



# LUND UNIVERSITY

## Malmbanan Diaries

Andersson, Sarah; Butler, Andrew; Calderon, Camilo; Cerwén, Gunnar; Dabaieh, Marwa; Deak, Johanna; Hellström Reimer, Maria; Johansson, Anders; Johansson, Rolf; Larsson, Anders; Lieberg, Mats; Lindholm, Gunilla; Myhr, Ulla; Busse Nielsen, Anders; Norlin, Måns; Olsson, Titti; Richnau, Gustav; Wingquist, Erik

2010

[Link to publication](#)

### *Citation for published version (APA):*

Andersson, S., Butler, A., Calderon, C., Cerwén, G., Dabaieh, M., Deak, J., Hellström Reimer, M., Johansson, A., Johansson, R., Larsson, A., Lieberg, M., Lindholm, G., Myhr, U., Busse Nielsen, A., Norlin, M., Olsson, T., Richnau, G., & Wingquist, E. (2010). *Malmbanan Diaries*. (APULA, National Research School for Architecture and Planning in the Urban Landscape). Swedish University of Agricultural Sciences.  
<http://www.testbedstudio.se/pdf/MalmbananDiaries.pdf>

### *Total number of authors:*

18

### **General rights**

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00





MALMBANAN DIARIES

Fieldwork trip 23-26 August 2010

APULA, National Research School for  
Architecture and Planning in the Urban Landscape



## *What is the scope of the urban landscape?*

### *Where does it start and where does it end?*

During an intense four day field trip, a group of nine PhD students and their supervisors – all part of the National Research School for Architecture and Planning in the Urban Landscape, APULA – set out to explore what may be considered the outback of Western Europe's conurbations, the transnational region of Kiruna – Narvik. Both "remote" and "resourceful", "threatened" and "thriving" (equally relative notions), this region seemed to offer possibilities to reflect upon many of the current tendencies influencing contemporary planning practice and research.

And we were not disappointed. From the very first encounter with the municipality of Kiruna, whose foundation as an urban conglomeration is now literally cracking, to the last glimpses of cosmopolitan Narvik, competing for the cruiser ships' attention, we found ourselves embedded in a multilayered urban narrative. Following the throbbing of the iron ore carriages running along Malmbanan, the rail link connecting Kiruna, Abisko and Narvik, we tried to get a grasp of what is both "the last wilderness of Europe" and perhaps its most important urban "testing grounds".

The aim of the field trip was to provide ample room for each and every participant to try out, interrogate and reflect upon their different research topics in relation to a totally new setting, as such also linking their subject matters and methods to the general conditions for spatial research. Through journalistic and improvisational approaches, a collaborative map emerged, not only actualizing a shifting and sprawling urbanity, but also the rambling and trailing of research as such.

The result of the workshop is the following collaborative diaries; a composite travelogue of a thought provoking passage on the fringes of urbanity. Our guides throughout this dislocation have been Anders Johansson and Erik Wingquist of Testbedstudio, who both generously and enthusiastically shared their experience with us and competently and creatively coordinated the final outcome. Without Anders and Erik we would probably have gone astray, geographically as well as conceptually.

But we got back safely, and if there is a conclusion to be formulated, it should be future oriented. The following is a narrative or a map, the outcomes and destinations of which hopefully are as numerous as its points of departure.

*Sarah Andersson, Andrew Butler, Camilo Calderon, Gunnar Cerwén, Marwa Dabaieh, Johanna Deak, Maria Hellström Reimer, Rolf Johansson, Anders Larsson, Mats Lieberg, Gunilla Lindholm, Ulla Myhr, Anders Busse Nielsen, Måns Norlin, Titti Olsson, Gustav Richnau.*



# GLESBYGD



The travel northwards through Sweden by land is an experience of dispersion. Appearing outside the train window is the Swedish geographical notion of *glesbygd* – the sparsely populated areas, the far-between regions. *Tätorterna* – the somewhat denser conglomerations – are thinning out, the layers of social life are gradually evaporating, while from underneath, *basnäringarna*, the basic livelihoods, come forward. With an increased frequency they enter the field of vision: the clear-felled areas, the timber stocks, the distribution plants, the freight trains. There is no way around the fact that we are moving through the periphery of urbanity, at the same time within proximity of its very foundations. After a night's sleep we found ourselves just south of Umeå, at Vännäs. By lunch we pass the Arctic Circle. There is still some distance to cover.



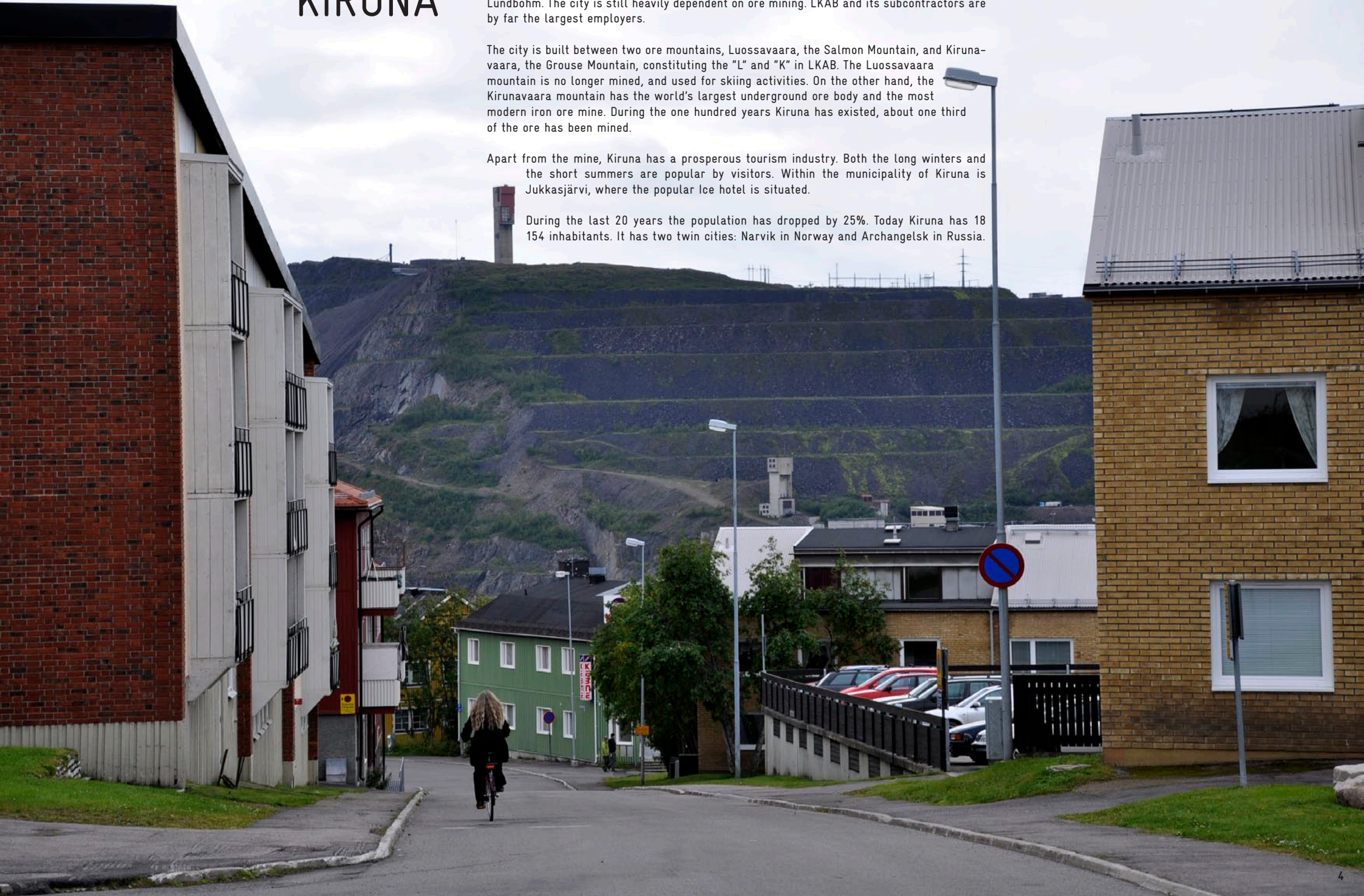
# KIRUNA

Kiruna was founded in 1900 by the first director of the mining company LKAB, Hjalmar Lundbohm. The city is still heavily dependent on ore mining. LKAB and its subcontractors are by far the largest employers.

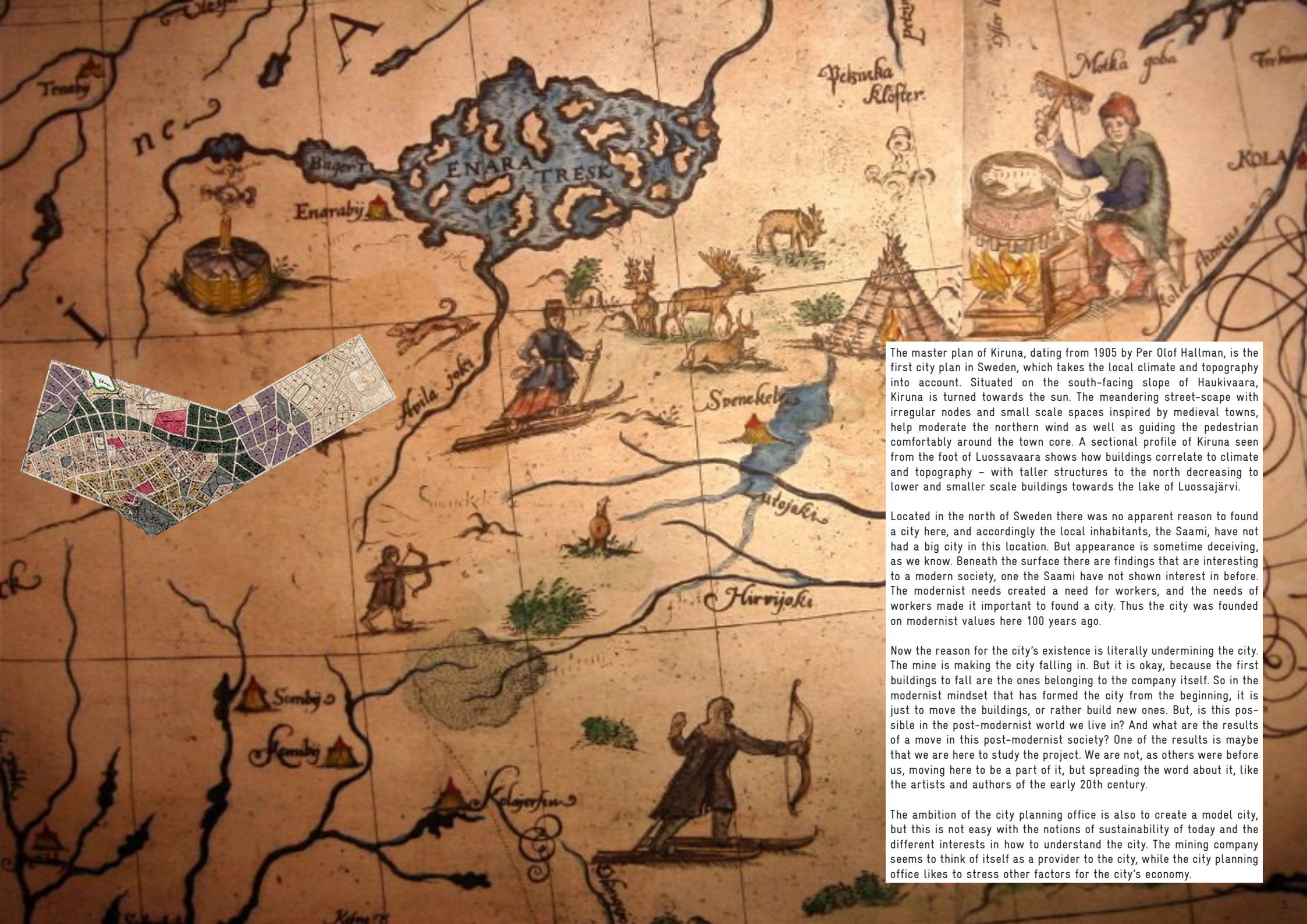
The city is built between two ore mountains, Luossavaara, the Salmon Mountain, and Kirunavaara, the Grouse Mountain, constituting the "L" and "K" in LKAB. The Luossavaara mountain is no longer mined, and used for skiing activities. On the other hand, the Kirunavaara mountain has the world's largest underground ore body and the most modern iron ore mine. During the one hundred years Kiruna has existed, about one third of the ore has been mined.

Apart from the mine, Kiruna has a prosperous tourism industry. Both the long winters and the short summers are popular by visitors. Within the municipality of Kiruna is Jukkasjärvi, where the popular Ice hotel is situated.

During the last 20 years the population has dropped by 25%. Today Kiruna has 18 154 inhabitants. It has two twin cities: Narvik in Norway and Archangelsk in Russia.







The master plan of Kiruna, dating from 1905 by Per Olof Hallman, is the first city plan in Sweden, which takes the local climate and topography into account. Situated on the south-facing slope of Haukivaara, Kiruna is turned towards the sun. The meandering street-scape with irregular nodes and small scale spaces inspired by medieval towns, help moderate the northern wind as well as guiding the pedestrian comfortably around the town core. A sectional profile of Kiruna seen from the foot of Luossavaara shows how buildings correlate to climate and topography – with taller structures to the north decreasing to lower and smaller scale buildings towards the lake of Luossajärvi.

Located in the north of Sweden there was no apparent reason to found a city here, and accordingly the local inhabitants, the Saami, have not had a big city in this location. But appearance is sometime deceiving, as we know. Beneath the surface there are findings that are interesting to a modern society, one the Saami have not shown interest in before. The modernist needs created a need for workers, and the needs of workers made it important to found a city. Thus the city was founded on modernist values here 100 years ago.

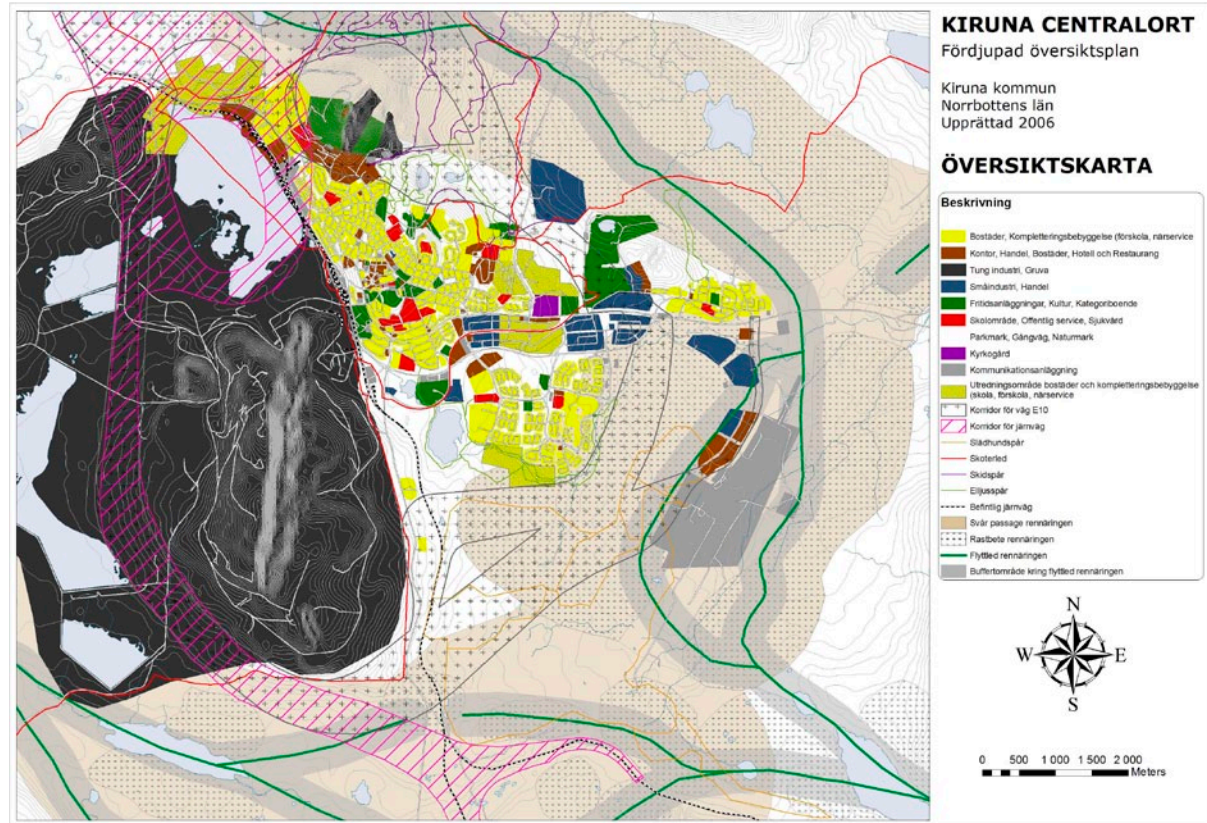
Now the reason for the city's existence is literally undermining the city. The mine is making the city falling in. But it is okay, because the first buildings to fall are the ones belonging to the company itself. So in the modernist mindset that has formed the city from the beginning, it is just to move the buildings, or rather build new ones. But, is this possible in the post-modernist world we live in? And what are the results of a move in this post-modernist society? One of the results is maybe that we are here to study the project. We are not, as others were before us, moving here to be a part of it, but spreading the word about it, like the artists and authors of the early 20th century.

The ambition of the city planning office is also to create a model city, but this is not easy with the notions of sustainability of today and the different interests in how to understand the city. The mining company seems to think of itself as a provider to the city, while the city planning office likes to stress other factors for the city's economy.



Thomas Nylund,  
city architect of Kiruna

To the Kiruna people, travelling is obviously important, but to what expense?



The now closed Toulluvaara mine is next to the new place for the city centre. As it was in the beginning of the last century, the first time the city was built, the city is now to be a model city, this time with regards to sustainability.

Sustainability is defined in collaboration with the Faculty of Engineering of Lund University. It looks at which materials are to be used, which energy saving measures are possible and other technical solutions.

But the city planning office is interested in doing the comprehensive plan by itself, because there is

a need for knowledge of the local community. But we are looking at other projects of today, such as Lomma, Staffanstorps, Bo01 and Hammarby Sjöstad.

People's needs and a good living environment is important in this work, but maybe this will clash with ecological sustainability. People are interested in cars and snowmobiles; therefore there is a need for houses on ground level. It is hard to make that into a dense city. The problem with the sparse structure of a city is the transports. People like cars and even if in the future they might be environmentally friendlier, they still take up room in the city.

Despite this the city can still be an interesting one, with winding streets, and something new around every corner to explore. And using the magnetite, which Kiruna is famous for, can create interesting architecture. This is a way of using the premises of the location, the building material, the mountains and the snow in the winter, to make it a socially attractive city.

The creativity is also present in planning where the city planning office, just for fun, explored the possibility of using gondolas as a public transport.



THERE IS A CRACK, A CRACK IN EVERYTHING.  
THAT'S HOW THE LIGHT GETS IN.

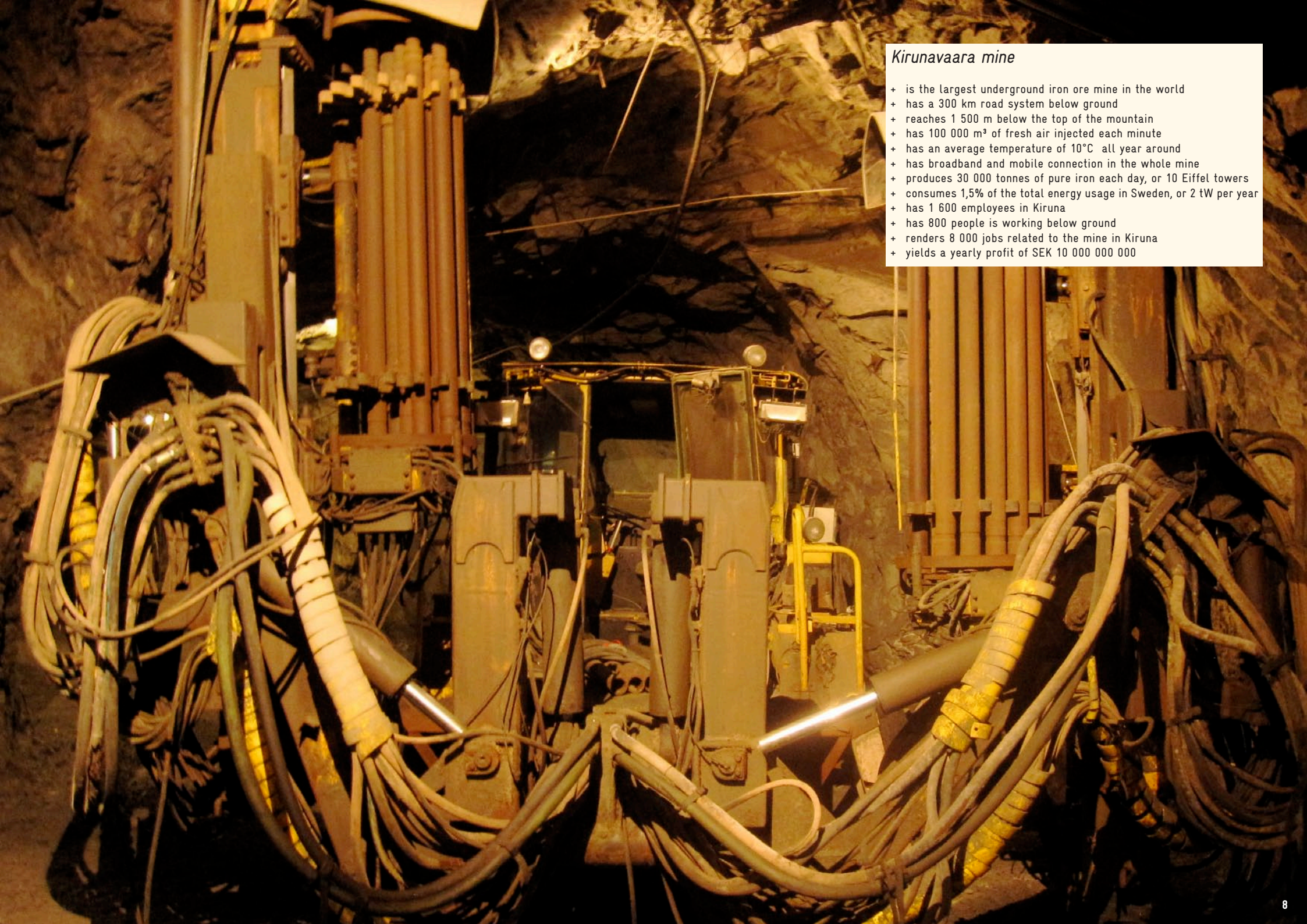
*Leonard Cohen*

To move the city and its building heritage (the church, the city hall, the "inkwell" workers' homes) will be a unique architectonic event. But first one has to agree on one thing: Where will the city go? What is interesting with the transformation of Kiruna is that there is a battle between several diverging interests. Even if it seems as LKAB mining company and the industry that dictate the conditions in Kiruna presently, the municipality, the Swedish Transport Administration and not the least the Saami community, which has already lost herding grounds, are stakeholders. In the background there are also Swedish national interests and global interests for example in the form of the development of Esrange missile range and NATO's military activities in the region. The architect Anders Wilhelmsson has used the concept "contested space" in order to describe the city as a fight between different interests.



### *Kirunavaara mine*

- + is the largest underground iron ore mine in the world
- + has a 300 km road system below ground
- + reaches 1 500 m below the top of the mountain
- + has 100 000 m<sup>3</sup> of fresh air injected each minute
- + has an average temperature of 10°C all year around
- + has broadband and mobile connection in the whole mine
- + produces 30 000 tonnes of pure iron each day, or 10 Eiffel towers
- + consumes 1,5% of the total energy usage in Sweden, or 2 tW per year
- + has 1 600 employees in Kiruna
- + has 800 people is working below ground
- + renders 8 000 jobs related to the mine in Kiruna
- + yields a yearly profit of SEK 10 000 000 000







The atmosphere in the mine is powerful. The air is moist, filled with dust and smells of minerals. The echo of voices and events far away spreads through the vast system of tunnels, and mixes with the sound from the ventilation and other wind-like sounds of draft from the depth of the mine. Sounds of steps multiply in the long gangways and the acoustics of the mine communicates with us. Tells us who it is, how big it is.



# PEOPLE



*Professionally I am a chemist, but most of all I would say that I am a punker. I listen to punk music. There are not many punkers here in Kiruna. In this town they listen to hard rock music, or heavy metal. I used to live in Gothenburg for a long time. There were more of us there, punkers I mean.*

*I liked my work at LKAB. I've had a good life in Kiruna, working for LKAB. And now, Kiruna is booming. The demand for our high quality iron ore is rising. And this because of all the wars. Kiruna is doing well. Unfortunately.*



Stina Sofia Eriksson, 71, has lived in Kiruna all her life. We meet her over breakfast in the train restaurant somewhere after Vännäs, and during a couple of morning hours through the Västerbotten and Norrbotten forests, she happily shares with us her Kiruna experiences. In 1954, as a fifteen-year-old young girl, she started to work in the laboratory at LKAB, where she was involved in the process of controlling the quality of the ore. There she stayed until 1982, when she moved over to the reception, a position she kept until she retired some five years ago.





 **Emilia Andersson** Vi har allt som ingen annan stad har.  
May 16 at 8:57pm · Flag

---

 **Marie Stålnacke** tänk att vi har naturen bara runt hörnet det är ju underbart. Kiruna är en toppen fin stad att bo i och jag är en äkta Kirunabo med rotade rötter...  
May 9 at 6:41pm · Flag

---

 **Nadja Häggström** Alltid när jag berättar att jag är från Kiruna, så får man alltid jättepositiv respons och man är nästan exotisk :)  
May 10 at 10:05pm · Flag

---

 **Yvette Heikka Mukka** heja Kiruna, älskar man snö och vinter är Kiruna bäst, sen finns kirunafestivalen var finns den annars, ja just i Kiruna.  
January 24, 2008 at 8:56pm · Flag

---

 **Bo Malmgren** Kiruna är Sveriges pärla Fjällen, älvarna och sjöarna är en lisa för själen  
May 19, 2009 at 12:17pm · Flag

---

 **John Lomvik** Hur kul är det här, saknar Giron, hmmm, inte riktigt, saknar sina kompisar, hmmm, ja, saknar fjällen/skogen och fiske, hmmm, ja, så vad gör man, hmmm, väntar och sen vet man ju inte vad som händer, kanske man kommer tillbaka, kanske inte, men ändå finns Kiruna alltid i mitt hjärta....  
October 27, 2007 at 12:41am · Comment · Like · Flag

### Assets

So how do the people from Kiruna understand and experience their urban landscape? What are their routines, their needs, practices, desires and are these reflected in Kiruna's urban environment?

Above all there is a great sense of pride and attachment to the city. "We have everything that any other city has", says Emilia. But what does she mean by everything? Well they do have the biggest iron reserve in the world. That is something no other city has. But what else?

Maria says that it is that nature is just around the corner.

Based on these opinions, what Kiruna has that no other city has is not in the city but in its surroundings. It is Kiruna's natural surroundings that contain those things that are more valued. It is outside the city where the activities that are more practiced can be done (skiing, hiking, picking berries, riding snowmobiles). An exoticness that is present not only in the environment but which is also attached to the people living there. "One feels almost as an exotic person", says Nadja.

Yvvet, Bo and John say that it is the snow, the winter, the rivers, the mountains, the forest, the fish, the Kiruna festival.



As in every other city, there can be a great variety of values, needs and desires, which are determined by the social group you belong to. The members of most communities or cities do not necessarily share a single culture, and have different values and beliefs. In Kiruna the most visible example of this is the differences and conflicts that can be found between the native Saami communities and the "colonizing" Swedes. It is important to recognize all groups present in the city and identify how they relate and value their urban environment. This is especially important in times when cities are becoming more multicultural. Kiruna is not the exception, although as it is right now it seems that the place Kiruna's immigrant population value more is not out in the wild, but in the library where via free internet they can feel close to home.



*It seems that peace issues are not municipal issues. In the eighties we actually succeeded in convincing the authorities to proclaim Kiruna a nuclear-free zone. Yet, now, the whole region has transformed into a military testing ground for the whole of Europe, including NATO and the United States. In February we approached the two local commissioners with a petition against a NATO training campaign at Riksgränsen. One of them claimed that since NATO was a democratic organization, this was not a problem. The other meant that the hotels at Riksgränsen need every guest that they can get.*



Edla Lanto is a member of Women for Peace in Kiruna and has been so since its formation in 1983. She is also a representative for the Green party in the local government. But she is disappointed with local politics.





In the Bolagsskolan school, close to the mine, the outdoor environment is flat, covered by plain concrete. The surface is cracked. Two red, three wheeled bicycles for small children are standing in a corner. No children are seen. It is as if nature is not allowed in the built environment in Kiruna. It is behind the fences. Nature sticks to itself. It is something else, separated from the urban environment. The mountains are like a huge poster, pinned up on the sky. On the walls the children have made their own paintings.



The landscape is everywhere in Kiruna. The city is hidden by the landscape and the landscape is everywhere. Everyone has a snowmobile route behind the corner of their house. People go up to the mountains in their free time. They do not go into town. But: when the city planners ask the inhabitants about their opinions of the city, people always say they lack a park.

Strange, with all that nature around the corner, with a landscape that is everywhere...

They do have parks in Kiruna. But no one seems to maintain them. Perhaps people do not remember to maintain them. They cannot see anything but the landscape. They forget that parks are more than grass. But what if people in Kiruna do not want more nature? They want parks because parks are

not nature. Parks are culture. People in Kiruna want more culture. People in Kiruna, surrounded by a fabulous scenery and endless space, need parks.

People in Kiruna are quite lazy, they want to go smoothly by car, they want garages at their homes. People in Kiruna want things to be close. That is just what they need in this place where everything is so far away. They are not used to go by bus. Why? It is boring. It takes time. It does not function. There are no buses. People in Kiruna need something new, something thrilling, something fascinating. They need a lift that takes them up to the mountain, around in the city and then downtown again. Than they could stop asking for garages.

The young taxi driver likes living in Kiruna. In summertime she drives her taxi cab and

in wintertime she works in the Ice hotel. There she meets lots of people from around the world and everywhere. She gets friends who she can keep in touch with. The world comes to the Ice hotel. And the world comes to her taxi. There are the tourists, the businessmen and all the others. All of them want to go by taxi from the airport. Or come to see the darkness and the snow. Her dad is a Saami from Karesuando. Her mother comes from Finland. That is too far away. But the relatives in the family on the father's side have reindeers. That was just an everyday thing when she was a child. But now it has become more important. She has become aware of the reindeers. It turns warm around the heart when she thinks about that, she says.

She likes Kiruna. She is born here, and has lived here all her life. But she

does not want to talk a lot about the plans for when and where and how Kiruna is going to be moved. People in Kiruna are rather tired of that. All that talk and nothing ever happens, no-one can tell what is going to happen, when it is going to happen and how it is going to happen. So now she has desired to just wait and see.

If you want to live in a city where there are fancy restaurants and hot clubs you should not move to Kiruna. But it is okay. It is *lagom* big. She is not a nature freak, but she is attached to nature. Nature has always been a part of her, it has surrounded her, being close to nature has always been the most obvious thing in her life. She has her jobs, she meets the world. Yet it is too soon to move to a small village outside Kiruna, she says, but someday. Maybe.





# PROPENSITIES

Two of the places that the people from Kiruna like most, Järnvägsparken and Loussavaarabacken, can be said to reflect that it is Kiruna's nature surroundings that contain those things that are more valued.

But if it is in the city surroundings where people's values, experiences and practices are, what is happening and what is valued in the "city", in the built environment? The city as such does not reflect any of those things or activities that are said to give the uniqueness to Kiruna. The only thing one can do there is get drunk at Arran, the local bar, or play Xbox.

Although people feel great pride and attachment to Kiruna, people are also aware that the city as such, the built environment, is not an ideal or wonderful place.

It is evident that in most open spaces of the city, priority is given to cars or green areas that are highly dependent on intensive maintenance (constantly cutting the lawn).





# WALKING

Walking around in Kiruna two things struck me as different. To understand "different" according to something, I probably should describe that I normally work with the most urban environments in Sweden and do my studies in the biggest city, Stockholm. I also live in the southern parts, where the landscape has a totally different character than up north. The issue I am interested in is what it is in the urban landscape that inspires people to be physically active, so my eyes constantly looked for signs of different activities going on in the landscape in and around Kiruna. The two differences that I noticed and started to reflect upon are first the presence of the surrounding landscape, which has a natural and almost overwhelmingly

large character for someone coming from the flat parts in southern Sweden. Second, the winter, even though it is not present in August still is noticeable in the landscape in terms of signs of winter related activities. I started to wonder what these differences mean for the inspiration to physical activation.

Kiruna is surrounded by nature, and you can feel it and see it even in the town centre. The small parks look more like wilderness than the parks I am used to, which usually contains a lot more manmade or placed objects. For example Kyrkoparken basically consist of smaller trees with narrow walking paths in between. To some extent it feels like nature is so dominant even in the city, that the possibility for activities usually dominating in southern Swedish parks during the summer months such as playing football, throwing Frisbee or more relaxed activities such as sunbathing are not possible here.

There is an active surfing community in and around Narvik, which may to some be surprising. The greatest waves are told to be in Utleie, which is situated on the other side of Vestfjorden. Apart from the dark period in December that can be though, they surf all year around. The waves are said to be fantastic, and on the internet they are compared to those in locations like Tahiti and California.

I decided to take a walk up the ski slope Luossavaara. I have visited a lot of ski slopes in the wintertime but this was my first summer walk up the hill, which gives a totally new perspective. Even though it is marketed as a viewpoint on signs along the way up to the bottom of the slope, it did not seem very frequently visited during the summer time. Even the homepage of the company that manages the slope wish people welcome back in the end of the autumn when the next season begins. The first thing you meet is a group

of snow canons standing next to the empty building where the lift operators work during the skiing season. The slope itself looks quite beautiful from a distance, with a cover of flowers, which reminded me of the meadows back home. But if you take a closer look you will find electricity cables sticking up from the dirt that probably are not removed since they are going to be covered in snow in just a few months.

I walked up the slope to the top where an empty cabin, which from the written statements on the walls telling things like "Kiruna sucks", seemed to be a place for youth to hang out. Some signs of a grill party showed that at least some people cared to visit the top in the summer time. At least I was inspired to do some physical activity to get to the top, but the seeking for the good view were more of an inspiration than the effort itself. A different purpose than during the wintertime when I go to the slopes for skiing.





# CENTRE



The wheels of the bike are moving fast down the slope. Oops, there is the centre of the city! You have to stop quickly otherwise you miss it. Before you know it, it is already passed. Kiruna city centre looks like a suburban centre. Most people probably come here by car, as the parking place seems important. It is rather big. The city architect says there is a new centre coming up. Some big shops and companies have settled in a former industrial area located more to the east. That worries the city architect. It is not the place where the city is planned to be when Kiruna starts transforming. But what will come first – houses or service? How do you give the signs that tell people that this is a coming city? What are the urban signs here in Kiruna? Where will the centre be in the time when the transformation starts and during the time when the city is growing on the new location? What will people count on – do they care? It worries the city architect. Is it, in peoples minds, going to continue to be here, at the old centre, or is it going to establish over there on the new spot, and not just on the spot but also in peoples minds? Who decides, really?




To not include or reflect such values and practices would mean the same as to place a traditional Saami family in a highly designed and "man made" urban environment.



Or to ask someone from Kiruna to fish in an artificial pond, or a Saami herder to take his reindeer to eat on the synthetic grass.





### *Giron used to belong to the Saami people*

The Saami people did not know that land could be owned by individuals or companies. To them, land was a common resource. Then came the Swedish state and occupied the Saami landscape. The forests, water-power and minerals soon became important natural resources to exploit and transport far away from Giron to Sweden and other industrialized countries. The iron ore in Giron was taken care of by a state company. It's quite funny that the word "Giron" contains the word "iron": G-iron. But the situation wasn't so funny. It isn't so funny anymore for the Swedes living in the Giron of today either. The Swedish state is among those who pay the least in the world for the natural resources they exploit. Several billions in yearly earnings could, according to the mineral compensation law, become at least twelve million Swedish crowns for the municipality, but not even this amount is being paid for. Why should they? They own the land! And people do get jobs in the mine, which is a social benefit. Because companies have their head office in Stockholm! But in another perspective, like for instance the Swiss jurisdictional perspective where all natural resources are owned by the municipalities or regions, the municipality and people of Kiruna would be the richest in the world. This would lead to a rapid growth of other industries as well. Don't they know this? The situation reminds us about when diamonds are mined and transported out of Africa as soon as possible, with little benefits for the local population, to Switzerland among other countries. Conclusion: The Swedes of Kiruna have ended up in the same boat as the Saami people, and the Africans. They have been and still are exploited. Kiruna will not be needed when the mining industry leaves the place. Or it could become very wealthy just by a few simple corrections in the Swedish law, and that would in the long run probably be the most beneficial solution for the region and for Sweden as a whole. Thus, a small bureaucratic change would have more effect on the urban landscape of Kiruna than 100 years of comprehensive planning could ever result in.





### *Flexibility needed*

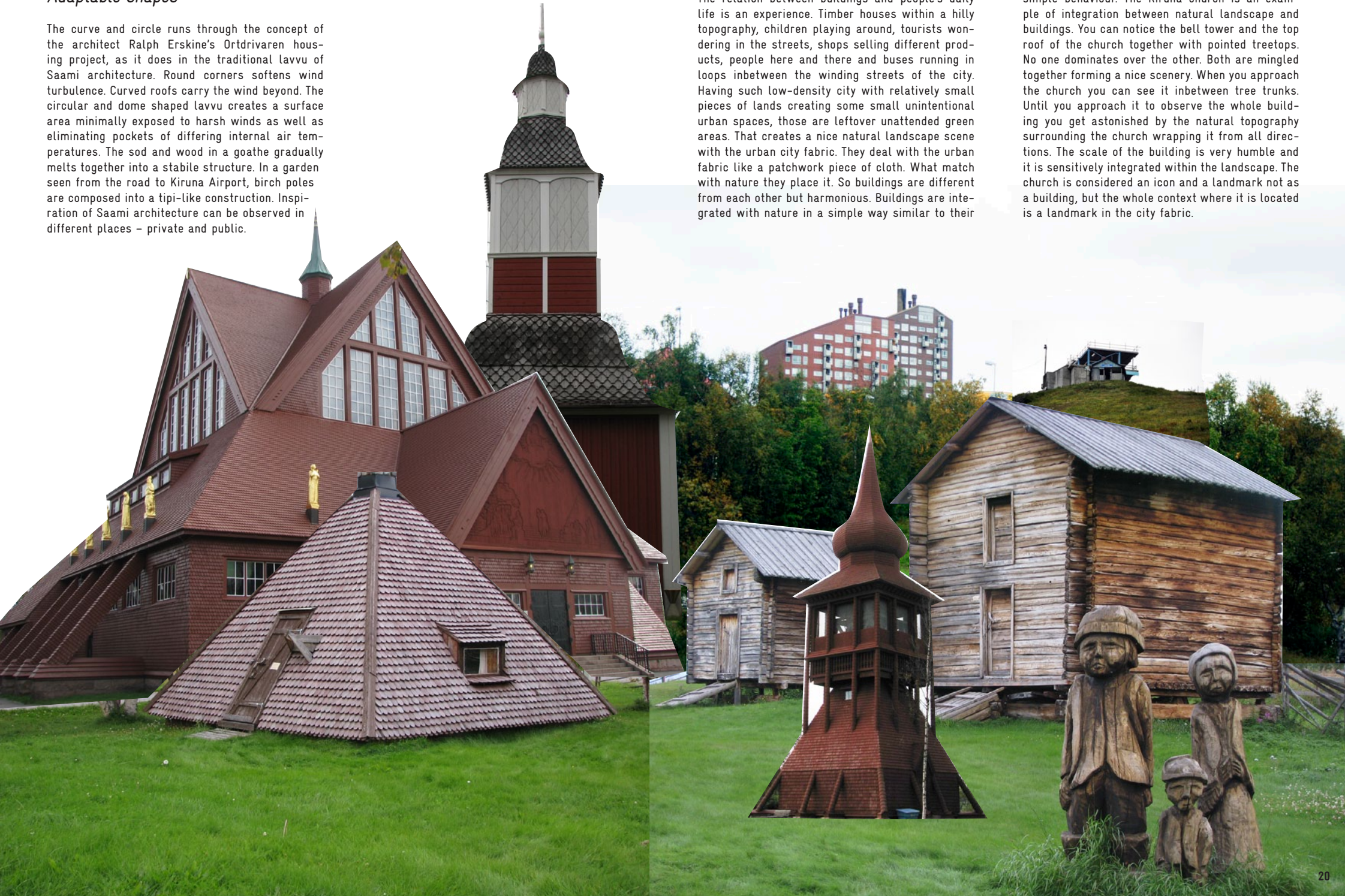
The Saami population worked, lived and experienced this landscape from a completely different perspective and context. They moved with the landscape and with the conditions provided by the climate. Spring and summer were spent in the Norwegian regions with access to the sea, winter season in Sweden with mountains providing a drier winter climate. Consequently the Saami territory stretches beyond the political and national borders of Norway, Sweden, Finland and Russia. Today the town of Kiruna is forced to move due to decades of excavation. How could we embrace mobility and flexibility as an integral component for future land use or adaptation to new circumstances? How can we pay attention to our culture of exploitation? In contrast to the Saami landscape and culture, we are leaving behind us rigid marks of our existence and exploitations – not subtle traces subsequently dissolving in nature as an integrated whole.





## Adaptable shapes

The curve and circle runs through the concept of the architect Ralph Erskine's Ortdrivaren housing project, as it does in the traditional lavvu of Saami architecture. Round corners softens wind turbulence. Curved roofs carry the wind beyond. The circular and dome shaped lavvu creates a surface area minimally exposed to harsh winds as well as eliminating pockets of differing internal air temperatures. The sod and wood in a goathe gradually melts together into a stabile structure. In a garden seen from the road to Kiruna Airport, birch poles are composed into a tipi-like construction. Inspiration of Saami architecture can be observed in different places – private and public.



The relation between buildings and people's daily life is an experience. Timber houses within a hilly topography, children playing around, tourists wondering in the streets, shops selling different products, people here and there and buses running in loops inbetween the winding streets of the city. Having such low-density city with relatively small pieces of lands creating some small unintentional urban spaces, those are leftover unattended green areas. That creates a nice natural landscape scene with the urban city fabric. They deal with the urban fabric like a patchwork piece of cloth. What match with nature they place it. So buildings are different from each other but harmonious. Buildings are integrated with nature in a simple way similar to their

simple behaviour. The Kiruna church is an example of integration between natural landscape and buildings. You can notice the bell tower and the top roof of the church together with pointed treetops. No one dominates over the other. Both are mingled together forming a nice scenery. When you approach the church you can see it inbetween tree trunks. Until you approach it to observe the whole building you get astonished by the natural topography surrounding the church wrapping it from all directions. The scale of the building is very humble and it is sensitively integrated within the landscape. The church is considered an icon and a landmark not as a building, but the whole context where it is located is a landmark in the city fabric.



# MINED

Some remains from the mining industry simply transform into new meaning and use, like the old drill hole pipes - now pouring out fresh ground water, in service of walkers that pass by. Others, like abandoned buildings, will fall into decay, become ruins, be destroyed or classified as heritage and preserved.





# MINE-CITYPARK



Mine-citypark – “a soft transition from town to mine”. A passage from the Kiruna website became a challenge to understand and reflect upon the idea of a mine-citypark. The thinking started with: This is not new! Kiruna has moved before – a little bit. When the ground cracks came too near the residential area “Ön”, it was closed off and the inhabitants were offered new apartments. No big deal. What’s the difference?

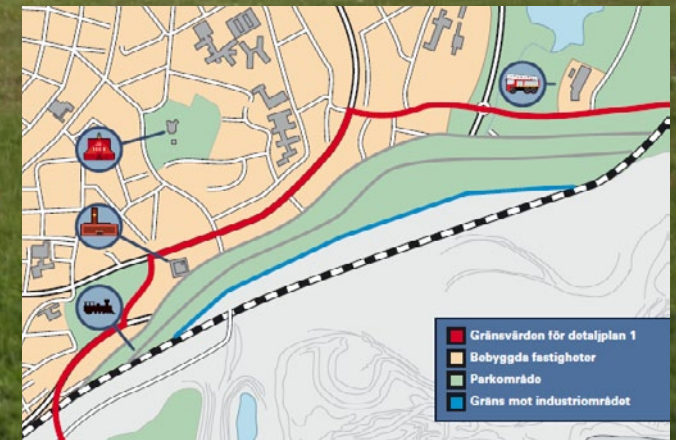
The forthcoming city transformation seems to cause more feelings than the last one and affects considerably more people (1900 will be evacuated) and societal functions. The cracks are coming nearer to the centre; the main road and railroad get new directions. The case is unique.

Alternative conceptions: The urban problem the mine-citypark is supposed to solve concerns the borderline between the industrial area and the city. Two very different alternatives are possible: Either, a sharp and clear borderline between city and industry. This would create a situation where it is evident how the mine industry “eats” its way into the city.

It is a drastic change and the time for this happening is critical. Or, a soft and hidden borderline between city and industry. The transition zone becomes new public space. Eventually, cracks in the ground will make moving necessary and a part of this transition zone becomes a closed off industrial area, the border moving further into town. This will be a slow change.

The proposal: The mine-citypark will be a way to design a soft, hidden border, so that the change will be perceived slowly and manageably. In the first phase – Detaljplan 1 – only a few houses are closed.

Non-proposals: The mine-citypark is already presented as an illustrated plan. Where the new residents will be situated – nobody knows. How and where the city centre of Kiruna will be located – nobody knows. How the “sustainable development” of Kiruna will be handled – nobody knows. A new comprehensive plan will be finished in 2012. Will this work be given the opportunity to come up with proposals?







## *A voice on the villages beyond Kiruna*

"Every time I come to Kiruna I want to return home after a few days. It's too crowded here." Kenneth, the caretaker of the Kiruna church, is in town for a couple of days. His home is in a village 14 kilometres to the east towards the Finnish border. Today, he is managing the park surrounding the church, basically on his own initiative. His work, though, seems to include a lot of different tasks. "Last week was a busy week, he concludes. I had eleven burial ceremonies to handle. The villages around Kiruna are slowly disappearing. The remaining people are the old. The young are moving", he says. There is nothing upset with his voice, but it is impossible not to notice a feeling of regret over the current urbanization of the countryside, which perhaps soon will be coming an end. He explains that in Lainio, where Kenneth is from, there are now only 58 people left, of which seventy percent are more than 70 years old. In the neighbouring village Orrajärvi, everyone is gone except one old couple. "When the two of them will be gone, the village will cease to exist."







*Connections*

*Across regions och countries*

*Across people and cultures*

*Across industries and destinies*

*Across wilderness and city*

*Across inhabitants and visitors*

*Across time*



# MALMBANEN

INDUSTRY CITY

CITY AREA



18.000  
INHABITANTS

TOURIST CITY

CITY AREA



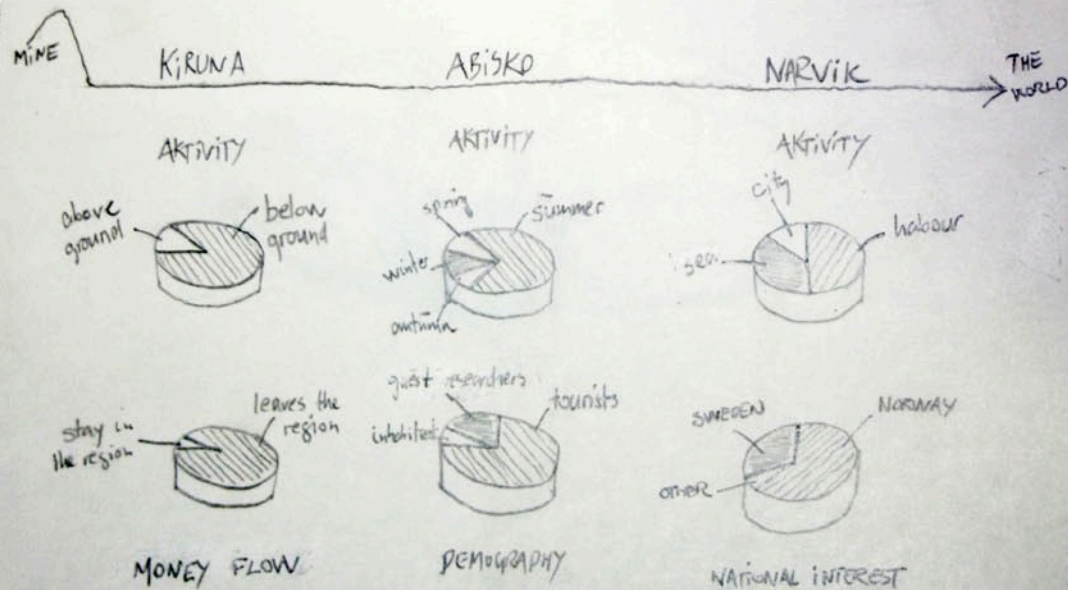
200  
INHABITANTS

HARBOUR CITY

CITY AREA



~19.000  
INHABITANTS







It is said that ecological impoverished urban areas create an environmental amnesia among city dwellers. This means that the less we experience nature, the less we understand the ecological process present in it, as well as how dependent we are of these. It can be argued that urban dwellers that have little or no constant contact with nature are less likely to support or be part of initiatives that protect or improve the natural environment and the services or benefits we receive from it. So if this is the effect that cities with low nature produce in people, what happens when a person is in a completely opposite situation, in an area where nature's presence is omnipresent?

If we take the case of Abisko, an area, a settlement that is completely immersed in nature, could nature's overwhelming presence encourage us to protect and value the ecological processes happening in it?

I found that there are great amount of signs and information showing and explaining the ecological processes of the area. They intend to instruct

visitors in the ecological values of the region and encourage them to protect them while they are there.

They show the fauna and flora of the area as well as the role that each animal has in the ecosystem. Although I would say that, in Abisko, since you are overwhelmingly immersed in that ecosystem and will most probably have a first hand experience with these plants and animals, the need for many signs or educational aids is not high.

These kinds of signs can also be found in parks and green areas of some cities. I believe people rarely look at them since in most cases they are long texts with a very technical language, and scientific names that no one can pronounce. Since in most green areas of cities we cannot have that first hand experience that one has in Abisko, I guess we need to find new ways of interacting and getting knowledge about nature and our dependence to it. Of course one could say that one way of doing it is to increase the amount of green "natural" areas in the city. But since

this seems to be the most difficult way of doing it, I would say that we need to combine the small amount of green areas we have with uses and activities that raise awareness and encourages more eco-friendly lifestyles. Or we can think of new ways of sharing information and educating that is accessible and attractive to everyone? In Abisko I found a very interesting way of doing that. It was a sign with some images asking the question of "What would the landscape look like if there were no reindeer". The image show a completely different and impoverished ecosystem, something that I guess anyone would get impressed by.

I wonder if we could do similar things in the city. Asking similar question about what will happen to our neighbourhood if we lose our local green area or the birds that live in it. If we get inspired by the reindeer sign in Abisko we could even ask and show what our city would look like if there were reindeers in it.

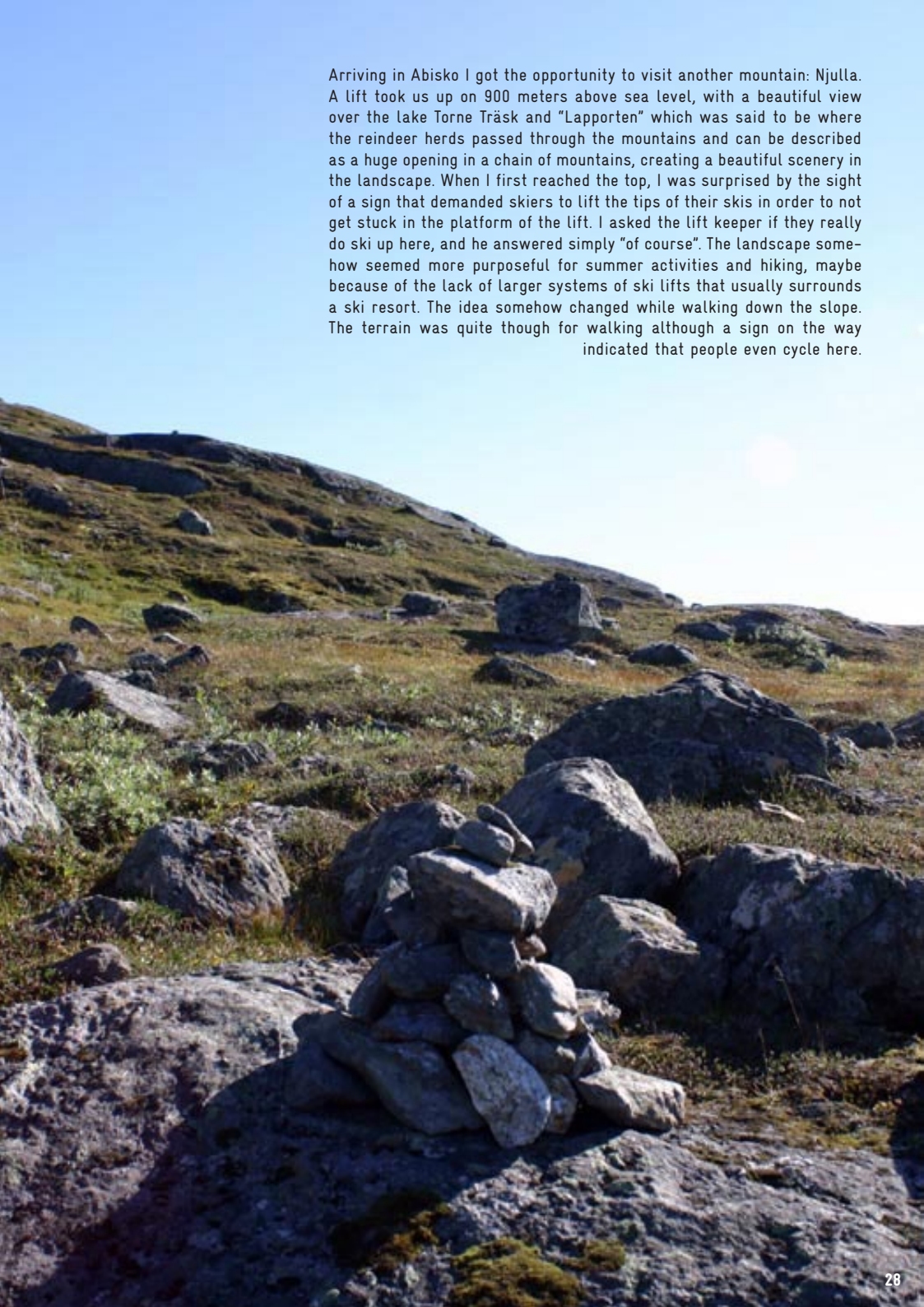


# ABISKO



A tour inside the old village of Abisko. The village of 150 inhabitants is very impressive. You find seniors gardening, kids playing in the open spaces, housewives taking care of their homes. The school is in the centre of the village. It is not only a school but also a place for sports activities for all of the inhabitants. The train station is an extremely significant building in terms of the architecture, location and function as well. It is not only an administration office for the train service but it functions as dining hall, social club, meeting hall and residential apartments. Abisko is a desert-like low density area with scattered houses, limited resources and an abundant natural landscape along the horizon.





Arriving in Abisko I got the opportunity to visit another mountain: Njulla. A lift took us up on 900 meters above sea level, with a beautiful view over the lake Torne Träsk and "Lappporten" which was said to be where the reindeer herds passed through the mountains and can be described as a huge opening in a chain of mountains, creating a beautiful scenery in the landscape. When I first reached the top, I was surprised by the sight of a sign that demanded skiers to lift the tips of their skis in order to not get stuck in the platform of the lift. I asked the lift keeper if they really do ski up here, and he answered simply "of course". The landscape somehow seemed more purposeful for summer activities and hiking, maybe because of the lack of larger systems of ski lifts that usually surrounds a ski resort. The idea somehow changed while walking down the slope. The terrain was quite though for walking although a sign on the way indicated that people even cycle here.





Hiking in the hills of Abisko, the cars passing by were audible and even predominating at distances very far away from the road. Standing high above ground on the mountain, the outdrawn swooshing movement of travelling cars, emanating from between the trees far beneath in the valley were still distinct. The infringement covers large areas.



Abisko's landscape can be described as an infinite scenery of wilderness. There is no boundary for nature here and its only limit is the horizon. Sky, clouds, mountains, forests, lakes seem to blend as one continuous surface that folds and unfolds creating that magnificent geography. From this point even the road and railway camouflage themselves as part of the greater landscape. From the distance they are just two lines that undulate as they cross the vast green area.

A closer look however shows a completely different reality. What from the distance could be confused with a river or a giant snake, became a crater, a barrier, a division of the landscape's continuous surface. The man made path together with its fences, electric poles, its cars and wagons is not only an interruption to the scenery of the area but also to all the natural processes that happen in it.

Although necessary for maintaining and exploiting the economical potential of the area, the road and the railway is also a disruption of its ecological value. Obviously the value asserted to the region's iron is much more than the one given to its ecosystem.

Maybe it is time to find ways in which both economic and ecological resources can be maintained without conflicting with each other. As seen below there are already people demanding that instead of two disrupting lines, one for cars and one for trains, these two are joint in one.

Or maybe it is time to remember and get inspired from transportation technologies of the past and create new ones that can be more friendly with the region's ecosystem.

# SIGNS OF INFINITY









# CLIMATE AND GLOBAL KNOWLEDGE

Approximately 500 researchers visit and work at Abisko Scientific Research Station every year. Climatic, geomorphologic and ecological research is conducted to reach an understanding and conclusion of a changing landscape and eco-system.

How could we integrate this body of knowledge in contemporary planning in this region - in a rural as well as urban context? What kind of new Kiruna could emerge out of high technological science and indigenous knowledge passed down by the Saami culture?

Usually, technical sounds in our society are regarded as something negative, but in this region, with the huge importance of the mining industry, and in recent years new activities like the space centre, this might not be the case. Are specific technological sounds perhaps even regarded as something positive?



# MOBILIZATIONS

**Mobilization.** Already in the train it becomes obvious that we are entering a strategically important area. A group of young women are exchanging experiences about different physical challenges, like Marathon races or Vasaloppet ski race. The reason for their journey is not sports, however, but a new military education in Kiruna. The day after, we read about the historical event in the local newspaper, Norrländska Socialdemokraten. Ten years after the closing down of the 122 Regiment in Kiruna, new soldiers now report for duty.

**Monumental Rocket Art.** A full-scale model of a MAXUS rocket erected in central Kiruna was a gift to the municipality of Kiruna from the Swedish Space Corporation, the corporation behind Esrange, European Space Research Organisation (ESRO) Sounding Rocket Launching Range, situated 40 km east of Kiruna. Esrange provides grounds for space and atmosphere research, and services related to the launching and manoeuvring of satellites. This makes it an important military actor in a larger north European collaboration including the missile test range at Vidsel.

**Nightmare Terrains.** As scenic as it may seem, the journey goes through nightmare terrains, through areas that lie within the range of the Vidsel Test Range. Situated some 200 km south of Kiruna, it is the largest overland test range in Western Europe, embracing vast lands of more or less uninhabited forest and marshland. This landscape provides ideal conditions for a variety of missile tests, including low-flying "stand-off weapons" or weapons which may be launched at a distance. It is also well suited for the flying of "uncertified UAVs" – Unmanned Aerial Vehicles – vehicles developed also for carrying nuclear arms. Vidsel constitutes one branch of what is designated as NEAT, Northern European Aerospace Test Range.

Including Esrange, NEAT is "commercially independent", selling their services to among others USAFE, US Air Force Europe, who has used Vidsel to pursue experimental bombing with so called inert bombs over the region. With more than 50 years of experience in missile and aircraft testing, unmanned vehicle operations and weapon integration, Vidsel is indeed – at least according to its website – "a reliable and competent partner in product evaluation and development." How reassuring. Yet another example of the intimate intertwining of scientific and military interests.

**Aiming for the future.** Which direction would be the most trustworthy for the Arctic region? "Loyal Arrow" was perhaps an attempt to answer this planning related question. It was a NATO-led military training operation in the area that took place between the 8th and the 16th of June 2009. Peace activists were not late to rename the operation, referring to it as "Royal Error".

**Zapad 2009,** a Russian military training campaign pursued in the Kola peninsula, very close to the Nordic part of the Arctic area, in August and September 2009. Zapad means "west" and the name also referred to a major military exercise in the 1980s. This anti-NATO exercise involved

over 12500 troops, more than 100 aircraft and helicopters, and some 4000 pieces of military equipment including tanks, armoured personnel carriers, self-propelled artillery, tube artillery, self-propelled multi-rocket launchers, and ground-based systems.

## *Border manifestations*

**Borders, limits, front lines.** In a modest house, in the shrubbery by the path towards the cable car station that takes tourists up to Njulla, one finds Abisko Border Defence Museum. Within 10 kilometres from the museum there are a number of relatively well-preserved fortified strongholds from 1940 to 1942 – like stronghold 555 Nuolja, which includes a railway blockade; Abiskojokka, with an observation dome; and stronghold 557 Abiskojaure, with machinegun stands.

**Inter-cultural dialogue.** "Cold Response" was a Norwegian-led military training campaign by the border at Rikgränsen, in February 2010. 9000 militaries from 15 countries, including 1000 Swedish soldiers, moved across the border between Norway and Sweden, fully armed and with heavy vehicles. "If you can fight in subarctic climate, you can fight anywhere in the world", says Kjell Enkvist, lieutenant at I19 in Boden.

## *Militarization; fictionalization; urbanization*

**Painful relocation 1:** The descent towards Narvik is a time travel, from 2050 to 1940. On the 9th of April, the Germans disembarked here in order to secure the iron ore supply. Intense land, sea and air combat followed, during which the Germans were pressed back and eventually forced to destroy the harbour before finally gaining control of the area. The important iron ore export from the Swedish mines to Germany continued, however, now over Luleå, amounting to as much as 40 million tonnes a year during the war.

**Painful relocation 2:** In the German Soldiers' Cemetery in Narvik, one finds the remains of among others Erich Sensenbrenner, 23 years old; Wilhelm Kalle, 27 years old; Heinrich Treder, 20 years old; Bruno Schubert, 30 years old; Emil Oerher, 31 years old.

**Warfare myth 1:** Mirror obelisk in central Narvik, simultaneously reflecting heaven and hell.

**Warfare myth 2:** A memorial in front of the library in Narvik with a radioactive stone from Ground Zero in Hiroshima.

**Warfare myth 3:** The book covers exposed at the Nordland Red Cross War Museum, are fateful: Beisfjord tragedien – et rystende dokument. Den siste skanse. The fight for Narvik. Slaget i stormen. Tragödie am Nordkap. Fjällen väntar. Die Männer von Narvik. The Doomed Expedition. Odyssee einer Gebirgsdivision. Våre flygere i kamp. Brennpunkt Erzhafen Narvik. Battle in the Fjords. Narvik and After.

**Warfare myth 4:** In front of the war museum and next to the hairdresser's salon Trixie, a tank is parked.



# GREETINGS

The greeting in the short meeting in the mountains says something about our need for each other. The reason for the greeting is not merely a way of confirming each other's existence or another shallow reason. Instead it is something more profound. It says something about our fragility and the greeting is a way of respecting the forces of nature that can be put on us in extreme environments such as in the mountains. In the mountains you don't know whom is your next saviour, and therefore the need for greeting everyone, instead of in the city where you might only greet people you know from before, because the threat looks different, and can come personified as another human being. The need of possible help is a transition from the social to the biological needs, which can be accentuated by the meeting between humans and the forces of nature. This transition is an important one since it says something about where the social meets the biological as well as the contact with the world around us. These are the transition point, which makes it possible to understand social behaviour.

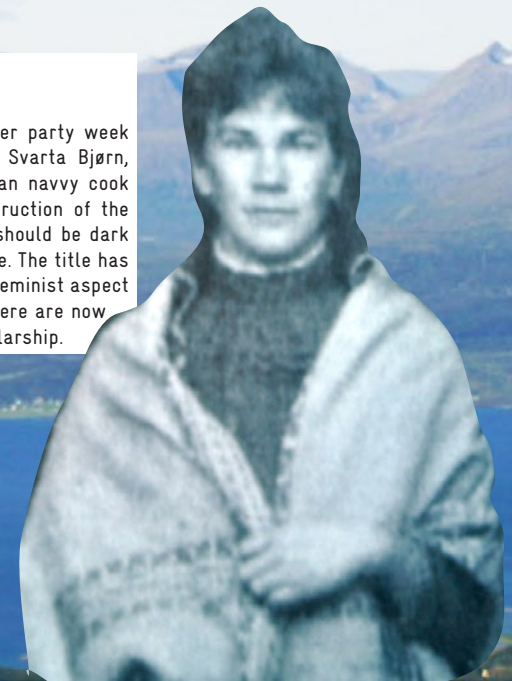




# ON THE TRAIL

## *Svarta Bjørn*

Since 1959, during the annual winter party week Vinterfestuka, a girl is dubbed as Svarta Bjørn, in the found memory of a Norwegian navy cook who died in 1901 during the construction of the Malmbanan railway. The candidate should be dark haired, tall and have a proud posture. The title has more and more begun to promote a feminist aspect in the male dominated north, and there are now a Svarta Bjørn conference and scholarship.







### *Hyttesprawl*

Just north of the Malmbanan railroad on the Bjørnfjell hill is a conglomeration of small cabins, the Norwegian "hytter". Mostly from the 1960s, they constitute a kind of sub-suburban sprawl as the farthest outpost of civilization in the eastern stretch of the Ofoten area.



## *Into the wild*

A gradation of human activity and traces of these activities can be seen as an indicator of the degree of perceived urbanity or wilderness. The extent of the urban form of Narvik is dictated by sharp topography at the mountain edge. At this point "urban" recreation can be seen to characterise the slopes. Use of the area being defined by the infrastructure of movement; the paths, tracks, ski/cycle lifts and ancillary elements. Once the highest ski lift has been attained the traces of blatant human activity fall away. The reduced number of feet pounding the landscape create only poorly defined paths or individual prints, while auxillary elements can be seen in the form of cairns, mans tinkering in nature.





# ELEVATION

The elevation provides the opportunity to place the town of Narvik in a broader setting. The communication and energy infrastructure when considered through their overemphasis on maps, placing the nation in over scaled and eye-catching colours, appear to constitute a dominant element. In reality when seen in a wider context the significance of these features is diminished as the dramatic topography takes centre stage. While the town and surrounding settlement pattern becomes just another landscape feature. This places the issue of what is urban as a scale dependent question. Narvik can be seen as an urban centre in the north of Europe or isolated habitation in a "wilderness".





# NARVIK

Even though there were some settlements in the area, the city and the port of Narvik was founded in 1902 by the mining company LKAB. It was for a short time called Victoriahavn after the British queen, but changed to Narvik after an old farm once located there. The city is somewhat dependent of the ore shipping, but not to the great extent it use to be. There is a large fishing industry, tourism through the year, and some research and manufacturing plants.

Narvik is situated between the shores of the Ofotfjord and the steep mountains. Thanks to the Gulf Stream, the port is naturally ice-free all year round. The waters around Lofoten are also very productive in terms of fish.

Narvik has always been connected to Kiruna and it is the only Norwegian town where the spoken language uses the colloquial Swedish words "morsan" for mother and "farsan" for father.

During the last 20 years the population has dropped by 5%. Today Narvik has 18 421 inhabitants. It has six twin cities: Kiruna in Sweden, Kingisepp in Russia, Kikinda in Serbia, Michaeljokki in Finland, Nowy Sącz in Poland, and Rovaniemi in Finland.





When arriving to Narvik and starting walking within the city landscape, a question raised in my mind. Either landscape is forming people or people are forming landscape. In Narvik it is people forming landscape. Buildings strictly dominate nature in almost the entire city while buildings are integrated in the hilly topography in other parts.







A day in the life in Narvik. The ore train is coming down the mountain and the whistle announces the arrival. Soon it will reach the harbour. Countless rows of railway cars, heavily loaded and filled with ore. As the brakes are activated, a dark and powerful ringing sound blends with the city noises for character. It goes on like this for several minutes. The sun is shining as people go about their businesses. The ore train has arrived.





*Local voices*

Capturing the flavour of the location through images, providing a child's perspective of what is significant in the city. These images were painted in the spring of 2002 on a railway bridge in Narvik by the pupils of Tårnveien school to celebrate Narvik 100 years 1902-2002, "The town we enjoy".







I am sitting in the canteen at the fish market in Narvik. It smells good from seafood. Here fishcakes is served for 20 Norwegian crowns, an unusually affordable lunch considering one can pay 250 Norwegian crowns for a pizza. I order my food from Johan, a young guy from Jokkmokk who has just moved here. "I was first unemployed for a year back home. Then I worked for a while in Katterjokk, and now I am here. Heard from a friend that there is work in Narvik and the wages are better than in Sweden, especially if you avoid paying tax."





We took a walk and went down to the sea, tasted the water: salt.



Swedish University of Agricultural Sciences

APULA, National Research School for Architecture  
and Planning in the Urban Landscape

Edition 1.0. November 2010

ISBN: 978-91-576-9003-6

This is a PDF publication

Editors: Anders Johansson and Erik Wingquist, Testbedstudio architects

Text and images by Sarah Andersson, Andrew Butler, Camilo Calderon,  
Gunnar Cerwén, Marwa Dabaieh, Johanna Deak, Maria Hellström Reimer,  
Anders Johansson, Rolf Johansson, Anders Larsson, Mats Lieberg, Gun-  
illa Lindholm, Ulla Myhr, Anders Busse Nielsen, Måns Norlin, Titti Olsson,  
Gustav Richnau and Erik Wingquist.

© Swedish University of Agricultural Sciences, and the authors

