

A NEW CITY CENTRE FOR KIRUNA

JURY PRONOUNCEMENT, MARCH 2013



Kiruna 4-ever. Winning entry by White Arkitekter together with Ghilardi + Hellsten Arkitekter, Spacescape AB, Vectura Consulting AB.



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New Kiruna is to be built for a diversity of people. Those already living here must feel at home, those who have moved away must feel motivated for returning, and new residents must feel welcome. New Kiruna must create the prerequisites of quality of life for the residents and opportunities for a prosperous, expansive economy in which climate and the unique natural setting are a positive asset.

FOREWORD

The challenges and opportunities now facing Kiruna are quite unique, and the city's transformation will be a process in which new trails will have to be blazed and new modes of urban development tested.

Aside from the purely spatial, geographic redeployment, the cultural, democratic process is no less important. How will the people of Kiruna become a part of this work, how will the city's transformation generate enthusiasm and participation? How can we ensure that the new Kiruna is capable of becoming the setting for good everyday living, and how can it attract new residents and new enterprises?

The first step is the most difficult one. The process leading to the establishment of the first phase will be highly important. In the first step, the new Kiruna is to be manifested in a new location with high standards of sustainability, character and attractiveness. A location from which it must then be possible to navigate further into the future.

This competition has been a thrilling and intensive process involving several stages. First came the writing of the competition brief, based on the City's decision concerning the direction of development and the preconditions for road and rail construction and many other things besides. Requirements, desiderata and preconditions had to be formulated so as to give the competition participants clear instructions to go by. Meanwhile, from the 54 documentations of interest received, the ten teams were selected which were to submit entries for the competition. Our selection of teams and the discussions accompanying this process were informed by a lofty aim of choosing somewhat unexpected combinations, both within the teams and also in such a way that the different teams would illuminate the competition brief on a wide front.

Our voyage of discovery among the entries has confirmed that we made the right choice, as regards both our invitation of no fewer than ten teams, even though this gave us a heavy workload, and our choosing a spectrum of teams. This has given the competition great breadth and many interesting solutions of and perspectives on the task in hand.

What we have been searching for is a place where a city can be positioned for the long term and which will also have positive effects for Kiruna as a whole throughout the process of transformation. The remaining parts, or those parts of Kiruna which will be relocated in a later phase, are to retain their qualities and be successively included in a new context.

The whole development process is a paradox. At the same time as new attractiveness is created, other parts will decay, and meanwhile the entire city has to be kept alluring and attractive. Very great importance thus attaches to communicating that the new Kiruna is a place radiating sustainability, attractiveness and character.

It has been important to find a place and method for a very first phase which can be the starter generating success for the future. This in turn has made it important to find an intermediate space which will be available fairly instantly and which will contain sufficient built mass and a point from which to navigate further. The capacity of the entries for coping with uncertainties constitutes an important aspect during this navigation.



Christer Larsson, Malmö City Planning Director,
Jury Chairperson.

It is also important to support and utilise the processes which are already in train, so as to make them a natural part of the future work of transformation. A relocation of city centre functions has already been started through the development of the Västra (Western) Industrial Estate and the new Kiruna must therefore acquire a relation to this, both as process and as geography. In keeping with this aim, we have discussed transformation versus development from scratch, centre-periphery, memories-visions.

The Jury's work has been guided by a quest for good ideas concerning both process and spatial organisation. The discussion has been intense and favourite schemes have come and gone, which in itself betokens a good climate of co-operation within the Jury. Judging has not been made easier by the fact of all entries possessing qualities capable of serving as complements to the ongoing work.

Selecting a winner is a challenge, but that was the Jury's mission. As proposals have come and gone in the course of discussion, so too have prospective winners. The entry we have now voted the winner was found by us to be the most robust of them all and the one with a potential for incorporating other ideas and processes which may be engendered later on. We therefore see fit to highlight qualities in other entries, qualities which we believe can be processed, added to the urban development process or used for enlarging on vital aspects of it.

The winning entry is the one presenting the best combination of process and spatial development. On the basis of a strong process, dynamism will be imparted to urban development in the eastward direction of the new city centre. The Jury believes that this can also provide the foundation for a new business sector, linked to the urban development project and the spearhead competence developed through the process.

In the course of its work, the Jury has held meetings with the Municipal Executive Board, Kiruna residents and the LKAB mining company. These interlocutors have enhanced our insight and contributed useful viewpoints, at the same time as the Jury has been able to discuss what issues we consider to be of importance for the sequel.

We are convinced that the Municipality and LKAB should join together in preparing a "jointly owned" development plan which will then be implemented through a joint organisation. In an organisation of this kind, interaction with municipal agencies and authorities also has an important part to play. The consensus characterising a joint undertaking sends an important signal to investors and undertakings wishing to start up business in Kiruna.

The involvement of Kiruna residents in development work from Day One is a crucial consideration. It is important from a democratic perspective that participation by and good communication with citizens be established and maintained throughout the process.

Christer Larsson
Jury Chairperson



KIRUNA

Kiruna is a unique city which has developed during the hundred years which has passed since the first iron ore deposits in the area began to be exploited. From its very inception, there were lofty aims for the city as a good place for people to live and work in. Today the city is facing a physical transformation of almost unprecedented magnitude. In this process of change, the Municipality wants the City to be capable of rising to new challenges and developing into a place offering the best possible prospects of urban development.

Between them, the Counties of Norrbotten and Västerbotten make up 37 per cent of Sweden's land area and include far-flung forests which, to the west, give way to mountain massifs and, to the east, extend to the coastline of the Gulf of Bothnia (Bottenviken). The very great natural resources here have a vital bearing on Sweden's economy and energy supply and represent very great natural qualities.

The north of Sweden has some of the richest mineral deposits in Europe. Norrbotten and Västerbotten have a long tradition of mining operations. The rich ore deposits of Malmfältet have played a prominent role in the economic and social development of the whole of Upper Norrland and are also of great national economic importance.

In Kiruna itself, LKAB operates the world's biggest and most modern underground iron mine. This underground extraction of iron ore causes movements and subsidence in the city which have at all times affected the course of its development.

In March 2004, LKAB informed the Municipality of Kiruna that underground extraction of iron ore would be continuing in towards the centre districts of Kiruna. According to LKAB's forecast for the coming 20 or 25 years, the city centre and many of its vital functions will already be affected within a few years, and eventually a large part of the settlement and land in Kiruna's central locality will become unserviceable. This

dramatic scenario means that, over a 20-year period, many of the city's functions will need to be relocated. Parts of the city will gradually be phased out, buildings will be demolished or moved elsewhere, and new buildings will need to be constructed.

Soon after this announcement by LKAB, the Municipality began work on a new and deeper comprehensive plan for the centre of Kiruna, Kiruna C. The aim of this comprehensive planning work is to safeguard the city's development and its viability as a holistic entity.

A number of alternative locations for the new city centre were investigated, and on 19th September 2011 the Municipal Council resolved in favour of a new city centre being constructed to the east, in the direction of Tuolluvaara. At the same meeting, the Municipal Council resolved on an architecture competition for the new city centre.

In addition to deciding the location of the new city centre, the Municipality, together with the County Administrative Board and the Swedish Transport Administration, has investigated and decided the conditions regarding roads, railways, reindeer husbandry etc. affected by the ground deformation. Some of these investigations are still incomplete and have not reached the decision-making stage. Several of them have proceeded concurrently with the competition, and some will later on come to be influenced by the competition outcome.

The city is going to have a completely new structure and design, and a new city centre is to be planned and constructed, complete with housing, services, shops, cultural amenities, education and amusements. This is a huge challenge, but at the same time a unique opportunity of designing, from scratch, a better and even more pleasant city, with climate, smart, sustainable solutions.

The aim is for the process of urban transformation to develop Kiruna into a city equal to the challenges of the future, a city which now-living and future generations will find attractive to live and work in.

One premise of the competition is that ongoing planning work will be based on the competition outcome.

ARCHITECTURE COMPETITION

In June 2012, Kiruna invited ten teams of architects to take part in a competition concerning the vision, strategy and design of a new city centre for a new Kiruna. The competition was arranged by the Municipality of Kiruna in partnership with the Swedish Association of Architects.

Kiruna's urban transformation amounts to a restructuring of the entire city. The city is to move north-eastwards, towards an area which has been designated a resource for establishing a new city centre. Simultaneously with old parts being decommissioned, new ones are to be added. New relations and contexts will be created. The city is to continue functioning and be found attractive all through the transformation process. All is interconnected, from deformation and decommissioning to the planning and establishment of new townships.

Kiruna's urban transformation involves many challenges. This thoroughgoing urban

process is a complex one, with many agents, interests and opinions involved, and it will entail many conflicts and factors of uncertainty. In modern urban development, being able to cope with the big clashes of interests and being able to field the many small, everyday, “soft” issues at stake are equally important.

The biggest challenge at this stage of the urban transformation process is that of creating clear strategies and principles for the advancement of the transformation in time and space, with all the social, cultural, practical and experiential aspects which have a significant bearing on instilling a sense of security, enthusiasm and optimism in the citizens of Kiruna and the agencies taking part.

The competition brief:

- to show a vision for the Kiruna of tomorrow. The watchwords of that vision must be sustainability, attractiveness and identity. The vision must affirm growth and new, robust patterns of living.
- to describe a strategy and a basic sustainable structure for accomplishing the urban transformation eastwards in a dynamic, quality-creating process, in which the new and the pre-existing will form a holistic entity and will function throughout the transformation process.
- to suggest ways of shaping a sustainable, distinctive and pleasant city centre in the east, within a holistic structure encompassing the entire city.

The 10 teams invited to take part in the competition were:

- Designteam AIM (Helsingborg) and Onix Sweden AB (Helsingborg), with Noema Culture & Place Mapping (London), Atkins (Malmö) and Farawaysoclose/Apokalyps Labotek (Malmö) as advisers/sub-consultants
- Bjarke Ingels Group (Copenhagen), Spacescape (Stockholm), Testbedstudio (Stockholm), Topotek 1& Man Made Land (Berlin) and Resource Vision (Stockholm)
- BSK Arkitekter AB (Stockholm), MVRDV (Rotterdam) and Grontmij i Sverige AB (Stockholm)
- COBE Aps (Copenhagen) Kragh & Berglund (Copenhagen and Stockholm), Moe& Brödsgård (Rödovre), Yngve André Konsult AB (Stockholm) and Boris Broman Jensen (Århus) as advisers
- Ecosistema Urbana (Madrid), Arkitekt Kristine Jensens tegnestue (Århus), 700N arkitektur A/S (Tromsø), Ljusarkitektur (Stockholm) and Atkins (Stockholm)
- KCAP Architect&Planners (Rotterdam) and CaseStudio (Göteborg/Gothenburg)
- NorconsultByplan (Sandvika), Norconsult landskapsarkitekt (Sandvika), Fantastic Norway (Oslo) and 0047 International A/S (Oslo)
- Tham och Videgård Arkitekter (Stockholm), Territorial Agency (London) and a zero environmental architects (London)
- Tovatt Architects & Planners (Stockholm), Atelier Dreiseitl (Ueberlingen), Urban Think Tank Architects LLC (Zurich) and Wenanders (Stockholm).
- White arkitekter AB (Stockholm), Ghilardi + Hellsten (Oslo), Spacescape (Stockholm), Vectura Consulting AB (Solna) and Evidens BLW AB (Stockholm)

On 8th-9th August 2012, all teams were invited to an inaugural conference at which they were introduced to the competition brief and the site. This inaugural conference was attended by Municipal Council representatives and officials, LKAB, the Jury, reference groups and other stakeholders.

While the inaugural conference was in progress, a public meeting was held at the City Hall, to which the people of Kiruna were invited for a briefing about the competition and the urban transformation process, and also as an opportunity for presenting viewpoints on New Kiruna to the competition participants and the Jury. Also on this occasion, Curt Persson, Director of the County Museum, currently on sabbatical, and the author Åsa Larsson presented their pictures of Kiruna.

Submission and assessment

The participants submitted their entries on 3rd December 2012. All entries were approved for assessment.

The entries were judged by a Jury comprising the following 7 persons:

- Christer Larsson, Architect SAR/MSA, Director of City Planning, Malmö, appointed by the Swedish Association of Architects
- Thomas Nylund, Architect SAR/MSA, City Architect, Environmental and Planning Department, Municipality of Kiruna, Jury Chairperson
- Björn Adolfson, County Architect, Norrbotten County Administrative Board
- Anja Taube, Director of Leisure and Culture Council, Municipality of Kiruna
- Eva Ekelund, Director of Land and Urban Planning, Municipality of Kiruna (replacing Marianne-Schröder-Maagaard)
- Sandra Viklund (formerly Minde), Planning Architect, Ramböll
- Knut Eirik Dahl, Architect MNAL, Professor at the School of Architecture and Design, Oslo/D&U arkitekter, appointed by the Swedish Association of Architects

Lisa Diedrich, Landscape Architect, Dipl. Ing. Arch., SLU (Swedish University of Agricultural Sciences), Alnarp, and Lisbeth Nilsson, 2003 Project Leader, Municipality of Kiruna, were co-opted by the Jury.

Secretary to the Jury: Katarina O Cofaigh (formerly Nilsson), Architect SAR/MSA, Swedish Association of Architects.

The Jury held meetings for a total of 10 days between December 2012 and February 2013.

While judging was in progress, the Jury had a number of reference groups and expert advisers at its disposal:

- Ramböll, traffic and transport systems
- NaiSvefa, economic consequences
- Tekniska Verken, energy solutions
- Christina Nilsson, Luleå University of technology, sustainability aspects

The Jury also obtained viewpoints from:

- The Working Subcommittee of the Municipal Executive Board
- Vision development work by the Municipality, Kiruna 2.0
- A number of reference groups consisting of young persons, property owners, members of the business community and a technical group comprising municipal personnel
- LKAB

While judging was in progress, the Jury also invited the people of Kiruna to three meetings. These were attended by about 100 people. Jury members also presented the entries to a various of groups and associations.

Judging criteria

The entries were judged by the following criteria, taken together and not stated in any ranking order, and also with reference to the requirements and desiderata set forth in the competition brief:

- the extent to which the entry creates values for Kiruna as a whole,
- the entry's qualities of urban design,
- the functioning of the new city centre and its relation to the existing settlement,
- possibilities of developing the entry,
- feasibility.

The entries were put on display at the City Hall and Kupolen, and were accessible on the Kiruna Municipal and Swedish Association of Architects websites. In addition, the competition has a Facebook page, www.facebook.com/ArkitekttavlingNyaKiruna.

THE WORK OF THE JURY

This report describes the general conclusions arrived at by the Jury in its overall assessment of all entries, together with assessments of each entry individually.

It is the Jury's intention for this pronouncement to be of assistance to the architects, the Municipality and other agents as planning work proceeds. The Jury wishes to convey the insights and knowledge which it has accumulated together with the reference groups and experts in the course of its work.

Judging is always a questing process. The Jury is tasked with finding a winner and recommending an entry for realisation. The Jury has been very much alive to its responsibility for the entry which it recommends being credible and feasible and laying good foundations for the work to follow.

In the present instance, the quest has been hugely important in itself, and the entries contain an abundance of knowledge on which every single Jury member has to take a stand. The Jury has had intensive discussions, with all members assuming responsibility for contributing out of their own experience, competence and premises. The process has been a very good one, characterised by trust; frankness and a spirit of enquiry.

The teams have chosen different starting points for their entries, and the task is highly complex. Well into the judging process, it remained an open question which entry presented the most robust and sustainable solution to the competition brief. The Jury greatly respects the extensive and inspiring work accomplished by the participants. Analysing and judging their entries has been a task laden with responsibility. In the end the Jury balanced all aspects together and compared them with the selection criteria for the competition.

The work of the Jury began already when the competition brief was written. The Jury took as its point of reference the site chosen by the City in the east, but realised

before long that the entire city would be affected by the deformation, which led it to conclude that one prerequisite of a successful transformation was for the city as a whole, both old and new, to be involved and addressed in the competition. The competition site was expanded, and the Jury drew attention to the importance of a good strategy and process being linked to the geographic relocation and the physical design of a new city centre. The brief referred to this as “creating values for Kiruna as a whole. The competition brief indicated what the participants would have to be resolve, and the brief has also provided the point of departure for the Jury’s judging.

Taken together, the competition entries add up to an important source of knowledge, because the participants, with their differing points of departure, have tested a variety of paths for Kiruna’s development. Some of those paths are more viable than others, but there are interesting arguments contained in all entries. The Jury has had to take a stand both on quantifiable aspects, such as the amount of buildings, traffic systems and other infrastructure, and appraisable aspects to do with atmosphere, experience and character. Evaluating the process of urban transformation has been very important, because a distinct strategy in these matters creates credibility and attracts resources for urban development. The aim of building a sustainable society for the future touches on all the factors which the Jury has assessed.

Certain of the topics included in the competition brief have acquired a different meaning, and new ones, not considered entirely feasible when the competition brief was written, cropped up when the entries were being analysed. Topics of this kind included, for example, the risks and advantages of a transformation of the Västra Industriområdet, which soon came to be linked to the question of the possibilities of finding the location for an initial phase affording reasonable size and having a content which can provide a good starting point for the continuation of New Kiruna’s development.

A prime concern in the judging process has been with finding an entry which both describes a plausible strategy if urban transformation and at the same time proposes a city design which can provide good conditions for the everyday lives of the people of Kiruna, bearing in mind the geography and climate of the location.

THE JURY'S DECISION

The Jury has unanimously chosen the entry entitled Kiruna 4-ever as the winning entry in the competition.

Authors: White Arkitekter, together with Ghilardi + Hellsten Arkitekter, Spacescape AB, Vectura Consulting AB.

New Kiruna will be a dense, mixed and attractive city centre closely linked to the natural scene. The city will function and be experienced as a holistic entity throughout the transformation process. There are good prospects of the very first establishment including all the functions needed for a living city. Over a long period of time, the city can be developed step by step from a clear starting point, and there will be great liberty for building in a variety of directions from there.

Strategy, process and the physical vision of the new Kiruna have all been described well. The entry clearly shows that urban development is not just a physical process but is concerned to no less an extent with involving the people of Kiruna in the transformation.

The entry has a clear strategy, and new ideas can be worked into it as the city grows. The structure of settlement is schematically described and will be developed so as to adapt it to the climate and give it a stronger local character.

Changes need to be made to the entry. This applies to the routing of the E10 and 810 highways and to the need for grouping public and historic buildings more closely together during the first phase. The quality of the entry is such that it is sufficiently robust to weather these changes.

The Jury recommends that the Municipality contract the authors of the entry to join with the Municipality in planning the new Kiruna, taking the competition entry as its point of departure.

Christer Larsson

Thomas Nylund

Björn Adolfson

Anja Taube

Eva Ekelund

Sandra Viklund

Knut Eirik Dahl

THE JURY'S RECOMMENDATIONS CONCERNING THE CONTINUING PROCESS

During the competition, the Municipality's political leadership began work on developing an organisation capable of handling the work which the process of urban transformation entails. The Jury hopes that this work, coupled with the outcome of the competition, will create good preconditions for the development of New Kiruna. On 26th March 2013, the Municipal Council is to take a decision on continuing work with the winning entry and the process for Kiruna's development. Talks between the Jury and the policy-makers have revealed a desire for the Jury to indicate how the ongoing process is to be conducted and what issue the Jury considers it important to take into account in the political process.

In the light of experience gained and conclusions drawn from its work, the Jury believes that the following matters have a very important bearing on the success of an urban transformation process:

- Using the winning project, Kiruna 4-ever, as the basis of an ongoing planning process, and giving the authors of the scheme an adequate role in that process. This scheme is the one best presenting both *a process and a vision for New Kiruna which heightens expectations and ensures the implementation of urban development.*
- *The process with the winning team starting immediately.*
- *A conference being arranged* in spring 2013, for the teams and the new municipal organisation for the urban transformation, together with LKAB and the Jury, to pool the knowledge and experience they have gained.
- Putting a premium on the **importance of political unity** when it comes to taking responsibility for the long-term vision and the target of Kiruna's development for the sake of its residents' future.
- The Municipality and LKAB creating a *joint model for urban development* so as to realise the vision of the New Kiruna.
- Developing methods for *making the residents of Kiruna and other stakeholders participate in the development process*, with scope for dialogue and reciprocal development work.
- *Prioritising planning inputs in the direction of the New Kiruna*, so that the largest possible part of Kiruna's future housing development and other investments will be built in the new area.
- Investing in the *starting point of the new city centre*, so that it will be perceived early on as attractive for new start-ups and can quickly contain enough functions and buildings, such as the City Hall, housing, shops and public activities.
- Early investment in projects in the public spaces, in order to create activity in the new area.

The Jury believes the entry selected as the winner of the competition to be the one which *best indicates a process and demonstrates a vision of the new Kiruna which can enhance expectations and secure the implementation of urban development.* The Jury recommends that the Municipality engage the winning team of architects and other consultants, with a view to continuing planning work together, making their scheme and this pronouncement the point of departure.

It is important for *work on urban development together with the winning team to begin as soon as possible*, and for a clear process to be developed and communicated in which the architects are allotted an adequate role. One of the first tasks will be to finalise the location of the new City Hall. It is also important to show quickly that the necessary changes to the winning entry are possible. In the first instance, this means showing a routing of the E10 highway further east and the potentiality for developing the project northwards and southwards.

The Jury proposes a *conference in spring 2013*, in which the teams and the new municipal organisation for the urban transformation will take part, together with LKAB and the Jury, so that the knowledge accumulated by the teams in their work, coupled with the experiences gained by the Jury from all its judging can be transmitted to the organisation which is to administer and develop the competition outcome. In connection with this conference, the residents of Kiruna and all stakeholders are to be involved.

Planning and urban development are a matter of long-drawn-out processes, and the present process will last for up to thirty years. Preconditions, perceptions and the state of the political parties will change during that time. There is unease in the city concerning developments. Clear target pictures and visions which all can agree on will impart stability and, in the long term, qualities to the city and to those who are to live and have their being in it. It is very important that the *significance of political consensus regarding the long-term vision and the aims of Kiruna's development be highly esteemed*, for the sake of Kiruna residents' future. The political process needs to be informed by common objectives, assumption of political responsibility and consensus in a confidence-building process to secure the future for residents and businesses. It is also important to prepare a strategic plan describing the decision-making process step by step. The Jury has appreciated its talks with the political parties during the judging process, has studied the Municipality's own vision work and sees here examples of tools which can create consensus regarding the vision and the objectives of urban development.

The strategy of urban development proposed has been a very important consideration in the judging process. This strategy must be robustly credible in order to be capable of meeting new planning preconditions during the time which the transformation will take. The strategy also has a bearing on the expectations created with regard to the impending urban transformation. Several participants recommend that the Municipality and LKAB *create a common model of urban development*. Creating a model in which the Municipality and LKAB as the principal stakeholders assume joint responsibility for the development of the city is considered by the Jury to have a very important bearing on the ability of this project to gather as many resources as possible and facilitate the decisions which need to be taken. In this model, a consensus vision and a development plan for the new Kiruna should be developed. There must be a strategy indicating how important projects identified as necessary for creating expectation values augmenting the investment readiness of other stakeholders in the new Kiruna are to be realised.

The Jury is convinced that a clear model will have a decisive bearing on the success of the project and its creation of the security and the trust in the urban development processes which are necessary in order for people and the business community to both stay on in Kiruna and move here.

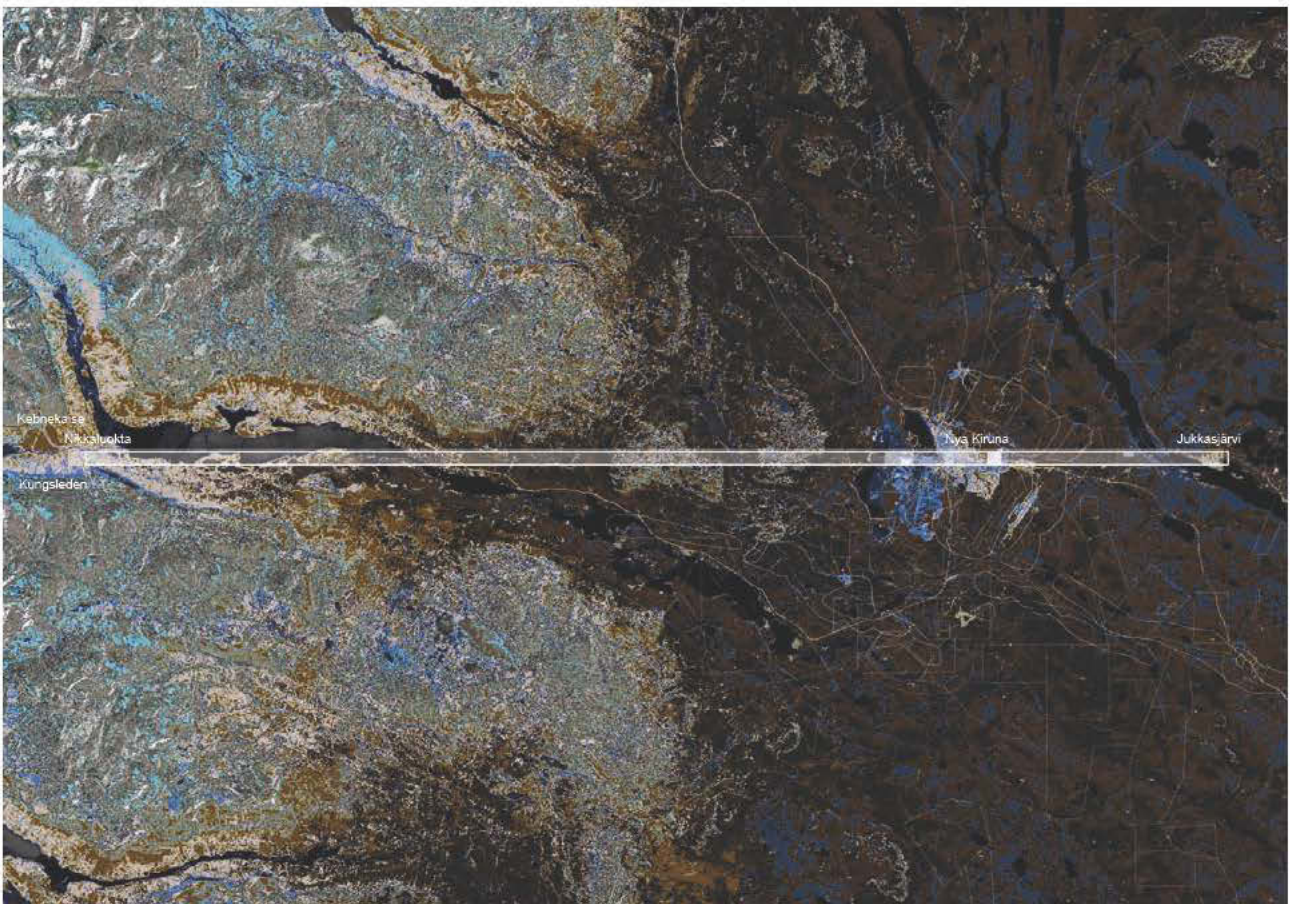
A successful outcome of the entire urban transformation processes presupposes acceptance and legitimacy among the citizens and all stakeholders. Several of the entries also include methods for making the people of Kiruna and other *stakeholders participate*

in the process, with scope for dialogue and joint development work. Distinct and adequate communication is a sine qua non of participation. Communication and dialogue connected both with the urban development project as a whole and with the municipal planning process in particular are a key issue where implementation is concerned.

Planning work is currently in progress in the Municipality for new homes, many of which are needed in order to remedy the acute housing shortage. To beef up the process of urban development, all planning measures need to the greatest possible extent to target the new area. The fact of Kiruna having a housing shortage at present can be turned into an asset for the establishment of the new Kiruna. Homes can help to populate the new area quickly. Other start-ups capable of enhancing the new area should also be planned.

It is important to invest in the *starting point of the new city centre*, so that from an early stage of things it will be perceived as attractive for new start-ups and can quickly contain a sufficiency of functions and buildings. Vigorous investments at an early stage will generate confidence in the process and, by the same token, a willingness on the part of many stakeholders to make investments. In addition to the City Hall, it is important that other functions, such as housing, retail trade, and public activities, should be established, so that a functional city centre can be put in place early on.

Early projects in the public spaces also serve to make the new area attractive. This can be a matter of refurbishing streets, preparing plantings for the future parks and suchlike measures. Cultural activities must also take place within the new area. Markets and festivals, for example, can already take place in the new Kiruna location in the summer of 2013.



The great landscape. The line and the city.

THE JURY'S GENERAL ASSESSMENT

THE CHARACTER, CULTURE AND LEGACY OF KIRUNA

The landscape in and around Kiruna makes a very important difference to its identity. The landscape has been created both by natural processes and anthropogenically, and it will go on being subjected to this influence.

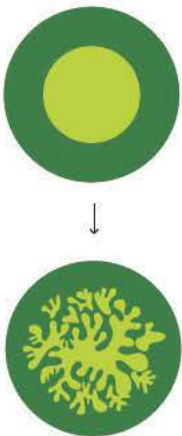
The natural processes which most conspicuously created the place were played out 10,000 years ago, when the ice cap melted and released the Arctic bedrock. That is when both the undulating mountain landscape and the low-lying water landscape were created. Later on, human beings arrived and began cultivating and using the landscape, which they have been doing ever since. When mining came here at the end of the 19th century, the town of Kiruna was also created. Since then the mining industry, the development of the town/city and its infrastructure have wrought big changes in the landscape. The international market which has developed in the 21st century has made mining a highly profitable industry today, and Kiruna is going to be more closely bound up with an international context, not only because the iron ore is exported but also because people are going to relocate.

Iron ore extraction is the reason for the situation now confronting us. The mine needs to extract ore at new depths, and the city above needs to move further east. The very precondition of the competition is that man will continue to shape the landscape, both through further mining operations and through the new city which is going to be built. Several of these processes are irreversible and will dictate the conditions for what kind of place Kiruna will be to live in for hundreds of years to come.

Throughout its hundred-year history, Kiruna has been a town in transition. During the century or more for which it has existed, society has undergone great changes as a consequence of technological and social development in general. Some changes force themselves on people's attention, while others have already receded into memory. Kiruna was planned and built with great care and lofty ambitions, the aim being to build a town adapted to the landscape and climate. Different conditions prevail today, but the same care and adaptation to the climate, plus the use of tomorrow's technology, must be fed into the new city. The point of departure for a modern, sustainable view today is that man must leave behind as few traces as possible and must leave as small a footprint as possible.



Investigation of Kiruna winter landscape.
There is a crack in everything that's how the light get in.



The scattered city
Go north.



The dense city.
Luna.

In its assessment, the Jury has several times had cause to return in its discussions to the question of what it is that sustains Kiruna's culture and what culture we want to hand on to future generations. This discussion has not led to any self-evident conclusions. Culture is created by people living and working in the city. What urban planning can aim for is to preserve the qualities expressed as important, to preserve the memory so that it will not be lost to future generations, and to create space in which new cultures are enabled to develop.

Possibilities exist of creating a unique city which can be a trademark or attraction, both for the Municipality and for its economic activities in future. In order to build on and develop the qualities inherent in Kiruna, the city needs to be developed into something very special. Many of the entries in the competition inventory and interpret the city and the region in a very interesting way, showing a great deal of empathy with the situation now prevailing. The Jury finds, however, that the competition participants have done little to translate these inventories and insights into proposals of a unique character. It is therefore highly important in the ongoing process that the people of Kiruna, not least young persons and people moving into the city, should be involved in the planning process, so that they can help to give Kiruna the character representing them in particular.

Nearness to nature is a characteristic of great value, both to people living in the city and visitors. In several surveys, the people of Kiruna have expressed the great value they attach to being able, in their everyday life, to feel nearness to the magnificent landscape surrounding the city and at the same time being able to reach it quickly for leisure activities. The competition participants have addressed this issue in a variety of ways. Several entries allow nature to invade the city with a kind of aspiration to the city and nature living in symbiosis together, an aspiration which can be expressed by placing housing enclaves in areas of unspoiled countryside. This is a solution which, in the Jury's opinion, neither confers the urban qualities called for in the competition brief nor necessarily meets the need voiced by Kiruna's residents for nearness to nature. Nature close to the city and surrounding these enclaves can readily be perceived as indefinite, i.e. neither parkland nor wilderness. Both the city and nature can come to be seen as chaotic and unplanned. Wanting to be near to nature does not mean wanting to live "in the woods".

The Jury finds it appreciably more feasible for the city to be densely built up and given distinct boundaries. It can very well have an urban character which all the time bears a relation to nature – through vistas and movement routes. Gruvberget's distinctive silhouette and the natural scenery can in this way continue setting the tone of the city through their presence. Access to open country by snowmobile or by other means is more preferably provided with green or white roads wedged into the city.

The existing architectural heritage should be treated as a resource. It is important that the memory of the old city should remain accessible to future generations. Possibilities exist of moving certain buildings from the old city to new townships. The buildings to be moved include, for example, Kiruna Church and its belfry, Hjalmar Lundbohmsgården and a number of buildings in Bläckhorn precinct. The architectural heritage and the historic buildings designated are things which people are proud of and which form part of their perception and description of what can be termed Kiruna's identity and characteristic qualities. Both the present city and the new site bear, for example, traces of the Sami heritage, earlier mining operations on the scene, and the encounter between these cultures. Preserving, managing and developing the architectural heritage is part of the mission of linking past and future together. Certain entries

have several historic buildings north of the churchyard in a greenfield area, in which case the buildings can acquire a setting resembling their original location. In other entries, the historic buildings are integrated with the new city and in this way become a more accessible memento of the old city. The Jury finds both strategies possible.

There are several different proposals as to how the memory of the city now disappearing is to be treated. Archives of different kinds obviously have their part to play. The older wooden buildings are movable, but the modern heritage, which includes, for example, Erskine's buildings and the City Hall, cannot be relocated and given a context in the same way. The memory of these buildings and of the structure of the old city is a good deal more evanescent. There are proposals permitting these buildings to remain as ruins or to leave clear traces within the deformation zone. The Jury has not been able to reach a definitive standpoint on these proposals, because at the same time as it is important to preserve the memory, ruins are a *memento mori* which perhaps is not always desirable in everyday life. It is important for the development process to include an in-depth discussion as to how the memory of old Kiruna is to be perpetuated.

Kiruna has always been and remains a multicultural community, inviting and open to different cultures and different ways of life. Of necessity, Kiruna must remain an open and welcoming community. Different generations have left their mark on the city, and new ones in their turn will do the same.

An attractive community was important, not least with a view to attracting manpower and families to this remote place in a rigorous climate. Today's communication possibilities are both an advantage and a disadvantage to people living in Kiruna. Swift communications make the city accessible to tourists and to people commuting to work and education, but they also make it possible for people to work in the city without taking up residence there. It is very important that as many people as possible should opt for residing in the city, both for the generation of taxation revenue to finance the city's development and in order for the business community to be able to keep people who will develop with the business undertakings. The Jury believes that the possibilities of creating a city and building stock which are lean and sustainable will be an important factor in people's future choice of residential location. In addition, living in the city must be convenient, there must be good schools and other services, and there must be scope for cultural and business development.

THE CENTRE OF NEW KIRUNA

Kiruna is going to lose large parts of its city and will be gradually building up a new one. The entries were required to present a clear vision for the Kiruna of tomorrow, serving as a target picture in the work of urban transformation. New Kiruna is going to be a city built in our time for a future community in a particular context.

In practice, the competition includes the whole of Kiruna, given the great importance of interaction between the different parts of the city, both during the development period and when the new Kiruna is complete.

The aim of the competition was to put in place the prerequisites of a pleasant, well-functioning community in which functional excellence, architecture and spatial design contribute to Kiruna's townscape. The entries were to show how the new city centre could be planned and designed within an overarching structure to the east.



The remaining post - urban landscape of the deformation zone.
Ett nätverk av urbana eldstäder.

The site for the new city centre is situated east of the present central locality, immediately west of the mountain and the village of Tuolluvaara. This area encompasses a central part between the E10 highway and Malmvägen. East of the cemetery and north of Malmvägen lies an area which will already be available for development within 2 or 3 years. South of Malmvägen lies a trading and industrial estate, Västra Industriområdet, which was also included in the competition site.

The competition outcome points to good possibilities of creating a new, high-quality city centre within the site. The city centre can be linked to areas where there are large numbers of people living and moving around, not least the so-called COOP area, Lobolo and Tuolluvaara. The possibilities of building a station and travel centre within the site are rated good.

One important question in the judging process has been whether the best urban qualities and the best chances of getting the process of urban transformation off to a quick start will be achieved through the transformation of already built-up areas or by something more in the nature of greenfield development.

The majority of proposals in some entries are located north of Malmvägen. This, however, would compound the difficulties of creating natural links with the remaining city. The Jury believes that bigger investments and a large volume of buildings will be needed in order for a city centre not closely linked with pre-existing structures to be perceived as complete. It is typical of the entries putting the city's centre of gravity north of Malmvägen and to the east that they have not convincingly treated the city as a holistic entity. The old city is in danger of being left behind as an abandoned relic having no strong relations with the new city centre.

Several of the entries position a large part of their proposals in Västra Industriområdet. This area today includes both industry and commercial activities which are destinations for the general public and for businesses. There are good possibilities of developing the area, and doing so presents many advantages. Such development would tie in with existing movements towards the area. Minor investments and changes within the area can pay large dividends in terms of attractiveness, thereby boosting land prices and willingness to invest. A natural link with the existing city can easily be created, and existing operations can serve as locomotives in the ongoing process. Natural relocation chains for business operations will be set in motion, and incentives created for the business community itself to play a part in the process, which will benefit the city's development.

In the course of judging, a special investigation was made to see which properties may come to be affected by the different proposals and whether the proposals were capable of withstanding the changes which may become necessary if the Municipality does not fully succeed in freeing up the properties affected by a particular proposal.

The Jury believes that a scheme based principally on infill and development within Västra Industriområdet is not feasible and would entail many hazards. If the Municipality does not succeed in purchasing and redemption of properties, the development project may grind to a halt, and there are also elements of uncertainty regarding pollutants and other matter in the soil from previous industrial undertakings and from landfill.

Both in the competition brief and in the work of the Jury, particular importance was attached to finding for the new city centre a starting point which will make it seem



A city center far to the east.
Det andra Kiruna.



Densification of Västra industriområdet.
Polar conditions.

attractive early on as a location for new start-ups. The Jury has judged it important to find a location which is almost immediately available for the very first stage of the eastward urban development process, which is to include such functions as the City Hall, housing, retail trade and public services.

The place identified in several entries as the location for the first stage straddles Malmvägen, immediately to the east of the cemetery. The Jury finds this plausible. From this point one can navigate further according to a variety of scenarios, both by transforming Västra Industriområdet and by means of new development east and north of the cemetery. The sequence and scale chosen for developing the city hinge on such questions as land supply, the enlargement and location of the railway station and the investment readiness generated by planning work. Development on both sides of Malmvägen will establish the city boundary for people coming to Kiruna, facilitating its transformation into a city street, which will confer additional qualities.

During an initial stage, several important functions are to be built within the new city centre. The City Hall is an important landmark building, and while judging was in progress the Municipality decided that it was also to include an art museum. In addition, discussions are underway concerning a library, restaurants and possibly a high school. Kiruna and its environs already have a serious housing shortage, and some 350 homes will be needed at a very early stage of things, plus another 450 or so over a ten-year period.

Solving Kiruna's housing shortage is a very important concern, and the localisation of as much housing development as possible within the new township will be an important tool for getting the process of urban transformation off to a quick start. But a housing strategy for the longer term is also needed. The Jury finds the creation of the housing stock in the form of apartment blocks to be a sustainable solution from many points of view. The competition entries too include arguments concerning ways in which sustainable types of building can be created which are specially evolved for the Kiruna climate, re-use and the urban structure. Although a large quantity of buildings and functions are to be replaced, the pace of development will not be perceived as particularly rapid. In order for people to be attracted to the place, it is important that there should here and now exist functions to attract them. The Jury attaches great importance to investments and planning measures targeting the location for the new city centre, so as to kick-start the process of urban development, which in turn will generate a readiness to invest.

The amount of buildings in the present city centre which will be affected by deformation between now and 2033 totals some 480,000 sq. m. In addition to homes, some 30,000 sq. m. of commercial floor space and 30,000 sq. m. of office space will be affected by deformation within 10 or 20 years. 400 hotel rooms are also affected, and a larger number than that are already needed today. All competition entries are judged capable of containing the areas and functions called for in the competition brief, but there are some entries which can accommodate up to 800,000 sq. m.

The competition entries include instances of both scattered and more compact urban formations. The sparsely developed city creates distances and entails heavier infrastructure investments, added to which it will not reduce the temptation to use a car. The Jury sees many reasons against recommending a sparsely developed city.

The densely built, multi-functional city offers many advantages. It is more accessible, because more people can walk or cycle between their homes, their workplaces and services. It is secure, because there are more people moving about on the streets. The Jury considers it important that the buildings should also be capable of accommodat-

ing a variety of functions, e.g. both retail trade and housing, with scope for different permutations at different points in time.

The heavy falls of snow occurring in Kiruna make special demands on the design of buildings and street spaces. A small-scale city with intimate squares and piazzas offers many advantages, but makes heavier demands on snow-dump management. There are possibilities of developing new types of building in the new Kiruna which are adapted to the climate, the snow and exacting requirements of resource economisation. The competition entries include arguments concerning how such types of building can be developed and what they could look like.

STRATEGY AND PROCESS

It is equally important to ponder what the City is to look like and how it will be created in a process inspiring enthusiasm and confidence where the urban development project is concerned. The urban transformation has a 20-year timeframe, many preconditions are still under investigation and several contradictory and new interests need to be addressed as the project unfolds.

Generally speaking, the competition entries have been weaker when it comes to proposing urban transformation strategies which will be really effective. Planning is to a great extent a matter of creating possibilities and values.

The Jury has been anxious to find a scheme capable of dealing with uncertainties and sufficiently robust to be developed at slightly different speeds and in slightly different directions as development proceeds. One important parameter to this end is for urban development to be possible by small stages, all of them intrinsically creating qualities. The Jury has therefore chosen an entry which is clearly structured while at the same time having a potential for working in new ideas and experiences and taking new turns as the city develops.

The Jury is surprised at the lack of housing strategies in the entries, this being a pressing issue which Kiruna needs to resolve.

It is important that the whole city should be alive while urban development is in progress. Since Kiruna's new city centre will for some time have to coexist with the present city centre, there must be a strategy for relations between the two centres during several phases. In a strategy of this kind, Västra Industriområdet is a key area in which many of the transitional activities can take place. This can mean temporary activities, such as locating offices in the new area for the persons who are to carry out the urban development. Making facilities scheduled for reuse or demolition, both in the old city centre and in Västra Industriområdet, available for temporary activities of both a commercial and cultural nature can alleviate the sense of dereliction. Measures of this kind can serve as incubators for new business in Kiruna and at the same time populate the new township early on.

Education and research as a motive power of development are discussed in several entries. The ability to develop new industries and occupations based on what is going to happen, given that much of the city is going to be demolished, is a part of this. But there is more involved than just creating centres for the recycling of old building materials. In addition, research and innovation need to be linked to these centres.

Practically all entries underscore the importance of creating a common agenda for the development of the city and, in such a model, creating opportunities for Kiruna residents and other stakeholders to participate in the process of urban transformation.

A number of projects and pilot studies are underway in connection with the urban transformation. The Municipality, the Swedish Transport Administration, the County Administrative Board and LKAB are investigating the consequences for the urban transformation and are planning for the necessary changes. Infrastructure projects will be of very great consequence of the urban transformation and the qualities attainable in the new city centre. In their competition entries, the participants were required to allow for the possibility of certain projects taking a different turn, partly as a consequence of the competition outcome.

The urban transformation will proceed successively and over a long period of time. The pace of development will depend partly on business environment factors and the global economic situation, but also on policy decisions of various kinds. The rate of deformation and the exact positioning of the station, as well as the route to be taken by the E10 highway, are further aspects to be taken into consideration.

The ground deformation forecasts furnished by LKAB refer to the anticipated effects when the new main level, 1,365 metres below ground, is exhausted. While the competition was in progress, LKAB let it be known that deformation was proceeding somewhat faster than in earlier forecasts, and the participants were informed of this. Commenting on the entries during the judging process, LKAB expressed a desire, prompted by these new extraction and deformation forecasts, for the new city centre to be positioned east of a line corresponding to Kurravaaravägen. The competition participants have not had the opportunity of considering this information, but it was part of the competition brief for entries to be capable of accommodating uncertainties and new standpoints. The Jury therefore used this information for testing the development potential of the entries and, accordingly, their sustainability in a process where the preconditions can change with the passing of time. The Jury found that, in principle, all the entries were capable of dealing with this kind of change in the preconditions, since in all cases the aim emphasis was on the area east of Kurravaaravägen.

INFRASTRUCTURE

Mining communities and mining enterprises require a great deal of infrastructure. In order for Kiruna to develop, manpower needs to be attracted from a very large hinterland. Kiruna's development potential will be strengthened by new infrastructure, both within the Municipality itself and in relation to the region. Kiruna is to be made an integral part of the Luleå and Narvik job markets.

It is highly important for the new city centre to be closely linked to a new railway station. A good and close connection in towards a new city centre, with a new railway for passenger services, is a high-priority target for the Municipality of Kiruna. The competition entries include several different proposals concerning possible locations for the railway station. Most participants recommend a station in the middle of the city, with a cul-de-sac solution or a loop. The Jury considers it highly important for the station to be centrally located in the city. Even though a cul-de-sac solution may affect the time taken changing the direction of the trains, it presents advantages in that it reduces the barrier

effects which a railway always brings with it and which, in the long term, can obstruct further development of the city. The Jury regards location at the airport as an inferior option, because it will mean people coming to Kiruna by train having to change their mode of transport. Then again, location at the airport is liable to generate knock-on investments in activities which would otherwise have been located in the centre, thus weakening the new city centre

A new E10 highway is planned in close proximity to the new city centre. The existing Highway 870 to Nikkaluokta will be moved up to the new LKAB entrance for heavy rail freight. Highway 870 will join up with the E10 south of a new city centre. The alternative routings of these roads under consideration were presented in the competition brief. In the case of Highway 870, the Municipality is at pains for it to be routed in a way which will not preclude a station arrangement in the city centre.

Most entries have respected the proposed routing of the E10 and described the possibility of developing the city, even if it remains in the location proposed. Several entries propose that the E10 be developed into a city street or even made to pass right through the city. The Jury finds such proposals unrealistic. An E10 passing through the city would entail acoustic disturbances and, given the safety distances regarded for hazardous goods, it would be very difficult to design the highway so as to give it the ambience of a city street; traffic on the E10 consists to a great extent of HGVs, and not only of passenger vehicles. One wish expressed by the Municipality is for two E10 slip roads on the north side of the central locality, plus the possibility of joining the E10 from the new city centre.

Where local traffic through the city is concerned, several participants propose making Malmvägen the new main street through the new city. To prevent it being perceived as a throughway, it will have to be designed as a city street and surrounded by building development. To prevent the generation of disproportionately heavy traffic on any roads, making them more inhospitable to cyclists and pedestrians, the Jury advocates a n intricate network of roads, without cul-de-sacs, which traffic can gently flow through.

A concerted traffic structure will mean less expense, in terms of both investment and management and, looking further ahead, perceived proximity. A sparse structure means more transport inputs. An assessment has been made of how to reach different points on foot, by bicycle, by public transport and by car. Assessment of the proposals showed all of them to meet the aims of the competition brief, especially those of a functional nature.

Kiruna Airport is of great importance, both to Kiruna and to the region as a whole, especially North Norway and Gällivare, for bringing the geographically remote northernmost part of the country closer to the outside world. The possibility of constructing an APM (automatic people mover, i.e. cable car service) is broached by many participants as a means of providing rapid communication between the airport, the city centre and the railway station. The Jury sees many advantages in a solution of this kind, but it needs to be investigated and compared with other options.

FINANCE AND IMPLEMENTATION

Questions of financial compensation for demolition and apportionment of the construction cost of housing and non-housing development remain to be settled. During the autumn of 2012, the Municipality and LKAB negotiated concerning the preconditions to govern redemption, compensation and new investments in infrastructure etc. owned by the Municipality. This question was still unresolved while judging was in progress, but in order to arrive at a feasibility assessment, the Jury commissioned a financial assessment of each competition entry.

Only very general assessments are possible on the strength of the competition entries, and the Jury has concentrated on identifying, respectively, risks and problems and advantages and qualities. Many stakeholders will be funding the development of New Kiruna, but the mining industry will be playing a distinctive role in this connection. The expert assessment was made regardless of which stakeholder would be financing the urban development.

Expenditures which need to be taken into account are the cost of detailed development planning, necessary pilot studies and investigations, decontamination of polluted land, development of public places (streets, footpaths and cycle paths, piazza and parkland areas), property formation, the development of mains facilities and so forth.

One of the ingredients of successful urban development is for attractiveness to be so high that development proceeds with value added as its motive force. The aim, then, must be for the value after development to exceed the value before development. Demand for housing and for business space will have a crucial bearing on value added and will create prospects of further development.

Conditioning factors:

- If existing settlement is affected in the sense of business operations needing to relocate or to be redeemed, this will adversely affect development costs.
- If existing infrastructure in the form of streets, footpaths and cycle paths can be made use of, this will mean less expenditure.
- The need for new infrastructure means higher costs, which is to say that close-knit infrastructures are more cost-effective than sparse ones.
- Larger public places cost money. Only assessment of the areas has not been possible at the present stage of things. No assessment has been possible of the actual design, which can generate large differences at a later stage.
- A travel centre in the city centre will mean less expenditure.
- Indoor parking solutions are expensive.
- Several entries contain major investments, e.g. extensive redesign of the landscape and topography or artificial lakes, which escalates costs.

The first stage has an important bearing on development costs and the total economics of the project and the establishment of the city centre. The Jury believes that, whatever the financial agreement reached with LKAB concerning financial compensation, it is highly important that the planning of urban development should create added values for the Municipality and its residents. To create those values, it is very important that the first stage of urban development should generate such attraction and confidence where the new Kiruna is concerned that other stakeholders will also be willing to invest. This

makes it important for investments to be made during the first phase of urban development. Once the city centre is established, further expansion can proceed along more traditional lines, or under its own steam, through infill development, conversion and expansion.

SUSTAINABILITY

The Municipality has high aspirations for sustainability in New Kiruna – economic, ecological and socio-cultural.

In evaluating the sustainability aspects of the competition entries, the Jury has focused on such aspects as environment and resource, social sustainability and economics. Twenty or more aspects have been evaluated, ranging from the city's density and energy use to links with nature and utilisation of the architectural heritage. Questions which have to do with socio-economic costs were also evaluated.

This large-scale urban development presents opportunities for adapting buildings and urban structure to lofty aspirations regarding sustainability, and the competition entries contain many different suggestions as to how this can be achieved.

Different types of knowledge and innovation centre are proposed in the competition. The Jury believes Kiruna to have a unique chance of setting an example of how building materials can be handled and recycled on a large scale. The spoil and building components resulting from the demolitions are as far as possible to be used in the construction of the new Kiruna. This is a possibility, but it demands space, organisation and investments. A recycling plant should be constructed during the development period. The competition entries show that a plant of this kind will take up quite a lot of room – something which will have to be planned for. If research, innovation, knowledge interchange and economic activity are interconnected with a recycling plant of this kind, the Jury believes that the operation will have a chance of developing and that the knowledge gained can also be put to use in future outside Kiruna. After a time the operation should be capable of generating methods, knowledge and opportunities for the development of new business activities.

Several entries include interesting arguments about coping with the local climate, e.g. for the avoidance of chill winds, and how piazzas and streets are to be designed so as to utilise sunlight and solar warmth. In the ongoing detailed design of the city, consideration of such matters will have a very important bearing on the perception of the city during every season of the year. Green-and-white movement routes traversing the city for easier access to the natural environment are all to the good.

From a social point of view it is important that there should be pleasant meeting points and that routes people need to use in getting from one city destination to another contain experience. The meeting points need not be large, and they can very well be scattered about the city. Mixed settlement with a diversity of functions in the buildings, such as housing and retail trade, is conducive to pleasant experiences when moving around in the city. A densely built-up city, moreover, is by definition more accessible to everyone and can reduce motorism, which is otherwise a very common form of transport in Kiruna. Parks integrated in the city are a resource for those who cannot easily get out into the country, e.g. elderly persons and children. Places for sporting activity, whether organised or spontaneous, in the city centre have an important bearing on people's health.

Considering whether the descriptions implied by the competition entries have also been turned into concrete proposals has been an important topic of evaluation in the judging process.

ENERGY

The New Kiruna settlement structure must contribute towards a reduction of energy consumption. All planning must be aimed at achieving sustainable management of resources.

Kiruna has for many years now been a city where district heating predominates. This is a flexible form of heating, offering good opportunities for coping with future environmental, technical and economic challenges and thus a powerful tool in the Municipality's hands where environmental protection and management is concerned.

Account must be taken of Kiruna's special energy situation, with a large quantity of unutilised industrial waste heat. At present, 140 GWh is being dispersed by cooling during the summer season. Properly harnessed, this resource can serve large parts of the community. Given the energy situation now prevailing, district heating is the obvious choice of energy for heating purposes, and its utilisation must be maximised.

All proposals are feasible on the basis of traditional technical solutions. The schemes vary in density, which in turn affects the construction cost of mains facilities. In other words, the fewer the number of properties supplied per metre of conduit, the higher the cost. Several of the entries have efficiently utilised existing resources. This is done, for example, by using waste, both from the community and, not least, from the demolition and construction process which will be taking place in connection with the urban development. These questions should be taken into account and developed in an ongoing process. It is important that the volumes of waste generated by the development process be used in the immediate vicinity, so as to avoid long transport distances and the environmental impact which they would imply. The waste can be used as building materials or for energy production, but this will require a building up of methods, processes and knowhow.

Development work is in progress within the Municipality. The municipal engineering authorities (Tekniska Verken) are already exploring the possibility of constructing a biogas plant, a facility included in some of the entries. The existing refuse incineration plant will be affected by the deformation, and it is a strategic advantage in the planning process that the possibility exists of reviewing energy systems.

The urban development process presents opportunities for constructing a far leaner building stock than the present one. Several schemes include thoughts of using modern technology and knowhow to develop types of building specially adapted to the climate, and this will create possibilities for reducing the city's total energy consumption.

In several of the entries the possibility has been observed of recovering surplus heat from LKAB for heating purposes. One interesting possibility which has been explored is the seasonal storage of energy, which could even out Kiruna's energy imbalance. Surplus heat from LKAB is already being fed into the district heating system. There is a potential for achieving, in partnership with LKAB, more efficient utilisation of the energy produced in the community. The possibility of using the Tuolluvaara mine for seasonal storage has been investigated, and possibilities exist of developing this solution.

The flexibility proposed in several of the competition entries can be achieved by making maximum use of district heating. This kind of heating is capable of using many different energy sources, and one and the same infrastructure can be used for distribution. Thus the district heating distribution network can be constructed together with the rest of the infrastructure, and the energy source can be developed and adapted as time goes on.

Westward view from a possible location for a new City Hall.



INDIVIDUAL APPRAISALS

All entries have been of importance for the Jury's assessment and have fuelled the discussion. There are four entries, apart from the winning one, which have played a specially important part in the Jury's judging and have been instrumental in moving the discussion forward. There is a crack in everything, that's how the light gets in has, through its careful inventory, articulated the image of Kiruna, both for those who know the place well and for those Jury members who have acquired a picture of Kiruna, step by step, in the course of the competition. Linjen och staden ("The line and the city") recalls the grandeur of the landscape surrounding the city and the possibility of also building a clearly articulated urban design into that landscape. Luna's study of Västra Industriområdet has cogently demonstrated its potential but at the same time revealed the complexity of localising a large part of the urban development there. Ett nätverk av urbana eldstäder ("A network of urban hearths"), with its urban platforms, points to an interesting dialogue between the new, the existing and that which will disappear.





Year 2033. Scale 1:20 000

First prize

KIRUNA 4-EVER

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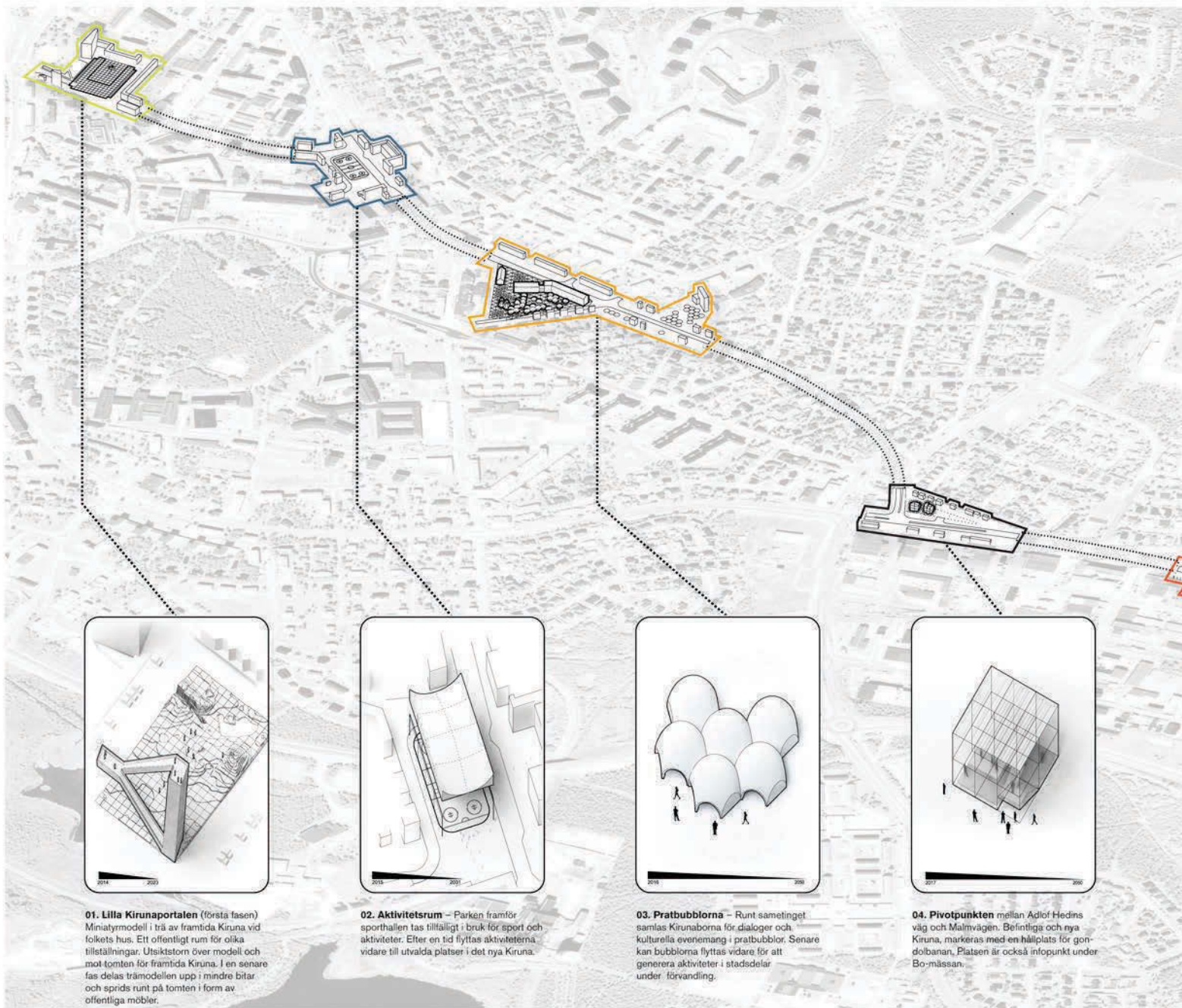
New Kiruna is going to be a dense, mixed and attractive urban centre closely linked to the natural scene. The city will function and be perceived as a holistic entity throughout the transformation process. There are good prospects of the very first establishment being able to accommodate all the functions needed for a living city. Beginning with a clear starting point, the city can, over a long period of time, be developed step by step, and there is great liberty for building further from there in several different directions.

Strategy, process and the physical vision of the new Kiruna are all described well. The scheme clearly shows that this urban development is not just a physical process but to no less an extent is concerned with involving the people of Kiruna in the transformation.

The entry has a clear strategy, and new ideas can be worked in as the city grows larger. The structure of settlement is schematically described and will be developed so as to adapt it to the climate and give it a stronger local character.

Changes will have to be made to the entry, namely as regards the routing of the E10 and RB 870 highways and the advisability of gathering public and historic buildings closer together in the first phase. But the inherent robustness of the entry renders it capable of coping with these changes.

Step by step, with Malmvägen as its main axis, the city is expanded in a distinctly eastern direction and important functions such as the station, the Sami Parliament and the City Hall are positioned round this axis. The city is enlarged in a tradition, well-proven and adaptable structure whereby it can be enlarged block by block, in clearly demarcated phases. At the same time, Västra Industriområdet undergoes infill development, mostly along Malmvägen south of the cemetery, where the Jury sees the best chances of infill succeeding.



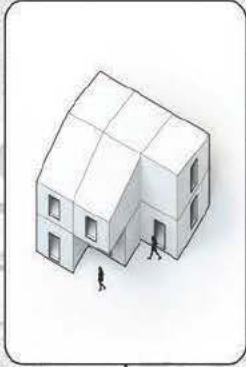
The whole of the new city centre can in principle be accommodated between the cemetery and the City Hall with the station, together with settlement north of the cemetery and infill development along Malmvägen. The strategy in the scheme is to utilise the proximity between an undeveloped area and a built-up one which is being developed already. The Jury sees the project as urban fields which can engage and involve both the undeveloped landscape and the developed industrial estate from a strategically positioned starting point.

When the city centre is complete, the Jury sees possibilities of the city developing both northwards and southwards,

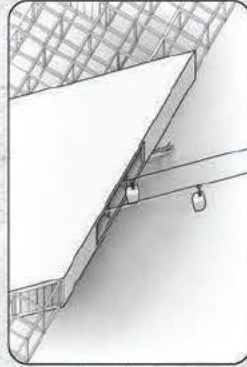
as illustrated in the picture of 100-year perspectives, or eastwards in the direction of Tuolluvaara. To achieve this freedom of choice, a larger proportion of the public buildings, together with Hjalmar Lundbohmgården, should be positioned further west than the scheme indicates. The City Hall is judiciously placed on a slight eminence near the station and in a central location, which is good and realistic. The station can be variously positioned within the gridiron layout, depending on the location chosen for it.

In the scheme, the E10 highway is taken through the city and acquires a more urban character. The Jury finds this expedient neither necessary nor desirable. The scheme

05. Bo-mässan. Olika bostadsprototyper ställs ut i en bostadsmässa. Fastighetsägare på södra sidan av Malmvägen stimuleras till förtätning och att vända adresser ut mot Malmvägen. Kirunas nya stadsgata. Här definieras också det nya förhållandet till stadsgatan och det offentliga rummet.



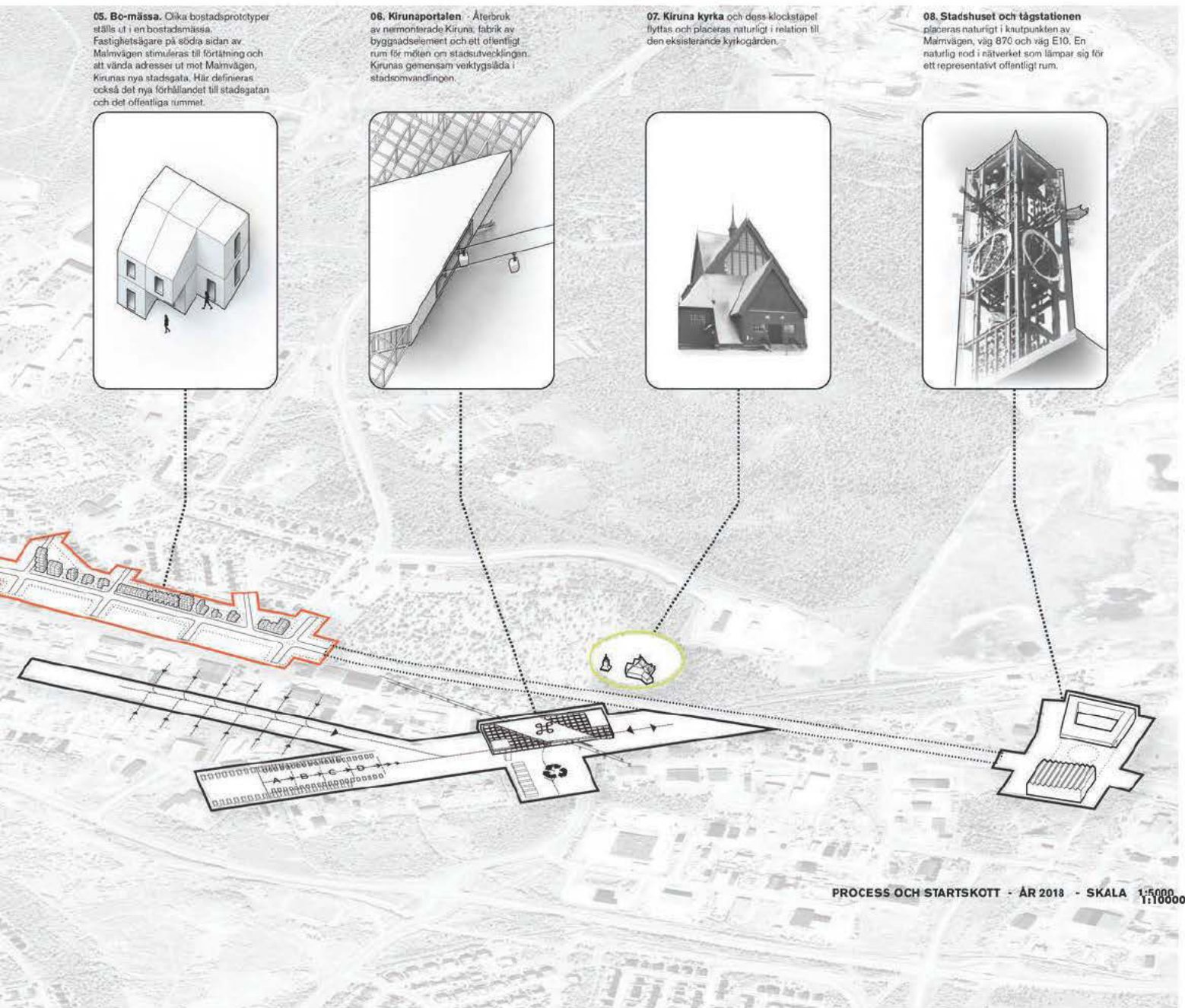
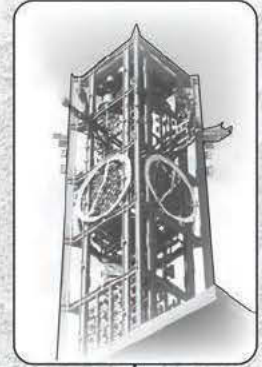
06. Kiruna portalen. Återbruk av nermonterade Kiruna-fabrik av byggnadselement och ett offentligt rum för möten om stadsutvecklingen. Kirunas gemensam veiktygsåida i stadsomvandlingen.



07. Kiruna kyrka och dess klockstapel flyttas och placeras naturligt i relation till den existerande kyrkogården.



08. Stadshuset och tågstationen placeras naturligt i knutpunkten av Malmvägen, väg 870 och väg E10. En naturlig rod i nätverket som lämpar sig för ett representativt offentligt rum.



PROCESS OCH STARTSKOTT - ÅR 2018 - SKALA 1:5000
1:10000

must be developed in such a way that the E10 will mainly bypass the centre. The Jury finds the scheme amenable to development on this point.

The structure permits a wide variety of building types and functions within itself and creates a sustainable, accessible and pleasing urban environment. The aim is a dense and manifold city, with close proximity between functions of different kinds.

The Jury sees the structure as a good principle for the development – a traditional urban configuration which can be adapted to many different functions. Given time,

the plan will assume far greater variety and adaptation to climate and place than was shown in the proposals.

The scheme has a very important quality which many Kiruna residents are calling for, namely close access to nature. The density of the scheme and its clear demarcation between urban settlement and nature, with green or white wedges, affords rapid access to nature, at the same time as the densely built-up city leaves a small footprint.

The scheme also shows what the city may look like if ground deformation and with it the development of the city continue in a similar structure in a hundred-year



The Kiruna Portal. Recycling house factory and meeting point.

perspective. Even though it was not included in the competition brief, the picture is very clear, describing as it does a scenario in which the western parts of the city, in principle, are completely deserted and the new city has merged with Tuolluvaara. The picture points to the permanent uncertainty which will forever be one of Kiruna's planning ingredients..

The scheme wages an interesting discussion of the possibility of repairing the deformed landscape in a long-term

perspective – an aspect worth taking into account in the long-term process. Repairing the ruined landscape so as to make it a resource and an asset for Kiruna, as opposed to a scar perpetually reminding the people of Kiruna of what they have lost, is a major responsibility. The deformation can be turned into an asset and a quality for Kiruna.

The process and the strategy for urban development are described well in the scheme, which clearly shows that urban development is not merely a physical process but



Stråk ut i naturen

LOKALGATAOR CA 12 M
» Viss del kantstensparkering

LOKALGATA CA 18 M
» Kantstensparkering
» Viss del lokaler i gatuplan för service, förskolor etc.

HUVUDGATA
» Kollektivtrafik
» Lokaler i gatuplan
» Vaderskydd
» Bred trottoar
» Kantstensparkering
» Huvudgata

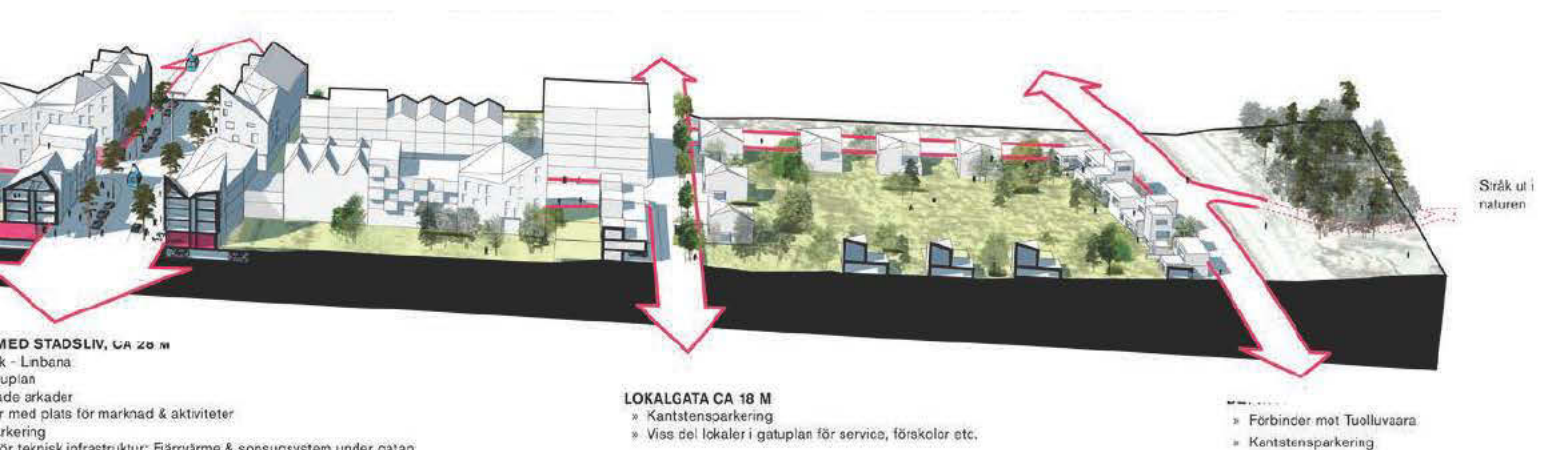


Settlement bordering on open country.

also, and to no less a degree, a matter of inspiring commitment on the part of people involved in the process. There is a strategy for developing the whole city step by step, and all the time the old city has a good relation to the new one. Emphasis is laid on the importance of dialogue, throughout the transformation process, with the people living and working in Kiruna. To enable people to take part in the urban development process, it is very important indeed to have tools showing the vision of the new Kiruna and to develop strategies whereby people

can take part in the process and contribute to its development.

The Kiruna Portal – a virtual and physical place where knowledge is accumulated – is judged capable of becoming a highly important tool for urban development. The smaller Kiruna Portal can already be established outside Folkets Hus (the People’s Palace) in 2013 and later on be moved to Västra Industriområdet. At the Kiruna Portal on the industrial estate, building materials can





The station plaza.



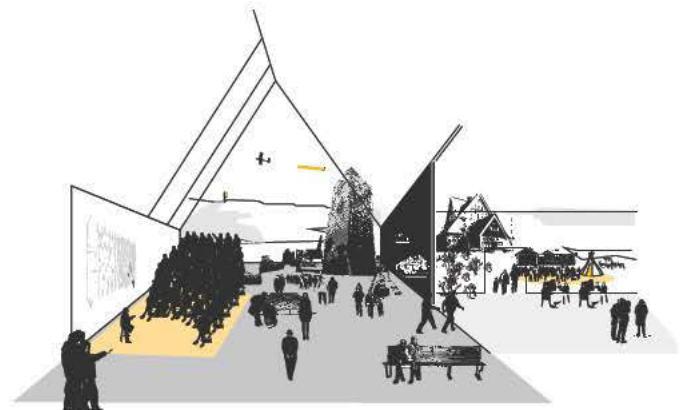
The Kiruna Dialogue.

be recycled from the demolitions and new construction prepared for simultaneously with knowledge development. This discussion touches on a very important aspect of the urban development process and, if the recycling of buildings, materials and the landscape itself is successful, Kiruna can be an example for others to follow. The recycling of buildings and the knowledge which can be developed on this subject can be developed into an industry and a business sector unique to Kiruna. The Kiruna Biennial can make international attention focus on urban development issues in Kiruna, which in turn can help to increase the pride taken in what is being created.

A distinct road network will permit motor traffic eve-



The Kiruna Portal.



The Kiruna Biennial

UNREWARDED ENTRY

DEN ÖPPNA STADEN

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TRANSBORDER STUDIO

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The strength of this entry lies in the processes described. Several “generators” are created for Kiruna’s narratives, culture, education, travel and, not least, materials recycling.

The strategy for powering the urban development process is to develop a number of generator projects or centres for various activities, gathering knowledge and activities into a number of different fields. Every crumb of that which disappears – knowledge, memories and materials – is to be recycled. For example, the team position an advanced recycling factory on Tuolluvaaraberget,

near the proposed block structure. Everything built in the new Kiruna is of recycled materials, the idea being for Kiruna to be self-sufficient. The list of the huge quantities of materials available as a resource in Kiruna provides an indication of how Kiruna can set an example in this respect.

Of pivotal importance to the scheme is the authors’ opinion that the E10 will not be needed as a bypass within the foreseeable future, and accordingly they let it run through the city as a communications link and a city



street. The Jury does not find this standpoint realistic: it demands a bypass for heavy traffic and the carriage of hazardous products. Routing the E10 through the city would also have adverse effects on the housing environments and demand reinforcement of existing streets. The E10 and the railway join up at a point far distant from the city centre, which is prejudicial to urban development.

Round the city street, they let the city grow. The new city centre has a relatively peripheral location, and it is hard to

believe that the attraction necessary for the first stage will be created, the connection between the new city centre and the present city being so feeble.

The building development is schematically presented, and its qualities are hard to assess. The scheme includes few arguments as to how the new and old cities are to act together over time, apart from the city street interlinking them.

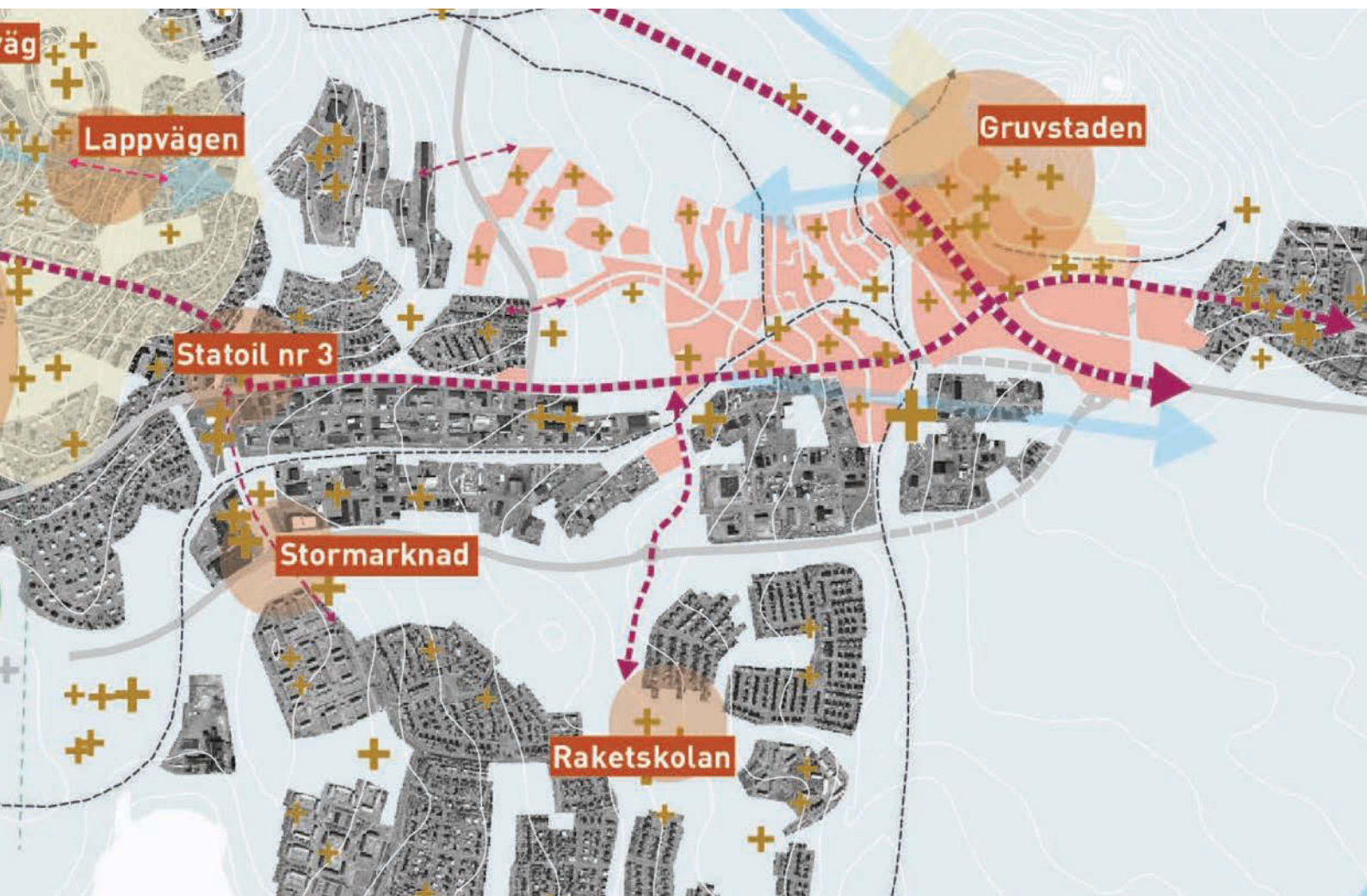
UNREWARDED ENTRY

DET ANDRA KIRUNA

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A lake let into the city centre gives Kiruna a character all of its own, a character with qualities. The city centre is relatively densely built up, with a mixture and variety of development. There is a clear difference between the softer process and the physical shaping of the city.

Where the process for the new Kiruna is concerned, the importance of co-operation is underscored. Creating a social contract between the Municipality, LKAB, the citizens of Kiruna and the County is one of the first measures to be taken. This is an informal partnership which is eventually made permanent.

The authors consistently employ a cartographic terminology, launching relational maps or ecologies to communicate important experiences to the new city. The site layout plan describes, in logotype format, selected situations, programmes and occurrences. The terminology in the scheme is inventive but not very realistic or

convincing, and one can easily lose one's way in it. There is a world of difference between the strategic map, with its overlapping systems, and the physical form proposed for the city. The process description and in the physical vision in this entry do not tally.

The new city centre is quite a long way away from the existing one and will be poorly connected to it. The pithead towers and Tuolluvaaraberget are used and made visible by economical means. The urban settlement is positioned on the other side of the E10, on Tuolluvaaraberget, where housing development is impossible.

The townscape is interesting, with a close-knit street network. The scheme has many fine urban qualities, such as the lakes and the density of structure. The central location of the railway station is all to the good. But the structure is not so functional for communications and traffic, traversed as it is by a lake.

UNREWARDED ENTRY

ETT NÄTVERK AV URBANA ELDSTÄDER

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Yngve Andren, real estate economics and property
development



The city centre is located on both sides of Malmvägen and can be developed both east of the cemetery and into Västra Industriområdet. This positioning also means that station, City Hall and other important functions in the city can be gathered into one central location there.

The scheme is based on the development of a network of various nodes all over the city. The nodes, which can be thought of as pawns or platforms in an urban development strategy, can be visiting points of varying character and dignity, ranging from a school to the City Hall. The analysis of the nodes which already exist or can be created in the old city, Lombolo and Tuolluvaara is interesting and makes clear that these places will acquire a new significance in the new Kiruna.

It is anticipated that the network will be enlarged step by step: as one node is extinguished in the old city, another will light up in the new city. This dual strategy is both defensive, in the sense of demonstrating that the lights of the old city are being put out, and offensive, in that other places in the city are recharged. The Jury would have liked to see the author expatiating on the potential of this dual strategy.

The first phase involves building the city centre round Malmvägen, with one foot in an undeveloped landscape and the other in Västra Industriområdet. This is a strategically good positioning which can utilise the growth potential of the industrial estate and at the same time build on available land.

UNREWARDED ENTRY

GO NORTH

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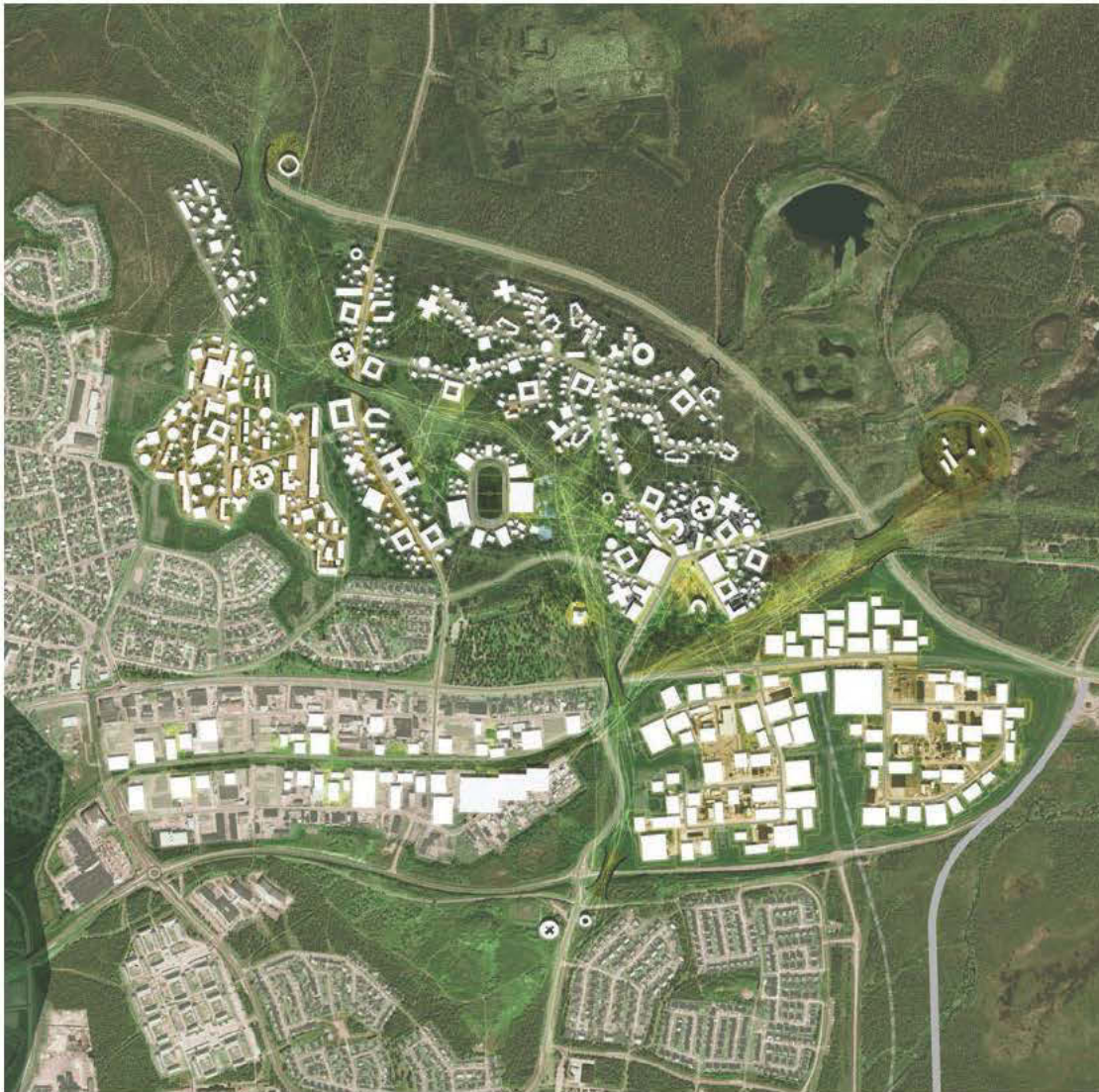
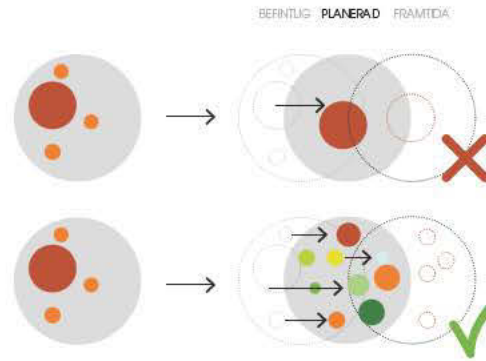
Grontmij
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Johanna Rydberg Landscape Architect MSA
Johanna Dehlin Landscape Architect MSA



This scheme has an idea which means gradually shifting the centre in a mass of nuclei, an intrinsically interesting idea which can cope with ongoing ground deformation. The intention of the project is to integrate and intertwine nature and the city into a new organic whole, with new and old functions in a new pattern.

The actual analysis in the project is based on identifying various functions in the old city and moving them, one after another, to a completely new urban pattern. This

is basically interesting. The functions are turned into gaming pieces reshuffled: the new, pragmatical Kiruna is to grow organically. The development of the project through the movement of the gaming pieces is illustrated with figurative principles of urban planning and pictures of Kiruna architecture, in a species of type gallery. In actual fact, this is an unplanned city, its development guided by only a few basic principles which of themselves cannot guarantee the creation of an attractive city.



The expression and the figures round the theme of the porous city are intended to create a relationship in which landscape and building development are not segregated phenomena but have a touch of symbiosis about them. The scheme has a kind of schematic superficiality and does not concretise buildings and urban spaces, which makes it very hard to assess from that point of view. The city is very fragmentary and scattered, lacking in nearness, density and urban qualities. It is not alto-

gether easy to perceive the symbiosis between town and country, because the gaming pieces snow down, as it were, on the terrain without interconnections other than a comprehensive network of nature trails.

UNREWARDED ENTRY

KIRUNA ARCTIC SUBLIMA

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Hyeri Park, Urban Designer

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CASESTUDIO

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Torunn Ingersdotter Architect MSA

Stefan Svedberg, Architect



The new city centre is put in a surprising place, in the middle of the industrial estate. This approach points to the values which can be created by linking Kiruna's different townships close together.

The scheme puts the city centre quite a long way south, between Västra Industriområdet and the Lombolo housing estate, which means that it will be close to an area where a lot of people live. The city centre is densely built but nevertheless surrounded by an undefined hinterland, with the result that, its central location notwithstanding, it has no connection with the rest of the city. The very sparsely developed housing area proposed in the north is poorly connected to the city centre.

At the same time as the scheme is aimed at harnessing

and utilising the development potential and character of existing areas, it recommends big, expensive changes. A new industrial estate is relocated and the landscape is transformed on a grand scale. In this way, many important values now existing are obliterated rather than upgraded. The mining diagonal is a symbolic link between the new city centre and the mines, the one active, the other abandoned.

A street traversing the city is the principal communication route, tasked with linking together important nodes in the old city and the new. This street becomes a traffic artery which is even sited underneath the city centre. The E10 highway planned is radically changed and re-



valued and turned into a bypass. This is a very big move which the Jury does not find realistic and which does not add commensurate qualities.

The station is given a peripheral location, away from the city centre and the housing areas. Järnvägs-gatan (“Railway Street”) between the city centre and the station is not very well developed and will pass through an industrial estate with a few scattered, relocated historic buildings on the other side. This will not encourage walking. The station will be experienced as out of town. The city centre has been given a design which is perceived as finalised and is not judged open to further development, since, for example, it is based on the expensive

solution of having the main street in a tunnel. The feasibility of the scheme is uncertain, because it is located near an old landfill site.

The process and strategy for urban development are described a good deal more superficially, lack empathy with the process which Kiruna is to undergo, and are based on traditional models.

UNREWARDED ENTRY

LINJEN OCH STADEN

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THAM & VIDEGÅRD ARKITEKTER

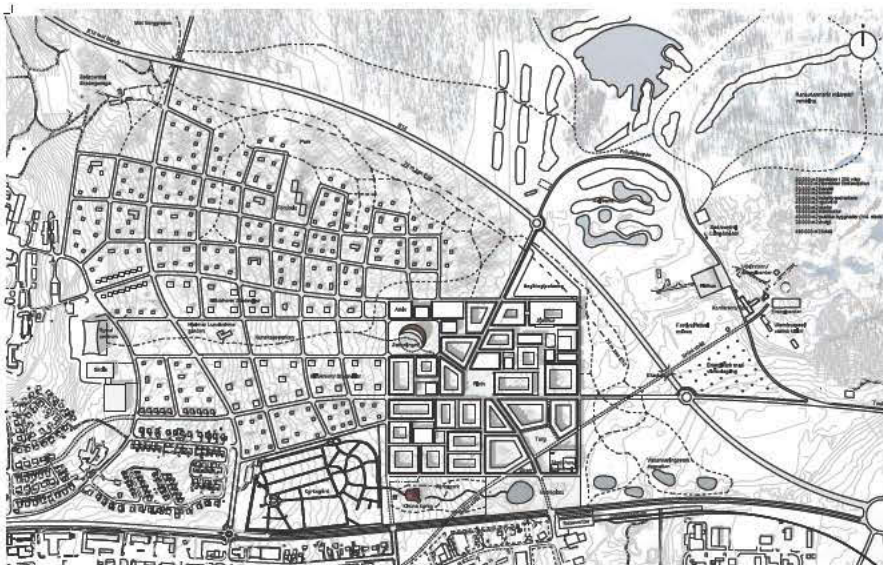
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A beautifully presented and distinct, compact city with many urban planning qualities which merge with and inform the very large landscape surrounding Kiruna.

The scheme aims to give Kiruna a leading position in the north. This is to be achieved by its becoming a highly important gatherer and purveyor of knowledge. The new Kiruna is distinguished by its development being based on knowledge and research concerning geology, minerals and space.

The scheme articulates the geographic context, at regional and global levels, in which Kiruna lives and has its being. The park created from Jukkasjärvi to Kebnekaise gives the new city a place and a stability which utilise the grand perspectives existing in Kiruna. The city acquires a clearer place in the great landscape, and city and landscape relate to each other more clearly. The large-scale and the small-scale meet in a way which is nearly breathtaking and can create a special character which Kiruna would be alone in possessing.

The scheme arouses the Jury's curiosity, but the potential of the 7-km-long park as an idea and concept traversing the landscape is not elaborated. It is left to the beholder to fill in the development possibilities of this idea.

The new city centre has a character very much its own, with clear boundaries, and constitutes an energy point in the elongated park. It is compact and composed with a precinct structure clearly showing what urban qualities a traditional gridiron town can be invested with. On closer inspection, one sees that, through its broken streets and insinuated piazzas, it has taken account of the climate and the place in way which is very beautiful and developable.

The science park through the woodland area which forms part of the very long regional park links the Sameting (Sami Parliament) together with a space research centre. This is a surprising combination, and preconceived notions are further disrupted by Hjalmar Lundbohmgården being moved to the park. Several of the historic

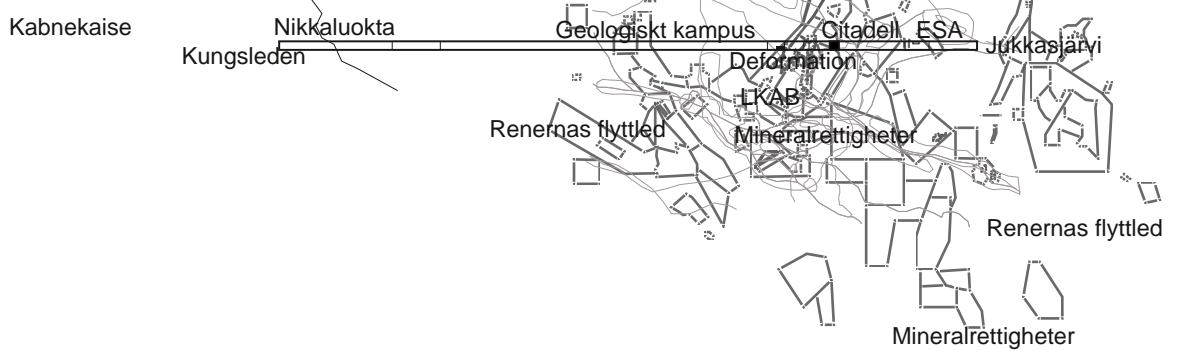


buildings are scattered about in the woods, in a new and beautiful context. This historical park with future dimensions, an energy park and a church park, gives us examples of events which the larger park concept traversing the landscape can be charged with.

The project has stronger links with the region and the outside world than with the immediate surroundings, in a way which shows no consideration for the people living and working in Kiruna today. The remaining city is barely to be seen in any of the pictures, and in this way a very important part of Kiruna is dismissed. There is a great

risk involved in this kind of separation, and if the urban development comes to a standstill in its rate of progress, the new township with the City Hall will be made to look very isolated.

The presentation in this scheme of the process and strategy for urban development is very weak.



UNREWARDED ENTRY

LUNA

Authors:

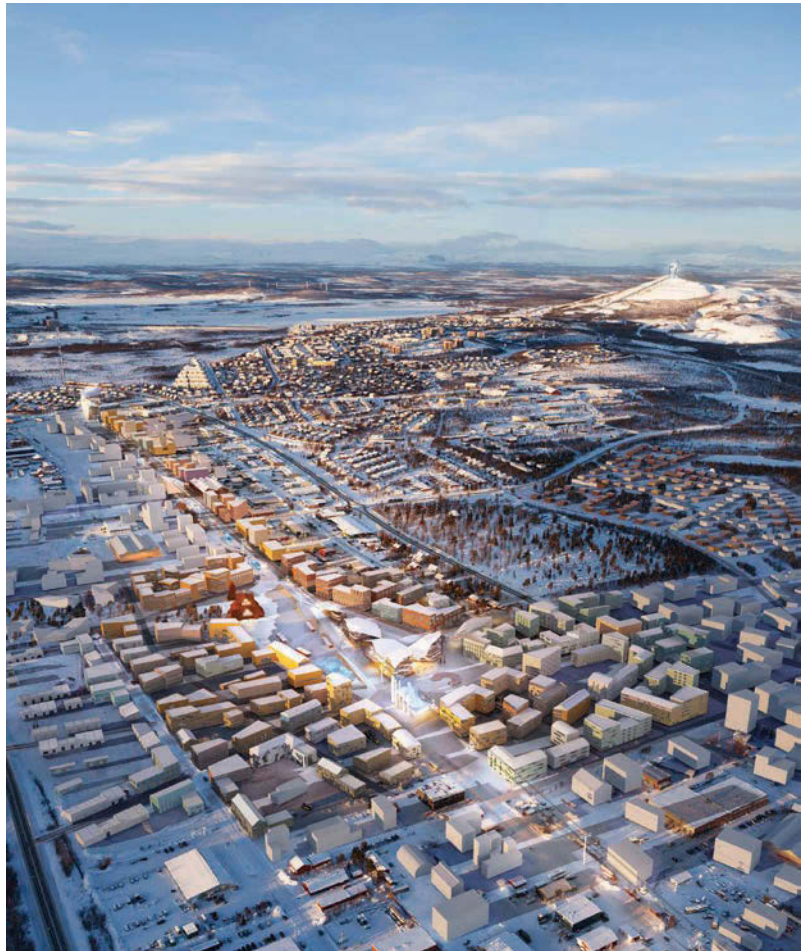
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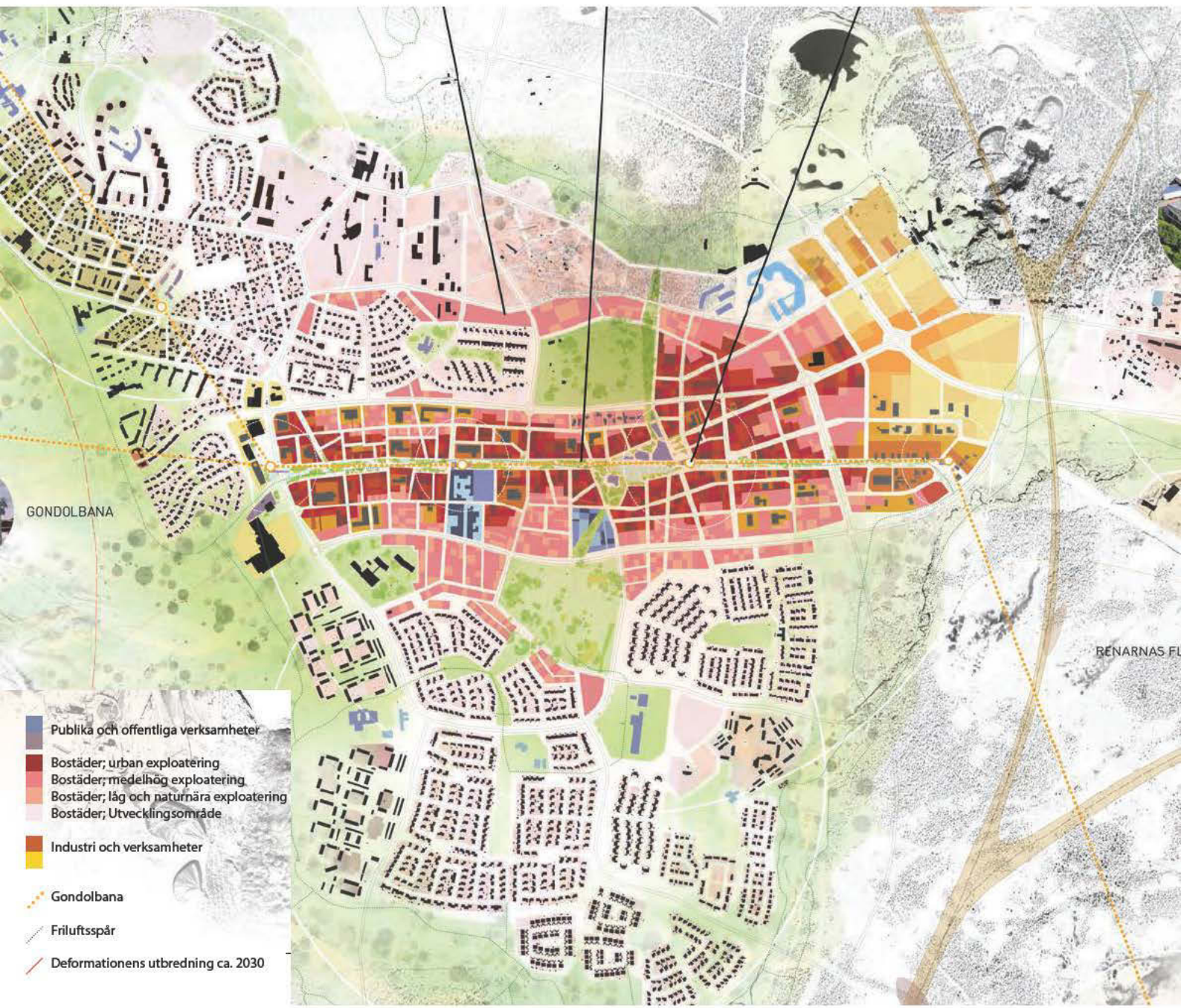


The underlying ideas of this scheme are an extended townscape “through time and space,” the so-called Corso, and the positioning of the city centre principally in Västra Industriområdet. The scheme is appealing and clearly presented. As a finished structure it has a good way of tying together the existing road network and a new one.

The scheme amply justifies its choice of location for the new city centre. With such a large proportion of urban development taking place within Västra Industriområdet, there is a potential for Kiruna being perceived as a

whole city throughout the transformation process. The scheme’s main street, the Corso, traverses the whole of the site, and important buildings, the cableway and other public amenities are positioned along it. But the Corso can be experienced as long unless it is worked out in great detail.

There is an ambitious idea for infill development on the industrial estate which the Jury found well worth considering. The process means creative processes being channelled into a development plan which is clear and applicable to several different development strategies,



and there is a potential for the market adding resources after the first steps have been taken.

But there is also a serious risk attached to placing most of the city centre in Västra Industriområdet. If the purchase and compulsory acquisition of properties proves unsuccessful, the urban development will be liable to drag on or come to a complete standstill. In a scenario of this kind, the city centre will not acquire the urban qualities described in the competition entry. There are no alternatives to this solution, and the scheme is therefore not found to have the development potential necessary

for overcoming the risks inherent in the project. Malmvägen acquires a connection with the E10, and the railway station, in the main alternative, is located at the airport, which also has a travel centre. This could have the unfortunate effect of the airport competing with the new city centre.

The team's proposal of a first 100 days' workshop is interesting, underscoring as it does the importance of a political consensus, the role of LKAB and the importance of an important role in the development process being played by the citizens of Kiruna.

UNREWARDED ENTRY

POLAR CONDITIONS

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BJARKE INGELS GROUP

SPACESCAPE

TESTBED STUDIO

TOPOTEK 1 & MAN MADE LAND

RESOURCE VISION



LJIGE
Kiruna idag är relativt högt beläget på sydslutningen av ett berg. Platsen för den nya stadskärnan är till skillnad från detta beläget på ett flackt fält mellan Luossavaara och Tuulikvaara. Eftersom att kall luft sjunker är risken för att det blir ett lokalt köldhål en betydande begränsning för den nya platsen. Jämfört med en sydslutning kommer denna situation oundvikligen innebära en temperatursänkning med flera grader.



FÖRBÄTTAT MIKROKLIMAT
För att adressera detta problem, använder vi själva landskapet som byggnadsmaterial för att utforma det optimala mikroklimatet. Genom att återanvända en resprodukt från gruvnäringen, stenkross, skapar vi en kulle på platsen för den nya stadskärnan och en sydslutning som skyddar staden från vind.

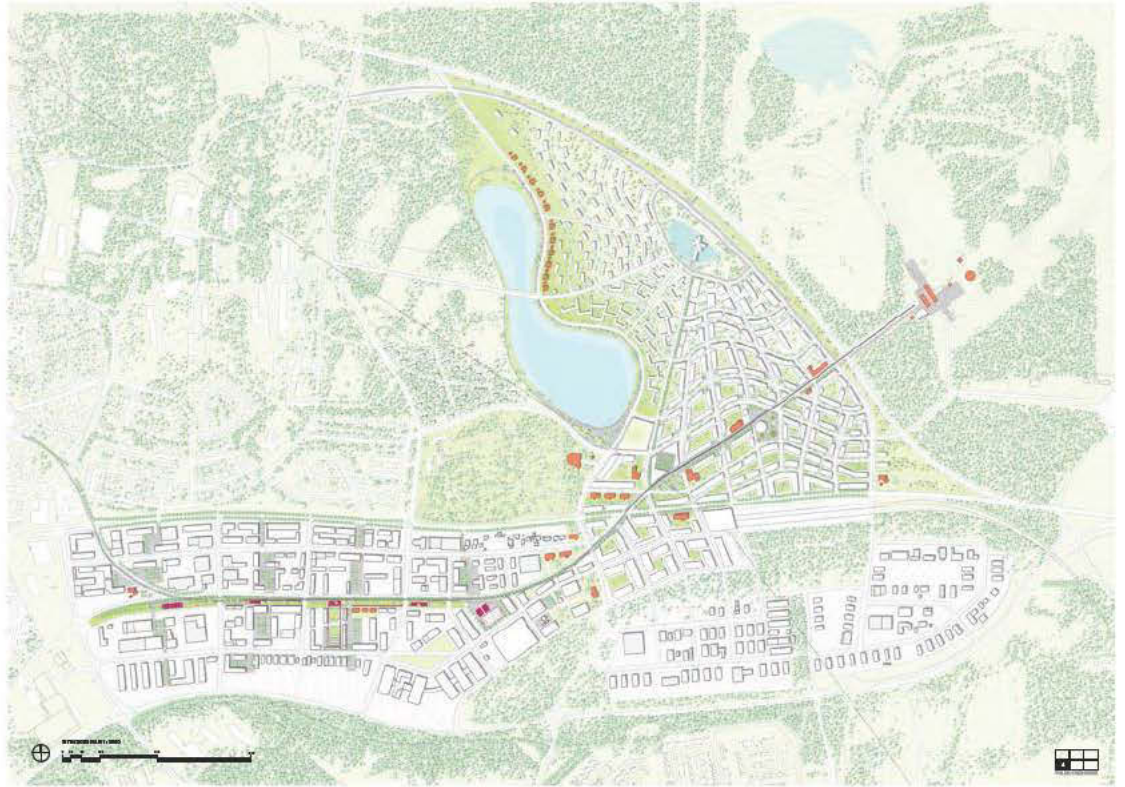
This entry shapes the landscape so as to make it resemble the Kiruna which is being left behind, and housing areas on a southerly slope with a view out over the water are recreated.

The starting point of this entry is the modelling of a new landscape, using spoil from the mine, the intention here being to recreate in the new Kiruna qualities reminiscent of the old city. This is a challenging project in the positive sense, because it discusses how the enormous spoil from mining operations shapes the landscape on a large scale. The structure of the new settlement is adapted to terrain and climate in a salutary manner. The landscape formation also creates a ridge over against the new E10 highway.

The idea of the large-scale land formation, as it has been so beautifully formulated, is exciting and thought-provoking. This suggests that the mining industry can make more extensive use of its residual products and assume responsibility for the vulnerable landscape of our time. When the mining industry grows in the region, in response to rising international demand, advanced symbolic solutions of the kind touched on by this project can set an example to the whole world.

The crux with this entry is whether it is realistic to carry out this landscape formation, which will undoubtedly confer qualities. There is a risk attaching to this major intervention if the urban development comes to a standstill and the city does not come to be developed at the rate which is forecast. At the same time, there is something poetical about building a track which can also be used for moving the enormous quantities of spoil, and the materialisation of the new land formation will be palpably noticeable as the spoil is conveyed through the city. The sustainability aspect of this idea and the movement of spoil from one place in the city to another are highly debatable.





The new city centre has a good location on and around Malmvägen which can be established early in. This is an advantage. A central node is created where all types of traffic converge, thus affording possibilities of this place being experienced as populated and busy. On the other hand, shaping the landscape will take time, and consequently there is a risk of housing development taking a long time to be completed. The scheme also has an interesting way of addressing infill development on the trading and industrial estate.

This scheme has not discussed to any great extent the connections between the old and new city during the

transformation phase. It is primarily the communication links that are dealt with, not the way in which the city as a whole will function.

In principle, the scheme does not describe any strategy of urban development at all as regards process and participation, over and above the Kliva-Kiruna lifestyle application.

The Google image presentation of the project is fascinating and beautiful. Viewed from outer space, the Kiruna landscape becomes a logotype.



UNREWARDED ENTRY

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

Authors:

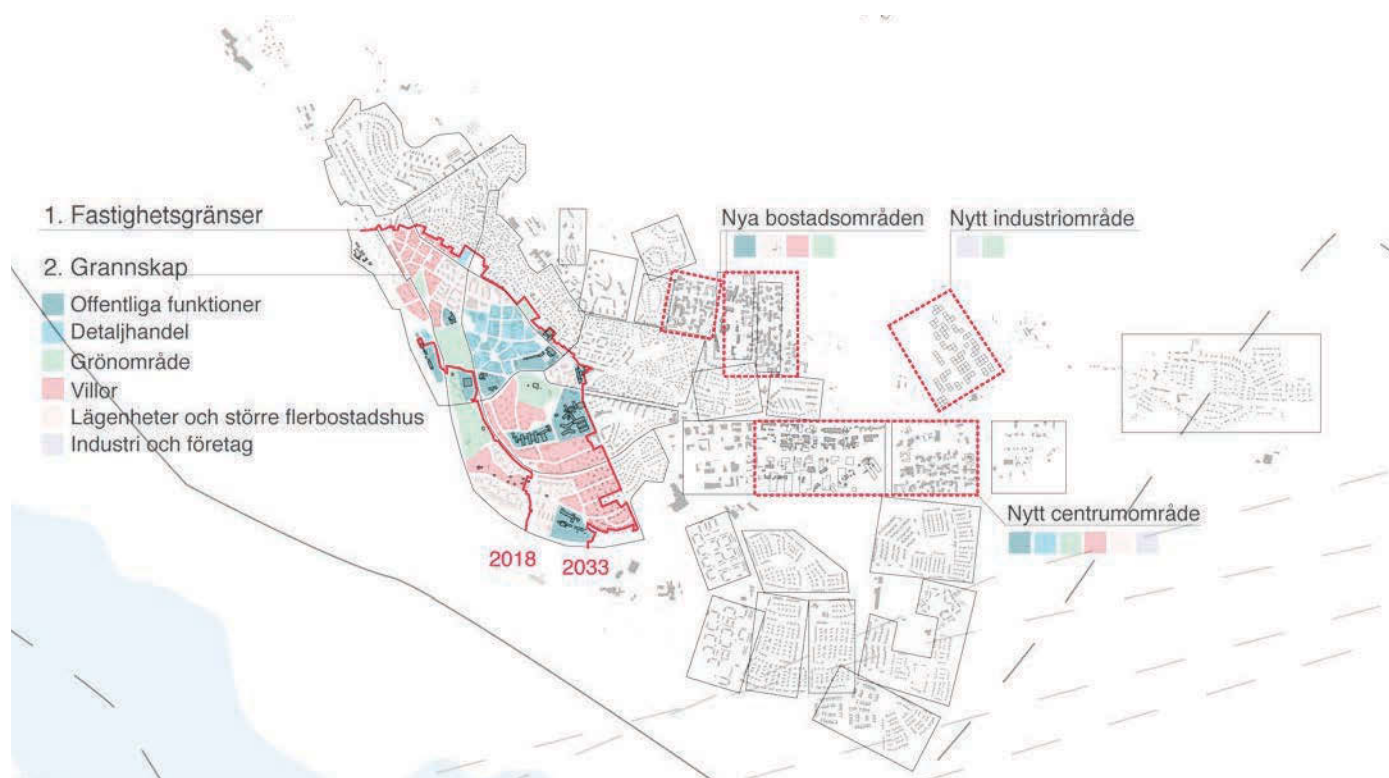
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This scheme is above all an insightful and sensitive inventory of Kiruna, its structure, values and potential. Exploring the scheme, one finds a lot of important knowledge about Kiruna which is of value for the development process.

This scheme is based on a careful inventory of Kiruna rather than a vision and a depiction of what the new city will actually look like. The analysis of Kiruna is plausible and interesting and contains many strata of beholding, superimposed one upon the other.

The scheme also contains a description of a process for

urban development containing a number of interesting proposals, even if it is not altogether clear. Positioning the administration of the urban development on the very spot until the City Hall has been completed is, for example, a radical approach which, in the Jury's opinion, imparts credibility and energy to the development process. All interstices capable of development are investigated. The concept launched of "being there in one's own future" is one with which the Jury sympathises.

The overarching principle in this scheme is to build where possible and to build further on the resources already existing, by they physical, intangible or dynamic.



The scheme can be looked on as a grammar or toolbox which deliberately refrains from formulating powerful visions and leaves many issues open. The urban development process takes place in a long sequence of events, beginning here and now, quite undramatically, with a strong link to the existing city. The planning principle is very open to future expectations concerning the preconditions. The proposals embody if anything an attitude to the transformation of the city, emphasising the brittleness of this urban development.

All the images and thoughts which the scheme presents from its voyage of discovery through Kiruna and gathe-

red in manifold graphic diagrams of various kinds add up to a library to return to in search of the new and unexpected. The Jury has returned several times to the picture of the city's programmatic landscape. The scheme has an investigative method which can be developed further.

At the same time as the scheme is very strong on ideas, it is spatially very feeble. Buildings and townships are symbolically described. Much of the development is positioned in places which are judged problematic. It is hard to tell how the timetables and principles of this entry can be translated into urban spaces and places where people are going to live and have their being.



KIRUNA KOMMUN

