how meaning is built", where the word meaning refers to "how one privilege trajectory is built out of an indefinite number of possibilities" (Akrich and Latour, 1992, 259).
In practice, it can be summarized into four research operations: choosing an object, showing how it is made of a network of actors and actions, describe the relationships between them and, lastly, demonstrate how these interconnections can be modified to make them more just and inclusive (Venturini and Munk 2022, 118-119)

Despite being a theory, ANT does not rely on theoretical frameworks. On the contrary, its founders have described it as " a very crude method to learn from the actors without imposing on them a priori definition of their world-building capacities" (Bruno Latour), "ANT is not a theory. It is this that gives it both its strength and adaptability [...] In ANT the T is too much" (Michel Callon) (Law et al. 1999).
When it comes to ANT, there are three guiding principles that are meant to free empirical investigation from following too strictly predefined theoretical frameworks; and these are:

Agnosticism, no point of view is privilege and no interpretation is censored, meaning that the observer must remain impartial to scientific and technological arguments used by the actors as well as refrain from censoring actors who speak about themselves or their social environment;

Generalized symmetry, science, politics, technology and society should always be studied in relation to one another, meaning that no distinction between human and non-human actors should be introduced;

Free-association, pre-imposed "methods" of analysis should be avoided as the researcher should allow the actors to define and associate different elements and categories freely) (Callon 1984, 200-201).

ANT is interested in describing phenomena to their most basic characteristics, namely the actions they are made of and the consequences that they produce.
For agencies to be expressed and consequences to be produced, actions need to involve several actors (*acting as assembling*), this refers to the idea that actors are never in isolated instances, but are always inserted within a bigger framework.
Their contribution, then, must be coordinated (*acting as aligning*), which indicates that all actions need to be coordinated in an harmonious way for them to produce an effect. This could also imply that their trajectories can be bent (*acting as redirecting*) and that the identities of actors can be redefined (*acting as being*). In ANT, the identity of an actor determines its actions and vice versa. Since in Controversy Mapping, the phenomena is collective, so will be the actions: "we are what we do, but also what others do with us". (Venturini and Munk 2022, 124-131).

Controversy Atlas

How is it possible to actually map controversy, in practice?
A solution, to investigate the complexity of sociotechnical debates and simultaneously making them visible by putting all the facets of a controversy on the same field, can be found in the technique of Visual Network Analysis (VNA). For ANT, collective situations can be described as networks, a set of nodes and edges connecting them, which can be oriented, directed and weighted, allowing the mapmaker to express a strength or a force that can be measured. With VNA, networks can be analysed by reading their visual features.
Controversy Mapping is therefore a form of cartography that has to respect two important features: richness (to respect the complexity of the sociotechnical debate) and legibility (to provide readable descriptions for any type of public). But there's a catch: if we, as the mapmaker, simplify too much, the complexity of the controversy will be

lost, while if we don't do it enough, it won't be understandable.

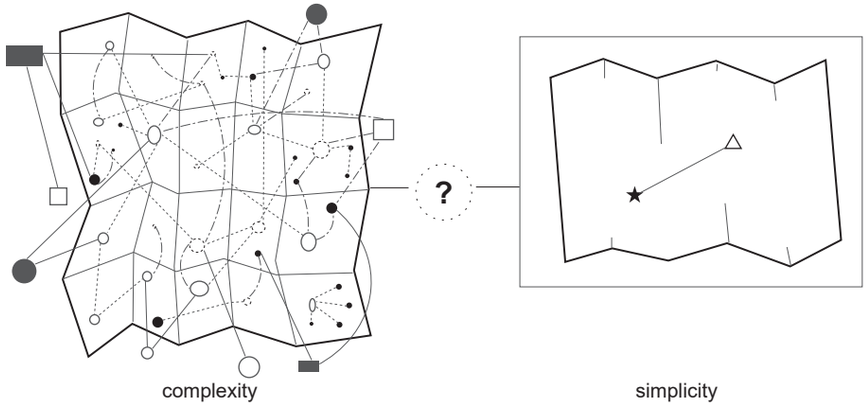


Figure 23
Two maps both unsatisfactory but for opposite reasons
(Daniele Guido, re elaborated by authors).

The compromise between richness and legibility can be found in a shift of question: instead of asking where to stand on the legibility/complexity spectrum, we should be asking how to move through it (Venturini and Munk 2022). Controversies are ontologically [028] multiple and they exist in a pluriverse [029] that can't be mapped at once (Venturini and Munk 2022).
From this emerges the concept of "Controversy Atlas", meaning a collection of different visualizations with different degrees of complexity (Venturini et al. 2015). An atlas is the sum of two different moves, going-in (the act of getting in contact with the subject) and going-out (the act of recomposing the elements that have been observed). The types of representations needed depend exclusively on the debate and therefore they should be realized "ad hoc" based on the specificity of the controversy.
An example could be asking ourselves questions regarding the controversy, such as:

What? What are the main points of contestation? What are the main events through which it unfolds?
Statements are never isolated but are part of a bigger debate and claims that support or oppose each other.

Who? Who are the actors?
Debates are never separated from their actors, given that even if the discussion is on the same issues, actors in a controversy may be speaking and/or acting on different aspects.

How?
Actors, like statements, are never isolated and can be tangled in alliances.

Where?
Every controversy is part of a larger debate and made of several subcontroversies.

When?
Sociotechnical debates are dynamic situations that vary though time and therefore the subject and the actors involved can evolve as well.

In the following paragraphs we are going to shift from theory to practice, explaining how the methodology mentioned above can be applied to a real situation.

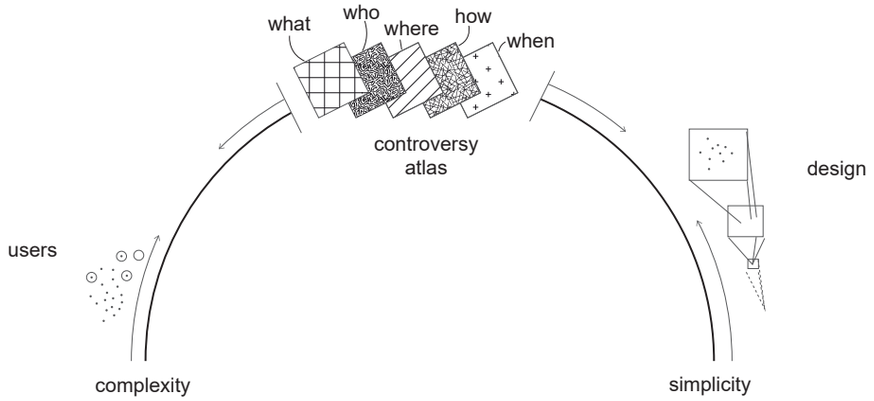


Figure 24
The three sections of the first movement along the complexity/ simplicity continuum
(Daniele Guido, re elaborated by authors).

028
From Ontology, it is a branch of philosophy that studies the fundamental modes of being, beyond its particular or phenomenal determinations.

029
The world as conceived according to a theory of pluralism, describes a philosophical and political concept of a world where many coexisting worlds fit.



C08
"The city of Kiruna is dying; voices will be silenced by feelings of steel."
(picture by authors).

From *mine* to *mind*

Following the objective of Controversy Mapping, which is to uncover controversies while not aiming to solve or intervene in them, but rather to purposely open the black boxes in which they are kept upon, we chose Kiruna as a site to map. The city conforms to all the criteria, binary and multiple controversies, hot instead of cold, it presents a variety of specialized controversies, while also being part of one, and has accessible information to the controversy itself. While initially this conformity might appear as a banal argument between the social community and the mine with its company (LKAB), this introduction will also begin to show a variety of facets.

At first glance, Kiruna presents itself as a mining town that has grown since the 19th century, with the Kiirunavaara mountain towering over the city's landscape (Ceselli 2024). On the surface, this mirrors the current situation: the mine's expansion, and the red line that follows it, divide the city into categories of demolished or moved. This is where we can identify the binary situation of the controversy. On one hand, we have the need to move the city and its citizens, therefore maintaining the economic profitability of the mine, on the other hand, the loss of heritage and of the community. Nonetheless, "truly binary debates are rare" (Venturini and Munk 2022, 57). They would require only two opposing teams, where a 'winning' and 'losing' team can be clearly identified. This would require no mapping. The binary appearance we initially interpret becomes a false impression that disregards other perspectives, alluding to a simpler situation (Venturini and Munk 2022). Investigating further, we begin questioning the categorization of movement and demolition and their meaning. Who is responsible for the movement? Of the buildings? Of the people? When will the movement occur? How long will it take?

In between multiplicities

The multiplicity of controversies that begin to arise brings forth a variety of actors with their own perspectives of the situation. The realities presented by the actors can come into disagreement, showcasing that multiplicity can be ontological (Mol 2022). Taking for example the movement of the citizens in a new home, also requires a house to be labeled as 'demolition'. Sara Bäckström and her family have been renovating their hundred-year home, personalizing all the details, and making it theirs. With the LKAB compensation plan they will get

a new home and monetary reimbursement for their old one. In this scenario, LKAB views the operation as a success. Supported by the mass relocation Linus Liva, head of social transformation, sees “great advantages to working on a large scale” (SVT Nyheter. 2026c), and in providing standardised residences for everyone. Conversely Sara feels obliged to take the new home LKAB will give her, but has a different definition and perspective to what ‘home’ means. LKAB’s finances would see this as economically advantageous, lowering the costs of construction in comparison to relocating all the homes. Architects could see this as a convenient way to replicate projects and create more compact urban areas. The municipality could see both sides. The lower costs would support them in relocating citizens, while the citizens’ sorrow for a lost home is understood, as they have been experiencing the same situation. The meaningful relationship one has with the place in which they live changes from one perspective to the other, and when misinterpretations occur controversies assuredly arise.
In some cases the ontological multiplicity can become political. If the actors have no choice the realities they experience become limited. Furthermore, the issue becomes political because reality is shaped by certain choices. Kiruna reveals an ontological political multiplicity that is governed by the expansion of the mine, demonstrating an increased complexity of the initially apparent binary situation.

Hot vs Cold

In 2004/6, when the first expansion of the mine was announced (Ceselli 2024), Kiruna began preparing and planning for its relocation. Since then LKAB has published 4 red lines (Kiruna Explorer exhibition in “State of the art”), updated every ~10 years. The latest one in 2025 came as an unexpected announcement as it amounted to an additional 6000 people being displaced (SVT Nyheter 2026b). The release of the new red line forces the municipality to speed up the new expansion posing financial strains to the already tensed resources, risking sending them in an economic crisis (SVT Nyheter 2026c). The new collaboration agreement put in place with LKAB aims to alleviate the financial strain on the municipality. LKAB would thus invest “1.1 billion to complete the ongoing urban transformation project and 700 million” to reclaim properties and infrastructure for the forthcoming stages (SVT Nyheter 2026a). Nonetheless, the increased support would also result in a transfer of power and responsibility. This would mean a change in land management and in LKABs compensation model, as previously mentioned, sparking new controversies arising from the city’s relocation. This debate has been developing in the last months and amounts to the complexities emerging from the new red line. It is a moment in time where existing agreements are unsettling and actors are contesting them more publicly.

Commonplace vs Specialized

Kiruna has a variety of experts that orbit in its controversies. LKAB is at the center of this system. The expertise they provide comes in the form of announcements regarding movements and ground deformations. Their knowledge, other than being very limited to the public, acts as the base of the controversy for other professions.
The municipality is another expert actor. Their role in managing the population and the movement of the city, as well as preserving its heritage, plays a crucial role in the social sphere.
Furthermore there are several academic debates occurring within Kiruna in a number of faculties. These cover topics such as sustainable relocations, architecture, as well as Indigenous communities and green colonialism.
The specialized component of Kiruna mobilizes “specialized knowledge, a well-refined research community, and a specific set of actions and arguments” (Venturini and Munk 2022, 60), giving reliability to the outcomes of their research, and their impact on Kiruna. Nonetheless, even though this is an independent component and could exist independently, in Kirunas environment it intertwines with the commonplace discussion.

Secret vs Accesible

For a dispute to be mapped it “must be available for observation.” (Venturini and Munk 2022, 60) Kiruna’s debates, as previously exposed, are available in various forms. Digital traces are found in Kiruna facebook groups and reddit posts commenting on various aspects of the town’s relocation. In addition to the academic works produced by scholars and experts, the community of Kiruna established associations and produced a number of publications centered around the history of the town. Interviews conducted with citizens also aid in uncovering the controversy. Nonetheless as the debate has been occurring in the last 22 years some citizens are reluctant to express their true feelings.
Overall, Kiruna’s debate is mostly accessible, other than keeping some technical aspects secret. LKAB, by disclosing information from legislative entities and the public, incites the on-going debate. The new city expansion, stacked with the release of the new red line, provoked the municipality, as they were presented the information with no prior warning, alarming both financial and organisational resources for the future.
Nevertheless the mapper, the community and the municipality are aware of what is disclosed all at the same time. Therefore, the only level of secrecy exists within LKAB and in reference to the other actors present in the controversy.

E^3 = experiencing, enquiring, examining

As previously stated, actor network theory states that a mapper has to suspend both a realist and relativist conceptions of truth and power to

appropriately map a controversy. Following this approach, we decided to undertake an ethnography case study, for the period of one month in between February and March. Characterized by a radical open approach to the actor's own perspective, the methodology which stands behind ethnography should not be influenced by prior judgement. A mapper has to follow the actor in his untangled vision of the controversy to make sense of the debate occurring (Venturini and Munk 2022). Aiming to illustrate how "seemingly trivial technical decisions have social and political ramifications" (Venturini et al. 2022, 115) in the city of Kiruna, we committed to the controversy by experiencing, enquiring, and examining it (Wolcott 2008). In experiencing the controversy we undertook a participant observation approach, during the case study field work, in addition to a workshop in a second moment in time in April. Enquiring was conducted through several interviews, and examining followed an analytical approach prior to and during the fieldwork. To conclude the examining phase, a revision of the interviews was conducted subsequent to the fieldwork.

The participant observation conducted in Kiruna introduced us to the community, aiding to understand their daily experiences. The methods to conduct participant observation vary as it still follows an ethnographic approach. These methods include interviewing, creating focus groups, observation, and questionnaires. Furthermore, the flexibility of this approach allows the researcher to adapt "depending on the requirements and constraints of the research itself" (Bow 2002). In our first period in Kiruna we adjusted the research, from an initial interview based one to a more observative standpoint. This constituted participating in community workshops, such as Kin Museum Art Academy and its arts and crafts project occurring every Saturday, and other types of events organized by the museum, such as the screening of the documentary *"Scars of Growth"* and a gathering moment for the community, where everyone could participate in sharing their memory of past art exhibitions [030]. Most of these events were originally for the community and therefore in Swedish. Nonetheless, this did not result in a major issue as there was always someone who could translate what was happening for us. The documentary was originally in English, as well as the discussion that followed. At times the public would intervene in the discussion but in such cases it would be translated by the organizers. Similarly during the arts and crafts the organizers spoke English, as well as the participants. On the other hand, the gathering at the Kin Museum was moderated entirely in Swedish. We attempted to translate the discussion as it was occurring and addressed the shortcoming of the translation with the organiser after the event.

Furthermore, the observative standpoint was reinforced by residing in the old city center and commuting to the new one during the day. The residence we stayed at was the hostel Malmfältens. A multifunctional space where students come from different parts of the Norrbotten region to attend, either the Rymdgymnasiet high school or the Malmfältens Folkhögskola (source). Whereas, in the new city center we used to go to the library in the Aurora Culture & Congress center. Here senior citizens go on a daily basis to read their newspaper or meet for a chat. The experiencing aspect of our commitment to understanding the debate, allowed us to comprehend the daily routine in Kiruna and assimilate the exhaustion (fatigue) of the citizens living in constant construction and demolition sites for the past 22 years.

Based on the interviews conducted, we proceeded to uncover controversial topics regarding Kiruna. Interviews were conducted in two diverse moments: during the fieldwork and in a subsequent workshop developed a month from the fieldwork. In the first period a group from the space high school and an employee of Malmfältens were willing to participate in on-camera recordings. By conducting the interviews in an environment directly affected by the controversy/debate, it aided in overcoming the initial barrier created between interviewee and the interviewer [031] (Venturini and Munk 2022, 116).
Off camera we interviewed Maria Svonni about the Kiruna Biennial, Lena Nystrom the director of the arts and crafts workshops at the Kin Museum, as well as Emma Pettersson Juntti, but these were non-scripted casual conversations that nonetheless allowed us to grasp some of the issues present.
During the workshop, interviews followed the same structure but focused in two sessions. The first was done at the Kiruna Rötters association, with some of the members present. While the second focused on a workshop conducted by students of the Hjalmar Lundbohmsskolan high school.
At Kiruna Rötter, subsequent to a casual conversation with the entire group, individuals would present themselves in a different room to have a conversation with us on camera and voice their concerns about the changing city. The initial group conversations acted as a way to break the ice, allowing the interviewees to "react to the statements of the other" (Venturini and Munk 2022, 116), stimulating a group discussion. Here the location further aided in making the individual feel comfortable, reassuring the possibility of expressing their thoughts freely.

A different approach was used for the workshop conducted with the students. Prior to the workshop, two-groups from the Hjalmar Lundbohmsskolan high school were asked to select an object, picture, moment or anything else meaningful that would describe their feelings towards a changing environment. A short text to support such material was also requested. This initial task was then used to aid in the workshop. The workshop was structured in three phases:

* The students would participate in creating a short poem [032], which acted as an ice-breaker (the short poems can be found in AN ARCHIVE OF THE EVERYDAY: Kiruna – Young Voices from a Town in Transition).
* At times this task was conducted in small groups, where students would nonetheless complete the task individually, other times the

030
In this case specifically it was the Picasso exhibition.

031
The space high school is part of the new red line. During our period there we and the citizens still did not know the time frame they had to move from the area but it was a topic strongly discussed.

032
Short poem that followed the "tiny eleven" structure.

task was conducted only individually.
* The poems were shared collectively with the rest of the participants, or initially within the small groups.
* A moment of discussion was initiated (where one could present their submitted work).

Simultaneously, students could move to a different location to express their feelings on-camera, or express their work.

Initiating a group discussion acted similarly to the Kiruna Röter situation, aiming to stimulate a conversation among individuals instead of directly with the mapper/researcher. On the other hand the city hall's location was not the common environment for the students, possibly acting negatively on their experience. Nonetheless, through the enquiring phase a series of interviews were conducted, whereby the interviewee was not limited to a set of questions, and was free to express their sincere opinion. When direct questions were asked it was to initiate a conversation and stimulate a discussion.

Alternatively, the examining phase concentrated its approach in navigating through documental archives, which described official documents and historic dispositions. This process was conducted prior to the fieldwork in Kiruna and continued partly on site with increased documents. Most of the documents researched were found in the master thesis "How to move a city" by Giovanni Ceselli. While the on-site documents regarded particularities of the cities movement, with some information of past lives of individuals recorded in memoir-like books. As this phase "can enrich, but never replace, direct experience and enquiry" (Venturini and Munk 2022, 117), it acted as an initial knowledge pool to begin comprehending the issue at hand.

Politics of mapmaking

Considering the actions undertaken to participate in the controversy, the objective of mapping in Kiruna amounts to the accumulation of three mapping meanings: maps as descriptors, maps as spaces for commensurate and maps as instruments of power.

Maps as descriptors uncover the "descriptive practice that records and inscribes relations" (Venturini and Munk 2022, 209). As they do not require visual relations, the mapping can be interpreted also descriptively as it will be done in the description of the Atlas.

Maps as spaces for commensuration have an ultimate aim "to produce visual representation that will help actors to make sense of the issue they are dealing with" (Venturini and Munk 2022, 210). Therefore, the mapping that will be conducted not only will make sense of the controversy for the mapper, but most importantly for the community. By displaying the "messiness of collective phenomena" (Venturini and Munk 2022, 213) the maps will act as visual cartographies. Creating

a parallel with geographical cartographies the debates illustrate the complexity of interdisciplinarity that is needed to create a map of the controversies in Kiruna.

Nonetheless, as the mapper will decide what to display, they will inevitably demonstrate a limited scope. The limitations of our representation derive from the fieldwork conducted. Therefore, one will observe a greater significance given to commonplace actors in comparison to the others. Even when other actors such as LKAB and the municipality, stand on a higher position in the hierarchical power relations of the city.

Nevertheless the complexity is maintained and acts as a way to showcase the multitude of facets present.

Maps as instruments of power are, on the other hand, used as a scientific domination to control the territory and its social fabric. For these reasons, controversy mapping is a form of "critical cartography" where "knowledge does not exist in relation to power" (Venturini and Munk 2022, 214). As we will see in the Atlas the only way to challenge these orders of knowledge, and therefore also their power, is through historization. Due to the fieldwork conducted, our mapping will result in a synchronic representations situated in present time. Nonetheless this does not assume that this could not be a starting point to historicize the act of Mapping Controversies for the upcoming years, and prior, in order to challenge explicitly the relations of power present in Kiruna.

Opening the box: creating an atlas

The Atlas's aim is to visually illustrate the "multitude of partial maps" (Venturini and Munk 2022, 225) that can unravel the controversies present in Kiruna.

What?

To underline that "controversies are much richer than binary oppositions" (Venturini and Munk 2022, 226) and they are always interconnected, we developed visually a radial disagreement tree. This visualization is used to link the root causes of the debate, with the effects that have implications on the individuals. This structures the tree in four levels:

1. The Roots: Also known as structural factors. They are the basic reason for conflict and usually require long-term solutions to solve them. Kiruna has four main roots: The Mine, Everyday Life, its Environment and its Heritage.
2. Manifest Issues: These are the topics of conflict, which the individuals want to discuss. Kiruna has seven main manifest issues (movement, demolition, daily memories, events, gathering spaces, anthropic environment and intrinsic environment)
3. Secondary manifest issues: Following the same logic of the previous hierarchical level, this is a further classification of manifest issues and Kiruna has four: important for people, symbolic of Kiruna, old city centre and new city centre.

4. Dynamic factors: Are the short term reactions, the effects of the root causes. In Kiruna's controversy these are quotes extracted from interviews conducted on site and short texts derived from the workshop. In addition to more legitimate quotes from professional individuals such as departmental representatives of LKAB.

Who?

The "who" aims to connect statements to their authors, to see if there is an initial arrangement that emerges in the actors' statements.
Originating from the quotes taken from the "what" and the classifications of the root causes (The Mine, Everyday Life, Environment and Heritage), we connected each actor and their text ,or quote, directly to a root problem.
The results illustrate how the citizens are not as concentrated on the mine as they are on their surrounding environment and on everyday life, underlying the impact of movement causing the debate, rather than the non-human object in itself, the mine.

How?

Using the Actor-Network theory we constructed the "how" component of our Atlas. Taking note that the theory is "a theory of actors as networks" (Venturini and Munk 2022, 202) which are always inserted in a bigger framework, our diagram acts as a microscope lens, allowing us to see the alliances and conflicts at play in Kiruna today.

The collective of actors, and their relative networks, will then visually describe how "acting is being" (Venturini and Munk 2022, 129), in turn generating clusters of actors that behave in the same way.
As afterall, ANT refuses "to separate individual and collective actions" (Callon & Law 1997), it showcases how the "identity of the actor determines its actions and its actions end up defying its identity" (Venturini and Munk 2022, 132). A collective action therefore signifies a collective identity. In Kiruna, this was clearly visible as clusters of actors were affected by the same actions and reciprocated with similar responses, creating new alliances, rupturing the social convictions of the individuals.

Our representation is separated into two. The first one captures the actors and actions "lived" in first person, namely the people we met, that participated in the co-creation of the archive and that we had the opportunity to interview.
Interviewing Kiruna Rötter, beliefs on the younger population of Kiruna arose. They believed that the new generation appreciated the new city center, as "there are a lot of restaurants and shops and so on, and cafes and so on" (see interview with Harald Ericson in Appendix B). Conversely from the diagram we can observe how the group of students was concerned with Kiruna's environment (both anthropic and intrinsic), and contained more informal links with the old city center instead of the new one. Their connections were more bound to the past in a similar way as Kiruna Rötter, but they did not directly expose their conflict; exposing a new social formality and relation between youth and heritage.
The second one captures how these relations are affected when external forces (actors identified in the first part of the thesis) come into play.

Where?

Derived from fieldwork, the "where" localizes the controversy on a geographical map. This is to highlight that "no matter how abstract the principles at stake are, controversies are always decided through specific and concrete arrangements" (Venturini and Munk 2022, 228). These concrete arrangements project themselves on a 3D dimensional space that constantly changes diachronically. Whereby the ontological multiplicity of the controversy has clearly become political. The decisions of certain actors have a direct effect on the environment, as seen in the map.

When?

We can not deny that Kirunas debate has developed over the last 22 years and that its past has an important role in its present. We also can not deny that the debate will not continue to evolve in the future. Therefore, we decided to map the present.

Conducting fieldwork on site gave us insights on the experiences and emotions of the citizens at this present time. In addition, the support of scientific experts expressing their concerns and releasing information currently showcases a series of actors that have signifying roles in the controversy. This supported our decision to visually map the controversies present, while only alluding to the future issues that could characterise Kiruna, but that nonetheless occur today.
Furthermore, we limit the past to a few months, as researching archival work would require a prolonged period of time in Kirunas archives, as well as an extensive knowledge of the Swedish language and its legal and construction system. In addition the archival work would result in a purely technical analysis of official documents produced primarily by the municipality, thus veering our research away from a social analysis and towards a technical one. This, as stated by Venturini, would mean that investigating the past might require opening black boxes that have already been closed, obliging the cartographer "to "excavate" and "reconstruct"" (Venturini and Munk 2022, 59) controversies that have been settled.
For these reasons the diagrams displayed all follow a synchronic time continuum, that illustrates the controversies present in Kiruna at the present time [033], visually represented by a timeline that ruptures and reveals our atlas.

033
For us present time considers the period between February and September 2026.

ATLAS

OF

CONTRO#

VERSY

#
Derived from latin *cŏntra,* commonly indicates opposition, hostility, contrast

Figure 25
WHEN (authors).

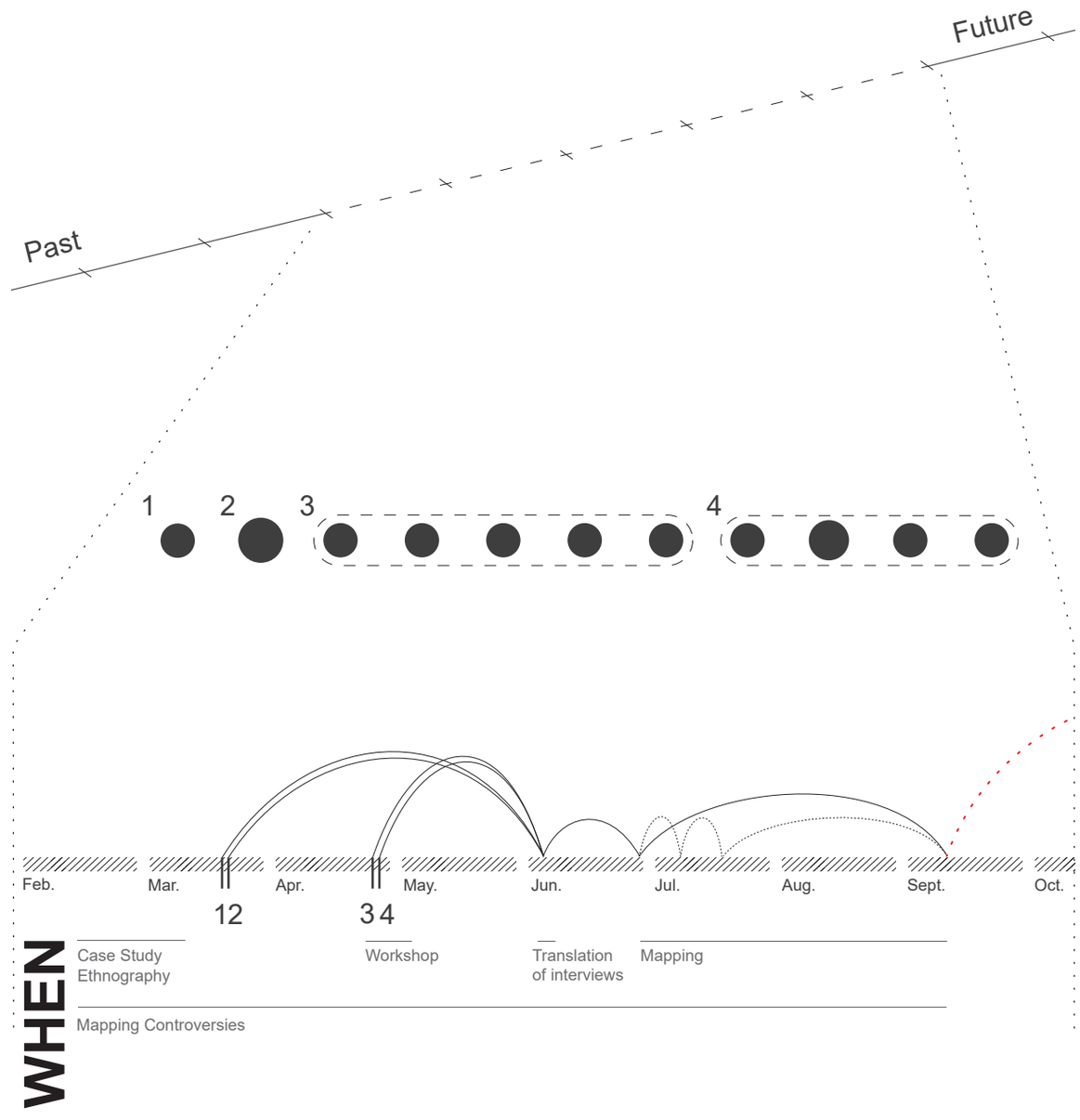


Figure 26

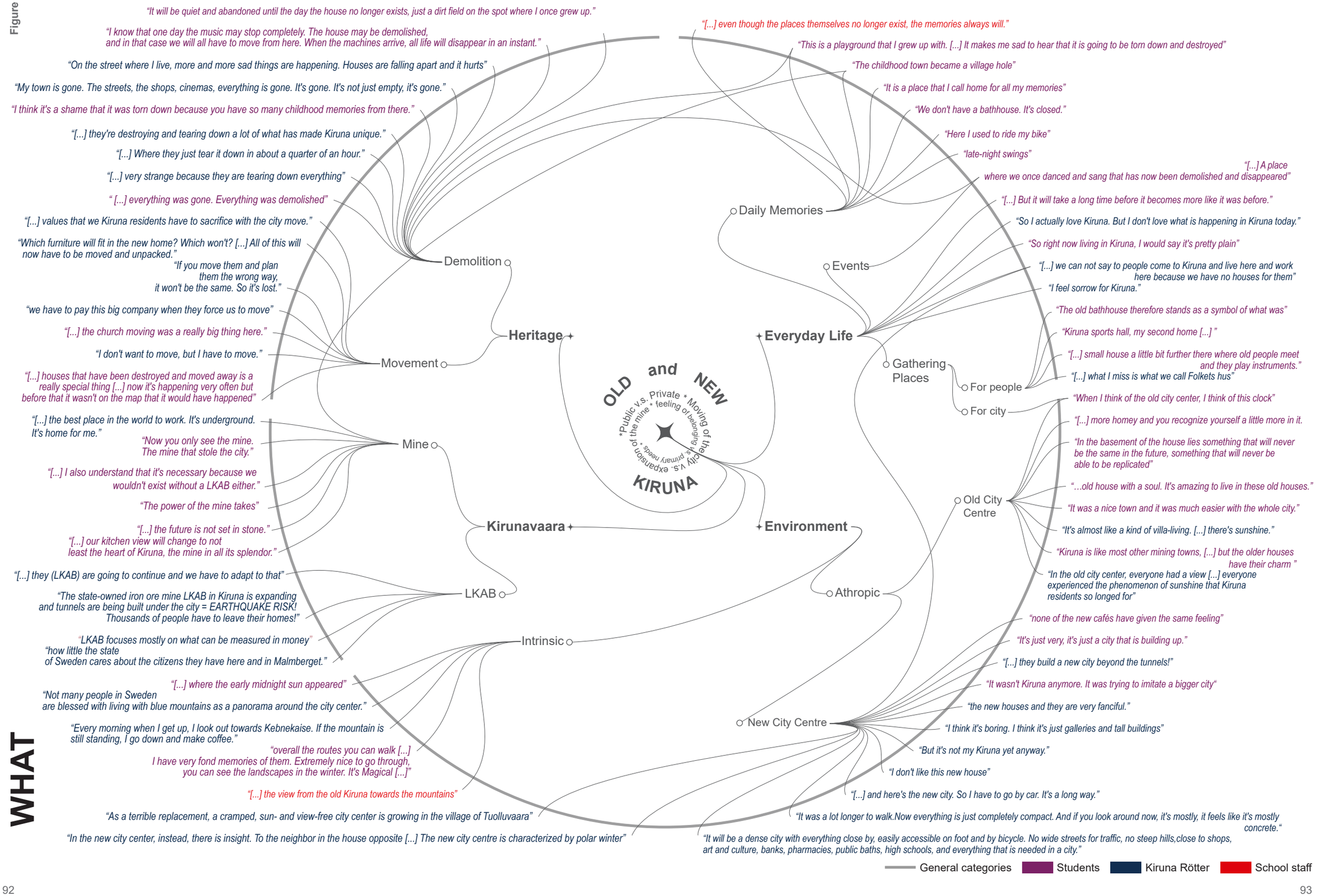

"It will be quiet and abandoned until the day the house no longer exists, just a dirt field on the spot where I once grew up."
"I know that one day the music may stop completely. The house may be demolished, and in that case we will all have to move from here. When the machines arrive, all life will disappear in an instant."
"On the street where I live, more and more sad things are happening. Houses are falling apart and it hurts"
"My town is gone. The streets, the shops, cinemas, everything is gone. It's gone. It's not just empty, it's gone."
"I think it's a shame that it was torn down because you have so many childhood memories from there."
"[...] they're destroying and tearing down a lot of what has made Kiruna unique."
"[...] Where they just tear it down in about a quarter of an hour."
"[...] very strange because they are tearing down everything"
" [...] everything was gone. Everything was demolished"
"[...] values that we Kiruna residents have to sacrifice with the city move."
"Which furniture will fit in the new home? Which won't? [...] All of this will now have to be moved and unpacked."
"If you move them and plan them the wrong way, it won't be the same. So it's lost."
"we have to pay this big company when they force us to move"
"[...] the church moving was a really big thing here."
"I don't want to move, but I have to move."
"[...] houses that have been destroyed and moved away is a really special thing [...] now it's happening very often but before that it wasn't on the map that it would have happened"
"[...] the best place in the world to work. It's underground. It's home for me."
"Now you only see the mine. The mine that stole the city."
"[...] I also understand that it's necessary because we wouldn't exist without a LKAB either."
"The power of the mine takes"
"[...] the future is not set in stone."
"[...] our kitchen view will change to not least the heart of Kiruna, the mine in all its splendor."
"[...] they (LKAB) are going to continue and we have to adapt to that"
"The state-owned iron ore mine LKAB in Kiruna is expanding and tunnels are being built under the city = EARTHQUAKE RISK! Thousands of people have to leave their homes!"
"LKAB focuses mostly on what can be measured in money"
"how little the state of Sweden cares about the citizens they have here and in Malmberget."
"[...] where the early midnight sun appeared"
"Not many people in Sweden are blessed with living with blue mountains as a panorama around the city center."
"Every morning when I get up, I look out towards Kebnekaise. If the mountain is still standing, I go down and make coffee."
"overall the routes you can walk [...] I have very fond memories of them. Extremely nice to go through, you can see the landscapes in the winter. It's Magical [...]"
"[...] the view from the old Kiruna towards the mountains"
"As a terrible replacement, a cramped, sun- and view-free city center is growing in the village of Tuolluvaara"
"In the new city center, instead, there is insight. To the neighbor in the house opposite [...] The new city centre is characterized by polar winter"
"[...] even though the places themselves no longer exist, the memories always will."
"This is a playground that I grew up with. [...] It makes me sad to hear that it is going to be torn down and destroyed"
"The childhood town became a village hole"
"It is a place that I call home for all my memories"
"We don't have a bathhouse. It's closed."
"Here I used to ride my bike"
"late-night swings"
"[...] A place where we once danced and sang that has now been demolished and disappeared"
"[...] But it will take a long time before it becomes more like it was before."
"So I actually love Kiruna. But I don't love what is happening in Kiruna today."
"So right now living in Kiruna, I would say it's pretty plain"
"[...] we can not say to people come to Kiruna and live here and work here because we have no houses for them"
"I feel sorrow for Kiruna."
"The old bathhouse therefore stands as a symbol of what was"
"Kiruna sports hall, my second home [...] "
"[...] small house a little bit further there where old people meet and they play instruments."
"[...] what I miss is what we call Folkets hus"
"When I think of the old city center, I think of this clock"
"[...] more homey and you recognize yourself a little more in it."
"In the basement of the house lies something that will never be the same in the future, something that will never be able to be replicated"
"…old house with a soul. It's amazing to live in these old houses."
"It was a nice town and it was much easier with the whole city."
"It's almost like a kind of villa-living. [...] there's sunshine."
"Kiruna is like most other mining towns, [...] but the older houses have their charm "
"In the old city center, everyone had a view [...] everyone experienced the phenomenon of sunshine that Kiruna residents so longed for"
"none of the new cafés have given the same feeling"
"It's just very, it's just a city that is building up."
"[...] they build a new city beyond the tunnels!"
"It wasn't Kiruna anymore. It was trying to imitate a bigger city"
"the new houses and they are very fanciful."
"I think it's boring. I think it's just galleries and tall buildings"
"But it's not my Kiruna yet anyway."
"I don't like this new house"
"[...] and here's the new city. So I have to go by car. It's a long way."
"It was a lot longer to walk.Now everything is just completely compact. And if you look around now, it's mostly, it feels like it's mostly concrete."
"It will be a dense city with everything close by, easily accessible on foot and by bicycle. No wide streets for traffic, no steep hills,close to shops, art and culture, banks, pharmacies, public baths, high schools, and everything that is needed in a city."
Demolition
Movement
Mine
LKAB
Intrinsic
Heritage
Kirunavaara
Daily Memories
Events
Everyday Life
Gathering Places
For people
For city
Old City Centre
Athropic
Environment
New City Centre
OLD and NEW KIRUNA
*Public v.s. Private * Moving of the mine * feeling of belonging * City v.s. primary needs * expansion
WHAT
General categories
Students
Kiruna Rötter
School staff

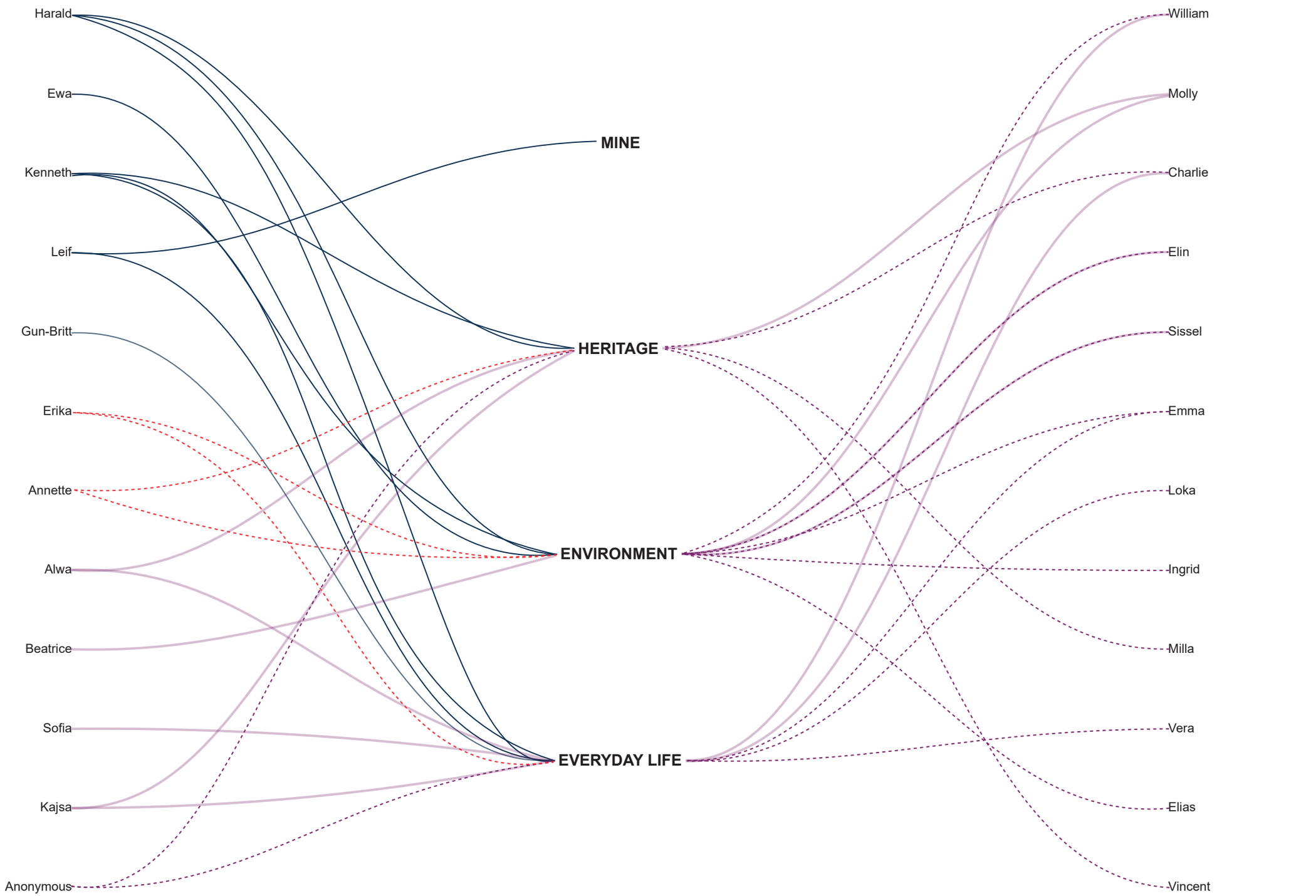
Figure 27

WHO

KIRUNA ROTTER

SCHOOL STAFF

STUDENTS



STUDENTS

Figure 28

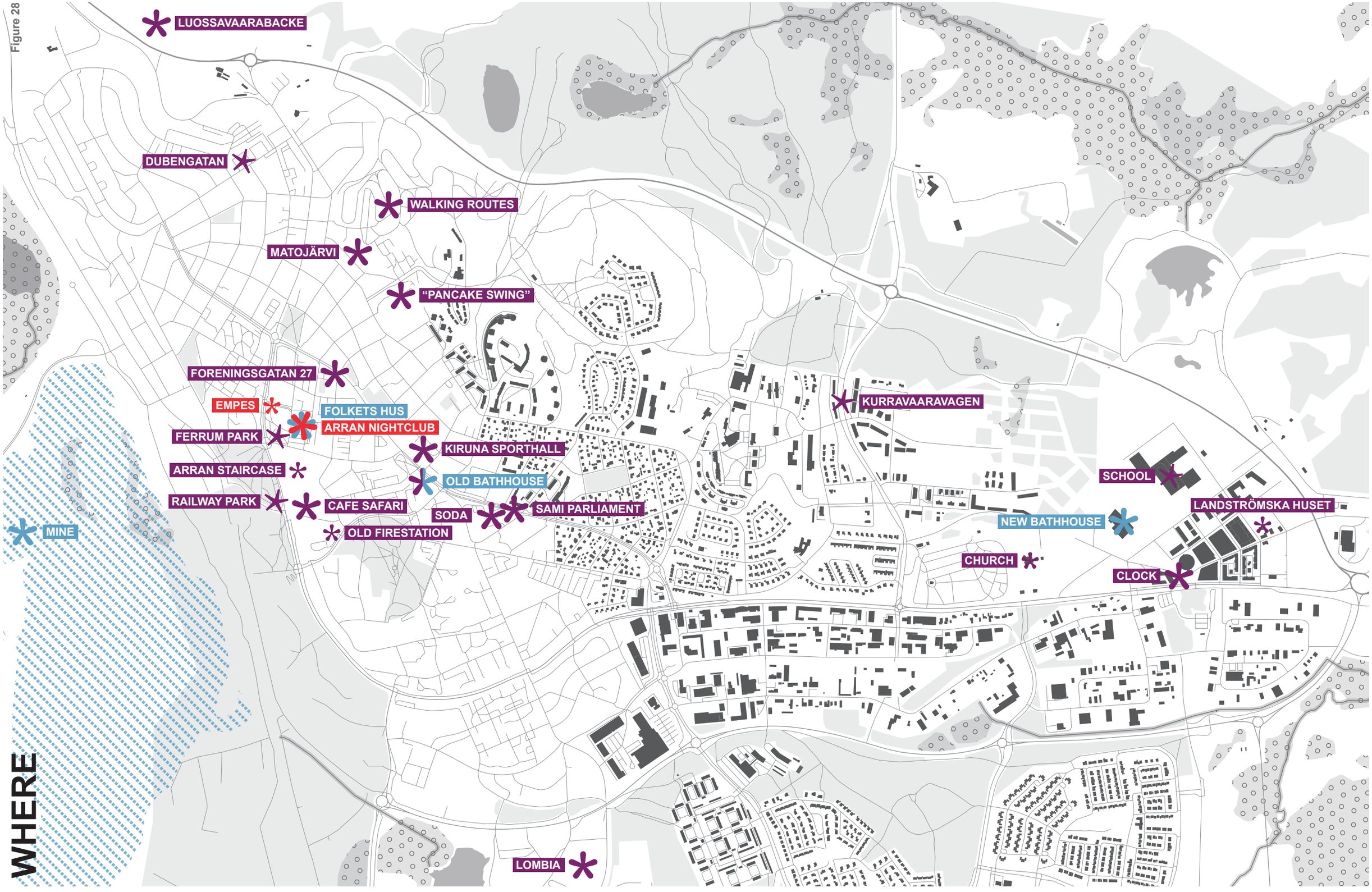
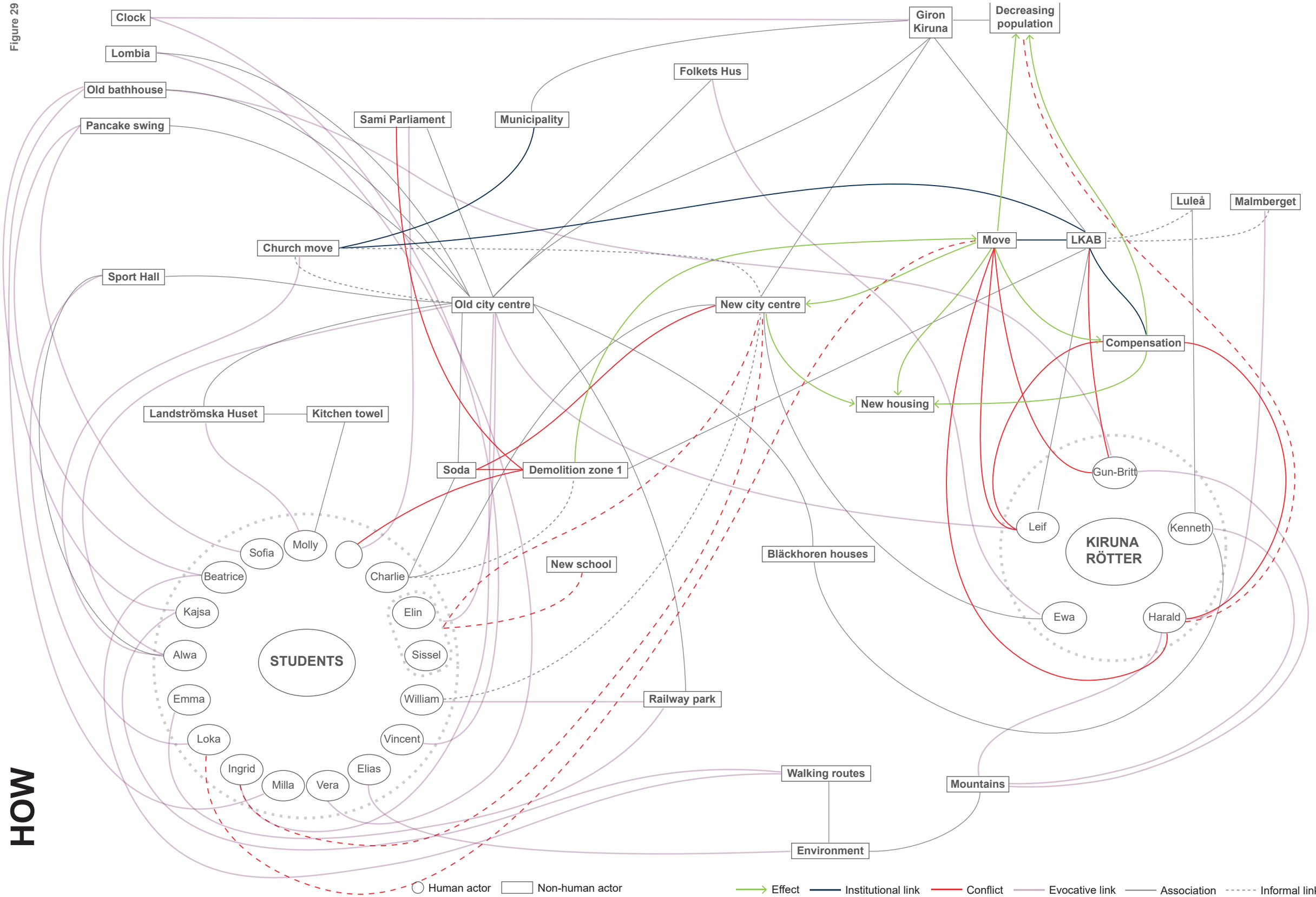

LUOSSAVAARABACKE
DUBENGATAN
WALKING ROUTES
MATOJÄRVI
"PANCAKE SWING"
FORENINGSGATAN 27
EMPES
FOLKETS HUS
ARRAN NIGHTCLUB
FERRUM PARK
KIRUNA SPORTHALL
ARRAN STAIRCASE
OLD BATHHOUSE
RAILWAY PARK
CAFE SAFARI
SODA
SAMI PARLIAMENT
OLD FIRESTATION
MINE
LOMBIA
KURRAVAARAVAGEN
SCHOOL
LANDSTRÖMSKA HUSET
NEW BATHHOUSE
CHURCH
CLOCK
WHERE
Heritage
Environment
Everyday life
Students
Kiruna Rötter
Teacher staff
Kirunavaara

Figure 29



HOW

Figure 30

BUT TRULY, HOW?

European Union
ECoC
Kiruneum
Mining Towers
Hospital
CRMA
Clock
Lombia
Old bathhouse
Pancake swing
Giron Kiruna
Decreasing population
Folkets Hus
Sami Parliament
Municipality
Per Geijer
Kirunavaara
Luleå
Malmberget
Church move
Move
LKAB
Sport Hall
Old city centre
New city centre
Compensation
New housing
Landströmska Huset
Kitchen towel
Soda
Demolition zone 1
Gun-Britt
Leif
Kenneth
KIRUNA RÖTTER
Ewa
Harald
Bläckhoren houses
New school
Molly
Sofia
Beatrice
Charlie
Kajsa
Elin
Alwa
Sissel
STUDENTS
Emma
William
Railway park
Loka
Vincent
Ingrid
Elias
Milla
Vera
Walking routes
Mountains
Environment
Deformation line 2025
Reindeer Herding
Sámi

External human actor
External non-human actor
Design influence
Institutional link
Conflict
Association

GIVING
VALUE

VALUE
GIVING



C09
Aerial photo of Tuollovaara (Börje Rönnberg).

Depos*itories*

Tuollovaara's mining history
Tuollovaara is a suburb in Kiruna Municipality, situated about 4 km east from the city's new city centre. The name comes from one of Kiruna's mining mountains, whose name comes from the Sami word Duolluvárri ("Fire Mountain") (Jakubowska 2025, 26).
The ore bodies of Tullovaara were discovered in the late summer of 1897. Although there are divided opinions on who actually found them, the most accredited ones recognize the discovery of the ore bodies to Hjalmar Lundbohm and August Malm, the mine manager and mining bailiff respectively.

In 1990, the Tuolluvaara Mining Company (Tuolluvaara Gruvaktiebolag TGA) was established for the exploitation of the ore deposit, which was sold to a consortium of 8 Swedish mining companies, as co-owners (Persson 2009, 8).
The mining area extended up the mountain, which still has physical structures used for mining and west of the current location of the E10. In between business buildings could be found (Sweco 2024, 6).The Tullovaara deposit is located in several different bodies, scattered on the mountain, with the largest of them all about 150 meters in length and 30 metres in width.
The ore in Toullovara was of the same type as in Kirunavaara, but with very little phosphorus mixture (which was considered very valuable, as the ore could be used directly in steel production), and consisted primarily of magnatite, apatite and amphibole, which were found as passages on the porphyry [034] in the rock (Persson 2009, 42).

Nowadays, we are able to know the type of work that was conducted in Tuollovaara mine thanks to Curt Persson, who has described it combining first-hand oral histories and archival company records (through the analysis of transcripts, comments and photographs). The core qualitative details on the early mining operations were captured through audio recordings and interviews carried out by the Toullovaara Gruvaktiebola (TGA) in 1954. They originally interviewed 8 people, who all lived or worked in Tuollovaara before 1910 and who were able to provide insights on the manual operation that they had to carry out in the mine (Persson 2009, 45-48). According to the various sources that were reconstructed by Persson, the extraction of the ore at TGA was divided into 5 stages, beginning with the preparation of the ground and ending with the transportation of the ore.

034
For us present time considers the period between February and September 2026.

The first step, before any iron ore could be extracted was evacuation, meaning clearance works, in order to free the ore bodies from soil and other overlying materials. This heavy and manual work started around the late summer of 1900, just a few years after the iron ore bodies discoveries. Early works also included manual digging for industrial foundations (such as the compressor station [035]). In winter this operation could become especially taxing, as the winter frost could make the ground as hard as ”burnt cement” (Persson 2009, 49) , therefore workers would use specialized heating pots to warm the pit walls and make the excavation more manageable.
The second step, after the removal of earth, was drilling, at first by hand and only in 1907 the transition to machine drilling was fully implemented. According to the interviews, this was typically done in pairs, as one worker swung a sledgehammer while the other held and rotated the steel drill. In favorable conditions, meaning if the rock in question was particularly fine, one team was able to hand drill down to 3 meters and a half per shift (with each shift lasting 10 hours), but in case of a hard rock they would only be able to drill up to 1 metre deep. Subsequently, TGA introduced drilling machines, purchasing electricity from LKAB’s steam power plant (which supplied not only the industry but also their own residential buildings (Persson 2009, 50-51).
After drilling, came the shooting, meaning loading dynamite and blasting. The holes were packed with “Gyttorpsdynamit”, which was an early type of dynamite, highly sensitive to moisture and that froze easily when temperatures dropped under -5° C. The blaster was personally responsible for purchasing the dynamite from the mining company, through a wage-deduction system.
However, if a blast failed to break enough rock the blaster could suffer directly a financial loss on the shift (Persson 2009, 51-52). The next step consisted in loading the blasted rocks. According to the interviewee, this work was considered the most injury-prone and physically demanding job in the mine. For instance, in winter most of the ore quickly froze into clumps, which had to be broken by the worker with a sledge hammer into loadable pieces. During a 10 hour shift, two workers were able to fill a 2-ton wooden wagon (Persson 2009, 52).
Finally, before automated transport was built, ore was moved from the mine to the railway by using horse-drawn sleds. TGA then built an aerial cableway system to transport ore buckets from the mine directly to the railway, where transport workers weighted and sorted the ore into different quality grades at the end (Persson 2009, 53).

The simultaneous development of LKAB’s Kiruna and TGA’s Tuollovaara represent a stark contrast in industrial planning, living conditions and corporate philosophy.

Kiruna was meticulously arranged to be a “model town”. Hjalmar Lundbohm believed that better living conditions and cultural exposure would refine and stabilize the workforce. To prevent the chaotic “shacktowns” (kåkstäder) (Persson 2009, 41) that had spread over Malmberget, Lundbohm organized a rigorous city plan (established in April 1900), carefully positioning the town to protect it from the harsh winters. By 1904, LKAB employees were provided with housing with indoor running water and functional sewage systems. Kiruna, finally, established pretty soon municipal infrastructure, complete with public utilities, a hospital and a fire department.

On the other hand, TGA was run by a corporate board located in southern Sweden, with no permanent, on-site manager present until 1907. With the establishment of the mining activity, the area of the Tuollovaara mountain transitioned from an uninhabited land into a mining settlement from. As initially, there was no housing, workers were forced to hike for 5 km from Kiruna daily. TGA’s first temporary barracks were built in 1900, but lacked mattresses and straw, forcing workers to sleep on wooden planks in their dirty clothes, which would be worn until they literally rotted from sweat. A second set of barracks was built in 1901, but constituted a similar situation of primitive housing conditions. Albert Johansson Letho recalled, in one of the interviews, that he had to shovel out dirt and herring intestines lying on the ground (Persson 2009, 55) in order to get monetary compensation.

Before TGA built proper rentals, a few residents built some simple private shacks that could house up to 10 people at once. Initially there was no fresh water, with workers fetching drinking water from dirty laundry pits. In his interview, Letho joked that if the water was especially muddy, they would brew the coffee stronger to hide it.
Only in 1907 TGA started to build rental units, which consisted in a single room with a closet, a stove and no electricity; whereas in 1910 the company drilled a water well for the community (Persson 2009, 57-58).
While initially workers had to walk to Kiruna to purchase produce, some essential shops gradually opened in Tuollovaara, nonetheless TGA still actively chose to rely on the infrastructure and public services of the neighboring Kiruna to avoid making their own investments.

Tuollovaara had a significantly slower development of housing and infrastructure and it wasn’t until the First World War that construction of public infrastructure started to actually take off. Surely, the absence of an on-site manager combined with the community organization have contributed to the slowdown. In fact, Tuollovaara’s community was sorted under the old municipality of Jukkasjärvi and included in the municipal scheme of Kiruna only in 1948, when it was incorporated in the city.
Finally, TGA was bought by LKAB in 1974 and the mining activity eventually closed in 1982 due to low profits during the steel crisis.

035
A central station that generates and supplies high-pressure compressed air to power mining operations.



Figure 31
Tuolluvaara-Kiruna cable car, in operation since 1905, Kiruna side with ore storage area (Vilsson).



Figure 32
*Cable car 1920 (*Borg Mesch).



Figure 33
Inauguration of the Kiruna-Tuolluvaara railway line 12 September 1958 (Railway Museum).



Figure 34
View on TGA workshop building
(Tekniska museet).

Post-industrial landscape

Although throughout the years the mining area has undergone significant changes, with the demolition of many of the original buildings, some are still present nowadays. Among these we can find two brick buildings from the 1910s, a smaller one that served as “engine house” and a bigger one that served as a workshop respectively, as well as two concrete mining shafts. The first one (C-laven) is a 76.5 meters high cylindrical building that was built in 1952 using slipform casting [036] and was used for hoisting ore. It is 76.5 meters high and, as of today, the tallest in Sweden, thereby distinguishing itself from other mining towers in the country. The second one (PM-laven), which was built in 1958, is a 52 meters high concrete shaft with a square design that was used for the transportation of workers, material and waste rock.

The remaining buildings, today, represent a fundamental pawn in the “new” Kiruna. When the news about the city centre’s relocation came out and the winning team of the masterplan competition was tasked with the creation of a development plan, it became very clear that the new city should grow from the existing one, with existing buildings and physical structures acting as guiding principles. Tuollovaara and the mining area, therefore, play a central role and are described as “a story-telling area with buildings and structures that convey Kiruna’s industrial heritage”.
The new city centre, by Ghillardi + Hellsten, is planned based on a central park strip in the same location as the cable car, and the later railway, of the mining area. The park strip, with the mining towers in the background, not only connects the new city centre with the former mining area, but acts also as a medium through which the cultural and historical story of Kiruna and TGA can emerge.
In fact, the two concrete mining towers stand as powerful visual post industrial landmarks, as they are visible from any point of the city (Sweco 2024, 13-14) (see Figure 40).

The site is currently the focus of intensive planning by Kiruna Kommun. There have been disagreements with LKAB over whether to demolish the towers to build housing, as one (C-laven) is owned by LKAB and the other (PM-laven) is owned by the municipality, adding another layer of disagreement. Current efforts are focused on protecting the industrial ruins, while the city is currently planning the construction of a new hospital, school and other public facilities directly adjacent to the TGA boundary.

Discussions on the demolition and the “cleaning up” of the area aren’t anything new. In fact, letters dating back to 1989, just over a decade from the acquisition of TGA by LKAB, already discuss the possibility.
“Beslut om efterbehandlingsplan från 1989” (Decision on Remediation Plan from 1989) is a collection of archival documents that records the final environmental remediation and closing procedures of the TGA mining area in 1989. It consists of 5 documents exchanged between

036
Slipform casting is a Swedish technique that involves the concrete form following the casting upwards using hydraulic jacks.

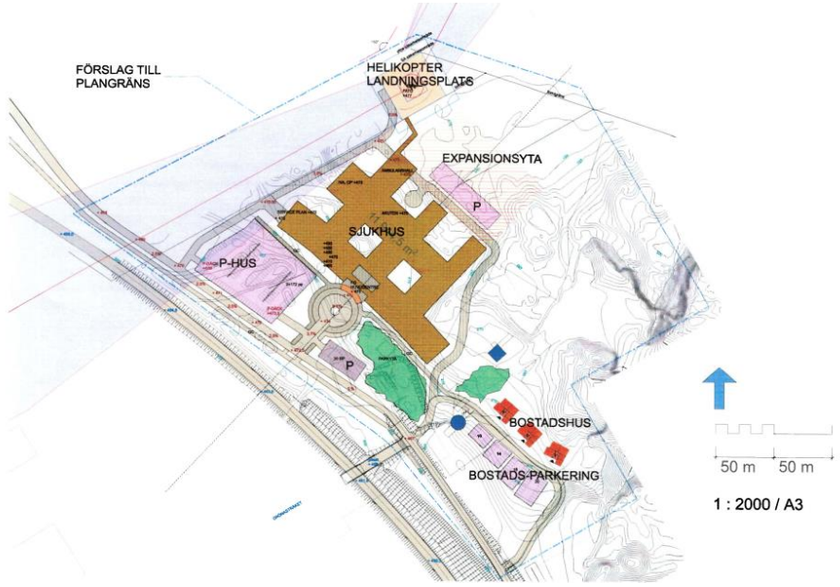
the County's Administrative Board, Kiruna Municipality and LKAB.
In chronological order, the first document (dated 14/04/1989) outlines an 11 point remediation program, developed by LKAB, that aims at cleaning up the TGA industrial area. Most of it concerns actions such as the demolition of the pump house, sealing the fan station's shafts with concrete, moving fences and clearing up scrap steel/machinery around the two headframe towers.
This protocol was later submitted to the County Administrative Board (19/04/1989), which then forwarded it to Kiruna's Municipality (12/05/1989), requesting a revision of the proposals with feedback from the local Planning and Environmental Board. The latter address local concerns regarding leftover mining debris (like cables and pipes), highlight risks and requests clarifications. Finally, it underlines that the site's long-term compatibility with future uses has not been clarified and is therefore expected to be investigated in the then ongoing work of the detailed masterplan for central Kiruna and its surroundings.
In the last document (30/06/1989), the County Administrative Board formally approves the remediation program proposed by LKAB, which is organized in 11 key points, integrated with the clarifications that were requested by the Local and Planning Environmental Board.
Similarly to the original protocol, most of them regard actions such as the immediate grading of unused slopes or the levelling of the upper dam embankment to facilitate vegetative growth. Of particular importance is point 8, according to which the Board orders that the question of the demolition of one or both of the mining headframes remain open until a final decision on whether to preserve them as cultural monuments can be made.

Thirty-five years later, with the move and the urban transformations occurring in Kiruna, the site became a central focus in Kiruna' relocation. The debate on the TGA area is reopened and new controversies have arisen, especially with the planning of the new hospital of Kiruna.
"It's encouraging that the Municipality of Kiruna emphasizes that the location for the new Kiruna Hospital must meet the region's specific requirements. Therefore, it becomes even more important to also evaluate our proposal to build the hospital at Tuolluvaaratornen, [...] We want to develop healthcare in Kiruna, and the residents of Kiruna deserve an efficient, flexible, and cost-effective on-site hospital as soon as possible. For this reason, in spring 2021, we explained to the municipality that we also wanted to evaluate our alternative. In a letter to the municipality in September 2022, LKAB wrote that the Tuolluvaaratornen area is buildable and that it is crucial that work on the detailed plan is not delayed" explained Ulf Bergman, former regional director (Region Norrbotten 2022).

According to the application request for planning permission, the Norrbotten Region designed a hospital with a building volume of three to five stories, located facing Kiruna's new city centre and running parallel to the concrete mining towers. Additional features of the plan include

a two-storey parking garage (providing space up to 340 vehicles), a helipad and apartment buildings to provide local housing (Sweco 2024, 9)

Figure 35
Region Norrbotten's proposal for the design of buildings, from the region's application/request for planning permission (Kiruna Municipality).



On September 3, 2024, the Cultural Environment Department of the Norbottens Museum issued the document *"Yttrande TGA Kiruna"* (Official Planning Opinion -TGA Kiruna).
It is addressed to Kiruna Municipality in regards to Region Norbotten's plan to construct a new hospital in the historic TGA mining area. Due to Kiruna's ongoing urban transformation much has changed and many of the buildings that were symbolic to the city and its citizens have already been demolished or moved. In this context, the TGA mining area is significant for the new city centre, as it represents today the only cultural heritage environment that has not been relocated, making its in-situ preservation of extreme importance for the local identity and historical grounding of the new city centre:
"The cultural environment [...] possesses high industrial-historical and socio-historical values, helping to convey the unique historical character of the site. Furthermore, the area is significant for Kiruna's historical anchoring and local identity. The cultural environment thus mirrors the mining activities characteristic of the city—from both an early historical perspective and a contemporary one."

As mentioned before, the TGA area currently preserves four primary industrial structures, the two headframes and the two brick buildings. In the application for a planning notice, only the two concrete towers remain, while both of the 1910s brick buildings were scheduled for demolition. The museum argues that these are of crucial importance, as they provide context to the previous operations of the area and context to the towers.

The museum emphasizes that the TGA site is a critical component of Kiruna's designated areas of National Interest for Cultural Environment Preservation, which underlines its "urban environment and industrial landscape from the early 20th century where the ideals of the era for a model society were realized in a unique way in the undeveloped mountain landscape."
Finally the museum appeals to Region Norrbotten to act as a "model for stewardship", ensuring that all four buildings are preserved and integrated thoughtfully into the planning of the new hospital district.

The conflict reaches a legal "boiling point" when LKAB plans to demolish the square PM-laven, but the municipal building committee denies the required demolition start-notice on cultural-heritage grounds.
LKAB appeals a lower court judgment that upheld the municipality's denial and, on December 19, 2025, *"Överklagande av Mark- och miljödomstolens"* (Appeal against the Land and Environment Court) is submitted to the Svea Court of Appeal.
The document develops the legal arguments for LKAB's legal appeal against a lower court ruling that blocked the historic mining headframe (gruvlaven) on the property of Tuollovaara 1:22.
In the motives for the demolition of the Mining Headframe, LKAB argues that historical-cultural interests cannot constitute a reason to withhold the demolition, which must proceed according to them, based on several key arguments.
Due to the ground deformations caused by the subleval caving mining method [037] large parts of the city have already been decommissioned. Given the scarcity of buildable land, the company intends to decommission the industrial area and open it up to enable new construction, including housing, commercial businesses and workplaces as well as critical public infrastructure (highlighting the planned new hospital). The current placement of the two towers, alongside its required safety/clearance zones that would be necessary, obstacle this community development.
The court ruled that the headframes, and the adjacent structures, are part of a built environment of significant historical-cultural value and therefore their demolition would constitute a distortion of said built environment. LKAB contests this definition of built environment, stating that:
"We are talking about two elevator towers (mining headframes) and minor nearby buildings. If this 'group' is partitioned off as its own independent built environment, it would practically mean that every building/facility constitutes its own built environment. Even though a legal definition is lacking, it is difficult to see how the term 'built environment' can semantically be applied to this tiny cluster of structures."

Moreover, if the headframes are viewed as part of a larger context (the city), with the new Kiruna city centre, and the demolition of most parts of the former, the built environment and the historical character of the site have already been distorted and its "historical-cultural value must be considered affected to such a high degree that the value no longer asserts itself strongly".
The TGA area has already been heavily disrupted since most of its original buildings have been decommissioned and dismantled in favor of the construction of the E10 highway (see Figure 36 and Figure 37).
The company claims that a municipal start-notice is meant to regulate how a demolition is physically carried out, but not act as an indefinite backdoor ban on a non-permit-required demolition. Ultimately, LKAB states that essential public interest in the development of the new town centre outweighs the cultural-heritage value of the headframes and requests an official advisory opinion from Boverket (National Board of Housing, Building and Planning) to clarify these legal definitions.

Figure 36
On the left, satellite view 2008 (Google Earth).

Figure 37
On the right, satellite view 2022 (Google Earth).



Recognizing the broad systemic impact of the dispute, the Svea Court of Appeal grants leave to appeal and formally requests an expert advisory opinion from Boverket.
Boverket Advisory Opinion is asked to review the start-notice for demolition and to provide a meaning of "built environment", therefore the national authority issues a split technical assessment.
Although the Planning and Building Act does not provide a definition of "built environment", it defines the term "built development" as a collection of structures that does not solely consist of facilities other than buildings (Chapter 1, Section 4 of the PBL). The legislative history of the PBL [038] states that a "collection" refers to at least three buildings, therefore, according to Boverket, the two mining towers with their adjacent buildings constitute a built environment and any demolition would significantly alter the characteristics of said development, thereby entailing a distortion of the historic built environment.
However, Boverket rules that a municipal building committee cannot refuse a start-notice for demolition on the grounds of preservation or distortion. Because the PBL provides clear compensation paths for a denied demolition permit but none for a denied start-notice, refusing a start-notice constitutes an uncompensated and illegal infringement

037
Technique used for large-scale underground excavation, for vertical/steeply inclined ore bodies.

038
Planning and Building Act.

on private property rights. The start-notice must only focus on how the physical work is executed.

Finally, on March 11, 2026, the Svea Court of Appeal requested that the Kiruna Municipal Committee submit its final written response to LKAB's appeal by March 25, 2026, paving the way for a final judicial ruling on the fate of the tower.

Although we are not aware what the final decision is, as it was taken after our period of stay in Kiruna had ended, in an article published by Region Norbotten a visual illustration of the future hospital is shown and all the buildings of the former TGA area seem to have been preserved.



Figure 38
Kiruna Hospital (Sweco).

According to the last update, on March 27, 2026, the figure above constitute the most recent version of the plan of the hospital that is available to the public.
From the plan we can observe a general indicative area (in orange) dedicated to the hospital, next to the TGA buildings, surrounded by nature and parks (light green areas). Additionally the plan envisioned the construction of a new road (two car lanes and one pedestrian/ bicycle), passing directly in front of the former workshop building, to access the hospital and a series of roundabouts connecting the new development with the city centre and the E10 highway.

The development of a new hospital reachable from various accesses is crucial for the city, nonetheless we began questioning ourselves:
Is it possible to further unite the TGA area with the park strip and the new city centre?
Can it be done while still maintaining the access points from the city centre, the E10 and Tuollovaara?
Can it become an integral part of the city without being so strongly separated by two (necessary) streets? Does TGA have to become an unreachable island surrounded by change?

Our analysis of the site has been carried out in layers, overlapping the current situation with the technical plan developed by Kiruna Kommun and our proposal.

All green elements are extracted from municipal technical documents published by the municipality for the community. These documents specifically showcase the areas that will be built and their underlying function. The details reveal the hospital volumes, and the increased vehicular circulation in the north-east area of the city.

In contrast, pink is used to highlight the implementations we would maintain, and add in order to separate pedestrian and high intensity vehicular traffic. Aiming to decrease impact, the project revises vehicular traffic and moves the second access from the TGA area to the E10 highway, creating a fully pedestrian zone. Creating a secure access from the bridge is fundamental to prevent the isolation of the site, and proceed to develop a gathering point for the community.

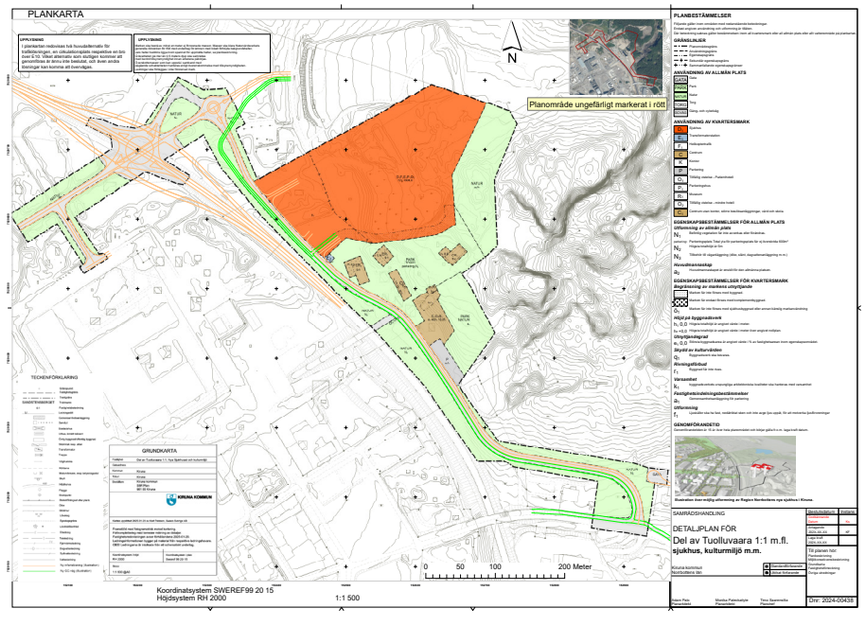


Figure 39
Detailed plan for part of Tuolluvaara 1:1 et al. – hospital, cultural environment (Kiruna kommun).

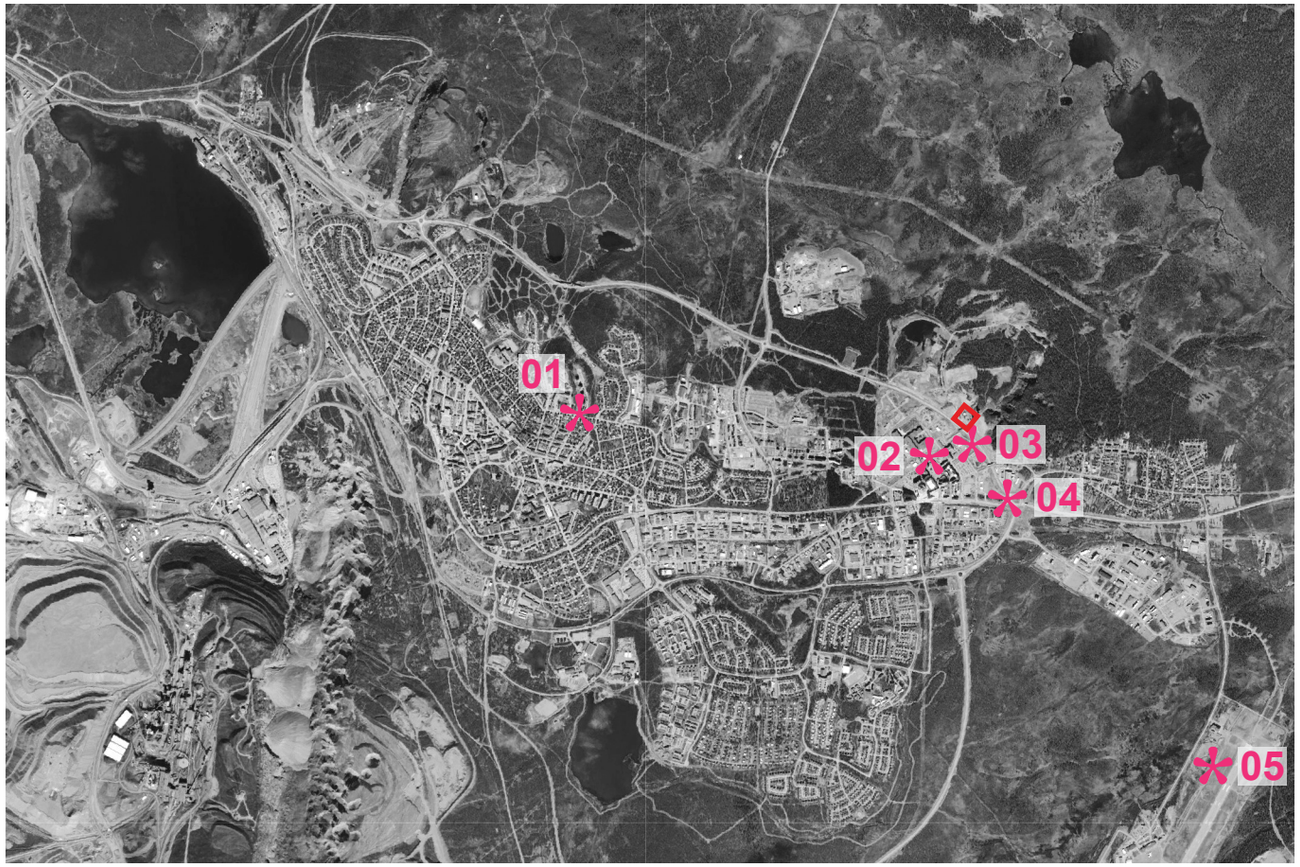
Figure 40



03
View from behind NKV Kontorsvaror AB, infront of the E10.



04
View from E10, entering Kiruna

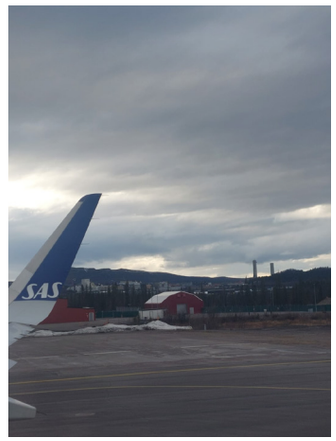




01 View from Terrassgatan street on the pedestrain path



02
View through the future city park , in Kiruna's new city center



05
View from airport landing strip in Kiruna

TGA VIEWS

Figure 41



0 2.5 5 10m

EXISTING

Built area

Roads

PROJECT

Proposed roads

Area

HOSPITAL PROJECT

Proposed roads

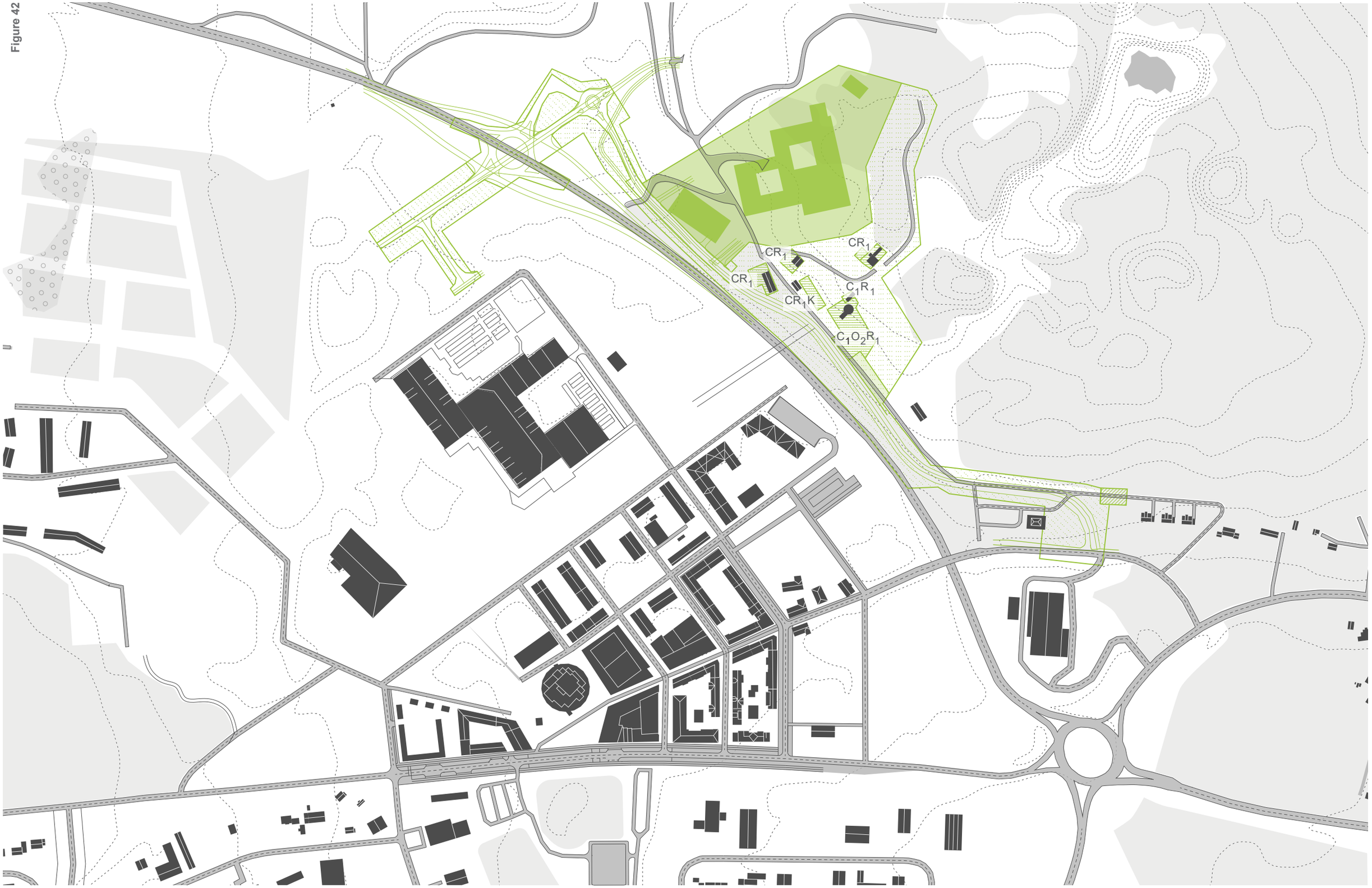
Area

Built Area

Centrum

Park

Figure 42



0 2.5 5 10m

EXISTING

Built area Roads

HOSPITAL

C Centre K Offices R_1 Museum

O_2 Small hotel C_1 City centre Proposed roads Area Built Area Centrum Park

Figure 43


0 2.5 5 10m
EXISTING
Built area
Roads
PROJECT
Proposed roads
Building
Area
Road

DEPOSITORIES

When somebody researches “Kiruna” online, these are the typical headlines of news and articles that show up:

“Kiruna: The city that moved to make way for a mine”. (Williams 2026)

“Viaggio a Kiruna, la città lappone che aspetta di essere spostata.”
A trip to Kiruna, the Lappish city waiting to be moved. (Didino 2016)

“It Sits on a Vast Haul of Mineral Wealth. Now This Arctic City Must Be Moved.” (Rasmussen 2025)

“Kiruna, la città svedese che si sposta e si reinventa con l’AR.”
Kiruna, the Swedish city that moves and reinvents itself with AR (Innovando News 2026)

“The moving of the Swedish mining city Kiruna.” (Thieme 2020)

“Kiruna, la città che trasloca per far spazio alla miniera.” Kiruna, the city that moves to make room for the mine. (Drago 2022)

“Kiruna: the town being moved 3km east so it doesn’t fall into a mine.” (Wainwright 2014)

“Kiruna, la città che cammina.” Kiruna, the city that walks. (Marques da Silva 2023)

“Kiruna, la città spostata di 3 km nella Lapponia svedese.” Kiruna, the city moved 3 km in Swedish Lapland. (Peluso 2020)

In all of them, the narrative of a town that is relocated due to the expansion of the mine is brought to the fore, as if the whole of the urban fabric can be lifted and repositioned with a simple move. In this story, urban development is a contractual act and buildings become goods. How can this narrative be supported when only 23 buildings out of more than 3200 [039], 1% approximately, are actually being moved and the new city centre is being built from scratch?
Moreover, the city is always associated with the mine. Surely, Kiruna was a company town purposefully planned in 1900 by LKAB Hjalmar Lundbohm (Persson 2009, 41) and created to accommodate the workers of Kirunavaara, but, after the analysis carried out, can this still be applied today?

What has emerged from the interviews and from the interactions with the citizens (during our fieldwork study), is that, despite the stereotypical association *city-mine*, people didn’t tell us about the mine, but they told us about the mundane moments, which are the hardest to let go of when you’re forced to pack up your life and move [040].

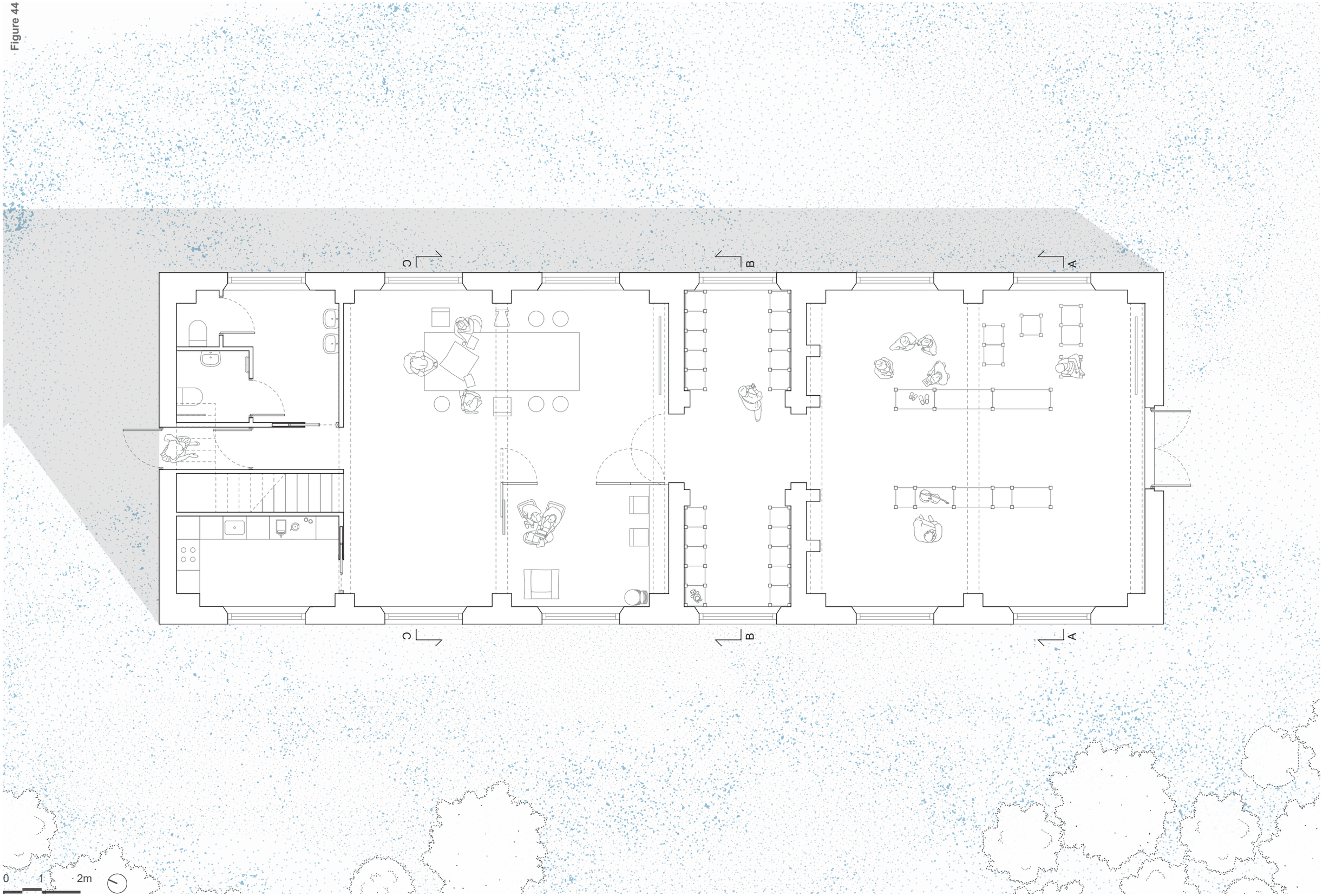
039
The exact number of buildings is not known, but it sums up to approximately 3200 homes plus all public buildings, including a bathhouse, schools, church, library and hospital. https://www.ice.org.uk/what-is-civil-engineering/infrastructure-projects/moving-the-city-of-kiruna.

040
This can be also observed in our Controversy Atlas, more specifically in *Who?*.

How can the mundane and the routine be preserved?

“DEPOSI*TORIES*” envisions the creation of a museum in TGA’s former workshop building.
From its literal meaning, a depository is an entity or institution where goods, documents or valuables are stored.
In line with Kiruna’s ECoC cultural and artistic program to create a new gathering space to learn about the past, present and future of Kiruna (KIRUNEUM) (Municipality of Kiruna 2024, 21), our project starts from the Archive of the Everyday and the city’s existing collection of objects, to create an exhibition built on people and stories behind physical pieces.
Starting from these premises, the project foresees a museum as “storage”, where the objects and stories displayed are part of the everyday. The experience of the museum can be divided into three sections.
From the gate of the building, one can enter the main exhibition space. The room is characterized by two wooden shelves, which are positioned in line with the openings of the building, allowing the visitor to have a clear view of all the rooms. These shelves have a simple and modular design and can vary in height based on the object that is placed (see inspiration #1, Appendix D). At the back, where used to be the heaters, are now displayed two canvases on which stories and drawing made by the citizens can be attached (see inspiration #2, Appendix D).
Moving forward to the second part of the exhibition, we can find the actual “storage” where different objects can be deposited (see inspiration #3, Appendix D).
Finally, the last part, which can be accessed through a secondary door, acts as a gathering space, where both public and private events can occur. The presence of sliding panels allows the space to be re-shaped or closed based on the necessity.
The modularity and simplicity of the space declares an intention to create a space that can support community engagement in its construction. Preserving a feeling of home the space will thus be constructed by the citizens for the citizens, preserving their memories of Kiruna.

Figure 44



Section view AA, out of scale



Section view BB, out of scale



Section view CC, out of scale



C10
Train station in Kiruna
(picture by authors).

Final remarks

Limitations

The major limitation of our research is centered on the author's perspective of the controversy. Qualitative research develops limitations in its approach, the most common results in the bias of the authors in analysing the situation. Sought to remain impartial in the analysis, the interviews were conducted on site and with open-ended questions and aimed to interview the interviewee impartially. Furthermore, the document analysis was also conducted objectively, considering multiple perspectives. Nonetheless it is inevitable that as we conducted the fieldwork on site we were influenced by a bias, centered on the inhabitants perspective.

Mapping controversies using qualitative methods also results in a limitation. In Venturini's approach he identifies digital methods as a means to help overcome the divide between quantitative and qualitative methods (Venturini and Munch 2022, 144-148) therefore expanding the scope of mapping. In our research we have limited our approach to digital methods and have analyzed critically the media presence, but without performing quantitative research. Aiming to trace the process of the controversies through their social implication we saw a greater adequacy in choosing to conduct media research following this approach. Nonetheless we do not exclude the possibility of proposing a digital method research, as intended by Venturini, to enrich the study.

A central role to our study is the period of time in which it was conducted. Overcoming the critiques of Latour's ANT we have conducted the study considering time, but its limited duration becomes its constraint. Spanning from February 2026 our research has considered a synchronic period in which the controversies revealed themselves. Even though our research in Kiruna constituted one month, we monitored the situation through media presence once we left the city. Therefore the limitation of the study is the essence of the time in which it was conducted, as going further in both past and present is beyond the scope and resources of the thesis, and its authors.

However, based on the research conducted a spark of a curiosity emerged, asking us to move to the past of Kiruna's archive to begin mapping the controversy from its origin.

Conclusion

Setting the scene in Kiruna we have analysed the complexities that lie behind this picturesque town of the arctic circle. Through the state of the art we identified research conducted by other scholars, displaying that through their temporality the complexities were tangling without restraints.*"Build out Kiruna"* uncovered the acceptance of the citizens in moving as a way to preserve their memories of the environment, and the cannibalistic approach of the mine on the city. *"Kiruna Forever"* dissects the relocation under different scopes, moving from project overview to questioning the size and definition of the city, while exploring issues of identity in its multiplicity of cultures. *"How to move a city"* examines the documentational procedure that entails the process, highlighting the technical condition. *"Transforming Kiruna: Producing Space, Society, and Legacies of Inequality in the Swedish Ore Fields"* researches the inequalities of minority groups and their relation and implications within the city.

The work conducted for the Kiruna Explorer inched us closer to our research topic, and aided in identifying the research gap. Visualizing the process required to move a city and graphically highlighting the complexity behind its technical documentation, drew us to question the social controversies, which we had begun seeing in the state of the art. Therefore we urged to find an answer to how it was possible to describe the local controversies and implications that are tangled in the urban context of Kiruna, which is simultaneously shaped by external (global) forces, both textually and visually.

Developed in two parts the thesis untangles the controversies present in contemporary and future Kiruna, through the use of the Actor Network Theory (developed in Controversy Mapping by Ventuini and Munk, and Mapping Controversies in Architecture by Yaneva). Characterized by a black background, Futures of Kiruna, textually unravels the complexities that characterise the city's future.

"The New Red Line" displays the shocking expansion of the mine, reflecting the citizens' turmoil. The analysis of media coverage and textual documents elaborates on the implications that an additional movement would entail.

"Out of site, out of mine" describes the procedure behind the CRMA as one of the strategies set by the Green Deal, and how it connects to the LKABs strategic projectS to gain a larger monopoly of the Norrbotten region. Highlighting the consequences on the environment, this section visually displays the location of the new mines and their direct impact on Sami reindeer herding in Sapmi, asking how truly green these projects are.

"Capital of Culture" moves towards a touristic connotation of its environment. Analysing the path to success it questions the "European" role of the city and its meaning, and the future participative standpoint of its citizens in partaking in the ECoC 2029.

Enclosed in their chapter the futures of Kiruna appear as isolated scenarios. A timeline shown at the end deciphers the role of power in controlling the city's future, but can be comprehended once the text is read. Clustered in the last 4 years, an increased presence of the European Union can be seen. Could the monopoly of Kiruna be moving from LKAB to the EU? And is this a measure to gain an advantage in the race towards the arctic?

"Reset : Present" brings us back. The fieldwork conducted in Kiruna, along with the workshop for the Archive of Everyday, became the base for analysing the controversy present in the mundane. Through the creation of an atlas (when, what, who, where, how, and but truly how) we unpack the debate and carefully showcase the single threads of the fray. We have deliberately chosen to exclude a commentary as, as textiles can take on varying patterns with their fray, unpacking the controversy of Kiruna reveals the layers behind but does not aim to create a pattern. The reader interprets their own information, and is thus freed from the limitation of the author's bias.

We only take the time to note the difference between the how and the truly how. Truly how becomes the intersection of the first half of the thesis, integrating the global factors into the space of the mundane.

In the final part of the thesis we demonstrate a space where all the controversies materialize, the TGA ex-mining site. Highlighting its adverse historicism we demonstrate the multiple changes the site has undergone, and its future modifications. Captured in a debate between the municipality, LKAB and the citizens, the TGA mining area has plans to become the location for the new hospital of Kiruna, placing in the adjacent spaces buildings for recovery or other forms of hotel modeled recoveries. This would entail completely changing the landscape of the environment. Following a legal appeal the works had been postponed until June 2026 when a decision was made, but the information is yet to be disclosed.

The role of a hospital in a city is decisive. Instead of questioning the project's location entirely we aimed to find a solution that would not isolate the TGA mining area, integrating it in the fabric of the new city center. "DEPO*SI*T*ORIES*" repurposes TGA's workshop building to create a museum that valorizes the citizens and their mundane experiences of Kiruna. Following the simplicity of the space, and based on enriching community engagement, the intervention minimally acts to create a space which evokes a feeling of home. Based on the project of Archive of the Everyday and the city's existing collection of objects, the museum becomes a safe where citizens can go to trace back their stories, or enjoy each other's company.

Final thoughts

We have thus mapped the controversy both textually and visually in the very specific time frame which it was conducted. The futures in which Kiruna will move are multiple and will probably simultaneously occur. With the fast changing environment we ought to freeze time temporarily to visualize the details of the controversy. We are aware of the limitations this brings, but we also acknowledge the potential in undertaking this process.

Furthermore, from this analysis we saw the divergence of scopes that time could produce. In June 2026 LKAB obtained the environmental permit for Malmberget, the new red line has sparked disturbances not only in the ground but also in the social fabric of the city, and the events for the capital of culture have been emerging. The weakening of the U.S. dollar and the wars in the world have surely placed a toll on the city and its resources. As analyzed, the European Green Deal has surely created a new demand for rare earth materials that have been dictating the opening of new mines.

Finding and increasing renewable resources is an important factor for the future of our planet, but acknowledging the implications that these have on the world is a consideration that needs attention. Furthermore the scarcity of resources has started a new race, the race to the Arctic. Could Kiruna have an underlying role in this race? Can its location become a base to launch missions in the Arctic?

From our perspective the mine is slowly losing its appeal and Kiruna has begun detaching itself from a label placed too long ago, on a city that offers much more than solely its movement.

The debates that we have analysed have displayed the citizens willingness to discuss and find a solution. Some believe the mine is essential for the city, others do not, but all have a scar that has been healing.

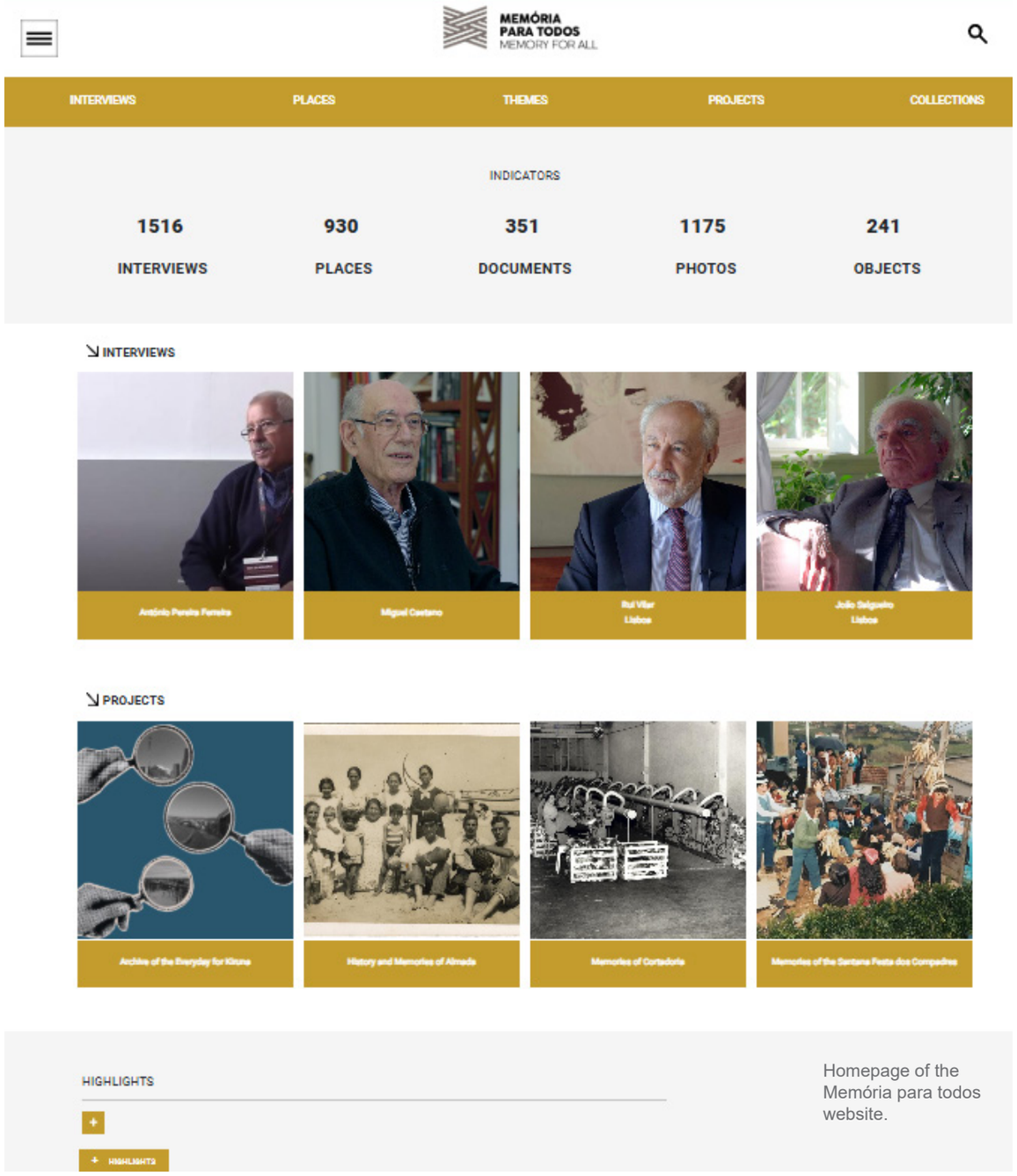
Kiruna’s environment is changing at a pace faster than ever, so, if one continues to map its controversy, they can either decide to go back in time or to move in its future, the possibilities thus become infinite. We have opened the black box and are now leaving it open for others to observe. However, our mapping finishes here.

[A & C]

C11
You've got mail!
(picture by authors).

Appendix A

Memória para todos website



Homepage of the Memória para todos website.

Archive of the Everyday for Kiruna project page.



Appendix B

Interviews carried out for the ARCHIVE OF THE EVERYDAY

Molly Eld

My name is Molly, I'm 19. I have lived in Kiruna my whole life. I grew up here.

And you are studying arts?

No, I'm studying nature science. Nature science. Yes, the third year.

Okay, nature science, so how about the arts?

That's just a hobby that I do in my free time.

I was wondering, what kind of program do you use for the type of...

For drawing I use Ibis Paint. It's just the thing that I grew up using. But when I had to do it to vectors, because I'd be able to print it, I used Adobe Illustrator.

Very good! We love it, we're obsessed with it. We started using it the second year of architecture and since then it's only that.

Do you want to tell us something about your artwork that you done?

Yeah, well, I don't know how much there is to say. It took a long time. But as I said, I mostly just wanted to bring forth what Kiruna is to me, what it means to me. I wanted to keep a piece of old Kiruna that demolishing it would take away from me. And I've always really done that with art. So yeah, I think that's why I did it. And as I said, it is a picture of Landströmska Huset, where you go down from the Center. And it was really difficult to write something about it because... Well, I didn't know what to write because I wanted to write so much. Because there's so much emotion in that piece of art for me.

Have you created other types of art that try to tie love with the same story?

I have, yes. One. Because obviously, I'm studying entrepreneurship. So we've had two designs of art. It's that one and one with the church. And I feel like I feel stronger about this one but I'm more pleased with how the church turned out.

And which one did you do first?

The church. And we printed that on tote bags and mugs. Right now we print it on kitchen towels because it, me and two others, we wanted something that felt, something that you could use every day. You know, something that could remind you of old Kiruna every day. Because you don't really use a mug every day or a tote bag, most people. Not me, I have like 20 tote bags. But we wanted something that could... That wasn't... You didn't have to try to be reminded of how old Kiruna used to be. You know, I used to be. I could just be there and still something that was clean, something that looked nice, you know, in your kitchen. So that's why we decided on doing kitchen towels.

And do you do any other kind of artwork like in your free time or?

I draw quite a lot in my free time. I've been trying to get into painting because I've done acrylics in the past but I've been trying to get into oil painting. It's still going. But I do really like making art, especially logos and scenery, stuff like that. I love it. And I also love making art that means something, you know, that you have to look a bit deeper. And I love making characteristics, you know, human portraits and stuff like that. So I do quite a lot of work in my free time.

What is it like to live here in Kiruna right now? Because you are young, of course, but do you feel the change? I imagine

I definitely feel the change. Especially because I was so young, so I grew up in a place, you know, and I finally started calling that place home. And then they said that, oh yeah, we have to move. So first it was fine, you know, because we moved here, they built this new place. We talked a bit about how it wasn't Kiruna anymore. It was trying to imitate a bigger city. But I don't think it really hit me until I was doing this design. And I went to, I went back to the old centre, and everything was gone. Everything was demolished. And that was the first time that it truly hit me. Like, I will never walk down the street again. And that's when I truly want, like, I want to make something that reminds me of walking down the street. So I think it's sad, obviously, but I also understand that it's necessary because we wouldn't exist without a LKAB either. So yeah, it's a bit sad, but I understand why it's necessary.

Thank you for sharing this type of information with us. So, very, very appreciated. Thank you so much.



Charlie Lindmark

[...] we can start with some simple questions like, what's your name, your age? If you've always lived here?

Yes, my name is Charlie. I'm 18 years old and I have lived here in Kiruna for my whole life.

And are you also part of the nature program?

Yes, I am part of the nature program. This is my third year, I'm soon graduating.

Are you excited about it?

Kinda. I've gotten more excited now than I was a couple of weeks ago. So I'm thinking like, maybe it's gonna be fun. But I'm still nervous and kind of scared for what comes next.

We understand we're also at the end of Masters, so we're also a little bit scared for what comes next. Do you already know if you want to go to university or go to work?

I'm not going to go to university right after this summer, but probably in the future. I'm going to stay here and work for a year at least.

And what would you like to do after?

I'm not sure. I thought about studying chemistry or psychology. It would be fun.

Yeah, very interesting topics.
Very nice.
I wanted to ask you, what is it like to live here in Kiruna?

I don't know what to say. I mean, I think it's a good city. And I enjoy living here even though it has changed a lot. And it's for good and for bad. I like that it's small and that sort of feels like it feels safe because it's like small and it's not a big city where stuff happens all the time. That has felt like it's good. That's a good part. But now when it has moved, it has changed quite a bit. So I'm not really sure. It's mixed feelings on the city. But overall I say it's good. It's a good town to be in.

Interesting. And is there something that you miss from the old town? Like, is there a nice memory or?

I mean, I haven't lived or been very actively in the old centre. I have always, or as long as I can remember, lived in Tullovaara. It's located east of the new city, so it's kind of close. So, I have been impacted, could you say positively, by the moving city because I have been closer to it. So I can walk instead of taking the bus. I've been able to walk to school for the last few years.

That changes a lot the perception of space. That's very nice. And you were saying about Soda?

Soda is the local board game club here in Kiruna, which I have been a member of for over six years at this point.

High position then of the...

High position. I'm, I'm not sure, but I've been there. I've been a member for quite some time and I've spent many hours in the place. So I, I have lots of memories there. That's, that's probably where, where now I see the change in, move, moving city has impacted me... starting to impact me more personally. Where we see that it, and we know that it will move soon and we will have to move, and it will get destroyed—the whole building where we, we have it. And, uh, makes me sad to see, to, to think that it will, that we will lose it. And I, we have... I, I have hope for us finding a new, new place to be, but right now it's... we, we don't know. It's, that's what we can say. We, we have spoken with LKAB, but they haven't really given us very, um, answers that we are satisfied with. It's mostly, *"Uh, we will... you will probably get, uh, somewhere to be."* And but we, but we, we are sure that if, if, if we get there, it would be much more expensive to be there and maybe we will still have to, uh, shut down the, the play... the club after a couple years. That's like, that's something we have been, been stressed about for, um, a couple of months now.

And let's hope that you won't have to shut down because, if there's a lot of people also coming, it's a very nice thing.

Yes.

So but, um, yeah, is there anything else you would like to share with us?

Uh, not really. I think I can tell you but the... um, um, when, um, this, um, club, and, uh, we have been in contact with other similar sports...
[...] We have as many different, um, what is it like, clubs and sport, sport clubs and different things have gotten together, and all stated some of, some, uh, demands we have on LKAB. It's... there are... we all, we all have like signed for, um, for it to be... I guess we, we need to have certain rights to, to get what we, we need to still be able to operate in the future. Because, because even though the, the city needs to move, we... it can't, uh, uh, destroy the, the culture that we have here with—

They had collected... so they have collected about, um, I think it was 9,000 signatures for, from all around the, the, different clubs. There are over, I mean there are over 400 clubs in in the whole community. Uh, and I think it was about 9,000 people in total that has... that has opposed this, that stands with, with these, uh, demands. So it's, it's, it's a sizable group. A big part of Kiruna is, um, is putting these demands on and, and, uh, the community to, to, to provide functionable, um, life for these clubs and for functions

So hopefully they'll do something.
Yes.

And if not, we can... you can act also together and then maybe you can find some other space for the associations so, and for the club. But, uh, yeah, we would like to thank you.

Thank you so much for the sharing.

Yeah, also the poem before, beautiful. So it was very lovely to hear.

Thank you. Yeah.



William Roslin

Hello [...] so we're going to start with a few general questions. Then if you feel like you want to add some information, you can do whatever you want. So, we can start with your age, maybe your name first, your age, and maybe we can start with how long have you lived in Kiruna, and yeah, so.

So, my name is William, I am 19 years old now, and I go the last year of the gymnaisum. Okay. I live in Kiruna, you can all, yeah, my entire life, basically. Since then I was born.

Are you also in the nature program?

Yes, in the nature program.

And how did you come up and do this arts program? Are you also doing an arts program?

No, this was just in the history. Ah, okay. We got this as a task to do this one.

Oh, okay, okay. And what did you write about? Because you still haven't seen it.

I wrote a lot about a railroad, the park, it's called. It's like when we were kids, usually used to be here. It was like a big playground. Like a really, really big playground.

Okay. So you have very good memories of the playground?

It was a very long time ago, but yeah, it's lots of time there with friends.

Beautiful.
So did you go every day after school or...?

Yeah, mostly. Okay.

That's nice.
Yeah. And do you have any other, I don't know, like what is it like to live now here, everyday now that your are older, what are some of the...?

Now when you're older, it's mostly... You kind of have so much that you have to do, you know, when you take, like, when you graduate. It's like you're usually, like, it's with friends, you know, and you have to spend money on it. It's like the trips, like, when you're not having fun with friends, it's mostly like that. So you don't really focus so much on the... surroundings around you. It's mostly what you want to do right now and it's sometimes in other countries. So right now living in Kirina, I would say it's pretty plain if you can understand what I mean. It's like you do, it's not that much that you can like do right now. It's just very, it's just a city that is building up. So it's just like the basis right now.

Okay, so what do you do in your free time? Because you're so busy, do you have free time?

In my free time, mostly I train, bike, gym, and hang with friends.
If you want to say something else, or we're done with the questions.

don't think I have something to add to it.

Okay. Thank you very much, very appreciated.



Elin Nylund (E) & Sissel Kuhmunen (S)

Do you want to start?
Yes. We can start with some basic information [...] Like name, age, if you've always lived in Kiruna.

E: ***Okay. Jag heter Elin Nylund. Jag har bott i Kiruna mesta delen av mitt liv, men nu bor jag i en liten by utanför stan som heter Korravara.***

(Okay. My name is Elin Nylund. I have lived in Kiruna most of my life, but now I live in a small village outside the city called Korravara.)

S: ***Jag heter Sissel Kuhmunen, jag är 18 år. Bor egentligen i Karesuando men har flyttat hit till Kiruna när jag började gymnasiet.***

(My name is Sissel Kåhnen, I'm 18 years old. I actually live in Karesuando but moved here to Kiruna when I started high school.)

Okay. Are you also in the nature program?

Yes.

In the new school?

Yes.

Do you like the new school?

E: ***Ja. Alltså, vi har ju aldrig varit i den gamla skolan, så.***
S: ***Alltså, det är ju nytt och det är ju fräscht. Det är ju nytt.***
E: ***Ja, men kanske lite, vad ska man säga, det känns som att det typ inte finns någon skäl. Det känns lite, ja, jag fattar. Ja.***

(Yes. Well, we've never been in the old school, so. Well, it's new and it's fresh. It's new. Yes, but maybe a little, what can I say, it feels like there's no reason. It feels a little, yeah, I get it. Yeah.)

Okay.
Okay. And so in the new school you say it's very big, right? And very fresh, very new. And do you miss something from the old school? Did you go to the old school before or no? You moved here for gymnasium and therefore that's why you went to the new school.

Ja. Ja. Vi var de första, We were the first who started at the new school and is going out now.)

And so what is it like to live here now? Because you moved here for the gymnasium, so what is it like? What's your experience of living here, even if it's for a short period?

S: ***Alltså, den gamla stan, den har ju, alltså, det är lite mer hemma och man känner igen sig lite mer i det. Men det har varit som en ny start att flytta hit när hela stan är ny och jag är typ ny här. Så det har ju varit coolt, typ, men ändå lite ledsamt när gamla stan flyttas hit.***

(So, the old town, it has, well, it's a little more homey and you recognize yourself a little more in it. But it's been like a new start moving here when the whole town is new and I'm kind of new here. So it's been cool, like, but still a little sad when the old town is moved here.)

E: Ja. And I have lived in Kiruna, but I have moved when we started the gymnasium. I moved away to a little village from Kiruna.

E: ***Men ja, jag håller med dig. Ja.***

(But yeah, I agree with you.)

And is there a specific memory of Kiruna that you would like to say or share with us? Positive, negative, everyday, anything, a routine?

S: ***Alltså, det är väl att när man gick på typ stan, alltså på centrum, klädvärlden och sånt i gamla stan, alltså, det var ju lite mer, det var mysigare och sånt.***

(So, it's like when you went to the city center, the fashion world and stuff in the old town, well, it was a little more, it was cozier and stuff.)

E: ***Ja, lite äldre hus. Det var mycket längre att gå. Nu är allting som bara helt kompakt. Och om man kollar ut nu så är det ju mest, känns det som att det är mest betong. Men det kommer ju också bli bättre. Men det kommer ju ta länge innan det blir mer likt som det var innan.***

(Yes, a little older houses. It was a lot longer to walk. Now everything is just completely compact. And if you look around now, it's mostly, it feels like it's mostly concrete. But it will also get better. But it will take a long time before it becomes more like it was before.)

S: ***Och det här känns inte lika hemma.***

(And this doesn't feel like home.)

S: ***Och det känns som en helt annan stad. Ja.***

(And it feels like a completely different city.)

Thank you very much.
Thank you.



That you feel a little bit more comfortable. Okay, this we can ignore. It's a conversation between me and you and Carlotta. So I'm Anna, she's Carlotta. And in general, I'm just going to repeat this for the recording. We'll remove it after. But this will be published in the Memory for All website and it's going to be publicly available. And if you feel that there's something that you say now, but then after you want to be removed, you can let us know and we can remove it from the interview. So if there's something that escapes and then you're like, oh, wait, that's not really good, we can remove it. Also, if in a future moment you want for the interview to be removed from the website, you can contact us, contact the email, and of course you can remove it and there's no problem. So, first of all, what's your name?

I'm Alwa.

Okay. And you're from Kiruna?

Yeah.

Oh, okay. And so you grew up here?

Yeah.

Okay, okay. And your parents are also from here?

Yes.

Oh, okay. So did you take one of the high schools, like the space high school or?

Hjalmar Lundbomskolan. So it's also in the city.

Okay, and what is it about?

I go in nature. Nature, yeah. So it's math and physics.

Okay, math and physics. Okay. And if we need to stop the interview in a moment, if somebody needs help, then we can stop it. It's not a problem. Don't worry. And in general, so you wanted to do something related to nature?

No, not exactly. I chose nature because I like math. Yeah.

Okay, so you want to work in what sector after?

I'm not really sure. I think we're moving out of the town after.

That makes sense. Do you already know where you would like to go after?

No, I have no idea.

Would you like to stay in Sweden?

I think I want to go somewhere else, maybe Spain or something like that.

Warm weather, completely different. And so you're working here in Malmfaltens for how long now?

Almost... Over a half year.

Oh, okay. And are you liking it?

Yeah.

Okay, very nice. So, in general, because you've been living in Kiruna for so long, do you have any specific memory that is related to Kiruna or what you do usually?

Well, the church moving was a really big thing here. All the houses that have been destroyed and moved away is a really special thing for us because it's not happening, now it's happening very often but before that it wasn't on the map that it would have happened so yeah now it's pretty empty so it's a big difficulty for us.

Yeah, I can imagine. I can imagine. And in general, like, so, like, did you do something specific, I don't know, on the weekends or, like, what you guys would usually stay in the town or do you move out, like, go ice fishing or stuff like that?

Oh, yeah. So, I have some cabins where I go to and go with the snowmobile or ice fishing or stuff like that. But also, I do handball. So I move around a lot on the weekends. And my sister, she's going to dog sledding. So I go and watch her when she competes.

Oh, wow, really cool. Nice, you guys have a lot of activities then. and Handball, so where do you guys train actually? Because we haven't seen a gym, or unless it's the one over there?
(Note: Interviewer points across the room towards the direction of sportshallen)

Yeah, it's Sporthallen, so it's pretty close to here.

Okay, and do you know if they're changing location?

Yeah, so at the moment, there is some... They're trying to find some place for it but they are thinking beside this our new school. Yeah so we hope that and the most difficult thing is that it needs a lot of space like our team we play with glue So we need a special...

(Interviewer starts wrapping up the discourse as there was a customer which seemed in need of assistance, and the interviewee was still under working hours) I understand because I used to play basketball and before the basketball match there was always an handball match. And so we would stretch and everything would attach to our trousers. So it wasn't very pleasing. But yeah, I think we can stop because we have customers. But thank you very much.



Sofia Falk (S), Beatrice Lundgren (B), Kasja Christensen (K)

[...] so if you want to start with your names okay and..

K: My name is Kajsa Christensen

S: My name is Sofia Falk

B: And my name is Beatrice Lundgren

Okay, and you guys are all students of the... What high school is this?

S: Space gymnasium.

Okay, space gymnasium. Okay, and how long have you lived in Kiruna?

S: Well, nearly three years now.

Okay.

We have... Nearly two years now.

Nearly two years.

Yeah. Okay, two years now. So, originally, where are you guys from?

B: So, I'm from Arvidsia. Very close to Kiruna.

Okay.

S: Yeah, I'm from Stockholm.

K: I'm from Uppsala.

Okay, so near... No, not nearby at all.

K: We're nearby each other.

Okay, exactly.

S: But not near Kirina.

Okay, so if you guys would like to share a memory of Kiruna and something that you would like to say, what would it be?

S: Well, I have a very fond memory of late-night swings. There is this, at the Leeds School, they have this big swing. We call it a pancake swing. It's for our friends. So you can sit with people and just swing back and forth. And in our first year, we hung out on Friday evenings and then afterwards we used to go to the swinging and swinging back and forth. And it was very nice. It was just the vibe.

I hope it's beautiful and beautiful.

K: I have very fond memories of the old swimming house, bathhouse, with my friend Bea. We used to go there and swim a bunch of times. It was very nice. Yeah, it was very... It was a very nice bathhouse. Not too much or too little.

And do you think it changed a little bit now that the bathhouse is not there?

K: Yeah, it changes a lot. Because now it's a big establishment. It's a lot bigger than it was before.

How many times did you go to the bathhouse?

K: At least two times a week.

And now?

K: Now we can't. We don't have a bathhouse. It's closed. Both the old one and the new one is not over. So those memories can't rebuild yet.

And the swing you said though, is it still up?

S: Yeah, it's still up. But they're going to... It's back there. The school next to Lars. but they are going to tear it down to eventually.

B:It's a small house a little bit further there where old people meet and they play instruments. Normally they play songs from Finland because most people are from Finland up here and they just dance around they do polka and balls and like a lot of different dances just together.

Do they do it like once a week?

B: Depends if they have time, but they try to do it as much as possible.

So if you want to say something else?

K: Yeah, overall the routes you can walk in the summer or in the winter you take skis. I have very fond memories of them. Extremely nice to go through you can see the landscapes in the winter. It's Magical yeah, I don't know if they will I'll be open.

S: I mean for some for some time it will be open but

S: They're already closing down a few parts.

K: Yeah

And do you like so do you change routes that you walk through?

K: I have to change the roads.

That's a pity because I mean hopefully the scenery changes.

S: Something I probably will never forget from my time in Kiruna it's going to be the morning walking to school when the trees are covered in frost. both thick and thin and it's so beautiful because the trees are sparkling and the ground is sparkling everything is really really pretty and wonderful it's like that

we've been here for almost a month now so we understand because when we walk outside it's really incredible

yeah

okay thank you very much

you're welcome

thank you okay great



Ewa Jonsson

Okay, so we will ask you some simple questions. You can say whatever you want and then if you realize that maybe you don't want this specific part published, we can cut it. So you're free to say what you want. So we can start with some basic information like your name, your birthday. Have you always lived in Kiruna?

My name is Ewa. This year I will be 82. I've been a teacher since 1971 and I've been a teacher. First I was teaching in another place further south from here and then I moved here and I've been teaching here at Jackman-Lombo-Skola from 73 to... 2008, I think. Then I continued working because I was bored. So I was teaching Swedish for foreigners, but now and then sort of extra for some time, until I was 75.

And have you always lived in Kiruna?

No, I come from Västerbotten, a place north of Umeå. And north of Uemes, Genefte. And I come from there, a little village. It's about, I don't know, very far from here. Five, six, six hours by train.

And did you move for your work?

Yes, I did. In those days, they had a system that you could apply for a job, which was... for the rest of your life. They could never sack you. So, after having worked for two years, because that was obligatory, two years first, and then you could apply for such a job, a teacher's job, that you could have for the rest of your life. And you could do anything, but they couldn't sack you.

What is it like living in Kiruna today maybe compared to when you moved?

It's very strange because as they are tearing down everything. But I have also tried to find things which are good with a new town. I've written about that. I sent it to... That was written in Swedish. But I tried to see the advantages with the new town because we have to do this. It's no good complaining because the mine, they are going to continue and we have to adapt to that. So I have tried to look at the new houses and they are very fanciful. I was writing in my article that it's been like... paradise for architects to build a new town. Why? It's historic. It's historic. And you could, they can try and try and all their... interesting buildings that they would like to build and all the plans though we have a new town there we go there and see what was going to happen to my plan my houses that I want to build so I think it's been paradise for architects and as a matter of fact I like many of the houses they are very colorful they are different they are no there are no high-rise like 20 stories And they are close. And it's close. Everything is near. It comes to everything. And my friend Gun-Britt in there, she's going to move there. And another friend of mine who is 89, she's going to move there. And she goes out and there is where she can buy her wine. And there is where she can buy her medicine and her restaurant. And everything is very close to where she's going to live. So it's a very dense town. So that's how I try to find something good with a new town. It doesn't make me happier to go on moaning. I have to adopt what is happening.
It's very nice to have a positive approach.

Yes, it's easier. It's easier.

Not always, I think. It's quite hard to have a positive approach to these kind of things, so it's really, like, kind of like, how do you say this in a nice, like, not kudos, like, it's very nice to hear.

Yes, it's trying to see the bright side always.

Yes, because it doesn't make me happier to be sad. I am sad, but I can't just go on. Moaning, being sad. I know, I am sad. It's very sad. It's very tragic. And all the houses, because there have been so many beautiful houses, but it does not make me happier to every day. Oh, Kiruna, what's going to happen? No, it doesn't make me happy.

It's also very hopeful.

Yes.

Because it's for something that it's out of your control.

It is, so you're right. Yes. What can I do? That is why I try to see the advantages with that new town.

Do you have a memory or a routine or a story that has been impacted? that you have from the old town that has been impacted by the urban transformation?

Yeah, I miss, what I miss is what we call Folkets Hus. It's where theatres and everything, and cinema and everything. So I miss that because I live in the... It took five minutes to go to Folkets Hus. And I was there often because I was connected with... with arranging theatre and I was also, I was a teacher in English, Swedish and drama. So I've made many plays with my students also there. So that is the only house I really miss, this Fulgert series. I miss that one very much. So that, but the rest, okay, it's sad, but what can I do?

And Folkets Hus, was it a very big building? Because you said there was a cinema, there was a theatre?

Yes, but they were in the same place, the theatre and the cinema.

Okay, okay. So it's not like the Aurora that there's both? It's either one or the other?

No, no, it wasn't there. But everything happened there. It was a sort of cultural centre in one room. meeting space yes yeah it we had a very big stage it had the the stage was the biggest one in this part of the country so we could have opera and we could have everything so

And did you go and see some of like, do you like opera?

I saw everything
okay so everything. okay yeah if you would like to say anything else otherwise I think if you want to say something else, we're here. Otherwise, we thank you.

Yes, you're welcome.

Thank you very much.



Leif Keskitalo

Okay. So we can start with some basic information like your name, age, how long you've been living in Kiruna.

My name is Leif. I have lived here 64 years, all my life.

Okay. And what do you do or did as a job?

For eight years I worked outside the mine and I have been 33 years in the mine. Yes, and I'm retired.

And what kind of job did you do in the mine?

It was maintenance underground production machines, drilling, bolting, load ash, that stuff. Yes.

And in the 33 years, did you see changes in the machinery?

Yes, they weren't bigger and bigger and more and more without drivers, removed, controlled.

And the maintenance you did every day or was it...

It was a service schedule and you also had this emergency breakdowns and stops and yes.

Because you were a problem solver.

Yes, sometimes, and sometimes you made more problems. It depends on the occasion.

Hopefully more problems solved. But did you like it as a job?

Yes, it's the best place in the world to work. It's underground. It's home for me.

Why did you like it so much? Was it quiet?

No, no, no. It's definitlty not quiet. It's an environment. It's something special. I can't explain it, but...

What is it like to live in Kiruna?

Nowadays it's not so happy. My town is gone. The streets, the shops, cinemas, everything is gone. It's gone. It's not just empty, it's gone. I can put you in the car and tell you there and there and there. Oh, it's gone. Smashed to pieces. Now they're tearing down the school. And this area is going in a couple of years.

And do you still live in this old part of the city?
Actually, one of the houses you see in that book, cAnd now they're telling that we can live there for 10 years. So I don't know where next move will be. And where, I don't know. But it's an old house with a soul. It's amazing to live in these old houses.

And did you live there your whole life in the same house?

No, no, no. No, I moved. I had an apartment, I sold it, when I got an apartment of LKAB. So I moved to Trægårdskatan in 2019 and a year ago I moved to this new address. And it's only 150 meters between the houses. No one lives on the early address. Everybody who lived there has moved. Okay. And the old address, it was only all the colleagues you have, people from the whole mine. You could put them in a car and start the mine with the neighbors. So it was really a nice place to live.

And do you still meet with the neighbors?

Yes, two of them. They live on the other side of the street where I live now. So it takes three minutes to walk.

That's positive.

Yes. But the rest are spread all over the town. So, yes, you can meet them in a store or something, but...

Not the same.

No, no, no. Then you sit, you can't even park. You know, parking places if you're going to visit someone.

It's even difficult to actually meet people.

Yes.

And you said before that now it's not so good to live in Kiruna, but in the past was it nice? Do you have some nice memories of the city?

It was a nice town and it was much easier with the whole city. When I grew up we had so much, a lot of stores, two cinemas. We had a lot. Now we don't have so much and more is disappearing. Smashed to pieces and nobody says let's replaced it first.

And so do you have like a specific happy memory from when of the old town?

Yes, every weekend we were at the city when we were young. It's a lot of memories and a lot of things I don't remember.

It's hard to remember everything.

It was Friday, Saturday, the cars were running round. And you see, it was a totally different town then.

And what did you do on the weekends then? If you said Friday is Saturday and then weekends?

It was a lot of beer and fun and a lot of people were out on the streets and yes, it was another time. And then you have that crisis, LKAB crisis in the early 80s. So a lot of people that I know had to move from here.

And did they come back after?

Some have returned but many have lived 40-45 years in the south and they never come back. They don't have any relatives there anymore. The whole family has left. Many.

If there is anything else you would like to say? We're done with the question.

A lot, but I'm not sure it's for everyone to hear.

I mean, if you would like to say it...

I can tell you it's sad to see what's happening and how little the state of Sweden cares about the citizens they have here and in Malmberget. It's the same. It's just the same for them as for us and nobody cares.

Unfortunately, I don't even know how we could make them care.

No, but in some way somebody has to wake up people to realize what's happening here. We are paying this for a lot of money, go somewhere else. You have to pay even if they throw you out, it's not you that's... I, I move. They tell you you have to move now and it's cost not so much. You can get a couple of apartments to look at and choose between. But every day now, fewer if you don't want to go to the new city. And it's a horrible, tragic place to live.

We are done with the question, do you have something else to share?

No, it's just sad and it's expensive and we have to pay this big company when they force us to move. It's bullshit that they're telling nobody, it's cost not, we take all the costs. When I moved, I had to clean the apartment, but it was empty for six, seven months. They could say, just move, we pay the move, we give you X euros because it costs you, and leave it, we clean it, we take care of everything. No, it cost a couple of 350 euros. And it was just in time because all these cleaning companies had so much cleaning people who was moving and when the new buildings were done they had to clean them before people moved in. So it's hard to find someone who can help you with it if you don't do it yourself. But I know a man, he's over 80, just a week ago he moved because of the mining and he didn't find someone who could help him clean, so he had to clean the apartment stuff. I don't know if they think it's okay. Otherwise they send someone to clean it and he'll back to back. Yes, finished.

Thank you very much for sharing. Thank you.



Harald Ericson

Maybe we can start with name age how long oh we need to say something ah yes so we're recording if you say something then you realize that you don't want that uploaded we can cut it so it's uh you can okay

So maybe we can start with name, age, how long have you been living in Kiruna?

Well, my name is Harald Erikson and I am 78 years old. But in two days, it's 79. And I came to Kiruna in 1976. I began to work here. in the people's high school. There's a high school in... Do you know what a people's high school is?

No.

It's a school for old people. Those people who did not went to school or they stopped school and began work and then they came back and said I have to be educated. So I have been working with old people all my life, for example. Yeah. Yeah.

And where were you living before coming to Kiruna?

I lived in Malmberget. A little town about 120 kilometers from here south, yes

And what did you teach? Did you teach any subject or was there a specific subject you were teaching ?

Yeah i was teaching in history sociology psychology and the social science

Oh, wow. Okay. And so to teach this, just out of my curiosity, you went to university as well?

Yes, yes. I went from Malmberget to Uppsala University. And after that I was going around and worked in Linköping and in Örebro.

And so you were saying you were moving around?

Yeah, I worked in different places. And then I went to Kiruna to start work here.

What is it like to live in Kiruna? What's your experience living here?

Well, I'm not glad because now I live in a house and well I have to move because of the LKAB. I'm not so glad because they offer me a house but it's not like I had been living in. I have lived in this house for 34 years. And I like it. I don't want to move, but I have to move. So now we are discussing with the company what shall we have, how shall it be my house. And I'm not glad. I don't like this new house but we'll discuss it yes

You'll for sure arrive at a compromise

Oh yes I have to suppose I have to compromise

Hopefully it will be something that you'll still be happy about

Oh yes yes yeah in the future I will be happy maybe but I'm I am I don't like the new situation because now when I wake up in the morning I can look out to the mountains and I can see the Kebnekaise mountains, the biggest in Sweden. But the house now in the new city is not... I can't see Kebnekaise. But it's pretty.

But you have a very pretty view. We're staying at Malmfaltens.

What?

Malmfaltens. Near the school

There's a very pretty view of the mountains, so you understand.

Yes, yes, yes. Yeah, very nice. Do you have any memory or story that you would like to share? that maybe has been affected by the transformations or even not just...

Only bad memories. Because I just told you, I was raised in Malmberget and this also is a town that's declining. So just maybe two months ago, I was going there to Malmberget, to the quarters that they had been working in and now there's nothing left. It's just grass. It's not good. I don't like it. I was almost crying. Everything is gone. So the streets I was going and cycling and so on, it's gone. It's gone. Nothing left.

We're very sorry about it.

It's not good. So I feel sorrow for Malmberget more than I feel sorrow for Kiruna. Although I have been living in Kiruna much longer. Because I only lived in Malmberg for 18 years. And then I moved to university. But here I lived for 34 years.

But I understand because I think where you grow up, like when you're small, has a special place in your heart.

Yes, yes, very special.

And I understand because I grew up in Poland and now the house where I grew up, there's other people because we sold it. So I understand why it's like not having your childhood place.

I can see that.

Yes, that's why I'm tearing up.

You're crying.

Yeah, I don't know. It's very emotional. It is, yes, yes. So, yes. And, yeah, in a sort of way, we stayed here a month, and we understood how everything is changing, and so we understand also your point of view. That's why it's also very, too hard for us trying to help in some sort of way. So, but yes.

[...] You were saying that you also traveled a lot because you before you said you went to Serbia

Yes, yeah,

And did you go to see the new Like the city center notice is the capital so Belgrade. Yeah, and also the Novi Sad. Did you like it there?

Oh yes. It's really good.

And what do you think of, because they said before that it used to be capital of culture. So what do you think of Kiruna being capital of culture? If you have any thoughts about it.

No, not in the same way. Not in the same way.

Not in the same way, no. So do you think there's a little bit of hope for the future here?

Yes, but the problem is that we are losing people. Because LKAB says you can take this money and we buy your house. And the problem is that a lot of people, they take the money and then they go to other places. They go to Haparanda, to Luleå, to Boden, because they have their children there, grandchildren. Yes, and that means that they won't have a new house. They take the money instead and go away. So that means that in a couple of years we have less people living in Kiruna. And that's a problem. Because if there are less people, there are no taxes or no tax incomes. And that's a problem. And that's really the problem. And now we have not, we cannot... say to people come to Kiruna and live here and work here because we have no houses for them. It's a very big problem. So we have a lot of problems in Kiruna.

Maybe slowly, slowly, one by one, they can be solved, hopefully. Maybe in the future the situation can become better, maybe.

Well, I hope so. Because the new city, I don't like it at all. But I found that young people, they like it. Because there are a lot of restaurants and shops and so on, and cafes and so on, so they like it, yeah. And new houses too. But I'm not familiar with it. I am familiar with the old city, yeah, of course. because I have seen this a long time.

More cozy also maybe.

Oh yes, yes. And now I live in Lussoavaara and here's the new city. So I have to go by car. It's a long way. Three, four kilometers. Yes. So if I buy something, I have to go with my car or bus, of course. But it's a long way.

And before, did you used to cycle? Did you walk when there was the old city center?

Oh yes, I could cycle and I could walk. But now it's too long way. But when I moved, I moved to the center. in one and a half year.



It's a long time in a short. Will come quickly but it's a long time.

It's a long time, yes.

Thank you. Thank you very much.

Kenneth Johansson (interviewed by Jennie Sjöholm)

Okej. Is it recording? Oh, exciting.
[...]

Och är det så att det är någonting du säger och du känner att ja men det här vill jag ju inte ska publiceras då då klipper de bort det.
And if there is something you say and you feel like, "Well, I don't want this to be published," then they will cut it out.

Okej. Då får jag försöka borsta tänderna nu inte bara så frispråket och sånt.

(Okay. Then I'll try to brush my teeth now and not just be so outspoken and things like that.)

Ja men jag tänker om du nu gör som vanligt så går att klippa innan det publiceras. Så att det är ju... det löser sig om det skulle vara något du inte bekväm med för ska det publiceras måste man ju ge samtycke. Det är ju viktigt.
Yes, but I'm thinking if you just do as usual, it can be cut before it's published. So that, yes, it will sort itself out if there is anything you're not comfortable with, because to publish it, you must give consent. That's important.

Ja.

(Yes.)

Men då har jag några bakgrundsfrågor här då. Eh vad heter du? Vad när fyller du år eller när är du född kanske? Eh och var är du född? Så att åldernamn var du...
But then I have some background questions here. What is your name? When is your birthday, or when were you born maybe? And where were you born? So age, name, where you're from...

Ja, jag heter Kenneth Johansson är född 1952 i Kiruna.

(Yes, my name is Kenneth Johansson, born in 1952 in Kiruna.)

Och du har bott i Kiruna hela tiden?
And you have lived in Kiruna the whole time?

Nej, inte hela tiden. Jag har faktiskt bott i kan man säga Luleå då... två och ett halvt år.

(No, not the whole time. I actually lived in, you could say Luleå. For two and a half years.)

Herregud.
Oh my god.

Men det är väl snart preskriberat.

(But that is probably barred by the statute of limitations by now.)

Jag ska inte skvallra för vi lägger ut i artiklet sen bara. Eh, vad var... alltså vad jobbar du med innan du

blir fri här? Eh, vad du jobbade med innan du gick i pension?
I won't tell because we'll just put it in the article later. Um, what did you work with before you retired?

Jo jag gjorde det... jag gick ju den gamla... jag utbildade mig via den gamla yrkesskolan som var världsberömd, höll jag på att säga, Kiruna praktiska ungdomsskola (KPU) där jag utbildade mig till telereparatör radio-TV. Och den gick jag ut 1970, måste ha varit efter gruvstrejken, den stora gruvstrejken. Och jag hade jobb i princip dagen därpå och jag var anställd i LKAB faktiskt i 10 år... som elektriker och signalreparatör tills jag kom på bättre tankar och började utbilda mig då. Gick på folkhögskolan i Åsa... nej, först var det fritidsledarlinje faktiskt här på Malmfältens.

(Well, I did... I trained through the old, world-famous vocational school—or at least I like to call it that—Kiruna Practical Youth School (KPU), where I trained to be a telecom, radio, and TV repairman. I graduated in 1970, it must have been right after the great mining strike. And I had a job basically the next day, and I was actually employed by LKAB for 10 years... as an electrician and signal repairman, until I came to better thoughts and started studying. I went to the folk high school, Malmfältens. No, first it was the recreation leader program actually...)

På Malmfältens...
Here at Malmfältens?

På Malmfältens folkhögskola. Som sagt var, jag utbildade mig till reparatör och kom underfund med... det tog tre år. Då kom jag underfund med att... sist jag jobbade med radio-TV och reparationer... gick jag två år i utbildning då till fritidsledare. Och det ledde i alla fall fram till että jag också sökte in till massmedialinjen i Kalix, också en folkhögskola. Och det är väl det som egentligen har varit vändningen i mitt liv, höll jag på att säga, för då fick jag ju jobb. Det var där jobbet, eller de två och ett halvt åren, i Luleå kom in.

(Yes, at Malmfältens. I trained as a repairman and realized... it took three years. Then I realized... while working with radio and TV repair, I went for two years of training to be a recreation leader. That eventually led to me also applying to the mass media program in Kalix, also a folk high school. And that is probably what actually turned my life around, because then I got a job. That was the job for two and a half years in Luleå.)

Var det på Norrskensflamman då eller någon annan?
Was that at Norrskensflamman then, or somewhere else?

Jo, precis. Jag hade jobb på Norrskensflamman i Luleå då.

(Yes, exactly. I had a job at Norrskensflamman in Luleå then.)

Och var det ett ideellt jobb?
Voluntary job?

Nej, det var inte ideellt. Det var lönat jobb. Jag har ju hållit på att frilansa en del så där vid sidan av redan tidigare åt olika tidningar, och framförallt gamla anrika Norrskensflamman då som frivillig sportskribent. Man fick ju inte ens betalt för det men jag tyckte että det var kul att få texter publicerade i tidningen. Men i alla fall, skrivande har varit lite grann av min grej så att det var väl kanske då som jag hamnade på rätt bana.

(No, it wasn't voluntary. It was a paid job. I had been freelancing a bit on a hobby basis before that for different newspapers, and especially the old, venerable Norrskensflamman as a voluntary sports writer. You didn't even get paid for it, but I thought it was fun to get texts published in the paper. But in any case, writing has always been a bit of my thing, so maybe that was how I ended up on the right track.)

Men när vi jobbade som sagt var i Luleå i två och ett halvt år... men sen kom jag hem en vacker dag och sa till frun att: "Nej gumman, nu packar vi ihop och drar, vi flyttar tillbaka till Kiruna."

(But as I said, I worked in Luleå for two and a half years. But then I said... and came home one fine day and told my wife, "No, old lady, now we pack up and leave, we're moving back to Kiruna.")

Vad tyckte hon om det då?
What did she think about that?

Nej, hon blev lite så där förvånad. Och var väl på gång som barnskötare och vad det nu var för något... det var liksom ett buller och bång hit och dit. Jag kom till jobbet dagen efter: "Ja, jag har gesagt upp mig, vi ska flytta tillbaka till Kiruna." "Jaha, ska ni tillbaka till Kiruna? Varför då?" "Ja, men det är fjällen", sa jag. "Jaha, vill du vistas väldigt mycket i fjällen?" "Nej", sa jag, "jag vistas aldrig i fjällen, men jag vill ha fjällen som ett panorama", använde jag som argument. Nu var det ju inte bara det, det var ju rätt så knepiga förhållanden kan man ju säga på tidningen, så että jag tackade för mig. Så då kom jag till Kiruna och var faktisk arbetslös. Och det roliga var att under den där tiden så blev jag faktiskt erbjuden ett vikariat som fritidsledare i gamla sjukstugan, eller som det hette då, fritidsgården Centralgården.

(Well, she was a bit surprised. She was probably working as a child minder, and whatever it was... it was a lot of hustle and bustle. I went to work the next day like, "Yeah, I've resigned, we're moving back to Kiruna." "Oh, you're going back to Kiruna? Why?" "Well, it's the mountains," I said. "Oh, so you want to spend a lot of time in the mountains?" "No," I said, "I never spend time in the mountains, but I want the mountains as a panorama," which I used as an argument. Now, it was actually quite tricky conditions, you could say, at the newspaper, so I said thank you and left. So I came to Kiruna and was actually unemployed, and the funny thing was that during that time I was actually offered a substitute job as a recreation leader in the old hospital, or as it was called then, the youth center Centralgården.

Mm.
Mm.

Så jag har faktiskt jobbat sju veckor som fritidsledare också, och det var ju kul. Men annars var jag arbetslös i ett år utöver det. Men sen så fick jag chansen att börja på ett kommunalt projekt som också hade att göra med idrott. Då skrev jag om Kirunas idrottshistoria, och det ledde så småningom fram till että jag fick en anställning på föreningen Kirunas Rötter. Där var det också på gång att dra igång ett projekt om Kirunas samlade idrottshistoria. Så det var så det började egentligen i föreningen Kirunas Rötter, och det var 1994 jag började som projektledare för det projektet. Men sen växte det där, och så blev jag verksamhetschef för hela rasket.

(So I actually worked seven weeks as a recreation leader too, and that was fun. But I was unemployed for a year otherwise besides that. But then I got the chance to start on a municipal project that also had to do with sports. I wrote about Kiruna's sports history, and that eventually led to me getting a job at the association Kirunas Rötter, because there was a project starting up to gather Kiruna's entire sports history. So that's how it actually started in the association Kirunas Rötter, and that was in '94 when I

started as a project manager for a project on Kiruna's collective sports history. But then it grew and I became the operational manager for the whole thing.)

Det låter som en lång utläggning. Du har huvudsakligen jobbat hos Kirunas Rötter och har lite koll på historien då?
Quite a long explanation of where you worked. So, you've mainly worked at Kirunas Rötter and have some insight into the history?

Det kan man säga, de senaste slängarna har ju blivit några år. Jag gick i pension... låt se nu... det var när den sista idrottsboken, eller den senaste från 50- till 60-talet var klar. Det var väl... vad kan det vara... 2019? Jo, jag började ju ta ut pension redan året innan, ma så jobbade jag på projektbasis fram till utgivningen 2019. Så från 2019 har jag varit heltidspensionär, men är fortfarande engagerad i föreningen.

(You could say that the latest years... it's been a few years. I retired in 20... let me see now, it was when the last sports book, or the latest 50 to 60, was finished, that must have been 2019, right? Yes.)

Ja, tyvärr?
Yes, unfortunately?

Som en böld i arslet på en cykelväg.

(Like a boil on your ass on a bike path.)

Men det låter som att du trivs i Kiruna då.
But it sounds like you enjoy Kiruna then.

Ja, det gör jag ju på något sätt. Alltså, man präglas väl av sin miljö på något vis, det går väl inte att komma ifrån. Det sitter inom en på något vänster. Sen tycker jag inte att allting är toppen. Jag hatar ju snö till exempel. Jag hatar vinter, och jag är ingen jägare och inte någon märkvärdig fiskare. Så att något genetiskt fel har jag väl i och för sig, med tanke på att min farsa och alla hans förfäder har levt på jakt och fiske och det ena med det andra. Så että det äpplet har väl fallit långt ifrån trädet... den felande länken eller vad det nu är. Men jag vet inte, på något sätt känns det ändå som att det är någonting i mig här uppe på något vänster. Så jag älskar ju Kiruna faktiskt. Men jag älskar inte det som händer i Kiruna idag.

(Yes, I do in some way. I mean, you are shaped by your environment in some way, there's no getting away from that. Yes, I mean, it sits inside you in some strange way. Then again, I don't think everything is great. I hate snow, for example. I hate winter, and I'm not a hunter and not much of a fisherman either. So I probably have some genetic flaw considering my father and all his ancestors lived on hunting and fishing and all that. So I'm probably the apple that fell far from the... the missing link or whatever it is. Far from the tree. But I don't know, in some way it still feels like there is something in me up here in some strange way. So I actually love Kiruna, but I don't love what is happening in Kiruna today.)

Vad är de största svårigheterna med det som händer idag?
What are the biggest difficulties with what is happening today?

Ja, det är ju det att man förstör och river så mycket av det som har gjort Kiruna unikt.

(Well, it's that you... that they destroy and demolish so much of what has made Kiruna unique.)

Som till exempel?
Like what, for example?
Ja, men alltså bara en sån enkel grej om vi nu tittar på bolagsområdet, om vi tar det som ett exempel. Det vet ju alla att det är fina, unika byggnader med stora ytor, grönområden runt omkring, luft, rymd och så vidare. Småhus i vissa fall, där det kanske bor fyra familjer. Det är ju nästan som något slags villaboende. Men det finns ytor, det finns volym, det finns solsken. Och det där går liksom inte att ersätta rakt av. Inte ens om man flyttar på husen eller planerar om det, för det blir inte samma sak. Så det går förlorat, tillsammans med all den historia som det representerar. Det är ju människor som har slitit i sitt anletes svett för att bygga upp den här stan, och så behandlar man våra förfäder på ett sånt fruktansvärt sätt genom att bara riva ner allt på en kvart ungefär.

(Yes, but just a simple thing like if we look at the company area (bolagsområdet) as an example, everyone knows that there are beautiful, unique buildings with large outer green areas, space around them, air, and so on. Small houses, in some cases duplexes where maybe four families live. And it's almost like living in a villa. But there is space, there is volume, there is sunshine. And that can't just be replaced straight off. Even if you move houses, if you move and plan it in the wrong way, it won't be the same thing, so that is lost, and all the history that this represents. I mean, these are people who have worked so incredibly hard, and actually it's a terrible way to treat our ancestors as well, who have toiled by the sweat of their brow to build this town, only to have it torn down in about fifteen minutes.)



Gun-Britt Mäkitalo

Berätta... om snus så påminner jag den lite.
Tell me... about "Snus" [Snusdosan] so I can remember it a bit.

Vad sa du?

(What did you say?)

Det här du berättade om, om snusdosan, om du kunde ta det en gång till. Du berättade... berätta var du växte upp, var du bodde då.
What you told me about, about the Snusdosan, if you could say it once more. You were telling me... tell me where you grew up, where you lived then.

Var jag växte upp då?

(Where I grew up then?)

Nej men var du... när du bodde, vilket år flyttade du till den?
No, but where you... when you lived there, which year did you move to it?

Ja, vilket år, det kommer jag inte ihåg. Men jag vet att vi bodde—jag och min son—vi bodde i Borners ateljé också, som var nedanför "snusen". De byggde en lägenhet av det, och sen flyttade vi till... ja, jag tänkte vad jag står för... det var... jag hade faktiskt en så jävla skitgrej... prata lite om farsas fot och det här är ju... ja, alltså det är..

(Yes, which year, I don't remember that. But I know that we lived—me and my son—we also lived in Borner's studio, which was below "Snusen" [Snusdosan]. They made an apartment out of it, and then we moved to... yeah, I was thinking about what I represent... it was... I actually had such a damn crappy thing... talking a bit about my dad's foot and this is... yeah, I mean it's...)

Nej men vi bodde i Snusdosan då, för vi hade en stor lägenhet som vi tyckte vi skulle ha mindre. För vi hade stugor i Salmi(?) och i Pajala hade pappa byggt en koja, och i fjällen var vi. Så vi var ju så lite hemma, och då flyttade vi dit.

(No, but we lived in Snusdosan then, because we had a large apartment that we thought we should downsize. Because we had cabins in Salmi(?) and in Pajala my dad had built a shack, and we spent time in the mountains. So we were rarely at home, and that's why we moved there.)

Och köpte—eller det var så att jag flyttade dit med min före detta man, vi hade hus, och så flyttade vi dit till en fyra. Och sen köpte vi en liten lägenhet till min dotter på nionde våningen. Och den tog jag när vi skilde oss, och han tog den där stora.

(And bought—or it was like, I moved there with my ex-husband, we had a house, and then we moved into a four-room apartment there. And then we bought a small apartment for my daughter on the ninth floor. And when we divorced, I took that one, and he took that big one.)

Ja.
(Yes.)

Ja. Och då flyttade vi dit och...

(Yes. And then we moved there and...)

...sen kom ju det här att Snusdosan, som den heter, skulle rivas. Snusdosan, Spottkoppen och Herrens Pris. En kyrka som var bredvid, och vi måste flytta.

(...then came this thing that Snusdosan, as it's called, was going to be demolished. Snusdosan, Spottkoppen (the Spittoon), and Herrens Pris (the Lord's Praise) [iconic local buildings]. A church that was nearby, and we had to move.)

Och då flyttade vi... vi tittade efter det... vi hade renoverat en lägenhet i gult tegel(?) och... ja, det fick vi den... vi tittade på den. De kom bara in och tittade på det. De tog ingenting hänsyn till att vi hade gjort renovering, utan det var bara kvadratmeter.

(And then we moved... we looked around after that... we had renovated an apartment in yellow brick(?) and... yes, we got that... we looked at it. They just came in and looked at it. They didn't take into account at all that we had done renovations; it was just paid by square meter.)

Vad sa du?
(What did you say?)

Jo. Och då bodde vi där...

(Yes. And then we lived there...)

Ja, jag tror inte... vi bodde i... på första nivån liksom, de tog verkligen kvadratmeterpriset. 48 kvadratmeter sa du?
(Yes, I don't think... we lived in... on the first level, they really just took the price per square meter. 48 square meters, you said?)

Ja. 48 kvadrat, och ingenting för vad vi hade renoverat den. Vi hade ju bytt ut... alltså gjort ett fint kök.

(Yes. 48 square meters, and absolutely nothing for what we had renovated. We had replaced, well, made a nice kitchen.)

Och så var vi... ja, vart ska vi flytta då? Men då kom det här med mellanboende, som låg bara genom parken en bit bort. Och där var jag och tittade på en lägenhet, och då sa jag "ja, men den här tar jag". Och den var omgjord, nya reglar med inglasad balkong, utsikt.

(And then we wondered, well, where are we going to move? But then this temporary housing came up, just a bit away through the park. And I went and looked at an apartment there, and I said, "yes, I'll take this one." It was remodeled, with new framing and a glazed balcony with a view.)

Jag såg till och med Kebnekaise därifrån när det var fint väder, och där fick vi bo då i fyra år.

(I could even see Kebnekaise from there when the weather was nice, and we got to live there for four years.)

Men min sambo, han blev dement, så han flyttade ner till Västerås till sina barn, och jag blev kvar. Och den 31 maj kom det... då kom det ett brev att vi måste flytta ut den 31 maj.

(But my partner became demented, so he moved down to Västerås to be with his children, and I was left alone. And then on May 31st came... a letter came saying we had to move out by May 31st.)

Ja.
Yes.

Var ska man flytta då? Jag vet inte, tänkte jag, men jag vill flytta till Nya centrum för jag vill vara nära vårat dyra badhus. Jag simmar.

(Where should I move then? I don't know, I thought, but I want to move to the New Center because I want to be close to our expensive bathhouse. I swim.)

Ja, det var för...
Yes, that was because...

Så då... men det fanns inga tvåor, så jag fick ta en trea. Och här på det här gamla stället har jag betalat 4 000 i månaden inklusive min el. Och när jag kommer till det nya stället, en trerummare som är på fjärde våningen med utsikt över taken... jag ser inte ett träd därifrån så jag saknar utsikten. Och då betalar jag 12 156. Och så kommer elen till och bredband.

(So then... but there were no two-room apartments, so I had to take a three-room. And at the old place, I paid 4,000 [SEK] a month, including my electricity. And when I come to this new place, a three-room apartment on the fourth floor with a view over the rooftops... I can't see a single tree from there, so I miss the view. And I pay 12,156 [SEK]. Plus electricity and broadband.)

Och nu har jag flyttat dit den 13 april. Flytten hjälpte de oss med, LKAB. Det var första gången vi flyttade så fick vi... då kom det killar som vi beställde, som packade ner min packning så jag slapp göra det. Så i tre dagar höll de där killarna på att flytta oss till Nya Centrum. Och nu har jag... jag har ingen karl som kan hänga upp lampor och sånt. Mm.

(And I moved there on April 13th. LKAB helped us with the move. The first time we moved, we got... these guys we ordered came who packed my things so I didn't have to do it. So for three days, those guys worked on moving us to the New Center. And now I... I don't have a man who can hang up lamps and things like that. Mm.)

Önskar du att du hade stått på dig, eller att ni hade stått på er som hyresgäster från början, att ni hade valt en annan väg?
Do you wish that you had stood your ground, or that you as tenants had stood your ground from the beginning, that you had chosen a different path?

Nej men alltså när Snusdosan såldes till LKAB, då fick vi ju för lite pengar, för våran styrelse de var inte så intresserade av att bråka om det. Och det var många som sa: "Nu vill vi ha pengarna, vi vill flytta härifrån", vilket satte tryck på styrelsen. Så vi fick för den lägenheten 900 000 när skatten var

betald. Och för de pengarna fanns det inga nybyggda... vad heter det? Hyresrätter eller bostadsrätter byggda, inga nya, bara gamla. Och då vill man ju inte flytta till en sån och börja renovera den igen.

(No, but when Snusdosan was sold to LKAB, we got too little money because our board wasn't very interested in fighting about it. And there were many who said, "Now we want the money, we want to move away from here," which put pressure on the board. So we got 900,000 [SEK] for that apartment after tax was paid. And with that money, there were no newly built... what do you call them? Rental apartments or housing cooperatives built, none new, only old ones. And you don't want to move into one of those and start renovating it again.)

Mm.

Nej. Så jag väntade och tänkte få se då. Men vi—alltså vi är ju så förbannade på LKAB, vi som bodde i Snusdosan, för att vi fick för lite pengar. Sen har nästa bostadsrättsförening, de har tagit advokat och de har bråkat, så de fick... jag tror det var 13 stycken som bodde där som fick en ny lägenhet. De hade byggt något som heter Glasbjörken nere i Nya centrum, och då fick de en lägenhet där, "nyckel mot nyckel". Som vi ville ha det! Vi gick ju ut och sa att vi ville ha nyckel mot nyckel. Ja.
Sen nästa då, den bostadsrättsföreningen som är kvar, de ska få 27 000 per kvadratmeter, men de har protesterat ordentligt och vill ha dubbelt så mycket.
...så jag vet inte hur det går. Så de har satt hårt mot hårt mot LKAB. Men vi var så tama, vi eller våran styrelse, och det var... ja, man var väldigt dum kanske.

(No. So I waited and thought I'd see. But we—we are so damn angry at LKAB, those of us who lived in Snusdosan, because we got too little money.
Then the next housing cooperative, they hired a lawyer and they fought, so they got... I think there were 13 of them who got a new apartment. They had built something called Glasbjörken down in the new center, and they got an apartment there, "key-for-key" [nyckel mot nyckel]. Exactly what we wanted! We went out and said we wanted key-for-key. Yes.
Then the next housing coop that is left, they are supposed to get 27,000 [SEK] per square meter, but they have protested heavily and want twice as much.
...so I don't know how it will go. They've stood firm against LKAB. But we were so timid, we or our board, and yes, maybe we were very foolish.)
Men nu bor jag i Nya centrum, och det jag saknar otroligt mycket är just det här med utsikten. Och så hade vi en liten hund som jag alltid gick runt i centrum med, bland alla gamla hus och så... Ja, nu har de blivit rivna, och folk har flyttat ut därifrån. Så man har ju följt det där ända till nu.

(But now I live in the New Center, and what I miss incredibly is exactly that view. And we had a little dog that I always walked around the old center with, among all the old houses and so on... Yes, now they've been demolished, and people have moved out from there. So I've followed it all the way up until now.)

Vad känner du när du går runt i Nya centrum?
What do you feel when you walk around the New Center?

Nej, jag tycker det är tråkigt. Jag tycker det är... det är ju bara gallerier och höga hus. Jag ser ju inte mycket. Det är klart det finns ju, om man går lite längre, där finns det ju lite Tuolluvaara som har lite träd och så. Men...det är inte mitt Kiruna än i alla fall. Men vad ska jag göra? Men alla mina barn har ju flyttat härifrån för länge sen. Och jag har valt att bo kvar. Men jag har sagt att jag blir kvar... jag vill bada i det nya badhuset som ska öppna den 10 maj. Sen när jag blir lite äldre om några

år—jag fyller 80 i sommar—så kanske jag flyttar söderut närmare barnen.

(No, I think it's boring. I think it is... it's just shopping galleries and high buildings. I can't see much. Of course, if you walk a bit further, there is Tuolluvaara, which has some trees and so on. But...it's not my Kiruna yet, anyway. But what can I do? All my children moved away from here a long time ago. And I have chosen to stay. But I've said that I will stay... I want to swim in the new bathhouse, which is opening on May 10th. Then in a few years, when I get a bit older—I'm turning 80 this summer—maybe I'll move down south closer to my children.)

Men då ska du hinna bada ordentligt först!
But you must have time to swim properly first!

Jo, jag har ju varit med länge. Jag har ju simmat sen jag gick i realskolan. Jag började simma med Kiruna Simsällskap. Sen på sista åren då var jag med i något som heter Doppingarna. Det var tanter som träffades tisdagar och torsdagar för de var så många. De simmade innan de gick till jobbet, och där gick jag med bara för att komma iväg och simma. Så jag var med dem i flera år, och de hade så roliga teman när det var fester. De var otroliga på att klä ut sig!

(Yes, I've been doing it a long time. I have swam since I went to middle school. I started swimming with Kiruna's Swimming Club.Then in the last few years, I was in something called Doppingarna. It was ladies who met on Tuesdays and Thursdays because they were so many. They swam before they went to work, and I joined them just to get out and swim. So I was with them for several years, and they had such fun themes when there were parties. They were incredible at dressing up!)

Ja, de var jättegulliga människor. Så jag tycker att många unga ska umgås med gamla människor också, för de har så mycket att ge. Simning... nu är det bra. Ett badhus är bra, där umgås alla.
(Yes, they were wonderful people. So I think many young people should spend time with elderly people too, because they have so much to give. Swimming... now that is good. A bathhouse is great for that, everyone socializes.)

Ja. Och nu har ju den sista... hon är ju nästan 95 år. Hon har tappat minnet så hon bor på ett boende, och jag är den sista Doppingen kvar. Och jag har en stor påse som har kommit till mig med deras böcker där de skrev in sig, mycket foton och något sånt här, och deras... om man säger regler, som att "Dopping säger hej till Dopping", att man inte får prata politik och inte sjukdomar, och efter varje simning så gick man och fikade.

(Yes. And now the last one... she is almost 95 years old. She has lost her memory so she lives in a care home, and I am the last Dopping left. I have a large bag that was given to me with their books where they signed in, lots of photos and things like that, and their... what should you call it, rules... like, "Dopping says hello to Dopping", that you're not allowed to talk about politics, and not about illnesses, and after every swim, we went to have fika.)

Hur länge simmade man vid varje simning, och vad...?
How long did you swim each time, and what...?

Man kom dit vid halv sju, sju, och så simmade man till åtta. Så en timme, eller en och en halv.

(You would get there at half past six or seven, and swim until eight. So an hour, or an hour and a half.)

Och hur ofta gjorde ni det?
And how often did you do that?

Varje torsdagsmorgon.

(Every Thursday morning.)

Ja, vilket minne att ha med dig! Och det gamla badhuset, när började det? För jag vet, de började väl simma 1958 tror jag det var?
Yes, what a memory to carry with you! And the old bathhouse, when did it start? Because I know, they started swimming in 1958, I think it was?

Ja, och jag började simma 1961.

(Yes, and I started swimming in 1961.)

Ja. Jag önskar dig mycket fin simning hela sommaren.
Yes. I wish you very fine swimming all summer.

Ja, tack. Det hoppas jag också att jag får. Jag har ju fått provbada där! De har släppt in några som har fått prova. Så de där bassängerna är lite bredare, och så är det ju väldigt många bassänger... de missade jag, jag var bara i en.

(Yes, thank you. I hope I get that too. I actually got to do a trial swim there! They let a few of us in to try it. So those pools are a bit wider, and there are actually a lot of pools... I missed those, I was just in one.)

Nu får du ta dem nästa gång. Ja, men tack för att vi fick komma hit idag.
You'll have to try those next time. Yes, but thank you for letting us come here today.

Ja, det var jättetrevligt.

(Yes, it was very nice.)



Appendix C

Stories collected for ARCHIVE OF THE EVERYDAY

Kurravaaravägen (Elin Nylund)

Efter denna väg åker jag nästan varje dag, Kurravaaravägen, på väg hem. Jag är 18 år gammal, född och uppvuxen i Kiruna men för något år sedan flyttade jag och min familj till stugan i Kurravaara. Den här vägen gjordes om när E10an flyttade till andra sidan stan. Det har också byggts upp många nya hus och lägenheter men inget som varit så märkvärdigt när man bor i en stad vart hus rivs och flyttas hur som helst. Det var inte förrän någon vecka sedan när hastigheten sänktes och farthinder lades upp som jag faktiskt förstod. Från början blev jag mest irriterad över att man ska behöva köra så sakta men nu har jag verkligen förstått att det växer fram en stad här vart det tidigare varit myr och skog. Det gav mig en tankeställare.

I drive along this road almost every day, Kurravaaravägen, on my way home. I am 18 years old, born and raised in Kiruna, but a year or so ago my family and I moved to the cottage in Kurravaara. This road was redone when the E10 moved to the other side of town. Many new houses and apartments have also been built, but nothing that has been so remarkable when you live in a city where houses are demolished and moved anyway. It wasn't until a week ago when the speed limit was lowered and speed bumps were put up that I actually understood. At first I was mostly irritated that you have to drive so slowly, but now I really understand that a city is growing here where there used to be bog and forest. It gave me food for thought.

School view over new town (Sissel Kuhmunen)

Jag sitter i klassrummet och försöker hålla fokus på lärarens genomgång, men blicken dras gång på gång mot det nya centrumet. Den här delen av Kiruna känns fortfarande ovan, trots att jag under hela min gymnasietid sett hur den vuxit fram. Även om Kiruna egentligen inte är mitt riktiga hem, fanns det något i det gamla som jag kunde känna igen mig i, det har format min bild av staden.
Utanför pågår en förändring som är svår att ignorera. En hel stad håller på att flyttas och byggas upp på nytt. Gamla hus rivs, nya reser sig, och kranarna reser starten på nya kapitel. Det känns nästan som att staden själv packar ihop sina saker för att börja om.

I sit in the classroom and try to stay focused on the teacher's presentation, but my eyes are drawn time and again to the new center. This part of Kiruna still feels unfamiliar, even though I've seen it grow throughout my high school years. Even though Kiruna isn't really my real home, there was something about the old part that I could recognize myself in, it has shaped my image of the city.
Outside, a change is taking place that is hard to ignore. An entire city is being moved and rebuilt. Old houses are being torn down, new ones are being erected, and the cranes are raising the start of new chapters. It almost feels like the city itself is packing up its things to start over.

Järnvägsparken (William Roslin)

Järnvägsparken var ett ställe som jag gillade väldigt mycket under tiden då jag gick på Bergaskolan från årskurs 1-6. Det var en stor lekpark som var väldigt populär bland mig o mina kompisar. Just nu ser det ut som en tom yta men för bara några år sen var det en livlig plats vart barn lekte på sin fritid. Stor del av min tid i gamla Kiruna tillbringades här.

Järnvägsparken was a place that I really liked during my time at Bergaskolan from grades 1-6. It was a large playground that was very popular with me and my friends. Right now it looks like an empty space but just a few years ago it was a lively place where children played in their free time. A large part of my time in old Kiruna was spent here.

New town Kiruna (Ingrid Wyper Larsson)

Kiruna känns tomt nuförtiden, det är något som saknas. Inte för att det är tystare eller mindre folk men för det saknar samma känsla av hem. Allt är nytt och modernt men minnena saknas och det känns allt mer främmande. Folket splitras och tvingas välja mellan pengar eller att flytta och allt detta styrs av gruvan. Staden har alltid känts som hem men nu mera har det blivit en pengahungrig stad som väljer malmen före minnena. Långsamt formas staden efter LKABs behov och gamla Kiruna finns inte med I bilden.

Kiruna feels empty these days, there is something missing. Not because it is quieter or less populated but because it lacks the same feeling of home. Everything is new and modern but the memories are missing and it feels increasingly foreign. The people are divided and forced to choose between money or moving and all this is controlled by the mine. The city has always felt like home but now it has become a money-hungry city that chooses the ore over the memories. Slowly the city is being shaped according to LKAB's needs and old Kiruna is not in the picture.

Pieces from Soda, the local board game club (Charlie Lindmark)

Soda är och har de senaste åren varit den viktigaste platsen i mitt liv. Det är en liten spelförening här i Kiruna som fokuserar på analoga spel. Att gå med tror jag kan ha varit det viktigaste valet jag gjort.
Föreningen har alltid fungerat som en trygg plats där jag kan vara mig själv och accepteras för den jag är. Jag kan tacka Soda för mängder med fantastiska människor jag aldrig hade träffat eller lärt känna annars.
Nu sedan i sommar har byggnaden befunnit säg i LKABs rivningszon 1. Detta betyder att soda inom en snar framtid kommer behöva flytta till en lokal som vi inte vet existerar. Framtiden för föreningen har aldrig varit så osäker men trots detta fortsätter soda sin verksamhet med hopp.
Soda och spelkulturen är en del av Kiruna!

Soda is and has been the most important place in my life in recent years. It is a small gaming association here in Kiruna that focuses on analog games. I think joining may have been the most important choice I made.

The association has always served as a safe place where I can be myself and be accepted for who I am. I can thank Soda for lots of fantastic people I would never have met or gotten to know otherwise.
Now since this summer, the building has been located in LKAB's demolition zone 1. This means that soda will soon have to move to a location that we do not know exists. The future of the association has never been so uncertain, but despite this, soda continues its activities with hope.
Soda and gaming culture are part of Kiruna!

Old Firehouse (Anonymous)

Vid gamla brandstationen
Står vinden kvar och minns åt oss.
Ett torn sträcker sig mot himlen.
Där, man en gång kunde se stan andas.
Nu man endast ser gruvan.
Gruvan som stal staden

At the old fire station
The wind remains and remembers us.
A tower stretches towards the sky.
There, you could once see the city breathing.
Now you only see the mine.
The mine that stole the city

Dubengatan playground (Albin Movenius)

Det här en lekpark som jag växte upp med. När jag vara yngre var jag alltid ute med mina kompisar och lekte i den här parken. Det gör mig ledsen att höra den ska rivas och förstöras något som jag har spenderat så mycket av min barndom i. För mig håller den här parken nära till hjärta. Jag brukade cykla runt här på gården, gunga, leka i sanden med grav maskin, sitta på gungorna och svinga eller bara sitta på en lila kullen när det är soligt ute och tänka på saker under sommaren. Sedan på vintern brukar jag gräva snö gångar igenom snön, gjorde snögrottor i snöbergen som blev efter traktorn plogade upp allt snö. Det är ett plats som jag kallar ett hem för alla mina minnen jag har där med mina kompisar när jag var yngre. Men allt det kommer försvinna snart i en ögon blick och kanske inte mina barn kommer få se var jag växte upp. Tanken av det gör mig ledsen att allt kan försvina och jag önskar att det kunde stanna kvar längre.

This is a playground that I grew up with. When I was younger I was always out with my friends and played in this park. It makes me sad to hear that it is going to be torn down and destroyed, something that I have spent so much of my childhood in. For me, this park is close to my heart. I used to ride my bike around here in the yard, swing, play in the sand with the excavator, sit on the swings and swing or just sit on a purple hill when it is sunny outside and think about things during the summer. Then in the winter I usually dig snow paths through the snow, make snow caves in the snow mountains that were left after the tractor plowed up all the snow. It is a place that I call home for all my memories I have there with my friends when I was younger. But all of that will soon disappear in the blink of an eye and maybe my children will not get to see where I grew up. The thought of it makes me sad that everything

can disappear and I wish it could stay longer.

Gamla badhuset (Milla Bjornström)

Jag har valt att fota gamla badhuset eftersom det är en plats som många i Kiruna har koppling till. Under många år har badhuset varit en viktig samlingsplats där både barn och vuxna har tillbringat tid genom lek, simning och gemenskap. I och med stadsomvandlingen har badhuset stängts, samtidigt som ett nytt badhus har byggts i den nya stadskärnan. Det gamla badhuset står därför som en symbol för det som varit. Det är en plats fylld av minnen och historia som snart kommer att försvinna.

I have chosen to photograph the old bathhouse because it is a place that many people in Kiruna have a connection to. For many years, the bathhouse has been an important gathering place where both children and adults have spent time playing, swimming and socializing. With the urban transformation, the bathhouse has been closed, while a new bathhouse has been built in the new city center. The old bathhouse therefore stands as a symbol of what was. It is a place filled with memories and history that will soon disappear.

Sametinget (Anonymous)

Min pappa och jag har båda vid flertal tillfällen sagt att sametinget är en fin byggnad och att vi gillar vår utsikt från köksfönstret. Även om vi aldrig har sett klockorna på taket fungera och den för det mesta bara är en mörkgul vägg med en massa fönster. Kiruna är som de flesta andra gruvstäder ingenting att skryta om när det gäller vacker infrastruktur men de äldre husen har sin charm liksom det mörkgula huset utanför vårt fönster. Vår lägenhet ligger på rätt sida vägen för att inte behövas rivas inom de kommande åren i alla fall. Men husen runtomkring inklusive sametinget ligger i etapp 1 i påverkansområdet vilket innebär att de är först på tur att rivas. Innebärande att vår köksutsikt kommer att förändras till inte minst Kirunas hjärta, gruvan i sin prakt. Sorgligt att det charmiga mörkgula huset med många fönster och de icke tickade klockorna ska behöva rivas. Pappa tycker det fina med att ha sametinget precis utanför är hur det ger känslan av att bo i en stad med vackra, gamla hus. När det sedan försvinner kommer vi se orsaken varför alla dessa ståtliga hus försvinner.

My dad and I have both said on several occasions that the Sami Parliament is a nice building and that we like our view from the kitchen window. Even though we have never seen the bells on the roof working and it is mostly just a dark yellow wall with a lot of windows. Kiruna, like most other mining towns, is nothing to brag about when it comes to beautiful infrastructure, but the older houses have their charm, as does the dark yellow house outside our window. Our apartment is on the right side of the road so that it will not need to be demolished in the coming years anyway. But the houses around it, including the Sami Parliament, are in stage 1 of the impact area, which means that they are the first to be demolished. Meaning that our kitchen view will change to not least the heart of Kiruna, the mine in all its splendor. Sad that the charming dark yellow house with many windows and the non-ticking bells will have to be demolished. Dad thinks the great thing about having the Sami Parliament right outside is how it gives the feeling of living in a city with beautiful, old houses. When it disappears, we will see the reason why all these stately houses are disappearing.

Järnvägsparken (Emma Baas)

Jag valde att fota järnvägsparken då det känns som att alla Kirunabor har lekt i den som barn. När jag tänker på järnvägsparken tänker jag på en solig sommardag när jag fick åka till järnvägsparken och leka med antingen mina kompisar eller mina syskon. Jag själv tyckte att järnvägsparken var den roligaste lekparken då den hade störst klätterställning och linbana. Vi brukade leka att man inte fick nudda marken eller jaga och så vidare. Jag minns också hur man brukade ramla på gruset och skrapa upp knät men ändå fortsatte leka. Jag tycker att det är synd att den rivits då man har så mycket barndomsminnen därifrån.

I chose to photograph the railway park because it feels like everyone in Kiruna has played there as a child. When I think of the railway park, I think of a sunny summer day when I got to go to the railway park and play with either my friends or my siblings. I myself thought the railway park was the most fun playground because it had the biggest climbing frame and cable car. We used to play that you weren't allowed to touch the ground or chase and so on. I also remember how you used to fall on the gravel and scrape your knee but still continued playing. I think it's a shame that it was torn down because you have so many childhood memories from there.

Kiruna sporthall (Loka Marjavaara Windmark)

Kiruna sporthall, mitt andra hem och en byggnad som bär på mycket. Utifrån är det inte mer än plåt och sten, men innanför väggarna rymmer flera berättelser. Allt mellan svettdoft, tusentals steg, nervositet, glädje, besvikelse och gemenskap sitter där inne.
Sporthallen är en del av vem jag är. För det var här som jag inte bara lärde mig en sport, utan även samarbete, disciplin och mod. Att våga försöka fastän det kändes svårt.
Jag minns hur det kändes att kliva in där. Hejarop och massa sorl från publiken. Det var på planen där tiden ibland stod stilla, samtidigt som allt hände på en gång.
För många är Kiruna sporthall mer än bara en byggnad. Det är en plats många har växt upp med. Där både skratt och tårar har delats med lagkamrater. Där man har kämpat som en dåre tills man nästan fallit ihop. Där man spenderat många timmar för att utvecklas.
Men det är inte bara min historia. Varje person som passerat genom dörrarna har lämnat spår efter sig. Varje liten person finns med och bildar något större. Och det är just där historien finns, i ?bara? en byggnad, som kommer att tvingas flytta på grund av en stad i förändring.

Kiruna sports hall, my second home and a building that carries a lot. From the outside it is nothing more than sheet metal and stone, but inside the walls there are several stories. Everything between the smell of sweat, thousands of steps, nervousness, joy, disappointment and community is inside there.
The sports hall is part of who I am. Because it was here that I not only learned a sport, but also cooperation, discipline and courage. To dare to try even though it felt difficult.
I remember how it felt to step in there. Cheers and lots of murmuring from the audience. It was on the field where time sometimes stood still, while everything happened at once.
For many, Kiruna sports hall is more than just a building. It is a place many have grown up with. Where both laughter and tears have been shared with teammates. Where you have fought like a fool until you almost collapsed. Where you have spent many hours developing.
But it is not just my story. Every person who has passed through the doors has left a mark. Every little person is there to create something bigger. And that's where the story lies, in "just" a building, which will be forced to move due to a changing city.

Lombia (Vera Ejnestrand)

Lombia är ett ställe som jag tror många har en koppling till, sena och varma sommarkvällar eller brännbollsturneringar. Alla har varit där med sina kompisar och spelat fotboll eller brännboll. Lombia kommer inte att finnas kvar om några år så detta visar på hur en kväll kunde se ut där i solnedgången. Himlen som skiftar i orange, rosa och blått på kvällen och den stora fotbollsplanen med läktare på sidorna.
Jag intervjuade en av mina vänner som varit mycket där under åren. Hon tyckte att Lombia är en bra uppsamlingsplats för alla att samlas på och hon hoppades att vi får något lika bra i framtiden så att de som är yngre än oss kan ha lika kul som vi hade.

Lombia is a place that I think many people have a connection to, late and warm summer evenings or brännboll tournaments. Everyone has been there with their friends and played football or brännboll. Lombia will not be around in a few years so this shows what an evening could look like there at sunset. The sky that changes to orange, pink and blue in the evening and the big football field with stands on the sides.
I interviewed one of my friends who has been there a lot over the years. She thought that Lombia is a good gathering place for everyone to gather and she hoped that we will get something just as good in the future so that those who are younger than us can have as much fun as we had.

Early midnight sun (Elias Isaksson)

En sen men tidig sommarkväll vart den tidiga midnattssolen visade sig. Vid bäckmynningen vart harren simmar och renen vandrar.

A late but early summer evening where the early midnight sun appeared. At the mouth of the stream where grayling swim and reindeer wander.

Clock in Kiruna (Vicent Movenius)

När jag tänker på gamla centrum så tänker jag på denna klocka. Hela min uppväxt så har jag hängt på torget. Jag cyklade ofta med kompisar runt omkring och gick på festivalen som var där. Även om klockan inte har någon speciell betydelse för mig så är det som att den symboliserar gamla Kiruna för mig, den har liksom alltid vart där i barkunden.
Jag kommer ihåg en gång när jag var kanske 11 år, då satt jag på betongen på klockan med ett gäng kompisar. Plötsligt så kom en idol vid namn Börje Salming fram och pratade med oss, och för mig som spelar och även då spelade hockey så var det helt otroligt, det var som att gud uppenbarade sig för mig.
I alla fall så kommer den här klockan nog alltid finnas med i mitt minne, inte med någon särskild betydelse utan mer som en symbol för Kiruna som jag växte upp i.

When I think of the old city center, I think of this clock. My whole life, I have hung out in the square. I often cycled around with friends and went to the festival that was there. Even though the clock has no special meaning for me, it is as if it symbolizes old Kiruna for me, it has always been there in the bar

area.
I remember once when I was maybe 11 years old, I was sitting on the concrete on the clock with a bunch of friends. Suddenly, an idol named Börje Salming came up and talked to us, and for me, who plays and also played hockey at the time, it was completely incredible, it was like God appeared to me.
In any case, this clock will probably always be in my memory, not with any special meaning but more as a symbol of Kiruna, which I grew up in.

Arrantrappan (Emanuel Gronberg Tyni)

Här brukade jag cykla
Här brukade folk stå
Här är det knappt möjligt att gå
Gruvans makt den tar
Arrantrappan är det enda som står kvar

Here I used to ride a bike
Here people used to stand
Here it is barely possible to walk
The power of the mine it takes
The Arran stairs are the only thing left standing

Appendix D

Inspiration #1

Narbo Via by **Foster + Partner** is a museum of Roman antiquities located in Narbonne
The building incorporates not only galleries for permanent and temporary exhibitions, but also an auditorium, a multimedia education centre, a library, a restaurant and research, restoration and storage facilities. The central piece of the museum is the “Lapidary Wall”, which forms a natural barrier separating public galleries and private restoration spaces, and through which visitors can glimpse at the work of archaeologists and researchers. The featured display framework allows the reliefs to be easily reconfigured and used as an active tool for learning (Foster + Partner n.d.).

Figure 48
Narbo Via museum from outside (Niegel Young).



Figure 49
The “Lapidary Wall” (Niegel Young).



Figure 50
Installation from the “Lapidary Wall” (Niegel Young).



Inspiration #2

The Momentary by Wheeler Kearns Architects is a new contemporary art space adjacent to Crystal Bridges Museum of American Art in Bentonville, Arkansas.
The adaptive-reuse project turned the former cheese factory into a multidisciplinary space for visual, performing and culinary artists. The majority of the original building is preserved and the additions are differentiated through the use of contemporary material like steel and glass. The firm was tasked with the creation of an experience unlike traditional museums, with engaging indoor-outdoor areas to expand the cultural experience. In every room, the building's former life is still experienced through physical remnants (Divisare 2021).



Figure 51
Photo of The Momentary museum from outside (Tom Harris).



Figure 52
Photo of The Momentary museum inside, showing the relationship between the old buildings and the contemporary additions (Tom Harris).



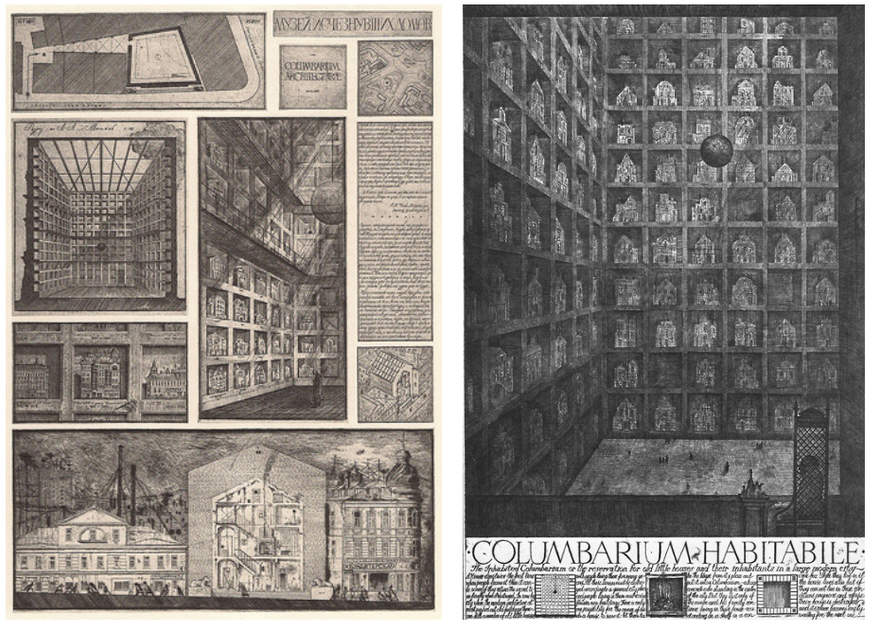
Figure 53
Photo of an installation from The Momentary museum (Tom Harris).

Inspiration #3

Alexander Brodsky and Ilya Utkin are the main representatives of "Paper Architecture" durin the last decades of the Soviet Union. The movement consists in the creation of visionary schemes designed by architects, where buildings and cities function as forms of architectural and social critique rather than as proposals for actual structures.
In this context, Utkin and Brodsky's "Columbarium Architecturae (Museum of Disappearing Buildings)" and "Columbarium Habitabile", designed in 1984 and 1989 respectively, share the same concepts. Both depict a memorial structure where old buildings that are to be demolished, are preserved. The external structure of the columbariums takes its form from a rigid concrete grid that mimics the prefabricated Soviet skyscrapers from the 1960-1970s.
Unlike traditional museums, the buildings housed in the structure are not inert. They require constant attention from both their inhabitants and observers. If a building is forgotten or neglected, a massive demolition ball placed at the centre of the structure activates itself to destroy it (Crowley 2012).

Figure 54
On the left, Columbarium Architecturae (Alexander Brodsky and Ilya Utkin).

Figure 55
On the right, Columbarium Habitabile (Alexander Brodsky and Ilya Utkin).



Inspiration #4

Located in Oulu, The Toppila Silo (Aalto Siilo) was designed by Alvar and Aino Aalto as part of the Toppila Oy Cellulose factory in 1931. Due to shrinking demand through the 1970s, the factory closed and most of the buildings were destroyed. In 2020, after the acquisition of the building plot, Skene Catling de la Peña and Factum Foundation for Digital Technology in Preservation are repurposing Alvar and Aino Aalto's first modernist industrial buildings. The project is not just a restoration project, but it focuses on safeguarding and repurposing an important landmark of post-industrial heritage and transforming it into a repository of knowledge while also serving as a hub for cultural and experimental exchange (as part of Oulu's European Capital of Culture 2026 initiatives) (Factum Foundation and Skene Catling de la Peña n.d.).

Figure 56
Alvar Aalto Silo (Factum Foundation and Skene Catling de la Peña).



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Figure 2 Authors, DAD - Politecnico di Torino. 2025. Projected Futures, for TICCIH 2025 conference “Heritage in Action”.

Figure 3 Authors, DAD - Politecnico di Torino. 2025. Groundwork, for TICCIH 2025 conference “Heritage in Action”.

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Figure 6 Federighi, Valeria. 2025. Photograph of Kiruna Explorer exhibition, or TICCIH 2025 conference “Heritage in Action”.

Figure 7 QR Code of Archive of the Everyday for Kiruna project.

Figure 8 Authors. 2025. Poster for the workshop Archive of the Everyday.

Figure 9 Authors. 2025. Poster created for spontaneous interviews in Kiruna

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Figure 12 Authors. 2026. Map of European Strategic Projects.

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Figure 15 Authors. 2026. Map showing active mines, historic mines and reindeer migration

Corridor

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Figure 16 Kiruna kommun. 2024. Timetable for income of operating budget over the period 2025-2029.

Figure 17 Kiruna kommun. 2024. Hierarchical management disposition of Kiruna Capital of Culture 2029.

Figure 18 Malik, Cecylia and Niedzielni. 2016. A house on an ash-tree. https://www.wroclaw.pl/dla-mieszkanca/domek-na-drzewie-na-olbinie-cecylia-malik-i-kolektyw-niedzielny

Figure 19 2026. Untitled, work done by students during the art workshop, taken by authors.

Figure 20 Rydström, Lena. 2026. Wasa-mannen, picture by authors,

Figure 21 Authors. 2026. Timeline of “Futures of Kiruna”.

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Sources used to create the map:
* Google Satellite ©2026 Airbus/CNES/Airbus, Cartographic Data ©2026
* Pctures by authors

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Sources used to create the map:
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* Lantmäteriet. (2025). Topografi 50 Nedladdning (Topography 50 Download) [vector]. SWEREF99 TM (EPSG:3006); scale 1:15,000–1:50,000.
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Figure 42 Authors. 2026. Official Masterplan.

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Sources used to create the map:
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Figure 55 Brodsky, Alexander and Utkin, Ilya. 1989. Colombarium Habitabile. https://faktografia.com/2012/12/28/paper-architecture-the-columbaria-of-brodsky-and-utkin/#_ftn4

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C12 Tiny eleven, tiny rabbit, taken on April 29, 2026 (Ana Isa Mourinho).



C12
Tiny eleven, tiny rabbit
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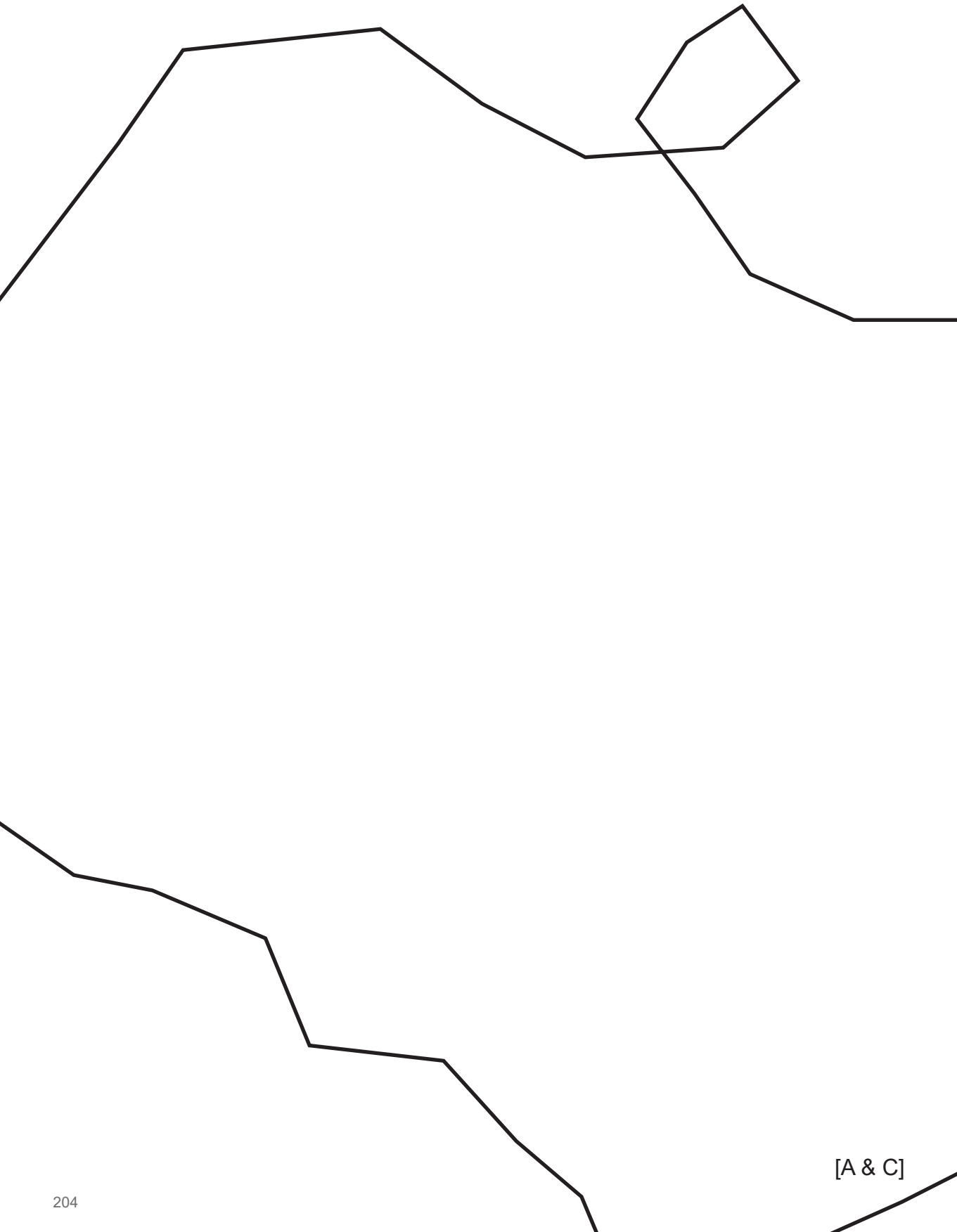
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[A & C]