

MOVEMENT & THE CITY

How can MOVEMENT and NATURE direct ARCHITECTURE



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ARCHITECTURE

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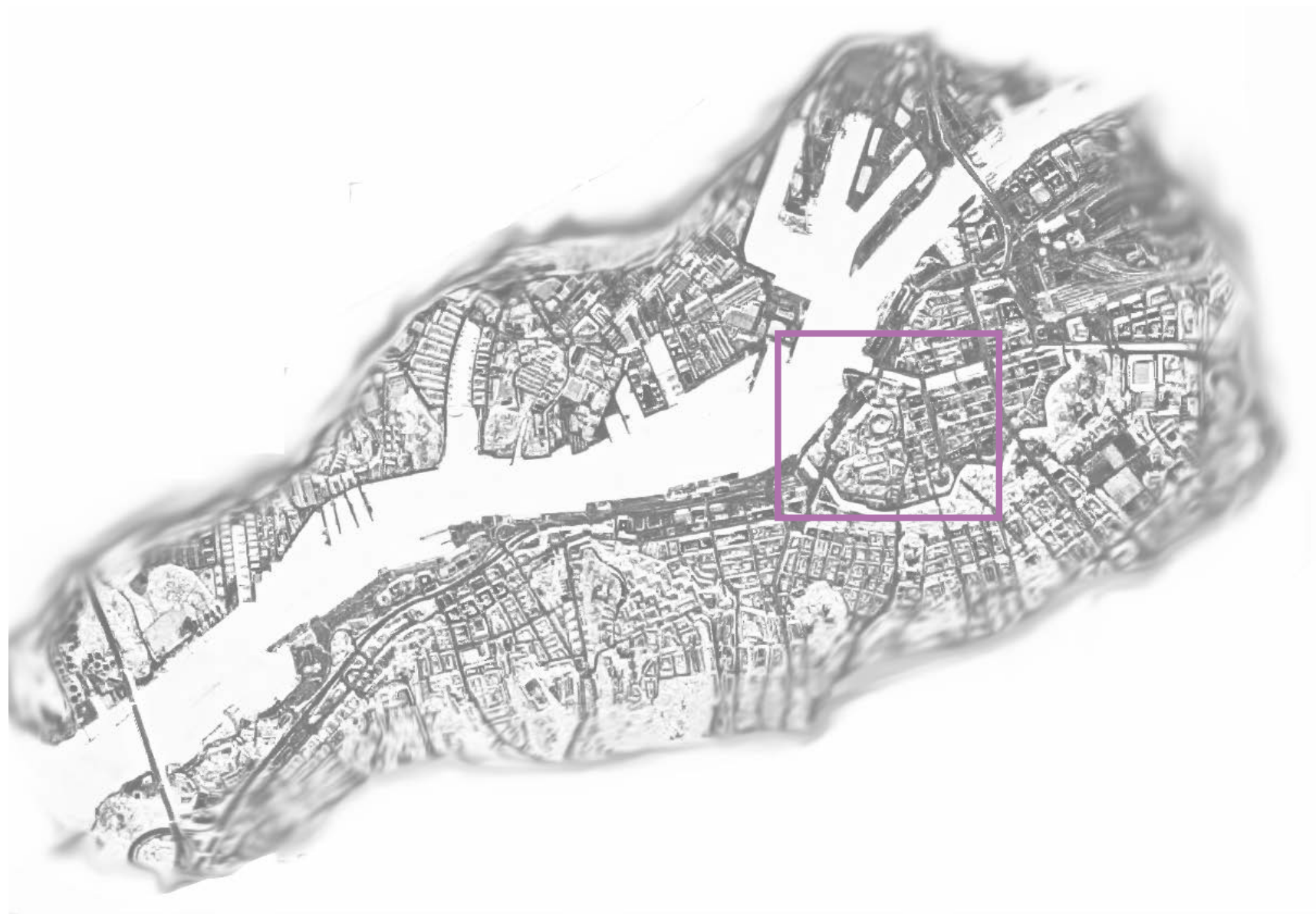
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Gothenburg is located on the westcoast of Sweden with the river Götaälv who divides the city in the middle. It is the proximity to the sea in the west and the river's ability to transport goods to the inner parts of the country that made the city grow and become Sweden's second largest city.

The city center and the area within the moat are located next to the river with canals that surround. The city's sights and attractions are all located within walking distance and you will find a city that gives its architecture an exciting mix of historic buildings and modern design.

The city's historical imprint in the form of the cobblestones is found on many of the city's streets, which gives a pleasant aesthetic expression, but whether the surface meets today's requirements for accessibility can be discussed.

On the outskirts of the city there are several nice areas to enjoy nature, exercise and physical activities such as Skatås and the Delsjö area, Slottskogen and Änggårdsbergen. If you are centrally located and want to exercise in a time-efficient way, in the evening or during lunch, then you are referred to an indoor gym or jog on the city's uneven granite.

By planning a central route for activity and replacing lanes

of the current ground surface with resilient material, the project's purpose is to encourage movement as a natural element in the city. The aim is also to offer tourists to experience the city with their running shoes on, so the route is planned near several attractions.

Along the quay between Skeppsbron and the new Masthuggskajen, an area with new blocks and a park - like square is planned in connection with public activities. The movement route extends along the site and to provide more value and content, an installation for physical activity, rest and contemplation will be a destination in the project.

The project investigates how human movement in the form of walking, running and jumping in relation to nature's design language can derive the architecture and the design of the installations.

The result is a design proposal that challenges the conventional street design and invites physical activity in the public urban space. The outcome on Skeppsbroquay consists of three installations aimed at different human activity - strength, balance and stillness.

KEYWORDS : GOTHENBURG, EXERCISE ROUTE, MOVEMENT STUDIES, MOVEMENT INSTALLATION



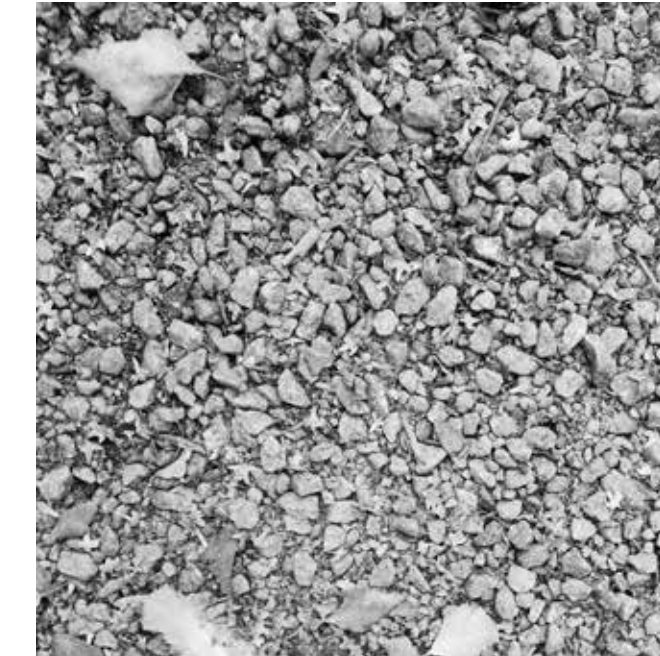
Study of the city has focused on studying the central parts of Gothenburg, within and around the moat. Hisingen has been left out as Götaälv is a barrier.

This work is not about flows, it studies the movement of bodies, in interaction with the forms of nature, it has provided inspiration for the design of the architectural design language.

GROUNDCOVERING MATERIAL

At first the purpose in the project was to study the city's street coverings, an interesting topic in itself, what patterns are laid and how street coverings shape flows and movement. Then the study passed on to the physical movement that takes place on the materials and the importance of movement for our physical and mental health.

The Bohuslän granite has adorned the streets of Gothenburg for centuries, the ethically appearance of the material appeals as much as its durable properties. But is the stones ergonomic and comfortable to move around? As a material to move slowly along a shopping street, it works without problems, but with faster walking and jogging, it can be felt uneven and unsightly for the quicker step. When the stone is wet, it also becomes slippery. Concrete stone adorns the slightly newer squares and streets, a material that is even but it is a hard material for both pedestrians and runners. Gravel is only found on some paths in parks.



MOVEMENT

Peoples movement on the streets, mostly avoiding putting their feet on the uneven small paving stones, they choose larger, smoother surfaces.



IMPORTANCE OF MOVEMENT

Today we know that how active we are and the extent to which we are active is of great importance for health.

If we are sedentary and not active at all, the risk of a number of lifestyle diseases, both physical and mental, increases.

If we keep the body going, we also have a greater chance of living an active life well into old age.

It is also one of the most important and simplest tools we can use to keep our brain going, physical activity makes us more stress-resistant, it improves our memory, makes us more creative and intelligent.

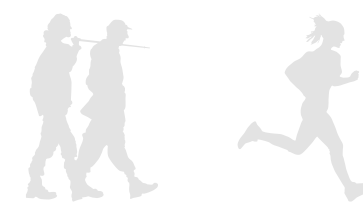


SAFE AND SECURE

All people at all ages and with different conditions should have a chance to move around in a simple and time-efficient way, safely and securely.

But most of the exercise tracks are located on the outskirts of the city, There it is not so safe to be alone when it is dark as it is during the winter season.

It is safer to be among people and on lighted streets, but there are hard uneven materials that risk physical damage to legs and knees.





PROPOSAL

-THE ROUTE

EXERCISE TRACK

The city needs an exercise track in the central parts of Gothenburg. With soft material to move on and routes that are where people are.

The round is located and stretches along areas where many people move, for safety and for movement in the city to be a natural element, as an encouragement and obviousness in the city noise.

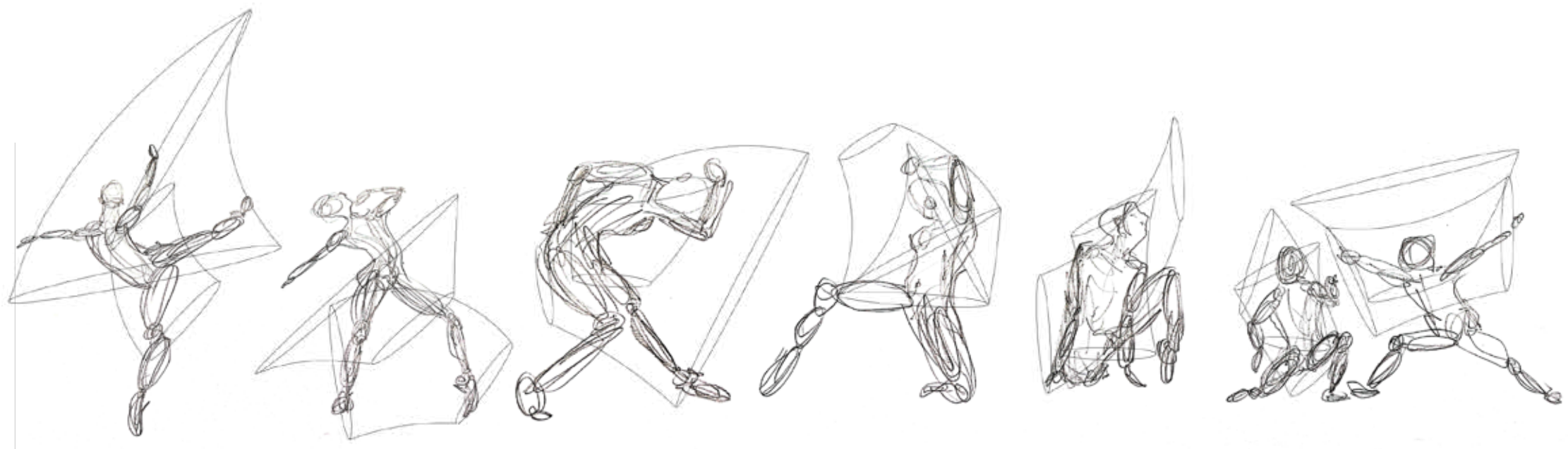
The material in the court is a resilient material, similar to those placed on running courts or outdoor tennis courts.



SIGHTS AND ATTRACTIONS ALONG THE ROUTE

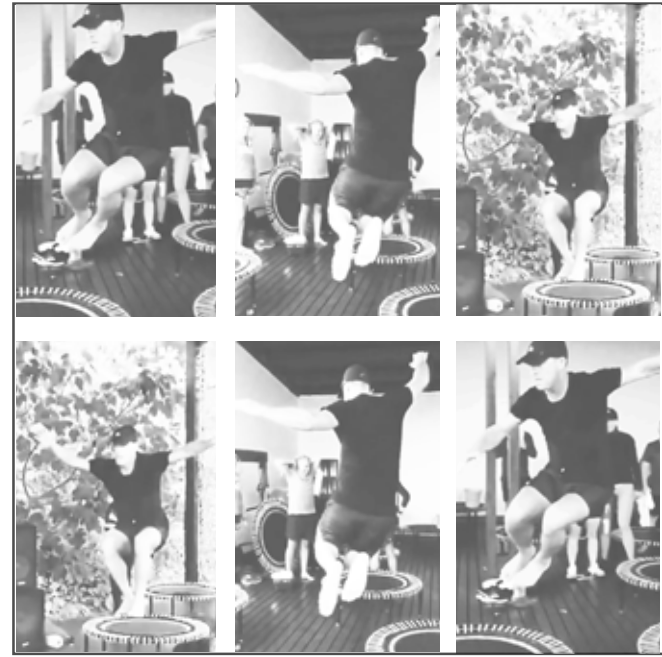
Since Gothenburg is a relatively small city, you can basically get around and see most things during a walk. This concept offers to experience the city and its sights and areas with popular restaurants and move on a comfortable surface with running shoes or just as a comfortable walk. The outer lap of the round is just over 5 kilometers.



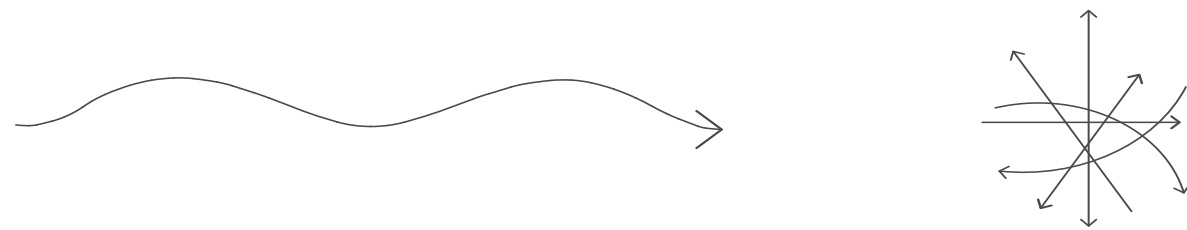


HOW CAN MOVEMENT AND NATURE DIRECT ARCHITECTURE

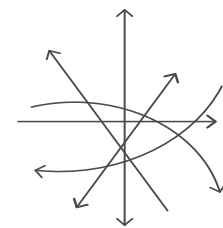
The site specific installation is inspired by movement, body flow and shapes that mimic movement in an interplay with the nature.



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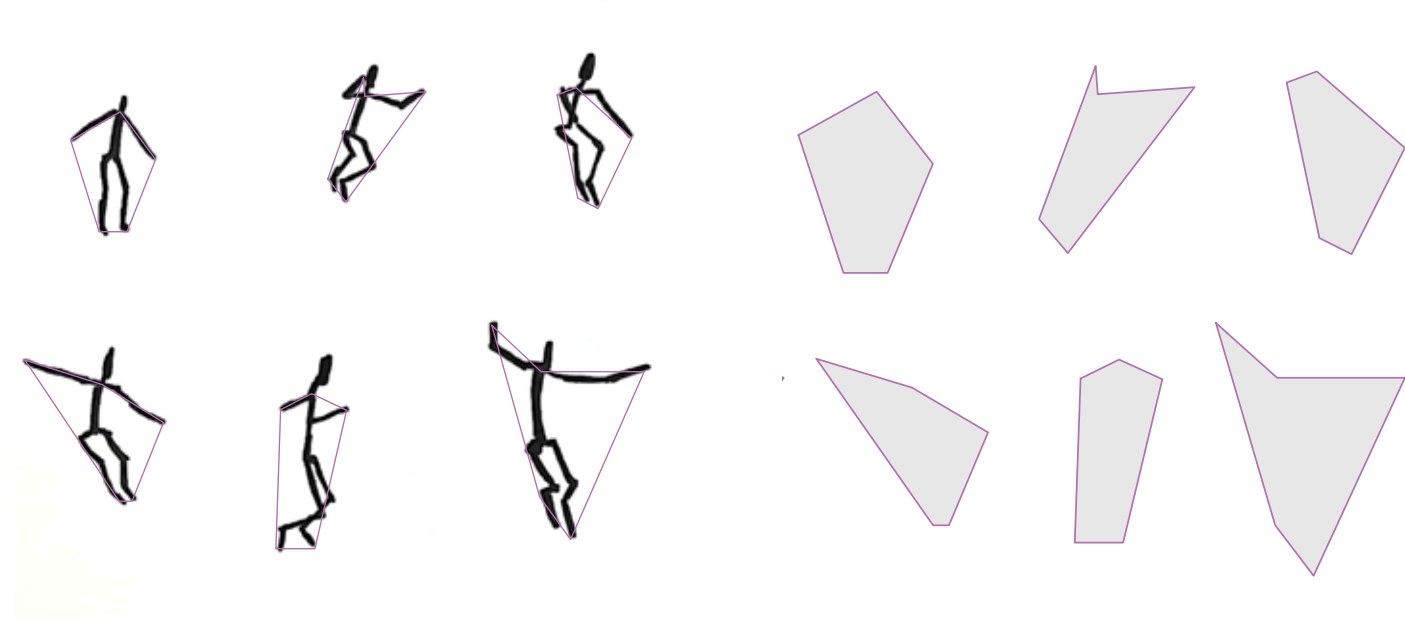


Running j umping and walk interplay with..

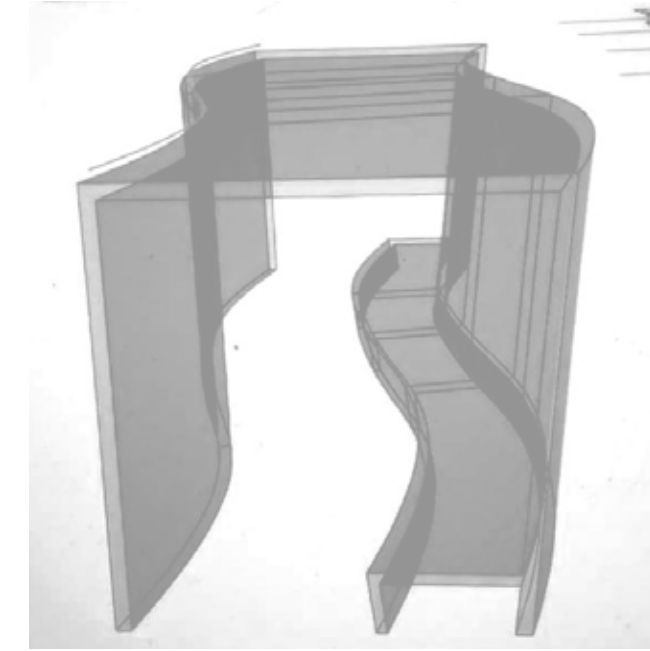
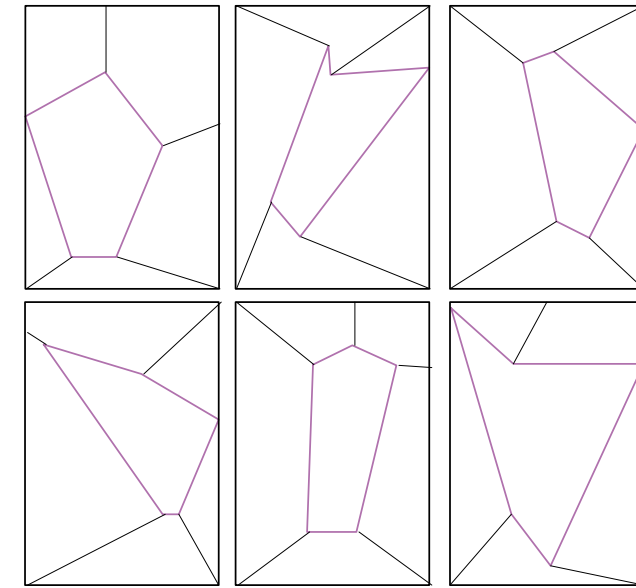


..nature

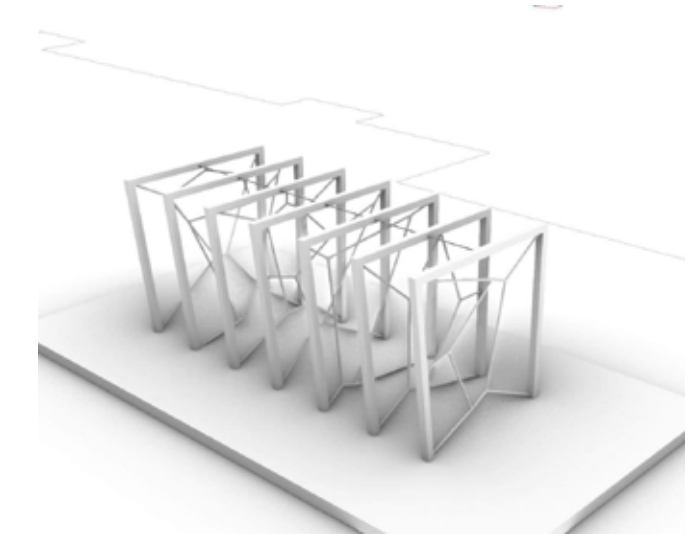


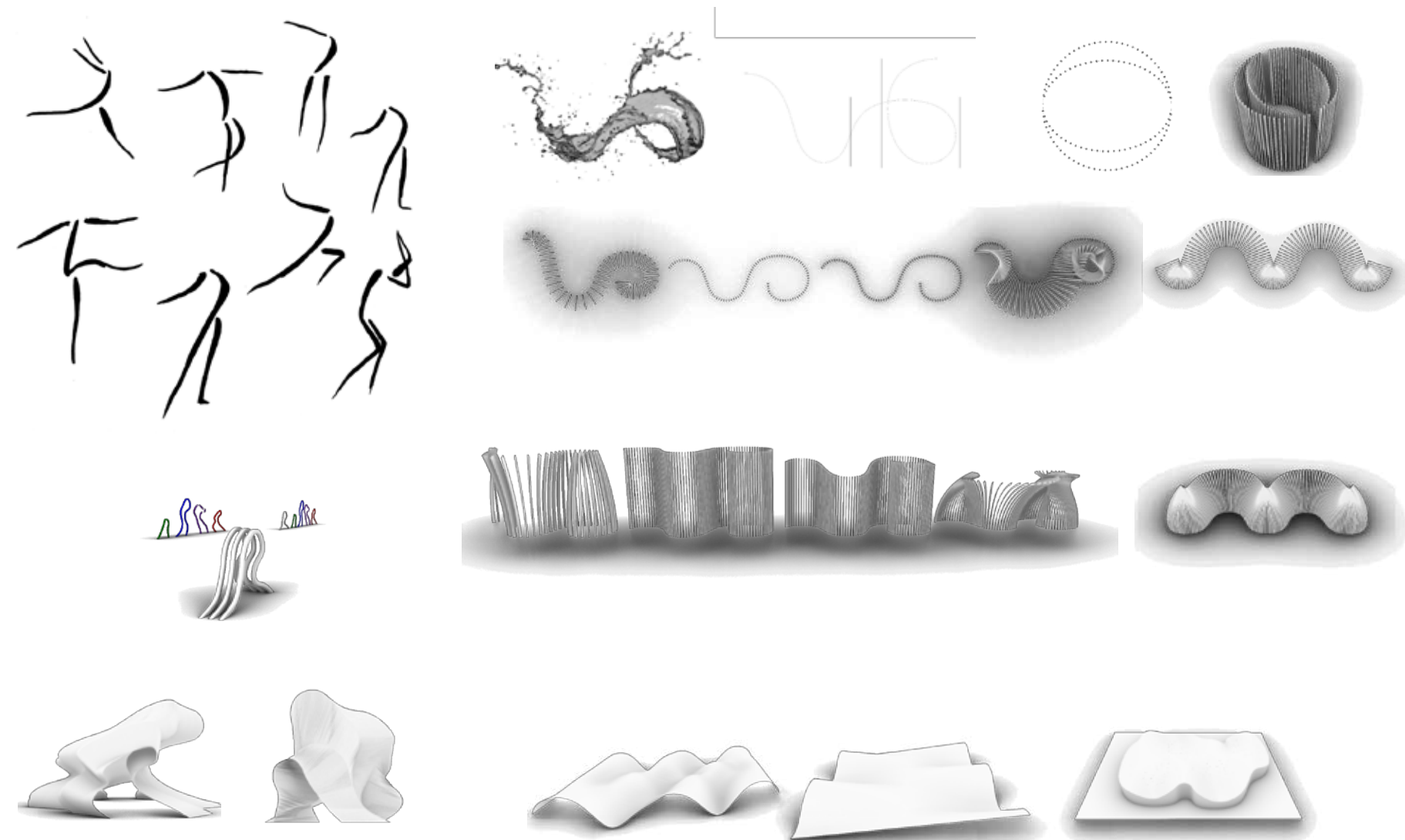


Exploratory sketches of and on top of body movements to create an understanding and to find a design language for the installation. It resulted in spaces between hands and feet that formed shapes in frames..

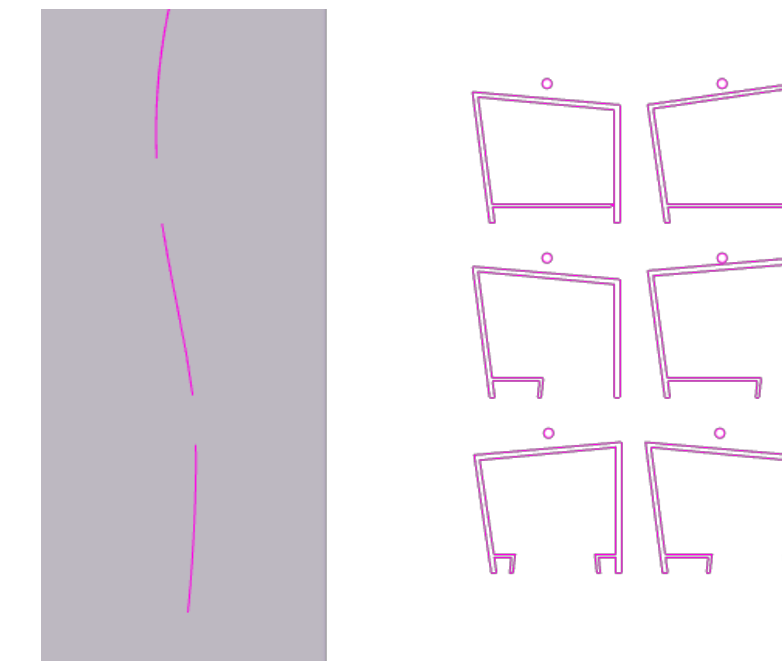


..frames that imitate the rolling paths of the forest and the trunks of the trees that are inclined in different degrees, degrees that suit the inclination of the back when the body is sitting.





Analysis on movement reinforced the wavy shapes which continued to emerge



The framework followed in the process of designing a place for rest and tranquility. Many experiments with different shapes and frames eventually resulted in a decision to let grasshoppers control the wave-shaped movements, a decision that was difficult to implement as one's own knowledge was scarce in the software but it finally succeeded.

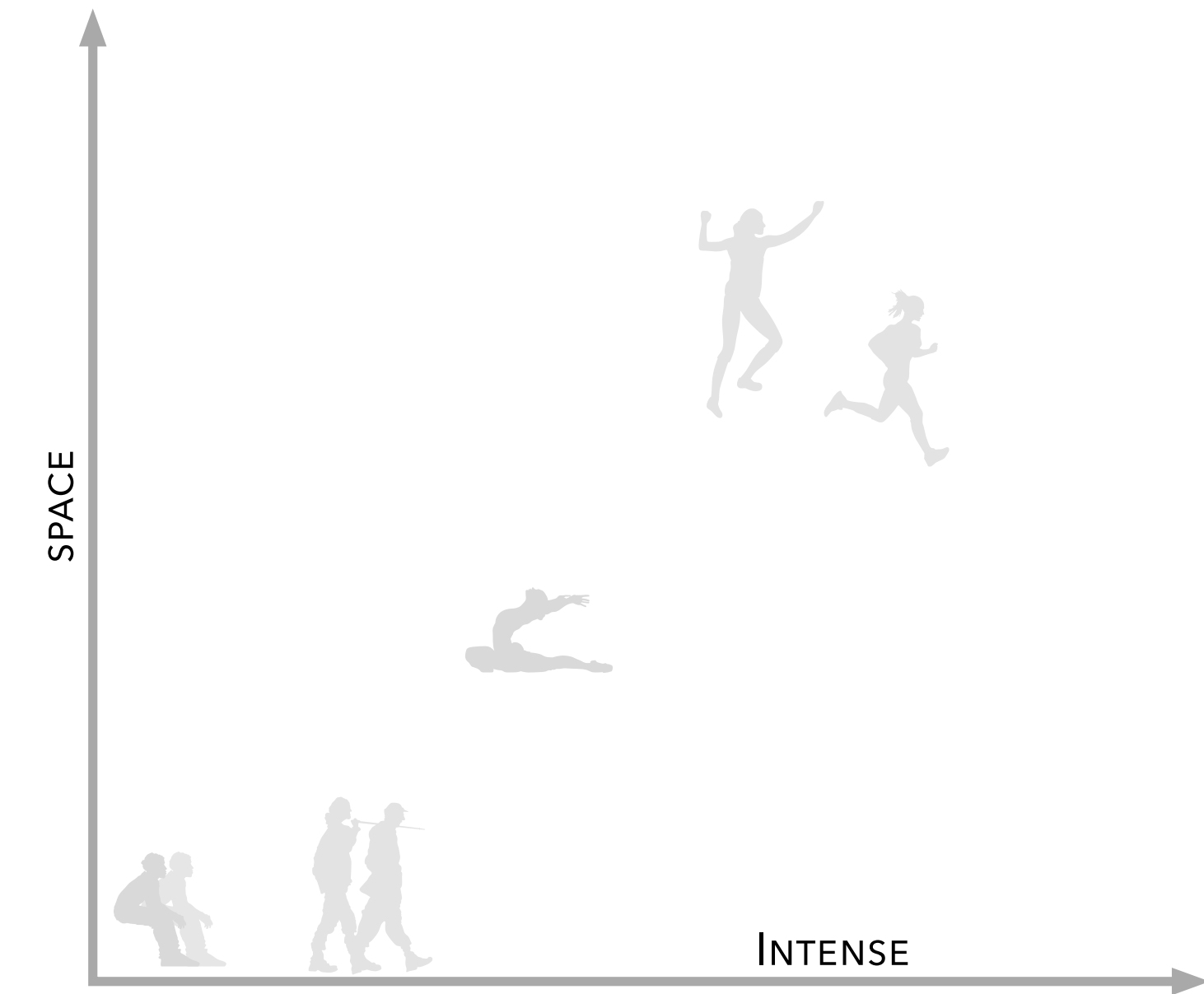
THE SITE

The site for the installation is the new Skeppsbron, between Stenpiren and the new Masthuggskajen. It is an area that is planned but not yet built. The area will house a nice quay promenade, a park and public areas for culture and leisure.





The ambition was that activities such as running, rest, balance exercise, walk, climbing and bouncing is selected situations of movement in the installation.

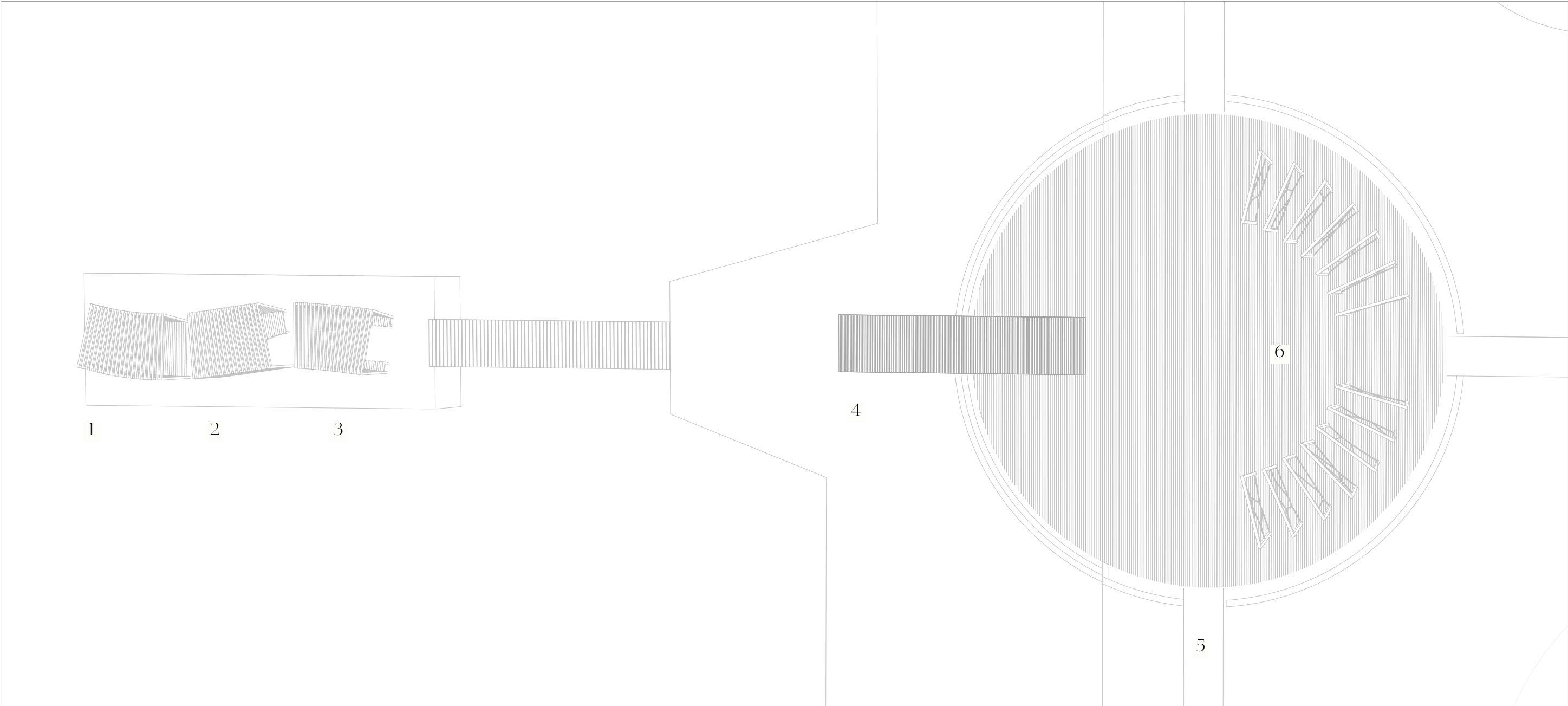


Studies of the intensity of movements and which surfaces each activity requires, the insight was given that the more intense the activity, the larger the area required. Therefore, it was decided that several installations within an area would work better for the purpose.

PROPOSAL
-THEINSTALLATION

DIRECTED PROGRAM OF THE AREA

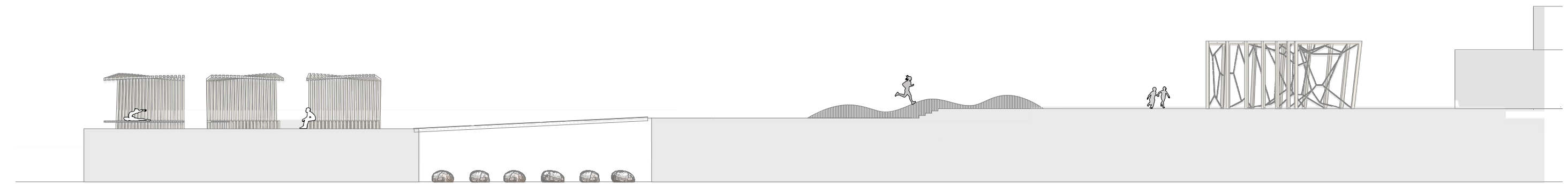
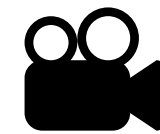
The installation for physical activity, rest and contemplation will be a destinationon on the route . It is located next to the park on Skeppsbrokajen and will be lightly and windy exposed with a wide view of the river. As it is an area that is defined and the three different additions cut throught the exercice route it will encourage other kinds of movement and offer a quiet place on the pontoon.

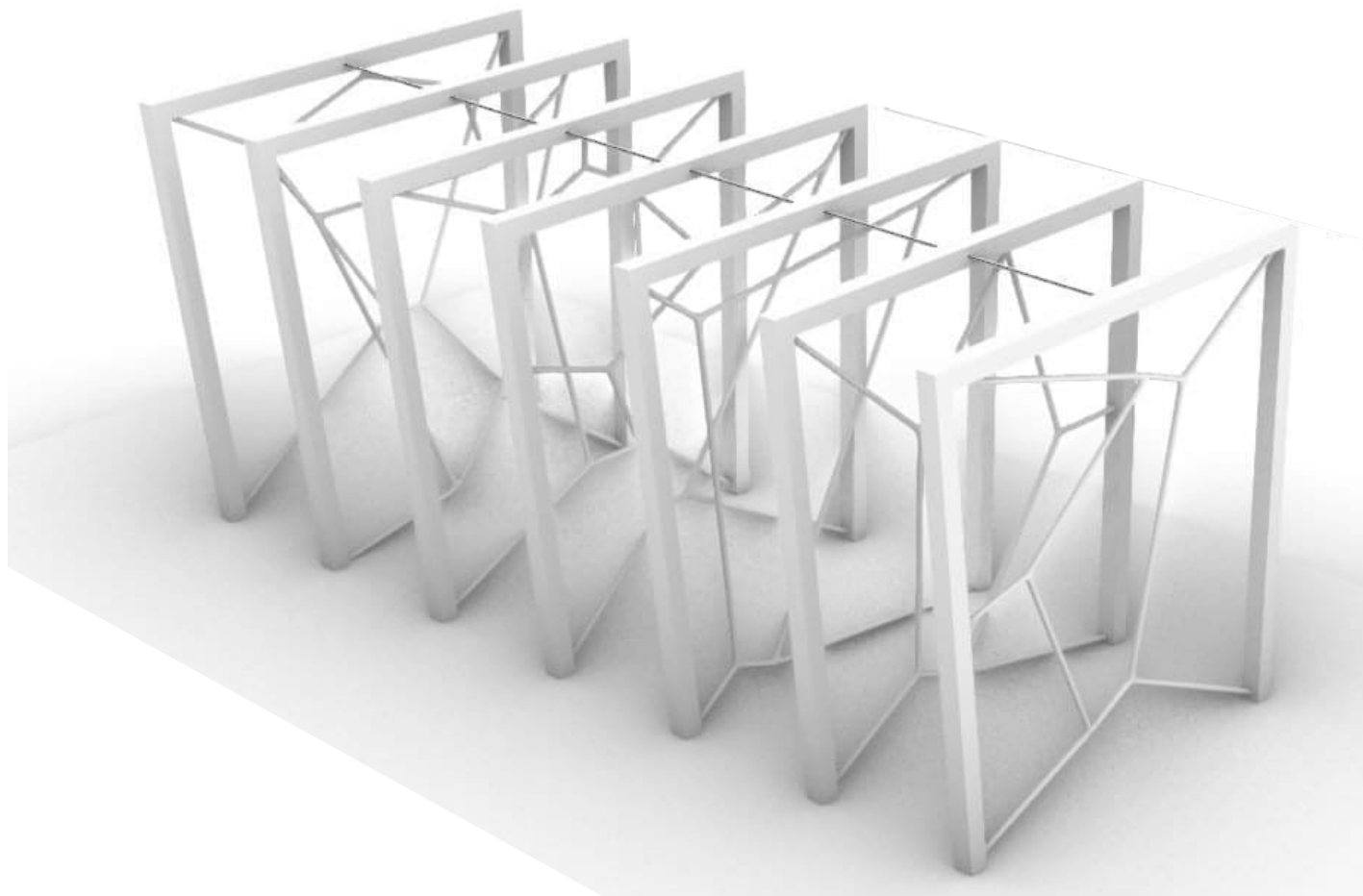


1. Stretching and yoga
2. Rest
3. Rest and socialize
4. Balancing and bouncing

5. Walking and running
6. Climbing and play

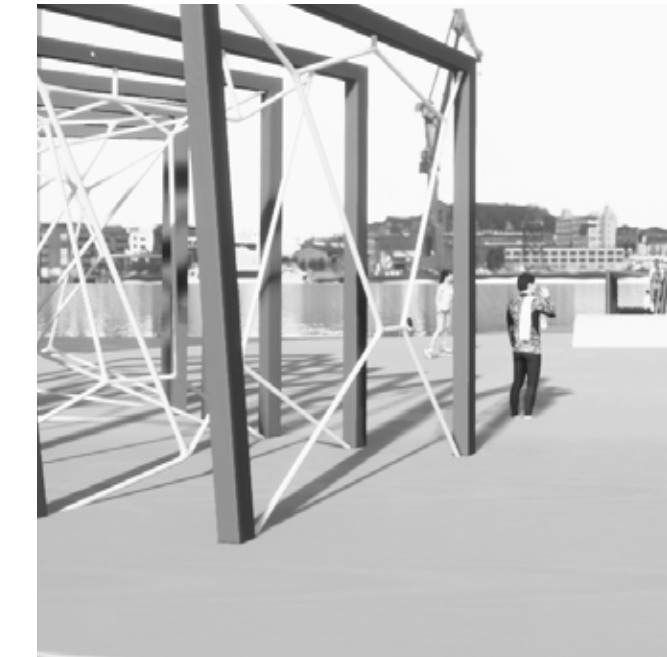
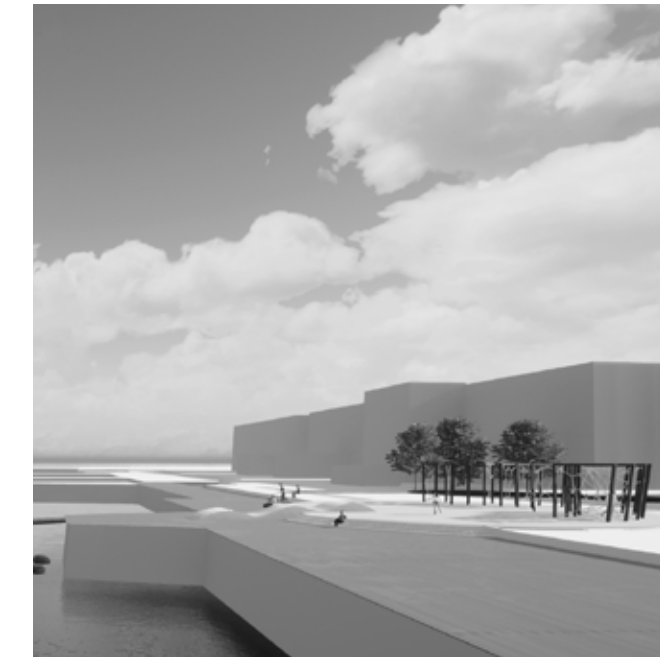
An animation of the area. It flies in from Lilla torg, past Stenpiren and along Skeppsbrokajen and the area for the movement installation:





CLIMBING FRAMES

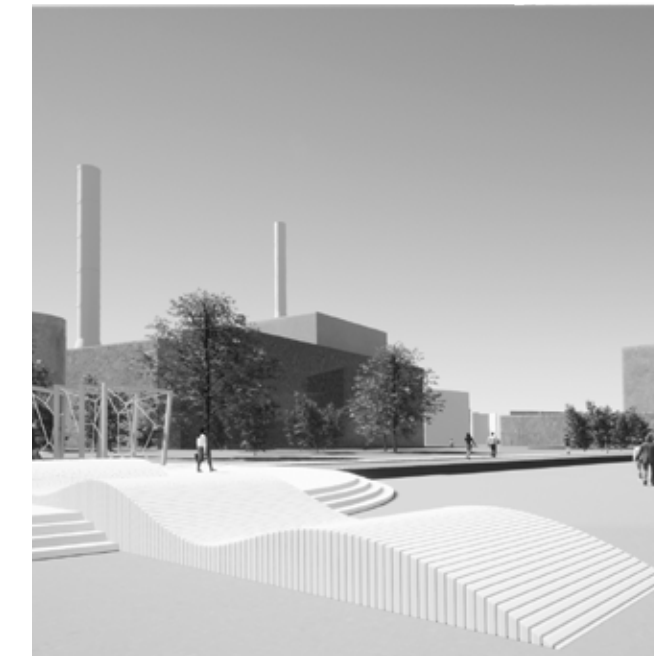
Climbing frames are located along Skeppsbrokajen, and together with the other additions creates a destination for movement. The exercise round cuts through the area and strengthens the movement concept. Rope-wired wires are attached to the wooden frames and the wires have shapes of space surfaces on a body in motion. The frames have their shape from the angled trees of the forest and the position of a leaning back against a wall. The installation is arranged in a semicircle that embraces the installation and those that do strength training and climbing in it.

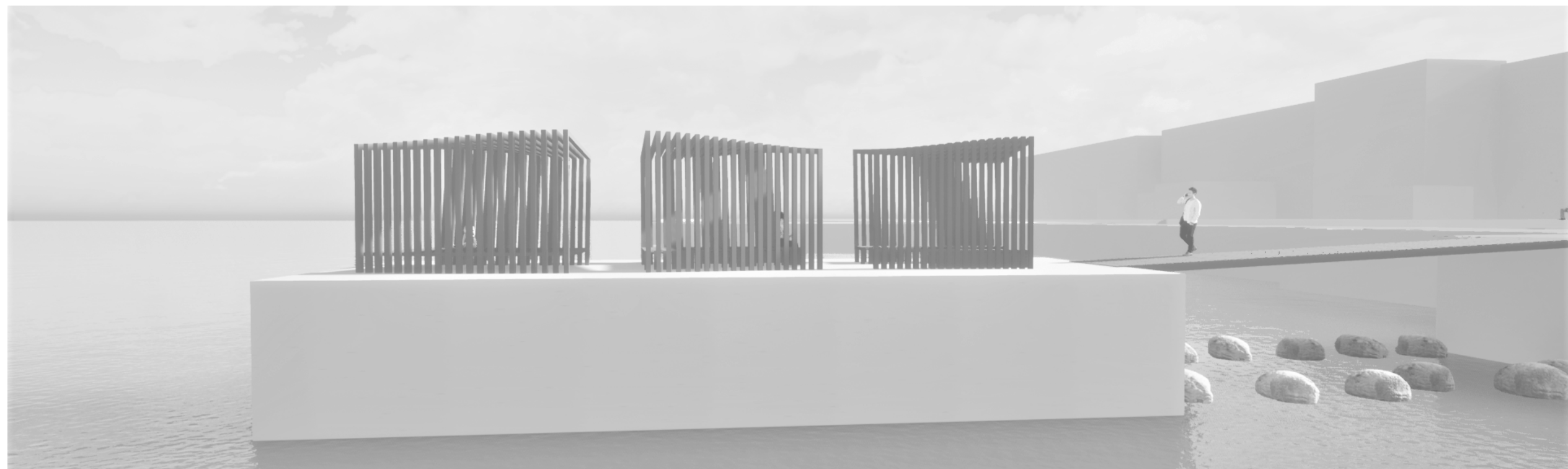




THE WOODEN WAVES

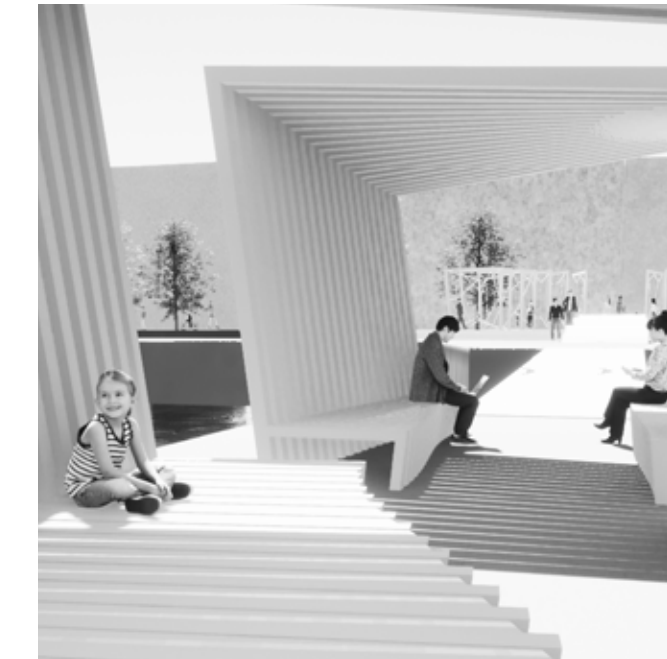
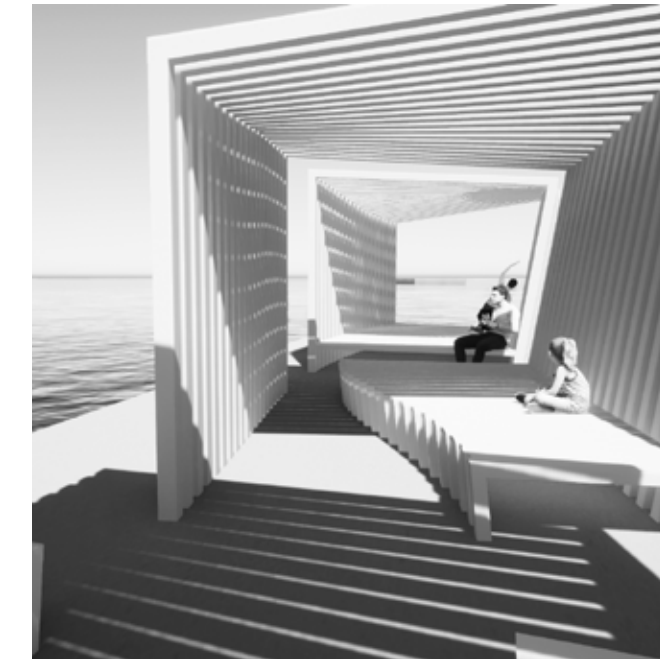
The wooden waves encourage movement forward, in a wavy shape for strength and balance. Its robustness stands strong with the river's roaring water as a background. It leads visitors to the pier from the climbing frames and together with the frames creates a playful place for fun and movement.





PONTOON FOR SILENCE

The installation's destination for resting stretch and contemplation is located on a pontoon from the pier outside the wooden wave. The design of the wodden tunnel is slightly wavy in both plane and section and the ambition is to feel embraced like the forest tree on a path. It is divided into three sections, the first for rest and socializing, the second for rest and contemplation and the third for rest stretch and yoga. Its ribs are positioned so the sun's strong rays provide shade during the day but let through light during the early and late day. The ribs also slow down wind and to some extent rain, but still provide a view of the river's water and quays.



CONCLUSION

Movement in interaction with nature defines form, forms that affect our senses and encourage physical activity.

My ambition has not been to move nature into the city, but together with the movement's expression to take inspiration from nature's design language and create movement architecture. I have wanted to create a place for physical activity without the conventional tools that define an outdoor gym.

The exercise round that I propose in the zoomed-out proposal is conceptual and provocative. Replacing street stone with a pink resilient treadmill in the middle of the city would make headlines but at the same time give a strong message about the importance of moving. The city of Gothenburg should give its residents and users good opportunities for this.

I want to show how architecture has the potential to lead people to live an active life without sacrificing security and

safety. To strengthen people's well-being and at the same time give the city value for tourists.

The analysis of movement was quite difficult to do as most activities that interact with movement along the route that I suggest are movement forward from one point to another. That analysis resulted mainly in the shapes of the wave. The analysis of the jumping man gave me other forms that I continued to work with in the climbing installation.

The choice of place for the installations was made based on my desire to be able to be close to water, personally I prefer to move along mountains and cliffs when I exercise, as I live on an island.

The new Skeppsbrokajen seems to be planned to be a lively public place, with culture and a park next to the harbor promenade. It turned out to be a nice place to have as a destination for my exercise round.

My choice of methodology has supported the end results of this project in a positive way although I could perhaps have done more if I had the time.

I would liked to analyze movement more, in different ways but the situation with covid and lack of interaction with other classmates even though I was part of a fantastic reference group - the look over ones shoulder in school is way more valuable than previously thought. I could also have implemented the experiments with models of a larger scale to get a more accurate reading of the activity and movement. However, I have been challenged to use new software in the course but also used Rhino, grasshopper and rendering in a completely new way. It has been difficult to get support, which has challenged me further to seek knowledge on my own, something I am grateful for in retrospect.

B I B L I O G R A P H Y

I M A G E R Y

- 1. Importance of exercice
<http://www.fou-spenshult.se/halsoframjande-fysisk-aktivitet-for-alla/>
- 2. Running track stadium
https://stock.adobe.com/se/images/competition/17074691?prev_url=detail
- 3. Dark pave
https://stock.adobe.com/se/images/scary-road-through-forest-on-halloween-night-scary-back-ground/157256736?prev_url=detail
- 4. Haga Nygata
https://stock.adobe.com/se/images/pedestrian-street-haga-nygata-with-well-preserved-wooden-houses-of-19th-century-in-christmas-illumination-on-december-16-2015-in-göteborg-sweden/293246407?prev_url=detail
- 5. Forest path
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6.New Skeppsbron. Sweco Architects

7. Skeppsbroskajen/Götaverken
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L I T E R A T U R E

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