

Winter interventions and initiatives

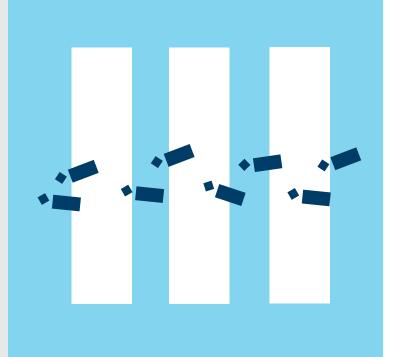
Opportunities for the winter 'in-&-out' season transition in Oslo.

(**Vinterintervensjoner og tiltak:** Muligheter for vinterens 'in-&-out' sesongovergang i Oslo.)









How can we link design to climate?



How can seasons facilitate the way we regulate and design cities?



What can snow reveal about spaces and society?



What can we learn from the temperature transitions of the seasons?



How could we use temperatures in our design process?



What can we learn from the arctic cities mitigations to prepare for extreme cold weather?



How is the architectural context of the buildings responsive, or not, to winter and snowy days?



What are the steps we need to take to better navigate the future winters?

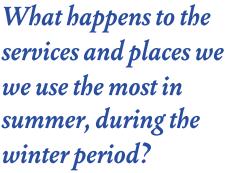


What role do services play or have, by the way the spaces are designed?





What can we do, to better address the winter challenges?





Who are the most affected or impacted during winter?



How can 'proximity' be preserved in public spaces during winter conditions?



What is the built



age-friendly and more

inclusive Oslo look

like in winter?

How can an

What could 'proximity' mean and be, in the service infrastructure layers?



How can we prepare for the next winter?



If winter came as a 'harsh' time for many, what about the summer challenges, like recent heat-waves?

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Introduction

What is this document?

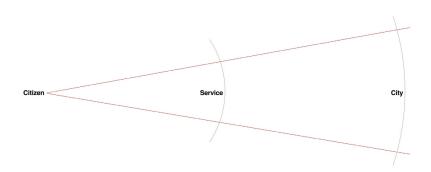
'Winter interventions and initiatives: Opportunities for the winter 'in-&-out' season transition in Oslo' is a document that showcases opportunities and ideas for thinking and navigating the winter season differently, in the context of the urban and central parts of Oslo.

The work in this document has been part of the diploma project "Seasons of Doing(s): exploring the in-&-out of winter season transitions through the built environment layers and across" by Marieliz Morales Vega at Arkitektur- og Designhøgskolen i Oslo (AHO) during the spring semester 2024.

The work and content is an exploration of how can we use seasons, in this case winter as a material to study, research and learn about the current experiences in the built environment and the opportunities within. While it may expand into a broad horizon on what and how winter manifests differently, it takes a 'Strategic Design' [1] perspective to understand the complexity of society and the human interactions in everyday life, and 'Service Design' [2] tools and methods to showcase, visualize and communicate the findings, ideas, and results.

[1] Strategic design: "[...] strategic design's discipline is in integrative systems thinking rather than a form of path dependency, and is able to move freely across disciplines rather than within them, revelling in the complexity of a more holistic understanding of the system." (Hill, 2012)

[2] Service design: "Service design is the practice of designing services. It uses a holistic and highly collaborative approach to generate value for both the service user and the service provider throughout the service's lifecycle. In practice, service design helps to choreograph the processes, technologies and interactions driving the delivery of services, using a human-centred perspective. Service design today is applicable across multiple sectors, helping to deliver strategic and tactical objectives for both the private and public sector." (SDN, 2019).



(Hill, 2019)

The diploma project, as well as the work in this document, does not fully focus on delivering or proposing the interventions/ideas as how they should be, but rather on how they propose an initial discussion they can create.

As an explorative approach, this content and project aims to raise awareness on the importance of considering:

- What are the implications the winter season brings,
- How it can be considered, looked at, and worked with,
- and which are the possible ways and areas in which we can begin to explore possibilities to counteract the challenges and change people's perception of the winter season to navigate and think of it differently.

Background

The winter season 2023-2024 was an 'extreme' case to some while to others, it has not been any different nor extreme, and nothing new at all. It is precisely because of not being 'new' that winter comes as it does, which surprises the people of Oslo every year.

Every year winter comes, and snow is expected as well, which means the same challenges appear year after year "and is clearly forgotten as soon as the snow is gone." (Fjellhaugen, 2024).

Some of the challenges are:

- -The impact of darkness on mental health and accessibility
- -The impact on mobility (bodily and urban mobility) due to snow on the streets
- -Slippery conditions on streets leading to falling accidents
- -Isolation and loneliness amongst everyone, but mostly elderly
- -Lack of opportunities for adults and old people
- -Lack of opportunities for those who don't do winter sports (e.g. ski)
- -Lack of opportunities for people with bodily/mobility limitations
- -A need for the public spaces (indoors and outdoors) to adapt to the season change
- -and more...

In short we can say some of the challenges are about:



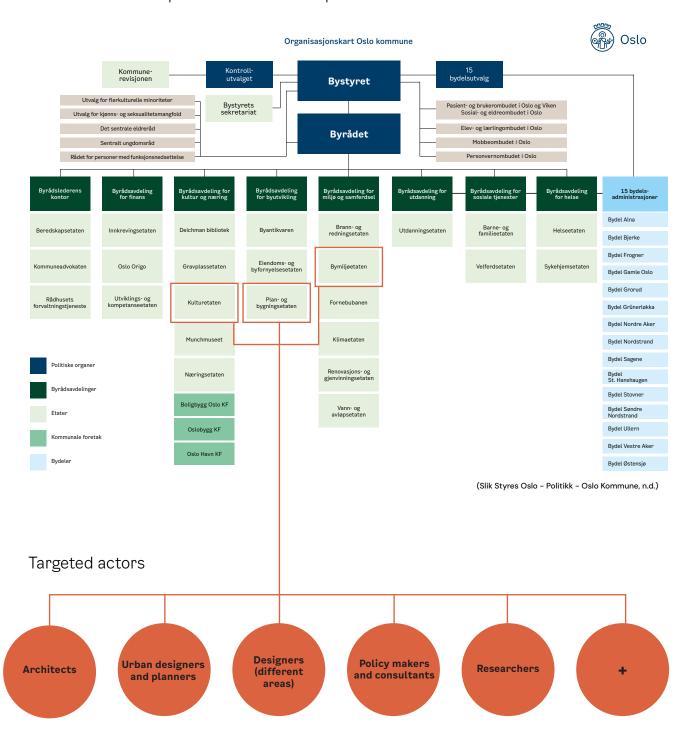
Important note

- -This document does not focus on quantitative data on percentages and figures. It rather focuses on the overview of areas in which challenges appear on, as a way to understand winter as a season that has effects on society across the built environment. In the same view, it focuses on possible opportunities across different layers, of what and who shapes our built environment.
- -It is not about doing placemaking for winter, but rather 'place-keeping' [3]. A concept that focuses on thinking on the after-life of the current and existing infrastructure, arenas, and platforms we have, in this case, Oslo, to then maintain the use and purpose during the winter season.
- [3] Placekeeping: is "described as long-term and responsive management which retains and enhances the social, environmental and economic quality and benefits which a place brings now and in the future" (Dempsey & Burton, 2012).

Why Oslo kommune?

Oslo kommune as the administrative entity of decision-making, power, provider, and platform of services and part of shaping the society, also has a big role on how the built environment is as well created, thought and communicated.

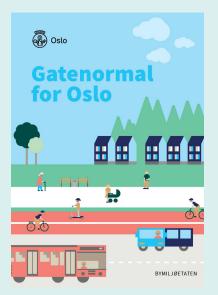
Some of the interventions might target directly, Plan- og bygningsetaten, Bymiljøetaten and Kulturetaten. And others might indirectly awaken an interest or question in the department as some existing documents have been part of the research and process.



In addition, the purpose of shaping this content, comes as inspirations from this documents (right page), and finding out how little winter is mentioned in some of these documents. For that I also created this visual representations for the winter season.

^{*}There might be some other documents that perhaps I didn't find or knew of*









Winter visuals developed for this document:









Interventions and ideas

Beyond what these interventions and ideas suggest, as mentioned before, the focus is on the possibilities within them to learn and reveal aspects of winter and the challenges it brings.

These showcase and reflect on challenges, experiences and needs. They are based on user insights from the diploma's research, ideation and synthesis process. Some of them are related to one another and can be co-existing in the same place, at the same time or sequenced, as shown bellow. They are interventions that would require cross-collaboration and partnerships.

Here is the summary. The description of it will continue on the next pages and their numbering has no specific meaning other than to navigate this document.



1. Projected crossings Area/level: infrastructure,

product, mobilty, experiences

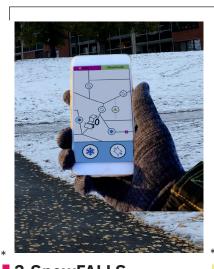


dumping zones Area/level: space, logistics, infrastructure, maintanence, service, laws and regulations

2. Temporary snow



complementary



3.SnowFALLS real-time data app Area/level: product, service,

research, experiences



4.Clickable 'brodder' Area/level: product, service, health

complementary

This timeline represents the identified period of the year for the in-&-out winter season transitions that this work was based on, to visualize from when to when interventios/ideas like these can be implemented, but they are not attached to the attributed month.



6.Winter gardening and more 'evergreen' plants

Area/level: service, space, logistics, community-based, funding



8. Winter research and pilot projects

Area/level: event, education, service, , funding, community-based, experiences



5.'Vei i vintersola' and plowing priorities

Area/level: service, infrastructure, space, maintanence, laws and regulations, health



7. Oslo vinter kulturnatt

Area/level: service, event, space, community-based, funding, experiences

complementary

Hypothetical timeline *based on snowfall period



February

March April

May June



Projected crossings

Complementary with: SnowFALLS

Targeted to:

- -Oslo kommune (Plan- og bygningsetaten / Bymiljøetaten / Kulturetaten / etc?)
- -Ruter#
- -Statens vegvesen

-..

Idea description:

The projected crossings are inspired by both the City of Oulu, Finland (Oulu Is the Unofficial Capital of Year-Round Cycling, n.d.) where bike line and pedestrian signage are projected on a snow surface (fig. 1), and fun and artistic projections seen in Oslo (fig. 2).

Background challenge:

The transition from autumn to winter is not just noticeable by the cold temperatures, but also by the daylight saving change. From late October, daylight hours are shorter and shorter. A gradual experience that happens until December/January. And afterward, the daylight hours increase little by little and become more noticeable in March before the daylight savings change again.

From late November (sometimes) to February it's often quite snowy, and many crossing roads and intersections are not well-illuminated (fig. 4 & 5). This becomes challenging even to cross in the zone in which pedestrians are meant to have the right and space to do safely.

There are many ways in which these challenges manifest according to people's capabilities (physical abilities or sense impairments) and experiences (with this situation) that may lead pedestrians to take non-safe alternates as when these zones and limits are 'blurred out' vehicles in some occasions do not keep the distances.



Fig. 1: Pedestrians and cyclists projected signs. Oulu, Finland

Fig.2: Cartoon projections. Oslo, Norway (Behind Operahuset).

Where can this be implemented?

- -Existing traffic light poles
- -Crossing and street signage
- -Building corners

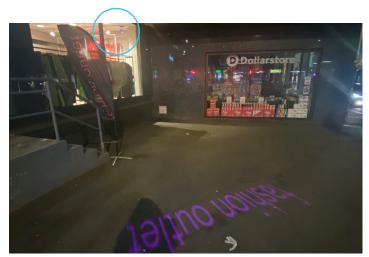


Fig.3: Store promo. Oslo, Norway (Gunerius).



 $\textit{Fig.4:} \ \text{Crossing zone - actual view (picture without flash)}.$



Fig.5: Crossing zone - picture with flash.

How it could work?

- -These can be run by automated sensors with data from YR about sunsets and sunrises, so that every day, at a certain time they would turn on and off.
- -They could be used during the darker months of the year or year-round with adaptable uses. Perhaps in summer since Oslo is not dark during the nighttime, they could have other types of projections.
- -They can be turned on manually like when pressing the button to cross; or turn on automatically when the crossing signage turns green.

Questions:

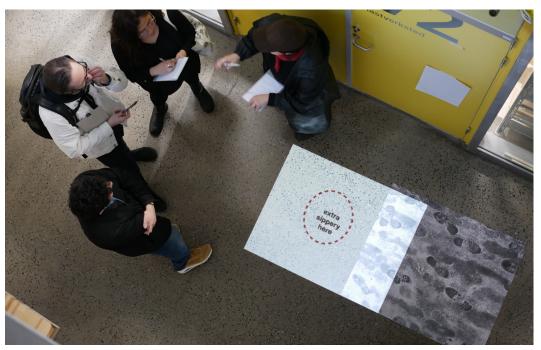
- -Where in Oslo can these be placed?
- -What would be the implementation location priorities and parameters?
- -Should it be placed, for example, near elderly homes/centers, schools, or hospitals?
- -Could this be a measure for changing a little the perception of winter in an urban context?
- -Could these maintain fun, artistic, and accessibility at the same time?



Other possibilities:









These images are from a winter experience walkthrough, where these potential interventions were tested, iterated and experienced with some experts and users.



Temporary snow dumping zones

Complementary with: Winter research and pilot projects

Targeted to:

- -Oslo kommune (Plan- og bygningsetaten / Bymiljøetaten / etc?)
- -Land owners
- -Companies for winter services

-..

Idea description:

Purposely identifying unused areas or arranging the street furniture in public spaces into temporary snow dumping zones.

Background challenge:

In situations when it has snowed a lot, like we saw in January 2024 (Fjellhaugen, 2024), snow gets transported to far-distanced snow dumps; which becomes a sustainability and logistics concern around Norway. Hence big amounts of snow remain on the streets, blocking our access (fig. 6 & 7) to move around, and the possibility to use/be in public spaces. And while it's cold, wet, and snowy, we don't tend to use the benches to sit down as we would in other seasons of the year.



Fig.6: Picture A from Aftenposten news article (Fjellhaugen, 2024)



Fig.7: Picture B from Aftenposten news article (Fjellhaugen, 2024)



good example



bad example

Where can this be implemented?

- -Public spaces
- -Parks
- -Public spaces and urban furniture that are in condition to handle the amount of snow for a period of time (e.g. material, conditions of weight bearing, etc.).
- -Public spaces and areas that tend to not be used during this period of time and that don't disturb pedestrian activity like walking and crossing.
- -Another option can be just adding a sign to communicate to people what it is. This might help people understand the big work and high demand and that it is a temporary measure.

How it could work?

- -These areas or spaces can be identified with a new street signage (e.g. wayfinding) as a temporary measure and communication strategy. Provide information and process of the purpose.
- -The areas ideally should be accessible and close to the road so that it is accessible to the heavy vehicles and machinery can park near by to collect the snow once there is less demand and traffic chaos.







Questions:

- Would this alleviate the rush and chaos of plowing the streets?
- -Would it bring more efficiency for the winter service companies to delegate tasks around Oslo?
- Would communicating it, make the people more conscious and aware of the work being done?
- -How might citizens engage with the snow once it is put in central spaces?
- -What happens if the municipality were to provide a few shovels (or other instruments) for making things?



Fig.8: Adapted map that shows who is responsible for the roads in the Oslo (Greater Oslo area) (Barstad et al., 2024)

Other possibilities:



Arranged as a closed space.

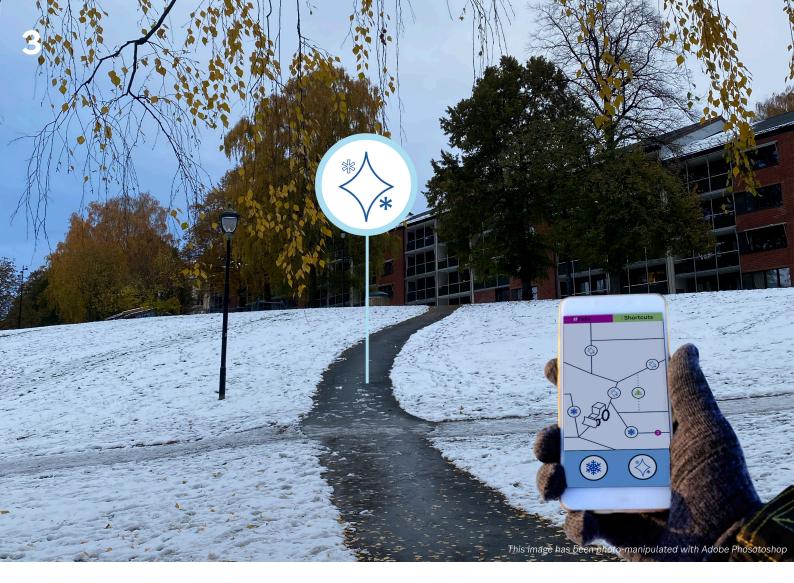


Arranged as a maze with paths acrossed.



Arranged events with architects, designers and urban planners to pilot spaces, together with citizens.

These images are from a winter experience walkthrough, where these potential interventions were tested, iterated and experienced with some experts and users.



SnowFALLS real-time data app

Complementary with: Projected crossings, Clickable 'brodder', Age-friendly route.

Targeted to:

- -Ruter
- -Oslo kommune (Bymiljøetaten / Kulturetaten / etc?)
- -Land owners
- -Companies for winter services
- -Statens vegvesen
- -Legevakt

-...

Idea description:

An app or incorporate feature, for real-time data on snow plowing status of the streets and roads. This app can influence people's everyday life by getting alerts on which street is safest to walk, what shortcut to take, register an icy street or zones in which you have witnessed someone falling and follow up the snow plowing trajectory. In effect, this can facilitate and preserve 'proximity'* during snowy days in winter.

*Proximity: refers to closeness and in reach accessibility to essential places like, homes, working places, educational and social institutios, gastronomy, and so on; places that we visit in our everyday life's in a walkable distance.

-Carlos Moreno (professor) and proposition carrier of 'The 15-Minute City' concept.

Background challenge:

After the first snowfall and the cycle of melting, freezing, and again snowing more, layers of slippery ice form on walking surfaces like sidewalks and roads. This leads to falling accidents, even if the streets are plowed and treated with gravel or salt. These accidents become one of the reasons for some people to not go out, especially the elderly.

Falling accident numbers always fluctuate depending on what causes them, but it's often hard to keep track of on the data. Slippery streets have an impact on our everyday life from the moment we dress up and get ready to go out, to when we step outside and perhaps change our commuting route, and so on until we decide to come back home.





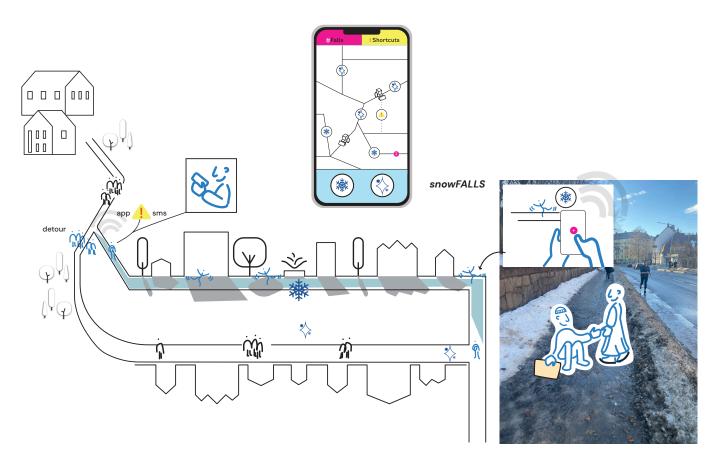
Where can this be implemented?

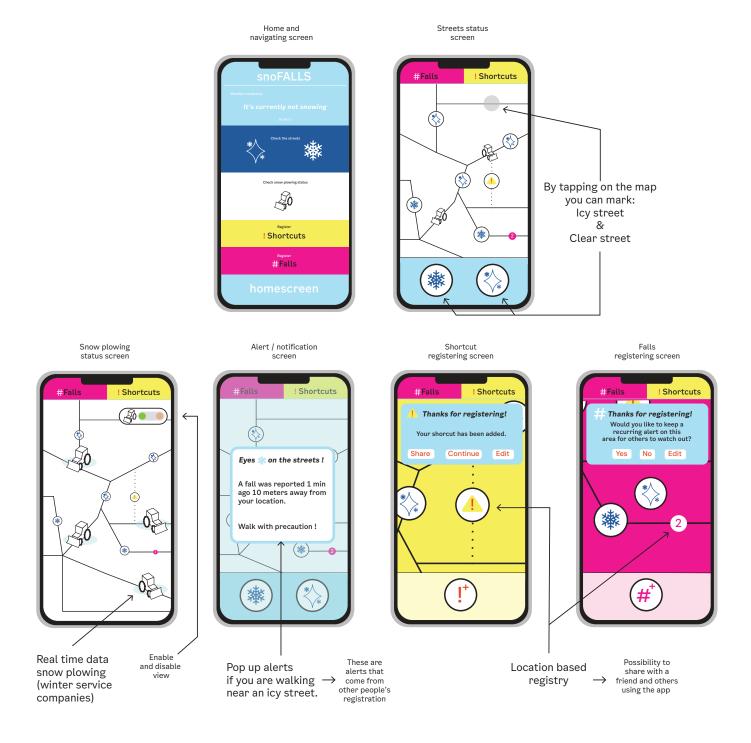
- -An independent app
- -Incorporated feature to existing platforms like Bymelding, Ruter, Google Maps, or even social media platforms.

How it could work?

- -The feature or independent app with gamified settings can:
 - -broadcast the snow plowing status of the streets
 - -register streets that need to be plowed urgently
 - -register streets that are cleared and safe to walk on
 - -suggest shortcuts
 - share and alert others on street conditions
- -and also register falls and accidents (the same data can potentially help hospitals, police and ambulance to locate and track these incidents). This data can be part of medical research, as well as for the municipality.
- -The app can be connected to cellphone providers, to send alerts of icy areas via SMS to those that don't have smartphones to have the app (e.g. some old people- in the same way Oslo kommune sends SMS about road constructions and regulations for water shortage, etc.)

[hypothetical scenario of how could it be]

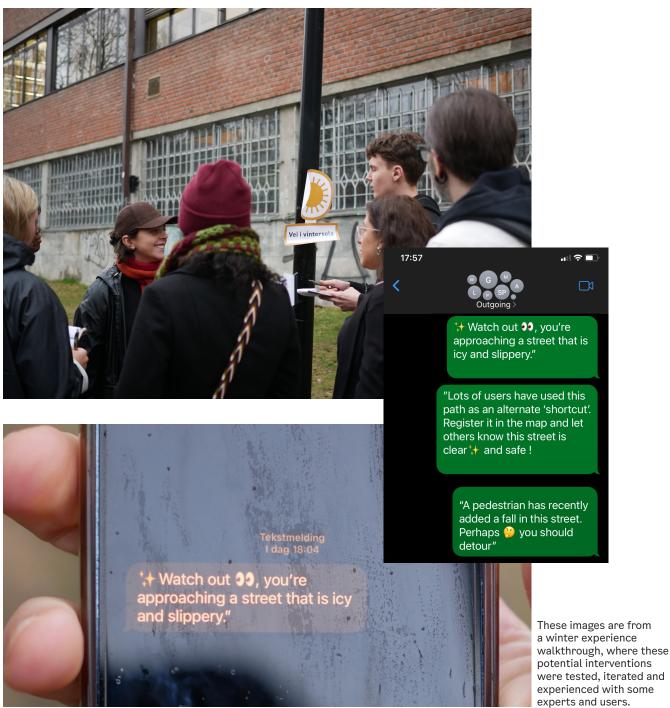




Questions:

- -Would these enhance walkability during winter?
- -How much of an influence it would have on people's everyday life?
- -Could it prompt how we plan our days?
- -What would be the starting point of using of this app, when in winter, and what would be the use in summer?
- -What other causalities and unintended human interactions can this open and lead to?







Clickable 'brodder'

Complementary with: SnowFALLS; Age-friendly route.

Targeted to:

- -Designers, (product designer)
- -Elderly caregivers
- -Elderly home and center
- -Helse Norge

-..

Idea description:

An easy-to-put and remove pair of 'brodder' targeted for the elderly, but age-friendly as well.

Background challenge:

Old people in general sometimes have problems putting the spikes ('brodder') on their shoes, especially those with body and abilities limitations. When this becomes an incomplete or impossible task to make, it leads to the following two scenarios:

- 1) if they don't wear them when going outside and run the risk and chances of falling due to icy conditions on the sidewalks.
- 2) if they can't manage to put them or just deny the idea of using 'brodder' or 'pigsko' (which some find as an easier alternative), and then decide to stay inside, in the long term this leads to many health implications like loneliness (potentially caused by isolation), physical inactivity that leads to weakening the body and physical health. Both combined can weaken the person in the long term, and then when later deciding to go out for a walk, both can be compromised if an incident happens.



Fig.9: Tiger Grips- Visito (Safestep Norge, 2024)

How can this be implemented?

- -The 'brodder' essentially can have the same principle of design as the Nike Go FlyEase or the "Tiger Grip -Visitor"
- -As a product for people in general, this can be in any store.
- -As a prodcuts for the elderly specifically, this can be promoted in Helse Norge or eldelry care centers as part of their winter activities to stay in movement.

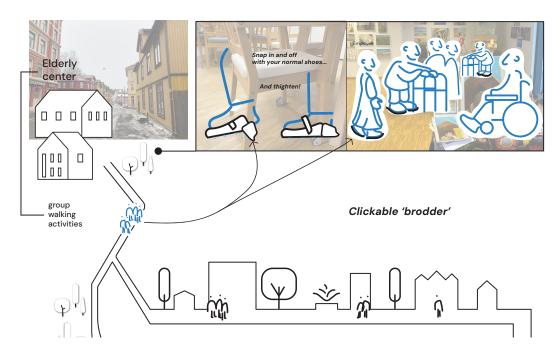
How it could work?

If we think of a service around the product, they can be part of group walks in elderly centers. It could be through a borrowing system or just sold for each individual to have their own.



Fig. 10: Adapted Nike Go FlyEase model (Nike Go FlyEase Sko Som Er Enkle Å Ta Av Og På. Nike NO, 2024)

[hypothetical scenario of how could it be]



Questions:

- -Would a new product like this boost and enhance the elderly's use of it and have an active daily routine?
- -Would something like this spark an interest or give some assurance to employees at elderly centers and home care, to coordinate walks during winter time?
- -Can in the long term, Oslo kommune organize health-promoting events for everyone, to celebrate a more inclusive and accessible winter city?



'Vei i vintersola' and plowing priorities

Complementary with: SnowFALLS; Clickable 'brodder', Oslo vinter kulturnatt

Targeted to:

- -Elderly caregivers
- -Elderly home and center
- -KS
- -Senteret for et aldersvennlig Norge
- -Røde kors?
- -Oslo kommune (Plan- og bygningsetaten / Bymiljøetaten / Kulturetaten / etc?)

Idea description:

A designated and safe route, with identification (wayfinding) especially for the elderly, old people in general, and people with bodily abilities limitations to take a roll* around, especially during winter dull days. This route can be determined along the 'sunny side of the streets' to take advantage of the little sunshine in winter, to potentially help us boost our health.

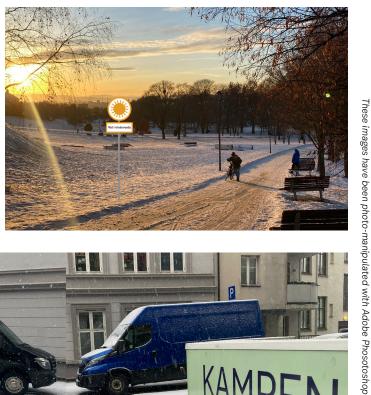
*Roll: refers to an inclusive term of 'let's take a walk' for people in mobility limitations.

Background challenge:

Winter can be dull for many, and due to low temperarutes and not 'easy to walk' street conditions, some people become less active during this season.

In addition in some elderly homes and centers, there is no outdoor activity organized in winter, like walking, due to the extreme winter conditions or simply unplowed sidewalks. Yet some folks decide on themselves to have a walk despite the dangers and consequences that can lead to (falling), but others restrict themselves or don't even consider taking a walk or roll.







Where can this be implemented?

- -Streets near or by:
 - -elderly centers/homes
 - -schools
 - -housing/neighborhoods

that lead to the nearest: park, public transport hub, benches, public space, library, cafe, stores, etc. As described in Idea 3, essential places.

How it could work?

- -This route can be framed or determined near the elderly centers, for example (fig. 11) as the main departure point (as a pilot; and increasingly to neighborhoods where these demographics point out to have the most of the ages group).
- -They can have connection points or stops in sitting areas, parks, bus, tram and/ortrain stations.
- -This route can exist essentially in different parts of Oslo, maybe not necessarily connected as a big network, but rather customized and fitted to the context.

Questions:

- Would routes like these help people in general stay active during winter?
- -Would prioritizing a route near elderly centers help them organize more and safe winter walk and rolls* for the elderly to take some fresh air?
- -Would it become a yearly organized walking group arrangement in winter?
- -What could be the consequences of multiple routes established around Oslo? Would it evolve into something else?
- -Who else can benefit from this?



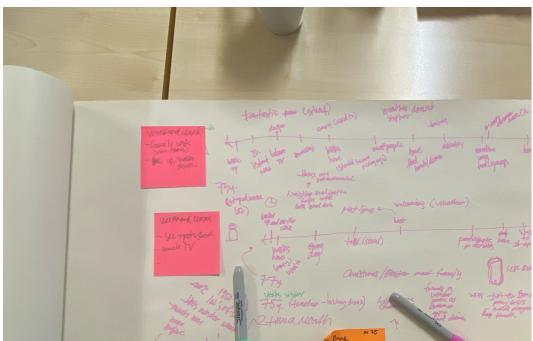
Fig.11: Adapted map that shows who is responsible for the roads in the Oslo (Greater Oslo area) (Barstad et al., 2024)

-Could a hypothetical radious aorund elderly centers be the guidelines for determinating how to prioritize snow plowing services?



Example from a user's explanation of her frequented essential places.





Visit in elderly center learning about their routines during winter.

"Now I realized when you asked about activities during winter...I am so surprised of how little activity I have year-round. It's devastating"



User pointing at the streets they tend to walk around as an organized activity in the center.



Winter gardening and more 'evergreen' plants

Targeted to:

- -Oslo kommune (Bymiljøetaten / Kulturetaten / etc?)
- -Land owners
- -Companies for winter services

-.

Idea description:

Gardening before and through the winter with special kinds of plants that survive the season like evergreen plants and moss.

Background challenge:

Nature gives us the sign of season shift and when winter is approaching some plants 'fade away'. In cities like Oslo, tress for example, play a good balance between the urban and nature; but in winter some type

Gardening and community gardens have been part of Oslo's initiatives and organizations for some time, but once winter comes, the 'hobby' and maintenance it's put aside. Yet there are still possibilities, like small greenhouses or indoors. As well as evergreen plants. These plants prevail in winter, for examples pines, but other types we can find around Olso are bushes (fig.12) and these are good examples to make wind barriers to protect people from cold strong winds (something that some elderly find useful) plus it add ambiance to the winter setting, while still acknowledging the cycle of nature.











Fig.12: Evergreen bushes around Oslo.

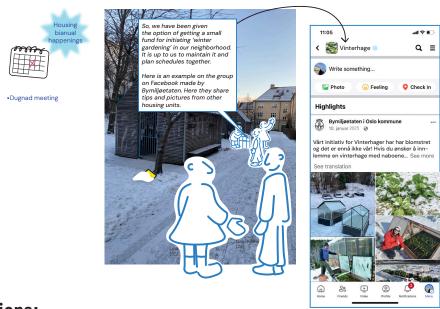
Where can this be implemented?

- -Neighborhood community gardens
- -Housing units rooftops
- -Indoor spaces in housing units
- -Designated urban spaces?

How it could work?

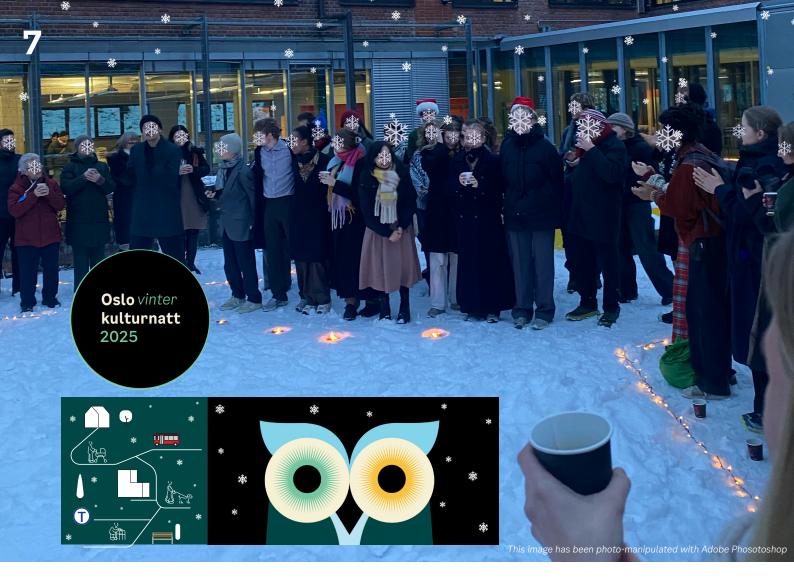
- -Communities and housing units could decide by themselves to implement it, and plan how to work together.
- -Some of the material can be provided or donated by Oslo kommune.
- -When it's time to re-pot these evergreen plants, with the help and guidance of Bymiljøetaten (for example) they can be transferred to the outdoor green areas of the neighborhood.

[hypothetical scenario of how could it be within the housing communities]



Questions:

- -Would this promote neighborhood and sharing experiences?
- -Would winter gardening become a hobby to some people?
- -Would it have greater effects and impacts on the hyperlocal environment?
- -What benefits would the city get in the long term by having more evergreen plants, and how cost efficient or not is this?



Oslo vinter kulturnatt

Complementary with: 'Vei i vintersola' and plowing priorities

Targeted to:

- -Oslo kommune (Bymiljøetaten / Kulturetaten / etc?)
- -Senteret for et aldersvennlig Norge
- -Røde kors?
- -Elderly caregivers
- -Elderly home and center

Idea description:

A second edition of Oslo kulturnatt but in winter, to end and celebrate the 'almost' end of the winter season and to enhance more cross-generations coming together, mental health and the winter city life.

Background challenge:

After Christmas comes the winter blues, more slippery streets, chaos in the built environment and flu's. This can cause a dreadful feeling for those that find winter as a tough season. Later in early March when the starts to shine, we quickly might feel 'deceived' when snow falls again. Leading us into a roller coaster of up and down mood effect, confusing us with weather spring is here to stay or not.

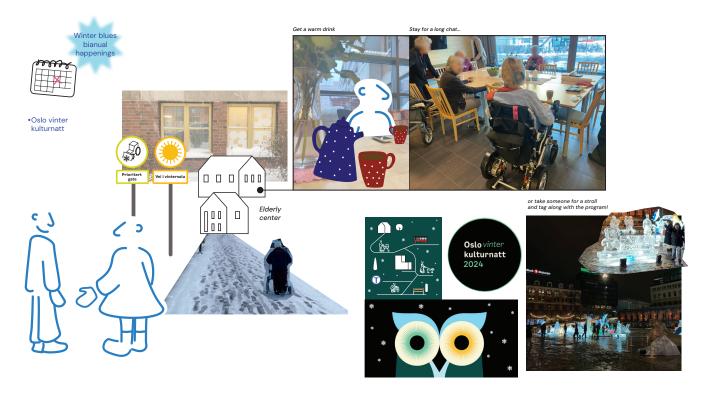
As the danish architect, urbanist and writer Jan Gelh expresses, in Denmark there is a two-season culture: 'The good season', when the sun and people are out, and 'the other season' where people wait for the good one to come. And once it arrives, the miracle of the sun in spring brings life outside again.



Where can this be implemented and how it could work?

- -Through a survey and the collected inputs on people's experiences and thoughts on winter in Oslo then a workshop or participatory event can be organized by Oslo kommune to plan possible activities (examples on next page), find partners, hosts, staff, etc.
- -Different elderly and senior centers could be the hosts of the event to invite other generations to join training, language and digitalization update courses, or just sit and have a warm drink.
- -Activities can be arranged around the 'vei i vinter sola' or prioritized plowed streets,
- -Visitors can also invite a group of elders/seniors to join a roll* around the 'vei i vintersola' or join other activities.

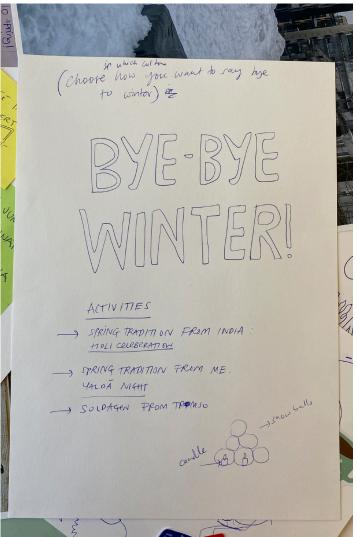
[hypothetical scenario of how could it be in elderly centers]

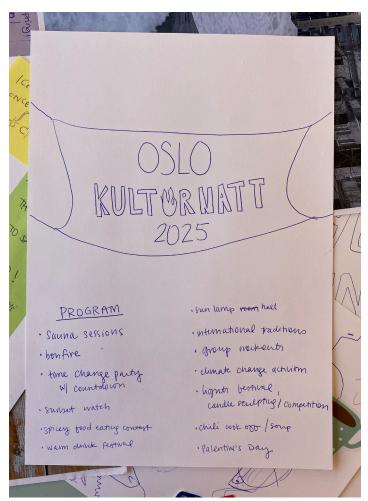


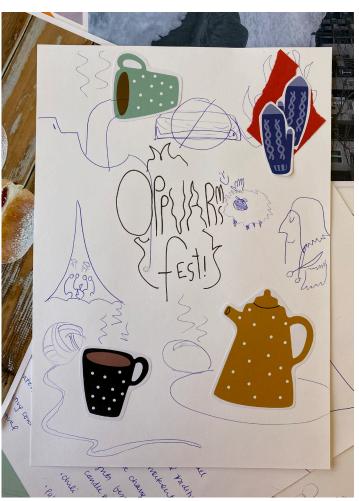
Questions:

- -Could closing the winter season help us see and experience winter differently?
- -Would it make people look forward for winter to start, when in the fall season, in the long term?
- -What other kinds of rituals and celebrations can be in place for a winter farewell?
- -Can events like this develop a tradition, a ritual, a celebration to embrace and indirectly combat winter loneliness?
- -What are the other benefits of embedding these little tradition into the Oslo urban culture?















These images are from a winter experience walkthrough, where these potential interventions were tested, iterated and experienced with some experts and users.

The participants were told to think of 'warmth' as the theme for the 'Oslo kulturnatt' winter edition. The left page has the 4 examples of ideas for a program.



Winter research and pilot projects

Complementary with: Temporary snow dumping zones

Targeted to:

- -Oslo kommune (Plan- og bygningsetaten / Bymiljøetaten / etc?)
- -Land owners
- -Companies for winter services
- -Universities and research institutions
- -Oslo Løa / Nordic Ocean Watch?
- -Oslo Scienty City

-...

Idea description:

Opening up initiatives to 'research snow' for different purposes like pollutants and finding sustainable substitutes for treating snow on streets, and other uses of it, like a prototyping material that could potentially open up the opportunities of organizing events and contests.

Background challenge:

During this past winter (2023-2024), snow storage appeared to be one of the challenges that lead to frequent and massive transfers of snow to snow dumps far from Oslo. These loads of snow often are polluted and even though it is processed in melting facilities before it ends up in the ocean (Holtung et al., 2024).







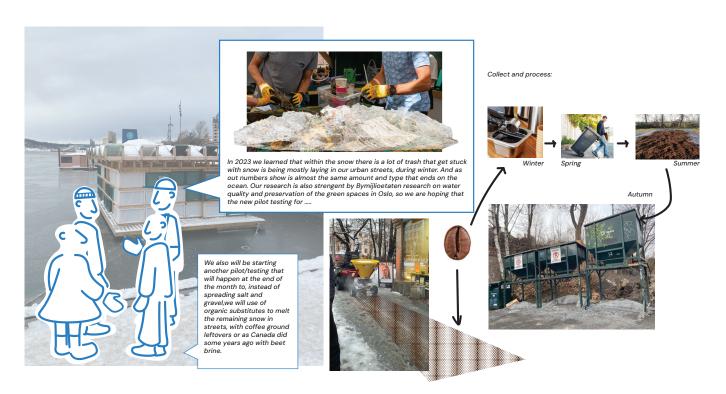
Where can this be implemented and how it could work?

- -The existing Oslo Løa platform and pilot project, for example can have 'open house' and workshop seminar events to share research findings and involve people on the topic.
 - -The small workshops can be for testing how we can research snow pollution by collecting small amounts of snow from around the city and classifying the findings, as they have practiced the process.
- -Through research, find out sustainable and organic substitutes (like beet brine Canada [Ref. 3]) for snow treating the streets used in other countries, and test with winter service companies.
- -Schools and universities can initiate or explore more snow as prototyping material. Through this they can explore and learn about the characteristics and effects of the built environment.
 - -Arts, architecture, design and landscape and engineering programs, could promote projects that considerations drawing and modeling projects with winter seasons contextual conditions.





[hypothetical scenario of how could Oslo Loa, for example can open up events and activities with discussions on the pollution concern]



Questions:

- -Would research and small pilot projects help us understand snow cycle behaviors in the urban environment and surfaces?
- -What kind of findings would this lead to?
- -Could the results of research lead to developing or enhancing winter services like plowing companies services?
- -What could we learn about snow and its role and effect on our everyday life, on a societal level?





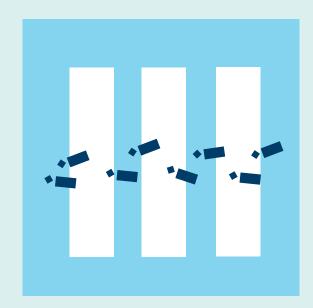






These images are from a workshop I took part in for a student project from Kunsthøgskolen i Oslo (KIO). She was exploring materials like snow, whey and clay as part of her thesis.

Reflective questions:

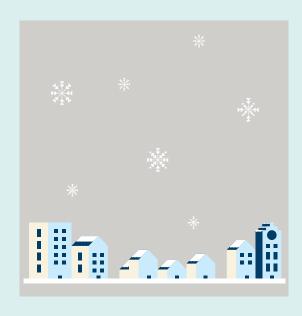


So... how can we help re-activate space and life, while maintaining it's use, services, roles and practicalities around it, during winter?

How can we do place-keeping towards an age-friendly and inclusive city to better address some of the challenges winter weather conditions might bring?

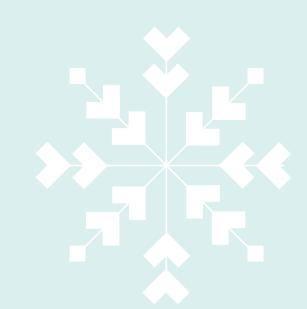


Can this be a way to rethink how we design and regulate the built environment for the future winter seasons?





Could drawing site plans with winter conditions contexts change the way new developed and build projects will be experienced in future winter?



Would it help us understand the contextual effects that are changing through the years, in contrast to the static aspect of the building?

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