

# Final presentation for RJE3 program



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# Plan of research: "The organization of open public spaces in a cold climate"

	Russia	Japan
● The actual problem	<ul style="list-style-type: none"><li>● The big open space<ul style="list-style-type: none"><li>▶ Creates the feeling of an unsafe environment</li><li>▶ Doesn't protect from weather conditions</li></ul></li></ul>	<ul style="list-style-type: none"><li>● High-rise buildings<ul style="list-style-type: none"><li>▶ High-rise buildings create a wind funnel</li><li>▶ Prevents the penetration of sun</li></ul></li></ul>
● Purpose	<ul style="list-style-type: none"><li>▶ Development of new methods and forms of organization more cost-efficient and sustainable environment.</li></ul>	<ul style="list-style-type: none"><li>▶ The study of the organization of public spaces in Sapporo</li></ul>
● Tasks	<ul style="list-style-type: none"><li>▶ Study space on Lenin square</li><li>▶ Project design of reconstruction of Lenin square</li></ul>	<ul style="list-style-type: none"><li>▶ Study space on Kita 3 Jo square</li><li>▶ Analysis of the techniques of organizing space in Sapporo in the sphere of formation of public open spaces in cold climates.</li></ul>



- Actuality theme:

- ▶ The primary function of these squares were rallies, protests and celebrations.

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● Lenin square. City: Yakutsk

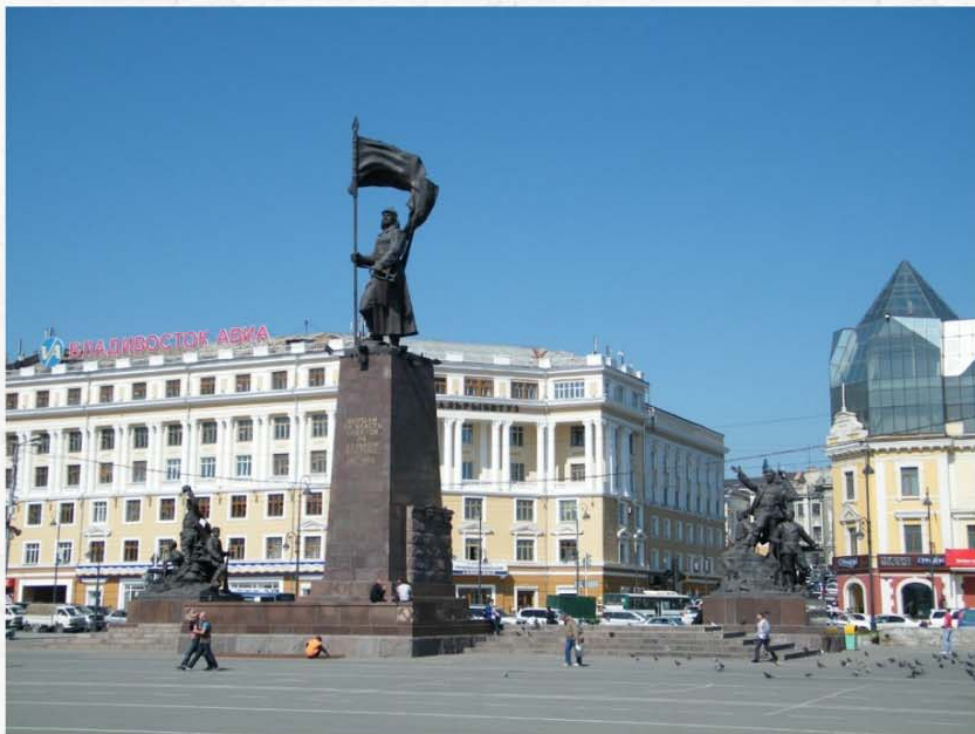


● Lenin square. City: Blagoveshchensk



- Actuality theme:

- ▶ The area isn't protected from climatic conditions



- Lenin square. City: Vladivostok



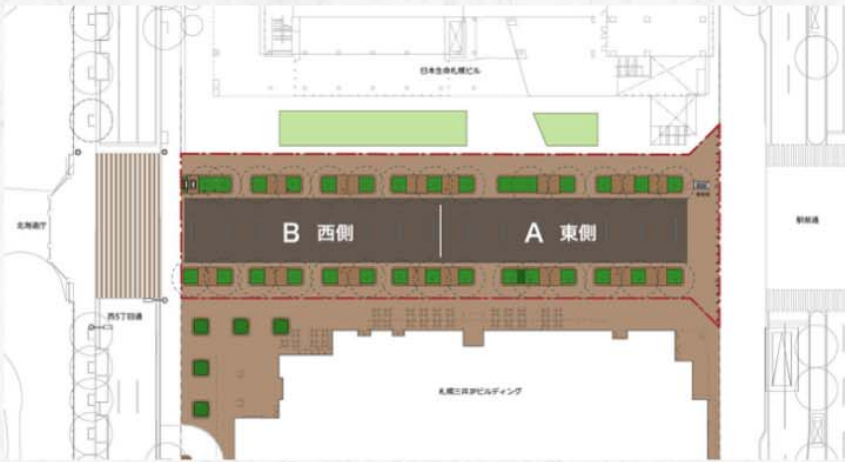
- Lenin square. City: Khabarovsk

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● Research place: Kita 3 Jo square. City: Sapporo



▶ The total area of the square: 2,800 m<sup>2</sup> Used the space for events: 1,290 m<sup>2</sup> (13,7 m \* m 94)



▶ If we have many tall buildings in the city, it is very likely the effect of flowing stream, that is, when the wind blows into the building and dripping down the walls, creating turbulence.

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● Tasks:

- ▶ Project design of reconstruction of Lenin square.
  - ▶ The creation of a comfortable public outdoor spaces in a cold climate, considering the factors of climate and socio-psychological data.
  - ▶ Prolong use of public space in the winter season.
- The square is huge open and most importantly and expensive space in the heart of the city, which is not used in the rest of the time except the festivities and processions of the city.





## Russia

## Japan

### ● Methods

- ▶ Gathering climatic data of the studied public spaces, as well as social survey and monitoring activity of the people in Lenin's square
- ▶ Analysis of the techniques of organizing space in Russia in the sphere of formation of public open spaces in cold climate

- ▶ Gathering climatic data of the studied public spaces, as well as social survey and monitoring activity of the people on Kita 3 Jo square
- ▶ Monitoring activity of the people on Odori Park

### ● Conclusions

- ▶ The conclusions of the study on Kita 3 Jo square
- ▶ The conclusions of the study on Odori Park

● Methods:

- Analysis of public places started from June 2015 and will finished on June 2016. Frequency of research: 1-2 weekdays and 1 day holidays, depending on weather, at certain hours of the day: 9:00-10:00, 12:00-13:00, 15:00-16:00, 18:00-19:00



▶ GoPro



▶ Kestrel:  
pocket weather station



▶ Time lapse camera

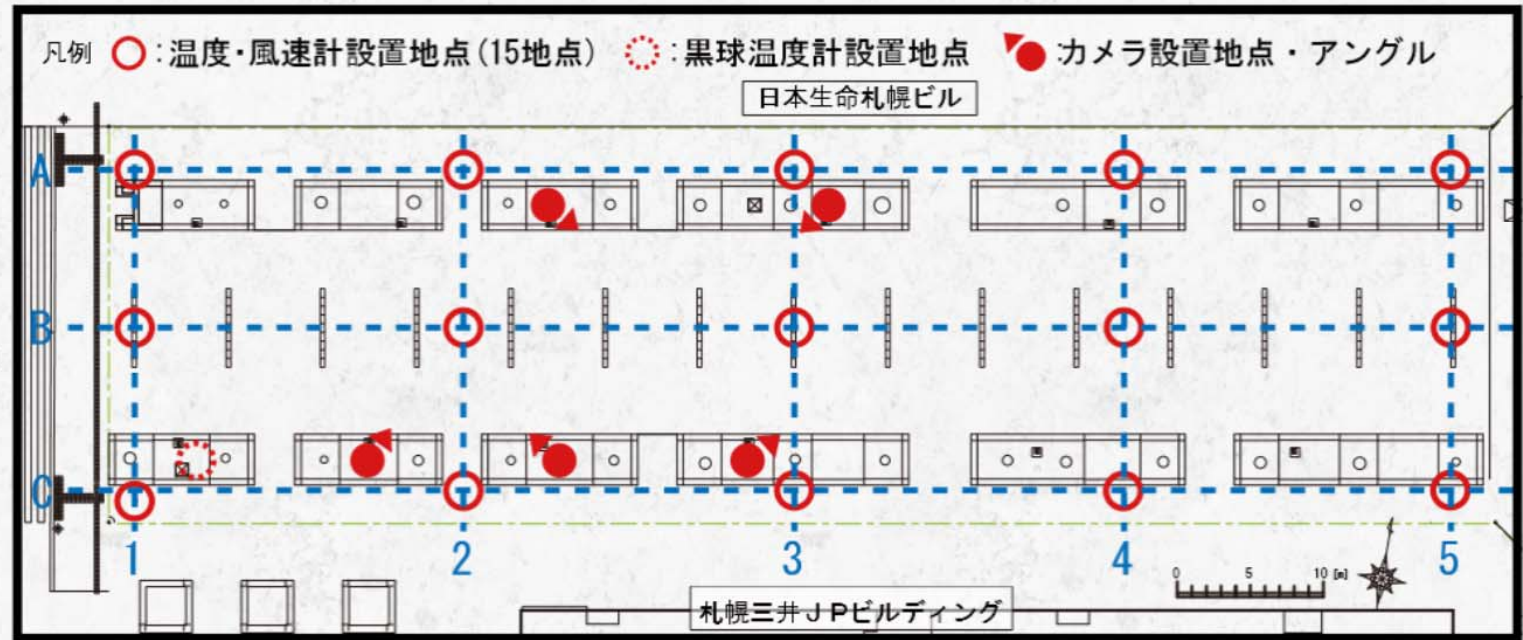


図1 調査対象地区概要<sup>注5)</sup>



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- Methods:

- ▶ The opportunity to enjoy food and fellowship, as in a heated outdoor or semi-outdoor indoor and outdoors.



- ▶ Research place: Odori park. City: Sapporo



- Methods:

- ▶ Lighting and color in the winter season is given utmost importance, to create an attractive place. Color of the in the winter season plays a huge role as a psychological factor of perception of the surrounding environment, so it is important to add different color details in the design.



- ▶ Research place: Odori park. City: Sapporo

- Methods:

- ▶ Create a wind-protected spaces, for a short stay and heating using different heating sources: blankets, freestanding and undercounter oven ...etc.



- ▶ Research place: Odori park. City: Sapporo



- Methods:

- ▶ Creation of incentives for the consumption of the in different areas: skating rinks, walking, festivals and celebrations food and other various products of modern consumerism.



- ▶ Research place: Odori park. City: Sapporo



- Methods:

- ▶ Effective and efficient protection against ice on the roads are tanks with fine gravel along the pavement available to each pedestrian.



- ▶ Research place: Odori park. City: Sapporo



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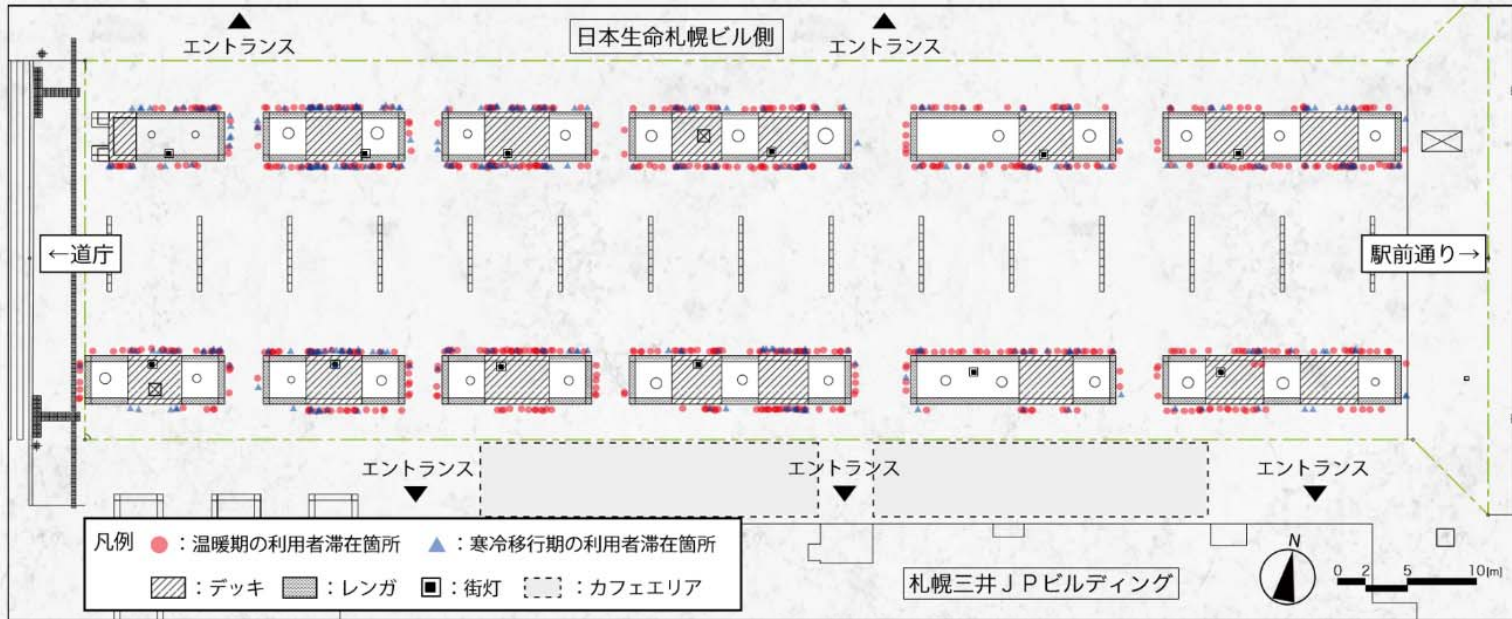
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## ● Conclusions



- ▶ The activities of Kita 3-jo Plaza as Winter city's public space. The number of user groups decrease, if it will be above 20°C. And the number will stay almost the same, if it will be between 20°C and 15°C. The last the number will decrease, if it will be under 15°C.
- ▶ During the warm period, users prefer almost 1.0m/s wind. So it is desirable that we will ensure adequate ventilation. If you want to get more users on during cold period, we have to get more sunlight. So, if the building stands at the south of the public space, we have to consider the shape of building and the placement planning. For example, the high-rise part of the building will make tower and lower part will setback from the public space.
- ▶ About the material of bench, users prefer the wood rather than the bricks. So, the material which users feel warm is desirable.
- ▶ Users stay near the center of the plaza and the entrance of the buildings, so we have to enhance the bench around there space.
- ▶ Users avoid to stay around the sidewalk and cafeteria. So we have to separate the walker, users of cafeteria and the users of the plaza or we have to put partitions between them.



## Russia

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## ● Conclusion:

- ▶ The first factor in creating a comfortable environment urban stay is a proper use of knowledge of climatology, which has a powerful influence on the various stages of planning, construction, design, and process.
- ▶ The most critical design goal is to extend the season of fresh air (in cold regions) encouraging people to stay outdoors at that time, as they could spend more time in the room.  
Parks and squares play a major role in stimulating social activity 12 months a year, providing people with places to sled, cross-country skiing, ice skating or just chat.  
Winter events should last awhile, preferably more than a week.
- ▶ Activities should offer more than the night lighting of the trees.
- ▶ Events and activities should overlap and be spaced out along the streets.
- ▶ Various activities and events should be combined. For example, combining a skating rink, outdoor café, outdoor library reading room, children's play area and cafeteria or holiday market entices people to stay for a few hours or more, even when it's cold and dark outside.
- ▶ Focus on what makes a particular city special.
- ▶ Local production of goods and gifts can serve the same purpose.
- ▶ Creative lighting is key because it creates an atmosphere for the centre as a whole.
- ▶ Competent and ambitious management of the urban space leads to great results.



## ● Results:

- ▶ Analysis of modern methods of forming of public spaces by the example of Sapporo city.
- ▶ Studied the methodology of analysis of public space given the collection of climate data and sociological survey, for example, Kita 3 Jo square.
- ▶ Published an article entitled "Formation of open public spaces at the international forum in Khabarovsk "New Ideas of New Century-2016".

Thank you for attention

