

# COOL TOWN - WINTER IN THE CITY

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## Abstract

Snow, darkness and coldness are the elements of winter. Snow is a physical barrier and a recurring element. In winter darkness the landscape looks different. When proper winter arrives, the snow gives light. Moving about in the cold requires the right equipment, especially for those without a car. The current aim for road maintenance in winter is to enable efficient, safe and reliable transport even under winter conditions. In winter the traffic system is incapacitated, turning into bits and pieces because of limited resources and the current maintenance policy. Not surprisingly, many people move about less in winter. The efficiency of fighting off winter conditions also shuts out many traditional winter pursuits from the lives of urban dwellers.

The winter torpor vision allows for winter habitats, routines and traffic solutions which are different from those in summertime. Everyday routes are simplified and trips are planned in advance. In bad weather it is possible to work from home or to take a day off. Services can be obtained at home or bought electronically. Road maintenance is synchronised with delivery days in each residential area. In wintertime extra plans are made for everyday life, and there are ways to function even without physical transport. *The winter torpor vision requires people to make quick decisions and to be flexible about their use of time. This vision is advantageous to those responsible for road maintenance.*

The vision of winter as a survival game sees people looking for new, mainly non-motorised traffic solutions in wintertime in order to maintain their year-round lifestyle and habitat. Winter mobility requires imagination and a willingness for physical exertion. People take more responsibility for their own mobility. Winter routes double as shortcuts and take people to new tracks different from those used in summer. Snow is not transported away but utilised. This vision gives good opportunities to create a beautiful winter city rich in experiences. *Living according to this vision is attractive to young people valuing an eco-conscious and sporty lifestyle. Its strength and weakness lies in the creativity required. An experience-rich winter city does not offer everyone equal opportunities for being mobile.*

The vision of summer in wintertime gives people the possibility to move about safely, with no extra effort required. Real-time weather and traffic information complements an effective wintertime road maintenance system which extends everywhere. Town-centre shopping streets are roofed or heated. *Removing the signs of winter creates an equal environment, but at the same time the seasons disappear*

*and winter experiences remain scarce. A single mode of transport can be trusted all year round, and lifestyles do not need adjusting when winter arrives. People living according to this vision may not be able to function under exceptional weather conditions. This solution is expensive to carry out, depletes energy resources and creates a monotonous environment.*

The highlights of the visions described above can be carried out in practice by adopting a wider-reaching point of view in urban planning, in order to create living cities fit for both summer and winter use. The aim is to draft an individual winter city plan for each town. When designing winter cities, it is essential to recognise the elements of winter and to utilise local characteristics. In carrying out the vision, people's needs have to be considered and a discourse established with urban dwellers.

## **1. Our Point Of View Into The Subject**

People have different ways of coping with, living and enjoying winter. Some act as if winter does not exist, others put their normal activities on a back burner, still others turn winter into a survival game. Children enjoy winter, like all seasons, to the full.

In the past, when people still followed the rhythm of the seasons and lived according to nature, it was necessary to utilise the possibilities winter brought for moving about. Nowadays the positive aspects of winter mobility are mostly visible in leisure pursuits, and hardly ever in commuting to and from work. Our attitude towards winter has changed with the times: many things have become easier, but on the other hand the seasons are now ignored. The demands of winter maintenance dictate many choices which aesthetically or functionally are not the best ones even in summer.

Our presentation discusses the effects of wintery elements, such as snow, coldness and darkness, on urban life and mobility via human experience. We have interviewed five persons for this purpose (see the lifestyle profiles below). The interviewees are not fully representative of different sections of the population. Rather, we wanted to include experiences by people whose attitude towards winter and winter mobility is unusually positive. We have mapped out the opportunities brought by winter and the change of seasons, along with the wintery nuances that enrich our everyday lives. This world of experience is compared to society's attitudes towards the effects of winter.

On the basis of these experiences, we have created three visions of a winter city. They are not intended to function as actual blueprints – instead, we hope they inspire new ideas and that their most advantageous points can be utilised. Our starting point has been to apply these visions mainly to rather small Scandinavian towns. The solutions can vary between cities and sparsely populated areas, and between city centres and suburbs. Based on these visions, we can speculate whether it is possible to create a winter city which allows wintery conditions to be met in a multitude of ways and offers mobility to everyone, also making use of individual solutions.

### **The Lifestyle Profiles**

”The sporty Coast Guard officer”

- a sporty, urban ”bolter”, a user of public transport – carless only for the time being
- ambitiously building an academic career; considers physical and psychological self-investment important
- aims for a good standard of living, quality and efficiency, and a sense of freedom regarding personal choices; everyday elements include long sleep, the officers' club, his medical student fiancée

”The eco-conscious researcher”

- an ecologically aware cyclist, who considers public transport the only acceptable mode of transport

- besides cycling; does not aim for an easy lifestyle but for high morals, together with his spouse
  - sees everyday occasions as opportunities for physical exercise
  - recycled clothing and domestic utensils, nature-related hobbies: bird-watching, nature, cultivation, renovation
- ”The urban widow”
- a widow, living in an elegant neighbourhood, who has spent her life as a mother and housewife; appreciates a peaceful environment and good local services
  - prefers to move about on foot, enjoying the urban atmosphere
  - habitat has naturally shrunk to include home and the city centre, along the tram routes; nevertheless has a busy social life; cafes, art exhibitions and bridge nights form her weekly entertainment
- ”The nine-year-old”
- a girl from a quiet neighbourhood, goes to an alternative school; groups of friends are important to her besides her mother and brother
  - a communal yard without cars and a short way to school form a safe, manageable habitat which allows for various games depending on trends and age
  - more tomboy than bookworm; being outdoors in all weathers is vital; ice-skating, roller-skating, skiing, cycling and springboard diving are the hobbies of this busy little missy
- ”The small-town guy”
- a middle-aged man on a small income; travels to work on the other side of town by bike or moped, or gets a lift from friends
  - the only car in the family is used by his wife, who works as a home carer
  - everyday occupations include renovating the house inherited from his parents, tending his vegetable plot and watching television

## 2. The Elements Of Winter

### Snow And Ice

Snow is soft, white and squishy. The wind builds it into snowdrifts which transform the landscape, covering the dark earth and leafless trees. Falling snow makes the landscape new, peaceful and equally surprising year after year. Virgin snow attracts not only children, but also adults outdoors.

Snow needs to be shovelled off pedestrian routes, removed from roofs, ploughed away from roads and taken to snow dumps to be thawed. New snow keeps falling, it thaws and freezes, turns into slush. On the roads, sand and ploughing turn pure white snow all brown, and it no longer attracts us to walk, ski or stay in one place for long.

*”When we go to town in winter, I always have to wait for my mother who’s trying to push my little brother’s pram in the slush. It’s so boring. Good thing she’s now got a driving licence and a car.” (The nine-year-old)*

*”I wish we always had massive heaps of snow, where I could make tunnels.” (The nine-year-old)*

*”The worst weather is thaw. Cycling is no problem in dry frozen snow or on slippery roads, but it’s useless in the slush.” (The small-town guy)*

Falling snow hinders visibility and slows down travelling. In some places it can stop traffic altogether. Falling snow cannot be constrained before it reaches the ground. When it has snowed, it is always quiet and we can walk behind a snowdrift without being seen or heard.

*"Walking is a superior mode of transport all year round." (The widow)*

*"It's disgusting to restrict walking in winter by e.g. poor maintenance, when otherwise walking would be a viable option." (The researcher)*

Snow turns slippery when it thaws and freezes again. Sand, salt, street heating and roofing are used to restrain the power ice and slippery conditions have over our mobility. Often ice is so efficiently removed that it is impossible to move about on a sled or kick sled.

*"Winters are more slippery and icy than they used to be. I can only get by with a walking-stick and cramp-ons." (The widow)*

*"The most inconvenient thing is fast-changing weather conditions in very early and late winter. Each morning you have to reconsider the alternatives for moving about. The weather can change completely even during the day." (The researcher)*

*"In winter I have to observe the ferries which go twice a day. In extremely cold winters we can use a convenient road over the ice. In summer, an army boat takes us from the island to the mainland." (The officer)*

## **Darkness And Light**

In winter we eagerly wait for brighter days. In the autumn we already talk about dusky evenings and how dark it was again when we came to work. Darkness is also associated with mystical phenomena: northern lights on the north side of the polar circle, starry nights, a snow-covered forest lit by a full moon, glowing with blue light.

Cities and landscapes look different in the dark. We cannot distinguish lights and colours, shadows get our imagination running and we are scared to walk home from the bus stop. In broad daylight, we laugh off this fear. In the dark, we are blinded by street lighting and car headlights, even though we cannot be seen ourselves.

*"Somehow darkness is frightening, but on the other hand everyone drives more carefully in winter darkness." (The researcher)*

*"I miss the darkness in the city; without it winter does not seem right. Darkness calms everything down." (The widow)*

In cities the contrasts are smaller, and streets, squares and bus stops are lit. It is difficult to find a totally dark, peaceful spot. The thought of having to rely on natural light for moving about is strange and also frightening to modern urban dwellers. Light and shadow can be employed to give experiences to people moving about the city. Roofed and lit urban areas intensify contrasts, making unlit spaces even darker. We feel scared that someone might be following us in dark spots and hasten our steps hoping to see the light in our home window.

When proper winter arrives, the snow illuminates the landscape. Snow crystals reflect the sun's white light almost pure. Brilliant white snow has its purpose which cannot be filled by dirty brown city snow. White snow also blinds us and makes it hard to estimate distances.

*"When snow falls, cycling is easier again. Snow gives an incredible amount of light." (The small-town guy)*

## **Coldness**

Coldness slows things down. We need anti-freeze to get our car engines running and a block heater to keep the car warm. When driving from the home garage to our workplace parking complex we may not even realise it is cold outside. Similarly, we may not have to adjust our clothing much from what we wear in the summer. Cyclists and pedestrians, however, feel the cold to the bone, since mid-European fashions do not protect from the Scandinavian winter.

In the cold we tend to move fast, even getting sweaty. When standing still we get chilly easily. The wind makes the temperature even colder. Some people have to fight the cold for dear life. In countries where winter is not normally prepared for, homeless people die of exposure in cold weather.

Going outside in the cold requires that we consider our clothing, especially if we have no car. Are we planning to go indoors where it is warm? Maybe the bus is late, or the train points are frozen? What if it gets warm during the day? Can we wear our winter boots indoors or should we take some spare shoes? Often it is easier to stay in than to get small children dressed up in their winter gear.

*"Sometimes it's problematic in winter when I get hot cycling and then cold waiting for the train that's delayed." (The researcher)*

*"I'm not afraid of the cold, because I'm used to working outside. As a little child I learned how to dress up warm in all weathers." (The small-town guy)*

## **3. Attitudes Towards Winter**

A couple of centuries ago winter made it much easier for people to move about and transport goods. Snow and ice turned lakes and terrains passable, whereas summertime travel over land required roads and bridges to be built. Snow created roads for people. In the old days, urban life was very different too from modern times: cities were smaller and more densely built. People worked at home or within walking distance. The main mode of transport was walking. In addition, trams, bicycles and horse-drawn carriages were used, later cars. The attitude towards the use of time was different: even long distances were covered on foot throughout the year.

Even now, roads over ice offer new opportunities for winter mobility in the archipelago. A kick sled gives stability on slippery roads and tracks trodden by pedestrians take us to routes we could not reach before the ground froze and snow fell. Forest work starts when the ground freezes and ice-breakers remove any obstacles for ship traffic.

The current aim for winter road maintenance is to keep roads in a passable, summer-like condition every day throughout the year. The reliability of transport and reaching our destination in the estimated time has become the crucial factor, and the inconveniences caused by winter have to be removed as efficiently as possible.

Limited resources mean that the busiest motor traffic routes are given a priority regarding winter maintenance. The maintenance of residential streets, smaller roads and non-motorised traffic routes takes second place. Car drivers are given winter speed limits and parking restrictions, and all roads and streets are kept open in theory, despite the fact that their condition might be poor. Road maintainers' preparations for winter are equally uneven: it is easiest to prepare for exceptional weather in areas where winter temperatures and snowfall are usually pretty predictable. In more changeable regions, many mild winters in succession may tempt to cut down on maintenance resources. Even in the design

phase it may be decided that certain non-motorised routes, steps or bicycle shelters do not require winter maintenance. The traffic system is incapacitated, turning into scattered bits and pieces.

The wintertime usability of the various elements of the traffic system affects different people in different ways. Their circumstances dictate where they go, what mode of transport they use, when and how often they move about or if indeed at all. Not surprisingly, many people are less mobile in winter and cut down on the time spent outdoors. The efficiency of fighting off winter conditions also shuts out many traditional winter pursuits from the lives of urban dwellers.

The removal of seasonal characteristics also has the reverse side of winter continuing almost year round: we can enjoy wintery conditions in energy-depleting ice rinks, skiing tubes and artificially snowed ski tracks or slopes. In the future there may even be winter amusement parks. We want to enjoy summer conditions in winter in order to move about. In summertime we miss winter experiences and winter sports facilities.

## **4. Three Visions Of A Winter City**

### **I Winter Torpor**

The change into winter torpor happens slowly. First the days get darker. Night falls earlier and when we come home from work or school it is already dark. We do not feel like stopping by anywhere but rather try to get home before dusk. Then it gets chilly and cold. It only feels like the crispness of a morning at first, but then we have to start wearing winter clothing. Even the car stops running smoothly in cold weather, as if it needs a holiday from moving about too.

On a normal winter's day public transport does not work as reliably as in the summer, and that is not really the intention either. The municipal authorities still keep the main public transport routes in good condition, while smaller roads and residential streets receive less maintenance. In most extreme weather, all public transport links may not work and some school-children and working adults stay at home, working on remote access. Individuals have to react quickly to changing circumstances, and alterations for instance to meeting schedules are automatically updated to a personal electronic calendar, so that unnecessary travel does not have to be undertaken. For the purpose of long-distance schooling, curricula contain pre-planned homework units which can be accessed over the internet should a snowstorm break out. Additionally, traffic safety reasons restrict community school runs in bad weather.

Everyday routes are simplified and it makes sense to plan trips in advance. In the morning, or in fact already the previous evening, it is clear where each member of the family is going, what mode of transport they are taking and what time they are leaving. It is always possible to work from home or to take a day off even at short notice, if the weather is really bad. There is also an unspoken rule that arriving late does not bother anyone.

In wintertime services can be obtained at home or bought electronically. Internet shopping is a convenient alternative when a snowstorm has blocked the roads. Shops deliver the goods ordered to people's homes in delivery vans and sleds built for winter conditions. Road maintenance is synchronised according to delivery days in each residential area. Home health care services are available to everyone. In wintertime extra plans are made for everyday life, and there are ways to function even without physical transport. The further away we live from population centres, the more

dependent our lives are on the weather and road conditions. Winter habitats and routines do not have to be the same as those in summertime.

### **The Vision Assessed**

The winter torpor vision requires people to make quick decisions and to be flexible about their use of time. When it is necessary to cut down on physical mobility, it helps to know how to utilise various telecommunication methods. Living in torpor restricts people's chances to change places, especially to make long journeys, and their opportunities for meeting other people. For members of a close-knit family it gives the chance to spend more time together, but people living alone might find themselves even more isolated. Poor street maintenance restricts the elderly and the mobility-impaired in general, not just in exceptionally bad weather. The winter torpor vision is advantageous to those responsible for road and street maintenance. For providers of home-delivered services winter means increased traffic costs, which must be included in the price of the services. The wheels of society are kept running in wintertime, but physical transportation is put on a back burner.

## **II Winter As A Survival Game**

When winter arrives, our mobility is not diminished but changes by nature. Coldness, snow and darkness make people look for new traffic solutions in wintertime in order to maintain their year-round lifestyle and habitat. Winter mobility requires not only imagination, but also a willingness for physical exertion.

Winter as a survival game offers people possibilities rather than ready-made decisions. Non-motorised traffic routes do not carry "no winter maintenance" signs: instead, all routes are kept as clear of snow and ice as possible. Winter mobility is encouraged by ensuring the availability of routes designed for modes of transport which utilise snow and slippery conditions. The principal mode of transport in urban areas is walking. Cities enjoying a continental climate with enough snow can offer skiing routes also in the town centres. Snowshoes are not a bad option when it has snowed during the night and people have to get to the bus stop somehow. Public transport routes are well maintained throughout the year. Trips to the bus stops and train stations are undertaken in a variety of ways depending on people's physical possibilities and the structure of the residential area. In addition to bicycle shelters, there are appropriate parking spaces for skis and kick sleds. Bus stops and train stations also provide safe storage for such equipment.

Moving about by sled and kick sled is easy because street space is divided differently from summer, or one non-motorised traffic lane is non-sanded. Cars drive slower too, since car routes are narrower. The wintery traffic network efficiently utilises frost-created shortcuts across water, the light that snow brings, and the hard ground. Winter routes double as shortcuts and take people to new tracks different from those used in summer. Snow is not completely removed but utilised for winter pleasures: for instance, it can be deposited in school yards for break-time play. Thaw water is absorbed into the ground because asphalt surfacing and paving are decreased while parkland is increased. Instead of ploughing, snow can be rolled into a tough, even surface. From their part, car drivers help with the maintenance of traffic routes – through the force and mass of their vehicles. Cars can be fitted with a special snow plough and, in exceptionally difficult weather conditions, with caterpillar tracks.

People move about in consideration of the season, not restricted by it. Children know how to make the most of each season. In spring, they make little brooks, in summer they swim and cycle, autumn is the time for running through heaps of leaves and winter gives the opportunity for fun downhill sledding and skiing. Children have a creative attitude towards the seasons. Their way of thinking can be applied to all aspects of mobility by giving people the chance to make individual choices and by supporting

ways of moving about that utilise the elements of winter. In winter, we may get warm or even sweaty when moving about. A spare shirt or a change of shoes is not unknown for someone skiing or cycling to the station and then taking the train.

The vision of winter as a survival game gives good opportunities to create a beautiful winter city rich in experiences. The whiteness of winter is emphasised by lighting, snow sculptures, winter houses and by using snow as a space divider. In a busy winter city, the good physical shape and overall activeness created by plentiful exercise and fresh air are part of trend-setting life: the way to combine an eco-conscious, healthy and sporty lifestyle in a creative manner. This vision is not about extra effort but about aspiring to a certain lifestyle. On the street level, winter is also visible in everyday clothing. Inventions made for extreme conditions are utilised in daywear and appropriate, warm clothing is also available as high-fashion versions.

### **The Vision Assessed**

Living according to this vision is attractive to young people valuing an eco-conscious and sporty lifestyle. For many it is a necessity, since not having access to a car calls for creativity and multiple options for moving about. In this vision, society does not support winter torpor. The vision's strength and weakness lies in the creativity required. An experience-rich winter town does not offer everyone equal opportunities for being mobile. Not all of us have the desire or the opportunity to change our accustomed ways of moving about, to make quick decisions or generally to strain our bodies by physical exertion. Mobility may become very difficult if we suffer from ill-health, or in certain other circumstances. An ageing population and transporting children present problems in this vision. Society's support is needed in order to create functional localities with ample services that also offer us good options for winter mobility.

This vision is not universally applicable, but it could be applied as a twin option for some sections of urban dwellers. It can work if different areas and user groups are taken into consideration when planning the application blueprint.

### **III Summer In Wintertime**

In winter, traffic runs less smoothly than in summer. The vision of summer in wintertime gives people the possibility to move about quickly and safely in winter, with no extra effort required. This is achieved by removing the physical obstacles created by winter. Winter travel destinations are no different from those in summer. All modes of transport are ensured maximum functionality and winter drawbacks for moving about are diminished. Winter should not negatively affect anyone's life or slow down the wheels of society.

Snow removal is efficient and carried out in all areas. Possible changes during exceptionally fierce snowstorms are broadcast in electronic media. Real-time weather and traffic information can be accessed via a personal navigator or a telephone. All main roads and most residential streets have been ploughed and sanded early in the morning. Cars and public transport are just as reliable as in the summer: cycling and walking are only hampered by the cold.

En route, monitors at bus stops give accurate real-time information about traffic conditions. Solar panels on the roofs of bus shelters heat the stops, thaw the ground around them and keep the monitors working. The same technology is used on the roofs of buses for air conditioning purposes. Additionally, transport routes are well-lit. Mobility is not restricted even at night, because movement sensors light up the nearest street.

Town-centre shopping streets are roofed, so wintertime shopping does not differ much from summer. Only our winter clothes make us sweaty indoors. Street heating is taken for granted in the main

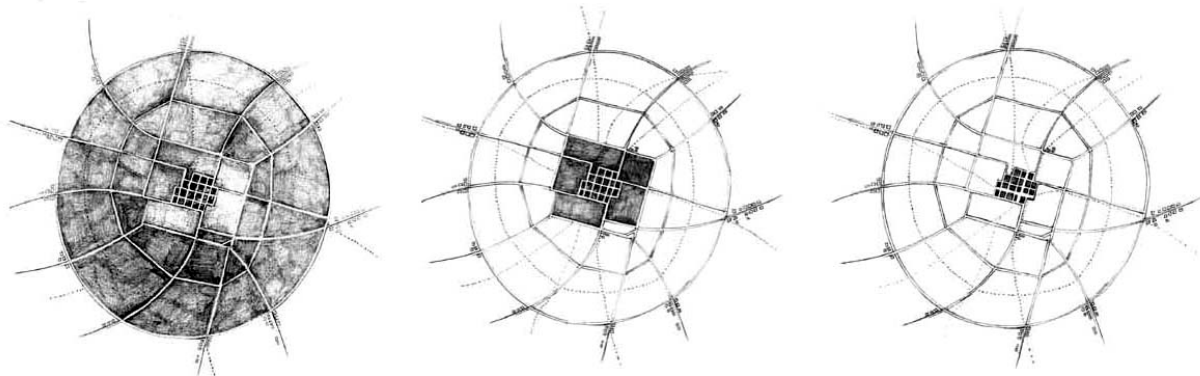


streets, and pedestrian routes are connected by tunnels, keeping us warm and dry. Snow and ice are elements belonging to winter sports, and nice to look at when moving about in the countryside.

### **The vision assessed**

Wiping out winter creates an equal environment, but at the same time the seasons disappear. Even the elderly do not have to move about less because of slippery roads or poor public transport connections. A single mode of transport can be trusted all year round, so there is no need for extra planning or adjustment of lifestyle when winter arrives. Roofed, heated and easily accessible spaces create the same opportunities for urban living throughout the year. However, winter experiences remain scarce, except in sports centres which consume a lot of energy to preserve wintery conditions – even long into summer. The removal of snow and slippery conditions deprives children of opportunities for wintery pursuits, estranges them from the change of seasons and gives an illusion that man can control the powers of nature. People living according to this vision may not be able to function under exceptional weather conditions and to be flexible enough. This solution is expensive to carry out, depletes energy resources and creates a monotonous environment.

## **5. From Vision To Reality?**



*Cities change their winter appearance not only according to the climate, but also because of various decisions concerning wintertime transport conditions. If snow is removed and thawed, many routes ideal for wintertime mobility disappear. A contrasting policy would offer a network of ski tracks and kick sled routes extending as far as the town centre. Alternatively, the same town can have a centre consisting of heated pedestrian streets, surrounded by snow-covered suburbs and routes supporting winter mobility.*

A city looks different in winter. Winter has its own elements which bring change into our lives, give us new opportunities and experiences. The elements of winter do not always have to be removed or diminished: instead, we can emphasise them and aim to adjust our daily lives to them. Ensuring uniform opportunities for physical mobility in all seasons should not be the guiding principle in planning and maintaining our towns. We should acknowledge the elements of winter in order to create a vision of a winter city appropriate for the town in question. The vision should consist of a plan detailing our attitudes towards urban life in winter and to wintertime traffic solutions as a part of it.

### **Getting To Know The Elements Of Winter**

The differences in continental and marine climates provide the basic framework for designing the vision of a winter city. A thick blanket of snow, extreme temperatures and the long period of winter

darkness give a different starting point from a mild, slushy and changeable winter. City locations also affect the planning process. The appropriate solutions for coastal and inland towns are likely to be different. Similarly, wintertime in metropolitan areas is unlike that in sparsely populated regions.

### **The City's Characteristics**

The size, community structure, culture and existing traffic network of each town are the starting points for planning a winter city, but they present no compulsory requirements. Long-term visionary work must have the courage to question man-made structures, the established values of various generations and the current models of land use. Nevertheless, the vision cannot be created completely in isolation from the modern world. It must be based on the individual characteristics of a city without fettering creativity.

### **The Choice Of Values And Desires**

What do we want from a winter city? Who wishes what and for what purpose? What follows from different solutions and do the changes make an improvement? And are they universal improvements from everyone's point of view? When creating the vision, people's needs have to be taken into consideration: a discourse with urban dwellers must be established, giving them the opportunity to visualise their lives also in conditions unlike those of today. When planning the vision, we should not only seek answers to the question "how would you like to move about in winter?" but first of all, we should ask "what things are important to you in wintertime?" Transport is merely a means to satisfy our needs: for most people a rather inconvenient move from one place to another. In winter, however, it can sometimes also be an experience.

Designing a winter city should involve planning a living urban area, not just traffic routes. In addition to transport solutions, we have to consider other sectors too: trade, industry, leisure and cultural activity, education and other services. Visionary work is not about technology, but shared human policy. It does not so much involve rebuilding, but a better integration of activities: creative and extensive road maintenance, lighting and various winter happenings have a central role in the vision. Designing a winter city is part of urban planning and the integration of the public and private sectors. This calls for a new method of design and multi-discipline groups of experts.

The individual form of a winter city can be a mixture of the above viewpoints, ranging from winter sports and applied sports equipment to heated pedestrian streets. For the main part, it can take the form of winter torpor, but in population centres aiming for more traditional summer-like conditions can be more appropriate. We hope that our visions of a winter city offer some new ideas about our attitudes towards winter. The visions can be utilised in parts: they can be combined and developed further. The fundamental question should be: "What is good about winter and how could we emphasise it in our city?"