

DOCK STREET

- REPURPOSING THE INDUSTRIAL
HERITAGE OF GOTHENBURG

Mathias Holmberg
Chalmers, 2014

ANALYSIS

Mathias Holmberg
Chalmers, 2014



INTRODUCTION

GOTHENBURG

- History
- Industry
- River
- Logic
- Past developments
- Future developments
- Existing Public Functions
- Rivercity Gothenburg
- Identity

APPROACH

- Preservation
- Climate
- Street
- Nest / Cave
- Architecture of Energy
- Same Difference

THE DOCK

- Site
- Dock
- RE-USE
- Mobility

The history of Gothenburg is one of harbour and industry. The riverbanks have been the property of companies and industries, making the river a part of many peoples everyday life. However this has come to change with the major dismantling of the same industries in the seventies. Since then the river is no longer the mental focus of Gothenburg and its potential in a post-industrial city has yet to be explored.

The areas around Göta Älv have undergone large scale developments over the last 30 years and more is to come. The aspiration from the city's politicians to create vibrant spaces with mixed functions have in many places been unsuccessful and much of the old has been removed without any regards to its historical value. There are still many areas to be developed, and there is a real risk that old mistakes will be repeated.

The fact that the housing in these areas are only affordable to a few and that they are cut off from the surrounding city makes them function as islands within the city, not fighting segregation but instead enforcing it. There is also a lack of attractive public spaces in these newly built areas, which only makes their isolation seem even more palpable.

The termination of Götaverken has put another piece of land along the river in the spotlight. The area is not included in any plans as the announcement of the closing of the ship repair docks was unexpected. What will happen with the characteristics of the last existing ship related industry along Göta Älv?

What if the qualities of some of the most liked areas in the city could be applied within the soon abandoned docks? The docks acts already as a significant reminder of past epochs and could expand into providing the possibility of a new democratic space for all of the inhabitants of Gothenburg.

HISTORY

The history of Gothenburg is one focused on the harbour. Situated on the estuary of Göta Älv, the geographical condition has been the one most crucial factor for the city's ability to grow and become Sweden's second largest. Founded by king Gustav II Adolf in 1620 and in turn built and developed by the Dutch and the British, the city has earned names such as "lilla Amsterdam" and the still used "lilla London". The city's position as gateway towards the ocean, and as such the world, has served to make Gothenburg a trade port of notice, one of the largest in Northern Europe.



1815



1888



THE COMPANY

The history of Gothenburg is also one of industry. The trade was soon to be rivalled in size and importance by the heavy industries, amongst which Götaverken and the shipbuilding industry was the most successful. The company was at its height the worlds leading shipyard. Since then a number of different successful businesses have emerged in Gothenburg, but none reaching the same influence or level of success as Götaverken Cityvarvet.

The profitability of the shipyards didn't last however, and they were dismantled in the late 1970's, due to the existing oil crisis and increased global competition. The repair shipyard did however survive, retaining one of the most central locations in the city, but perhaps not for much longer.

In the spring of 2014 the Dutch company DAMEN, which owns Götaverken, announced that due to unprofitability the shiprepair yard is to be dismantled. At the end of the summer it was revealed that the ambition to continue the current activities has been unsuccessful and the remaining parts will be sold off. However the workers in the dock are trying to find a solution where they take over the dock and continue the business by themselves.

THE RIVER

Göta Älv is the most important feature of Gothenburg, to the extent that the city would not exist without it. Through its busy port the activities on the river has made it the natural heart of the city. This connection has however over the last century been reserved the industries whom been dependent on the river and has in the process been removed from the citys inhabitants. Today only at a few chosen locations is it possible to reach the river within the centre of the city.



A view over the access from Hamngatan down to the river, showing locals using it for everyday chores.



1620

The city is founded on the south shore of the river and built by the Dutch. Fortifications and moats was added in order to protect against aggressors, structures which are still present today.

1910

The city expands north over the river. The emerging industries landfills the river in order to meet their growing area needs. The ferry connecting south with north is replaced by Göta Älvbron.

2014

Most of the industries along the riverfront has been removed and replaced by housing. The river has not been reconnected to the city but instead remains a barrier, failing to claim it's potential as the heart of the city.

2110?

The sea level continues to rise and large parts of the city becomes submerged. The river reclaims its previous shape, forcefully retaking its place as the most important feature in the city.

Historically life was centred around the river, here a picture showing the old harbour, Hamngatan.



As the scope of the river based activities escalated the human scale and urban life was removed.



The termination of the industries enabled developments along the riverfronts, giving back the river to the city's inhabitants. But the nature of the developments raises questions about which inhabitants it has been given back to.



OLD LOGIC

Once the river was beating the pulse for the entire city, today it is distanced from it. It used to be not only mentally present but the city streets were physically built from the river into the city, making the areas adjacent to the river and the canals the most lively. This is no longer true, instead the riverfront is filled with barriers in the shape of infrastructure and desolate, function separated, developments.

PAST DEVELOPMENTS

With the dismantling of the shipyards suddenly large areas of unused plots existed in the centre of Gothenburg. “The Good City” was to be planned; a mixed urban area with housing, workplaces and shopping.

Although initially mostly unopposed lately many have argued that the gated industries have disappeared only to be replaced with “gated” residential areas. The areas have not been successful in mixing functions, instead creating areas that are desolate over large periods during the day. These areas also resemble islands, cut off by the river and surrounding infrastructure, increasing the feeling of isolated communities¹. The developments have also received lots of critique for being built only for a homogenous group, further increasing the segregation in a city already labeled Northern Europe's most segregated².

Soon all of the spaces provided by the closing or moving of industries next to the river have been filled with housing few can afford and an urban fabric not dealing with breaking barriers but instead enforcing them.



Sannegårdshamnen

1. Engskog, Isak "The social effects of large-scale urban redevelopment: An analysis of new-build development in Norra Älvstranden, Gothenburg", 2011

1. A Johansson, P Jonsson, F Lennander "Den Goda Staden? Bostadssegregation i framtidens Göteborg", 2010



Vision Skeppsbron

FUTURE DEVELOPMENTS

“SKEPPSBRON” / “NORRA MASTHUGGET”

These two areas, situated on the south riverbank, are planned for development in a near future. They have been two areas marked by infrastructure and the Stena Line terminal, not acting as the link to the river as they have done historically. With the “Götatunneln” project and the removal of the Stena Line terminal these areas now again have the potential to connect the city to the river. Plans for these areas include much of the same rethoric of the previous developments on the opposite side of the river. However these areas, situated in direct contact with the existing vibrant city, have a higher chance of actually delivering on these promises. Within these plans new tram lines are included as well as housing and a mixture of several other functions. Remains to be seen if these areas will be incorporated into the city fabric or if they become housing for the rich, devoid of public life.

These, and the already built developments on the north side of the river, are all part of a larger vision from the City to shift the centre from the south side to the centre of the river. 30 000 housing units and 40 000 workplaces are planned for this new centre, a process that will project Gothenburg away from its industrial heritage in search of a new identity.

CASUALTIES

These ambitions from the city have not only failed in achieving lively, vibrant urban areas as promised but are also made at the expense of some of the most appreciated existing functions.

With a huge problem of segregation it seems questionable to remove public institutions centrally located in favour of housing for a small privileged group. This is unfortunately what is happening in many places around Gothenburg.

KVILLEBÄCKEN

An area under development at the moment where a number of functions were “forced” to relocate. The area serviced a large number of activities due to its cheap rents and closeness to public transport. Although the area had all the diversity and activity the city says it is striving for, but again and again fails to create, this area was demolished and replaced with housing for a small homogenous group³.

KVIBERGS MARKNAD

A marketplace open for everyone every weekend, soon to be replaced with a sports centre, effectively killing the positive effects of one of the few places where people from different backgrounds and cultures meet in Gothenburg.

KOMMERSEN

A flea market open during the weekend which serves as an alternative to the mainstream shopping, also soon to be demolished as the area develops.



KVIBERGS MARKNAD

A marketplace open for everyone every weekend, soon to be replaced with a sports centre, effectively killing the positive effects of one of the few places where people from different backgrounds and cultures meet in Gothenburg.



KOMMERSEN, 1:A LÅNGGATAN

Another marketplace open during the weekend which serves as an alternative, also soon to be demolished as the area develops.

EAST

Illustration by EAST showing Gothenburg as divided with its different parts functioning as islands and in the process dissolving the river.



WORKSHOP

- RIVERCITY GOTHENBURG

In 2011 ten international teams were invited to envision how Gothenburg could develop as a rivercity. The teams' conclusions were gathered in a publication and exhibition, showing Gothenburg the challenges of the future but also the immense potential.

Most of the teams focused on trying to reconnect the different separated "islands" of Gothenburg. Removing infrastructure barriers, creating additional connections over the river were some of the recurring elements.

Also there was a common thread in the proposals of trying to make use of a democratic process, involving the citizens of Gothenburg. Making use of temporary installations and exhibitions to reveal potential and producing engagement.

THE IDENTITY

At present the termination of the last existing ship building/repair industry in Gothenburg is one met with nostalgic sadness from people all around the city. It is a business employing less than one hundred people, occupying a central but small plot which all in all should make it a minor piece in the puzzle that is Gothenburg. How come then that the termination of the repair shipyard has such an impact on the inhabitants of Gothenburg? The shift from a heavy industry city towards one focused on services, tourism and high-tech industries orchestrated over the last thirty to forty years has not been able (yet) to affect the Gothenburg citizens tendency to identify more with the working class mentality, which has been engrained in the "Gothenburg DNA" over the last two centuries.



Postcard produced to reflect the "true" feeling of Gothenburg
Anders Westgärth, "Welcome"

THE ACT OF PRESERVING

What is worth preserving, and who gets to decide? Could not the polluted air from the beginning of the industrial era be as much a part of a city's history, and part of our way of understanding it, as old churches or temples? Or maybe the large highways cutting through districts should be preserved as historical objects and not only viewed as eyesores to be removed?

David Gissen's project deals with these issues. He questions the role of history in an urban setting and investigates the role of the museum and asks what would happen if the museum apparatus were to be moved out into the city?

A city is always in constant change but the idea of a future always implies a present and a past. This past is part of our collective memory of a place and is important to preserve if we are to understand these places. Change is inevitable and the future is always coming but it will also always be in relation to the past. So instead of actively fighting the past and trying to remove/replace with new developments, it could be used as an asset.

Quote from Dutch Collective Crimson:

"the best and most inspiring basis ... was to enhance, renew and make the best use of .. existing characteristics and qualities, both physical and social."



David Gissen, Reconstruction: Smoke. 2006–2010



CLIMATE

- GOTHENBURG 2071

This map shows the probable change in climate for the cities in Europe at the year of 2071. The location of the cities match the correspondent climate they would have at this year. Where will Gothenburg place on a map like this? How much will we be affected by the climate change? Not only will the sea level rise, but perhaps the architecture in Gothenburg will have an all together different set of rules to follow over the next decades. Perhaps the buildings in Gothenburg will within a near future have to cope with a climate similar to that of southern Spain today. That change won't happen over night but gradually, which puts alot of unprecedented requirements on our built environment.

THE STREET

The street is one of the few places left where all people have equal access. The occurrence of streets date back to humankind's first habitations and is crucial for the emergence of our civilization as it is the place where social interaction takes place.

A street is much more than just a thoroughfare, it is the place where our society comes together. Over the course of history the street has been the place of processions, demonstrations, riots, celebrations etc. and as such has served to forward our civilization.

Streets have different identities and characteristics but they all have in common that the measure of success depends on the mixture of functions and available activities.

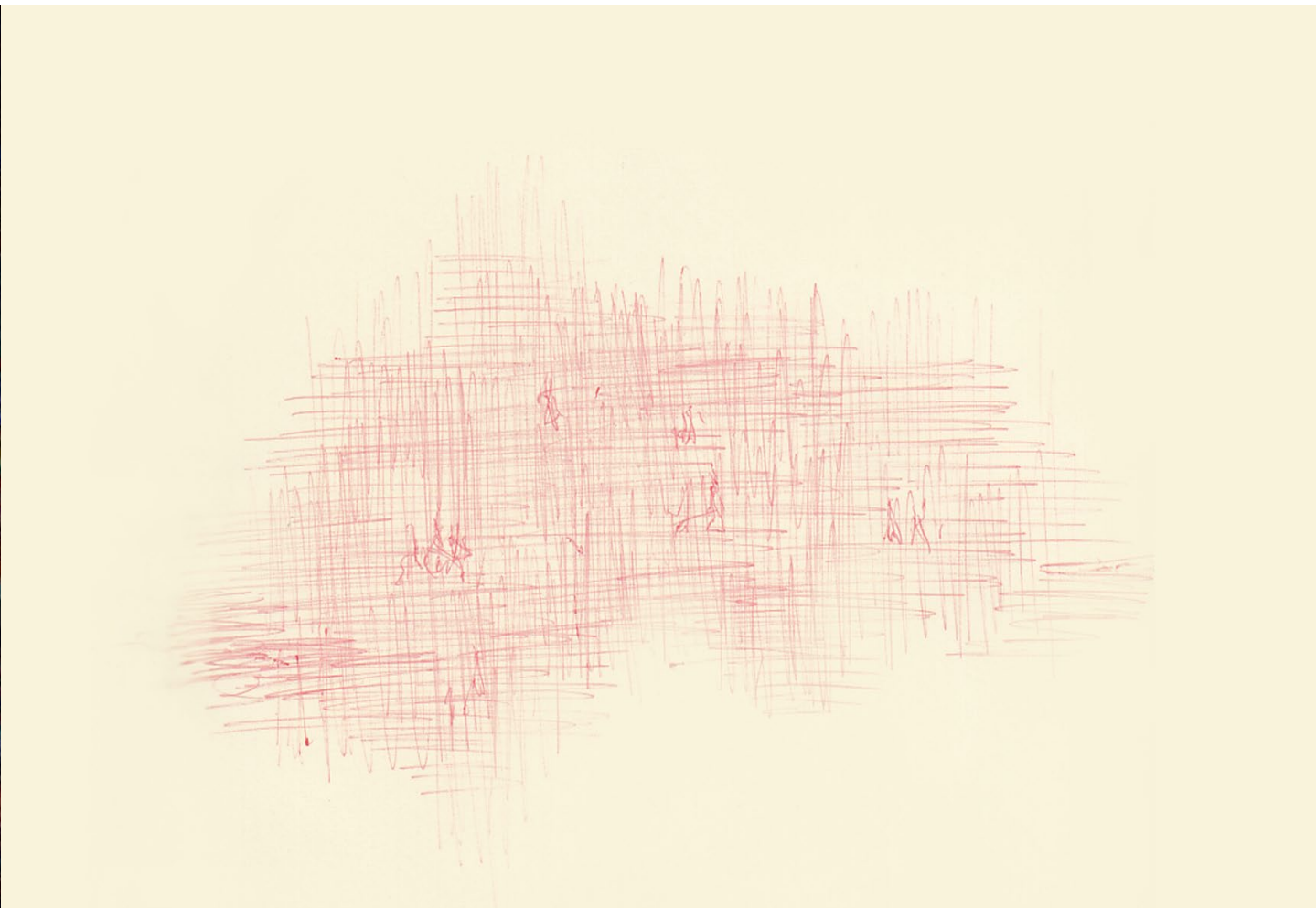


Andra Långgatan in Gothenburg is a street with vibrant city life over most hours during the day/night thanks to the mix of functions.



Rue Passagere, Jean Dubuffet

Jean Dubuffet portrays an anarchic environment, filled with people who seem unable to control their movements. The street is not only a thoroughfare; it has become a living thing moving to its own beat, with its own laws and lapses.



NEST Vs. CAVE

Sou Fujimoto argues that Caves and Nest are two elements from nature which have a total opposite ideology to each other. Caves are the fluid spaces where the planning and spaces come out according to the need and changes over time. On the other hand a space like a nest is very rigid in its planning and has a very definitive form and shape.

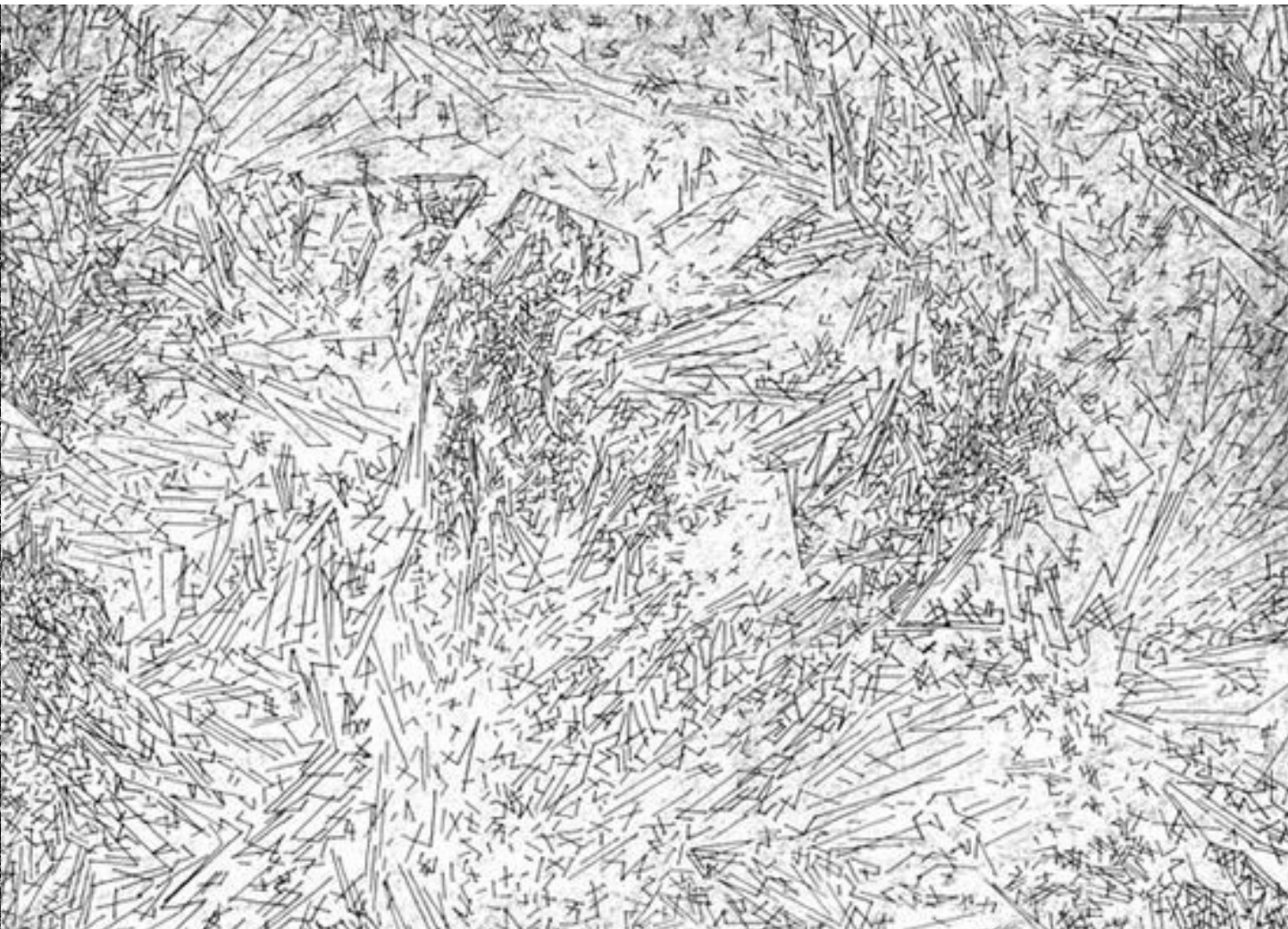
He concludes that the hybridization of both elements; the Caves (Adaptive environment) and the Nest (Planned environment) is the new concept and form in designing ideal architecture in today's world.

Architecture of Energy

Lebbeus Woods presents a project that aims not to show only the materials of architecture but also the energy within it, preserved, unleashed potential. Not only in the architecture itself but also the people using it.



<http://lebbeuswoods.wordpress.com/2009/06/05/architecture-of-energy/>



Same Difference

Another of Lebbeus Woods projects where he is investigating the relationship between the increasing similarity within the global architecture and the individuals ambition for identity and individuality. What these seemingly contradictory movements will lead to is uncertain but he concludes with the following statement:

"In such a time, designers, artists, and architects must rethink and redefine, in visual terms, the global field condition. They must learn to see, and enable, variations in the field—the aesthetically and socially complex field—and for that task what they most need is the capability to perceive, and conceptualize, the differences in radical similarities." - **Lebbeus Woods**

SITE

The shipyards location is geographically and mentally situated in the “heart” of Gothenburg. The docks are visible from many areas around the city and acts as a constant reminder of Gothenburgs industrial heritage. It is also placed in between the largest and most recent city developments and the ones to come.

1. SITE

Cityvarvet is situated in the middle of Gothenburg on the river edge, almost geographically at the centre of the city.

2. POLLUTION

Due to centuries of heavy industry focused around the river pollution is an issue. The site is specifically exposed since Götaveken has occupied this area for a long time. The river itself is polluted to the extent that swimming within the city centre is considered a health hazard.

3. PUBLIC TRANSPORT

The south side has good coverage of both buses and trams. The north consists of mostly buses. The connection over the river is here trafficked only by boat making the distance between the two river banks mentally far away.

4. RIVER LOGIC

The river has been the heart of the city, resulting in the logic of the city being one reaching down to the river. This has changed with infrastructure and industries cutting of the access to the river from the city.

5. PUBLIC HOTSPOTS

The public life is centred south of the river. The developments north of the river has focused mostly on clusters of housing or workplaces, failing to produce mixed urban situations.

6. BARRIERS

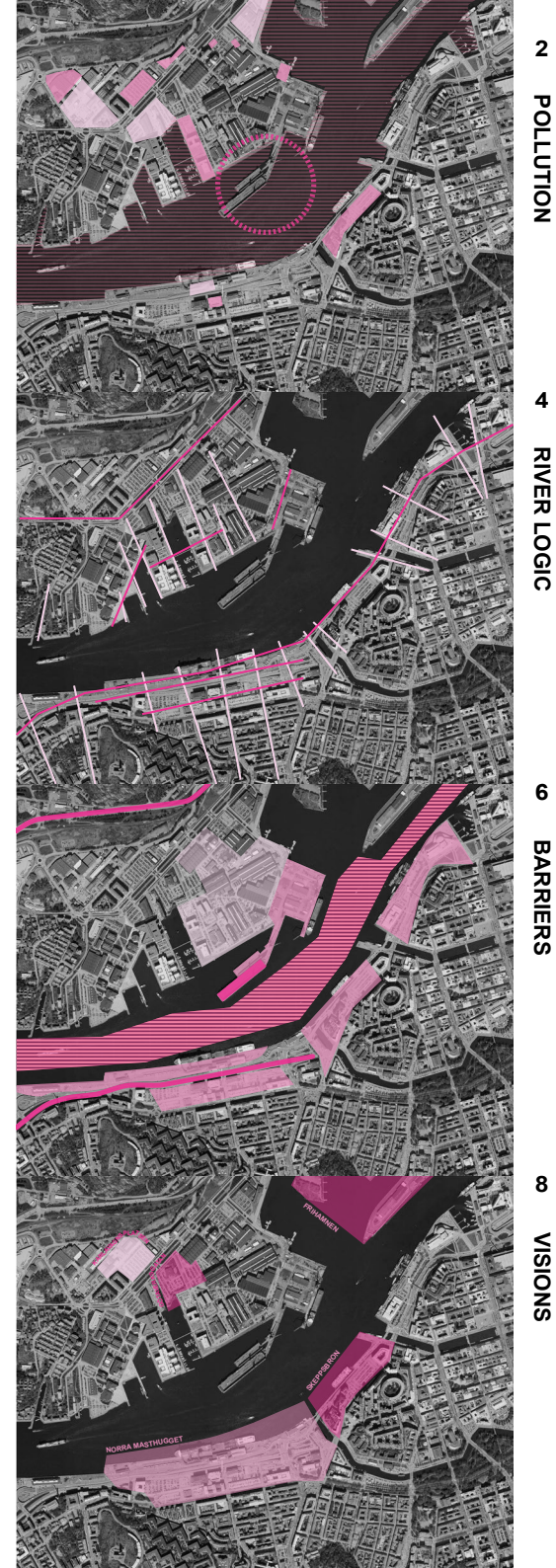
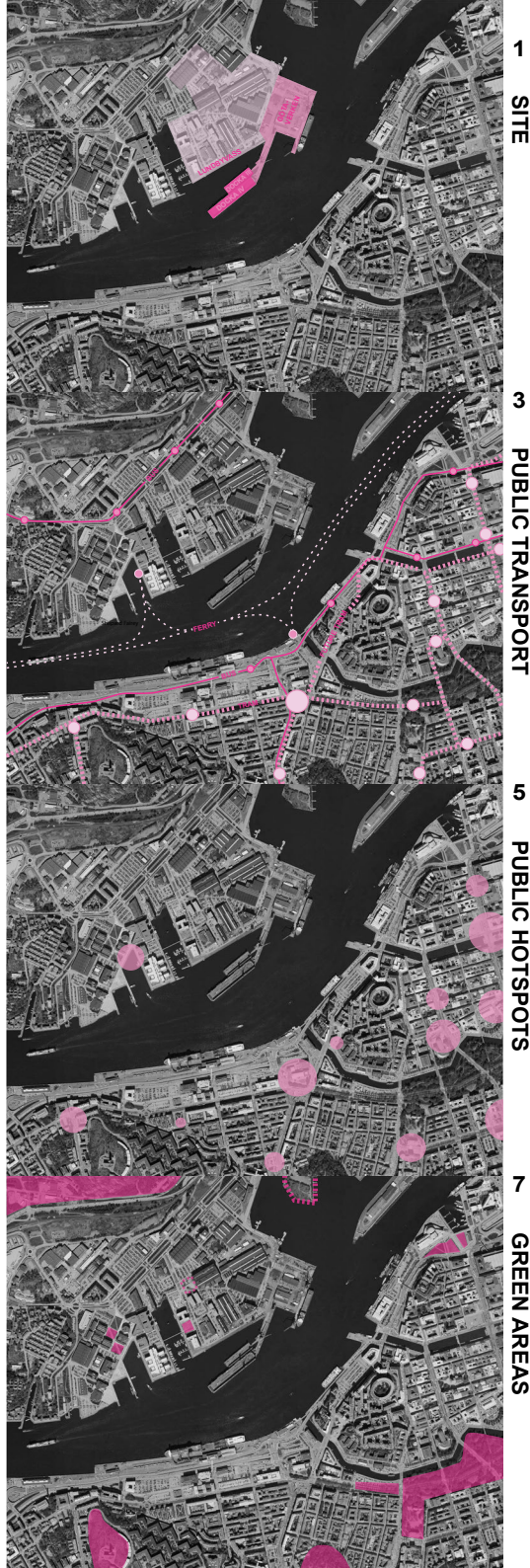
These exists of several highways with large amounts of vehicles passing each day, industries with fenced of riverfronts and underdeveloped area: open unprogrammed spaces next to the river.

7. GREEN AREAS

The city of Gothenburg has plenty of easily accessible green areas but not m(any) overlooking or next to the river.

8. VISIONS

Former industrial areas are retreating in favour of new housing developments. These areas are aiming to be more integrated with the city than the previous attempts but still consits mostly of housing for a small target group. Little regard is taken towards the existing smaller actors in these areas and they are as a result forced away.



DIMENSIONS

The dock is 250m long and has walls as high as 15m.



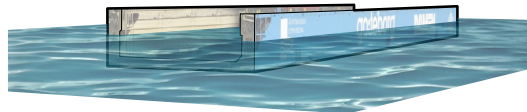
FLOATING

The water is pumped out of the ballast tanks making it float back up on top of the river.



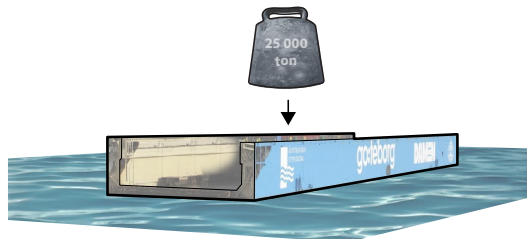
SUBMERSIBLE

When the ballast tanks are filled with water the dock sinks, filling the space in the dock with the river.



HEAVY CARRIER

The dock is capable of carrying heavy loads without sinking.



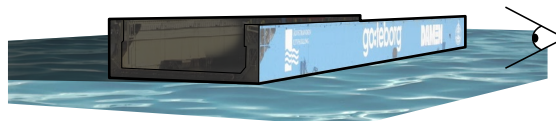
MOBILITY

The dock can be moved with help from other vessels.



LANDMARK

The large superstructure is visible from many places around the city, making its elevation a well known feature in Gothenburg.



THE DOCK

The dock was built in Gothenburg at the Eriksbergs shipyard and was launched in 1962 and transported to its current location during this timeperiod. Its simply named "Flytdocka IV" since it's the fourth dock to be built at the shipyard.

Over the years it has undergone a number of adjustments, reparations and different colour schemes.

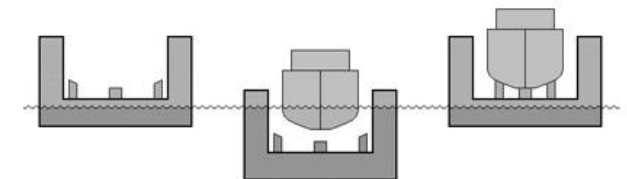


Diagram showing the principle of a floating dock

RE-USE

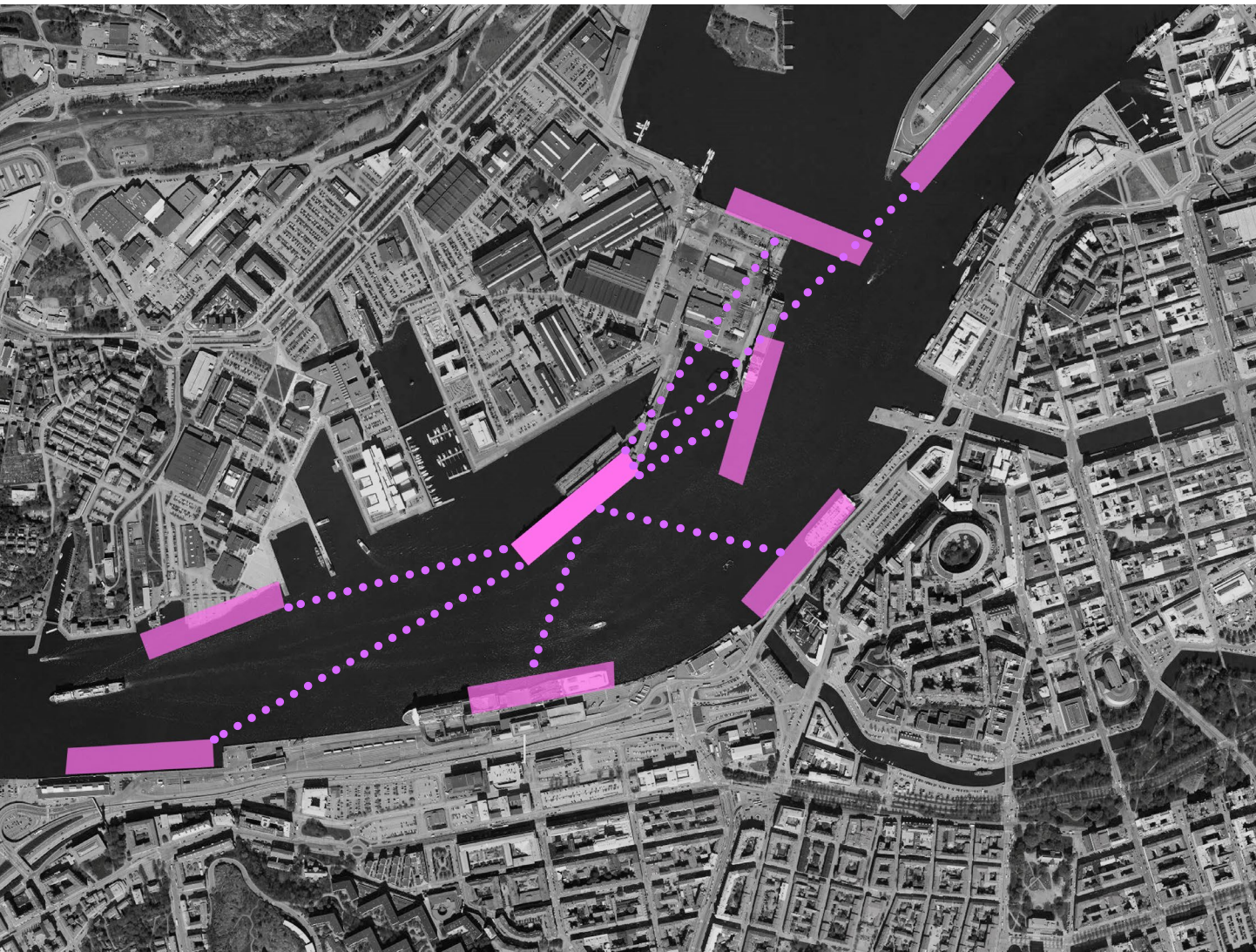
The re-use of the dock is both a historically significant action as well as an environmental benefit with regards to energy/resource savings. One of the more likely alternatives is the dismantling of the dock. When these seaborne megastructures have finished serving they are often put on beaches in India or Bangladesh where they are taken apart by local population. Here exists little or no safety standards or ability to do this work in an environmentally safe way.

Also the demands of the ship-repairing business has provided the docks with a structure and materiality with high durability, now and for a long time to come. A fact that further encourages the continuous use of the dock.

The fact that the energy and resources to make the dock has already been spent, that the alternative is not sustainable and the dock is still fully operational, are all good reasons for keeping the dock in Gothenburg and repurpose it.



Bangladesh Ship Breakers



MOBILITY

The Docks ability to move and float makes the structure more resilient towards future climate and city changes. The rising sea levels puts most of central Gothenburg in risk of being flooded within the next 100 years. Also the climate will change over this time period, adding different challenges to our built environment then we have today. These challenges have little or no effect on the dock as it has a different skill set than most other structures in a city.

It is also less sensitive to urban developments and the economic factors otherwise recognized as gentrification. When not being fixed at one location the location doesn't determine its future existence.

The distance between the city and the river is experienced as a loss by most citizens. The old logic is in need of being restored, and placing a new "street" in the river itself could be one way of addressing this issue.

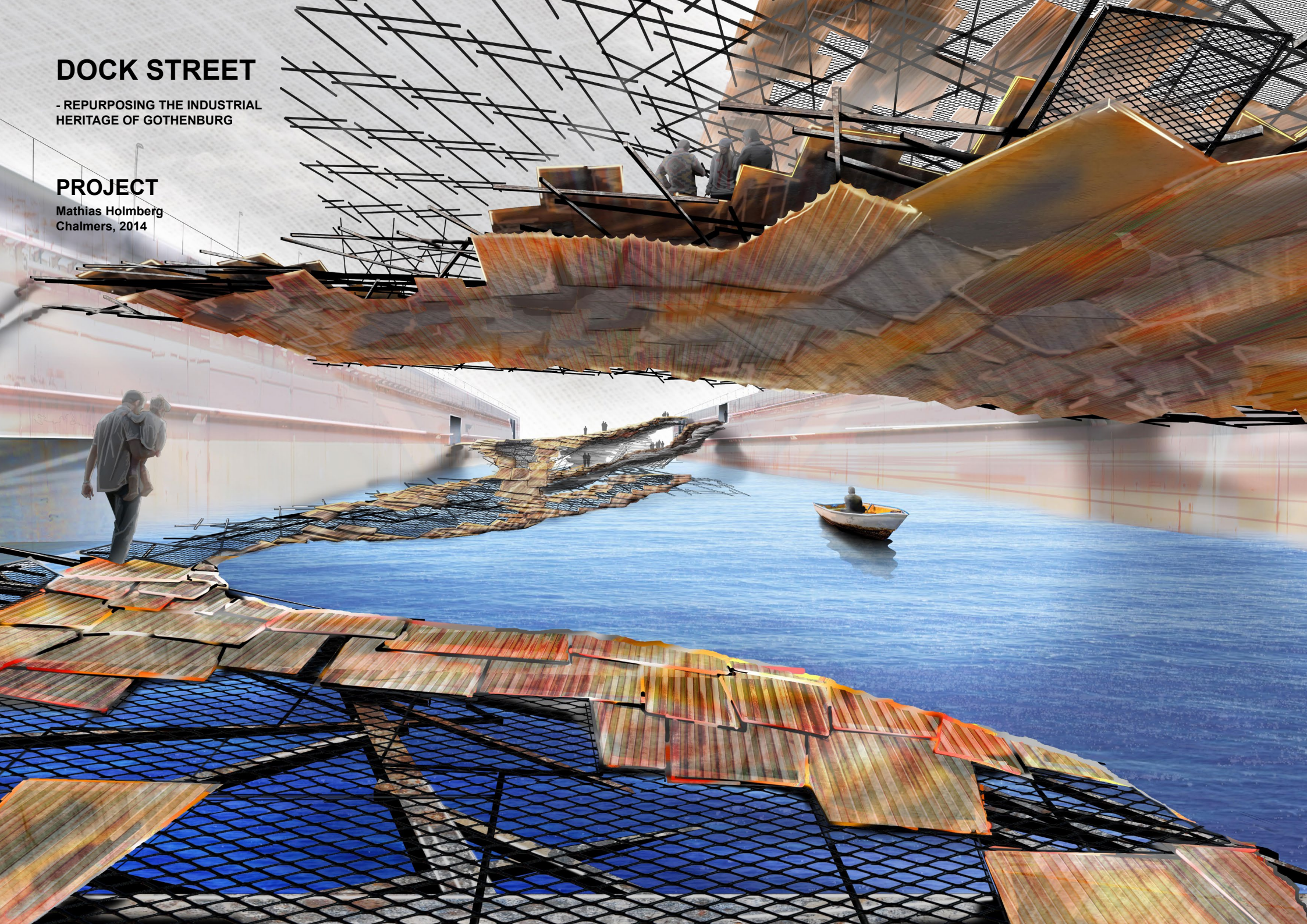
Also the ability to sink provides a unique feature, emphasising the relationship with the river as well as enabling the moving of heavy objects. This feature together with the two existing cranes gives the dock the ability to be a space unrivalled in flexibility and adaptability.

DOCK STREET

- REPURPOSING THE INDUSTRIAL
HERITAGE OF GOTHENBURG

PROJECT

Mathias Holmberg
Chalmers, 2014



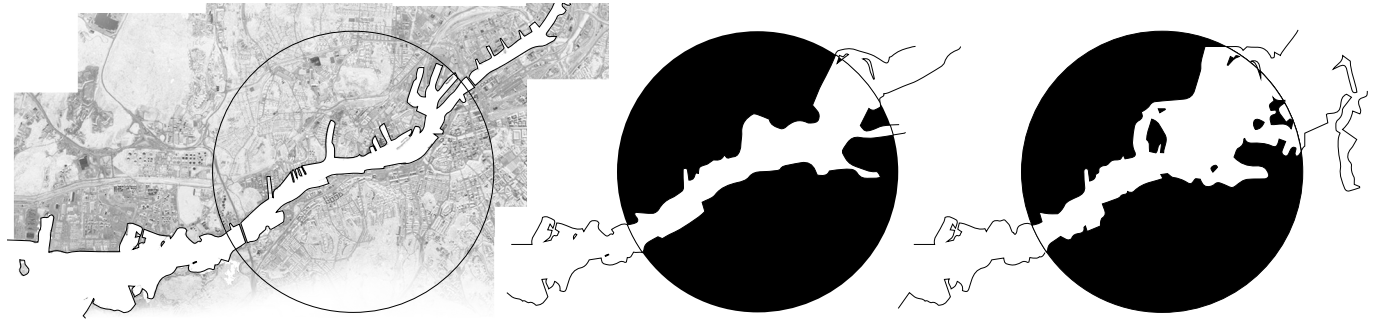
- Introduction
- Urban impact
- Urban collaboration
- Actors
- Structure
- Access
- Entry
- Adaptability
- Future
- Model

A chapter of Gothenburg history has come to an end. Does the end of Götaverken also bring the end for the ship repair dock? Is its destiny to be shipped away for dismantling? Imagine it could instead stay, remain in the river in service of its habitants.

It could be repurposed into a public space, a “street” in the river that reconnects the Gothenburgers with each other and with what used to be the heart of the city - Göta Älv.

It would be a street that tries to give back to the city what it needs; vibrant public urban spaces, spaces that used to be along the riverside.

The street will not only be adjacent to the river but inside the river, reclaiming a connection that has been lost to the inhabitants of Gothenburg for too long.



+/- 0

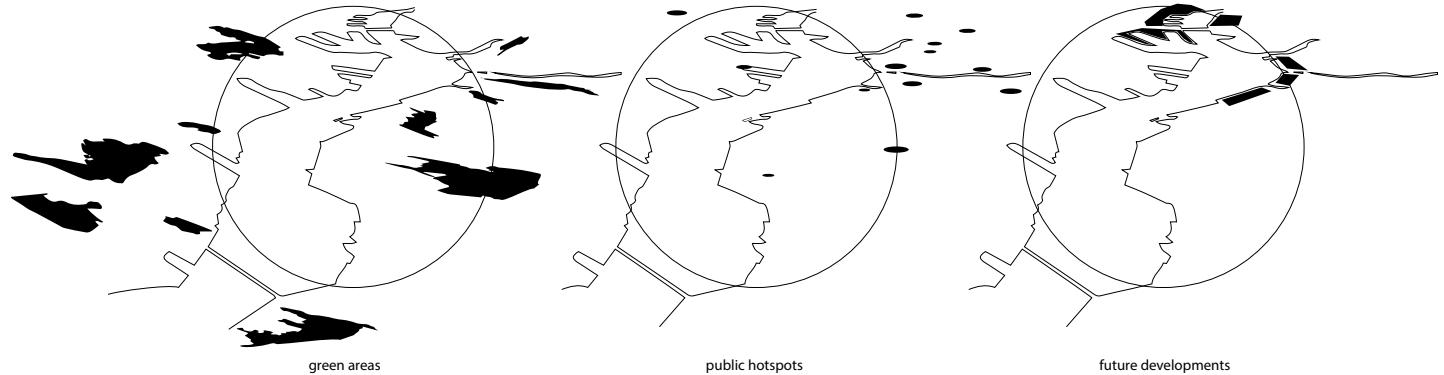
+1.0

+2.0

URBAN IMPACT

The dock has the abilities to be able to adapt to the future challenges of the Gothenburg region. With rising sea levels, climate change and new developments along the river the dock will be a constant feature for the citys inhabitants. It will also serve as a reminder of what used to be, the collective memory of the citys past.

The dock will act as an extension of the city and its functions, bringing Gothenburg back together and back to the river.



green areas

public hotspots

future developments



historical riveredge

industrial riveredge

dock riveredge

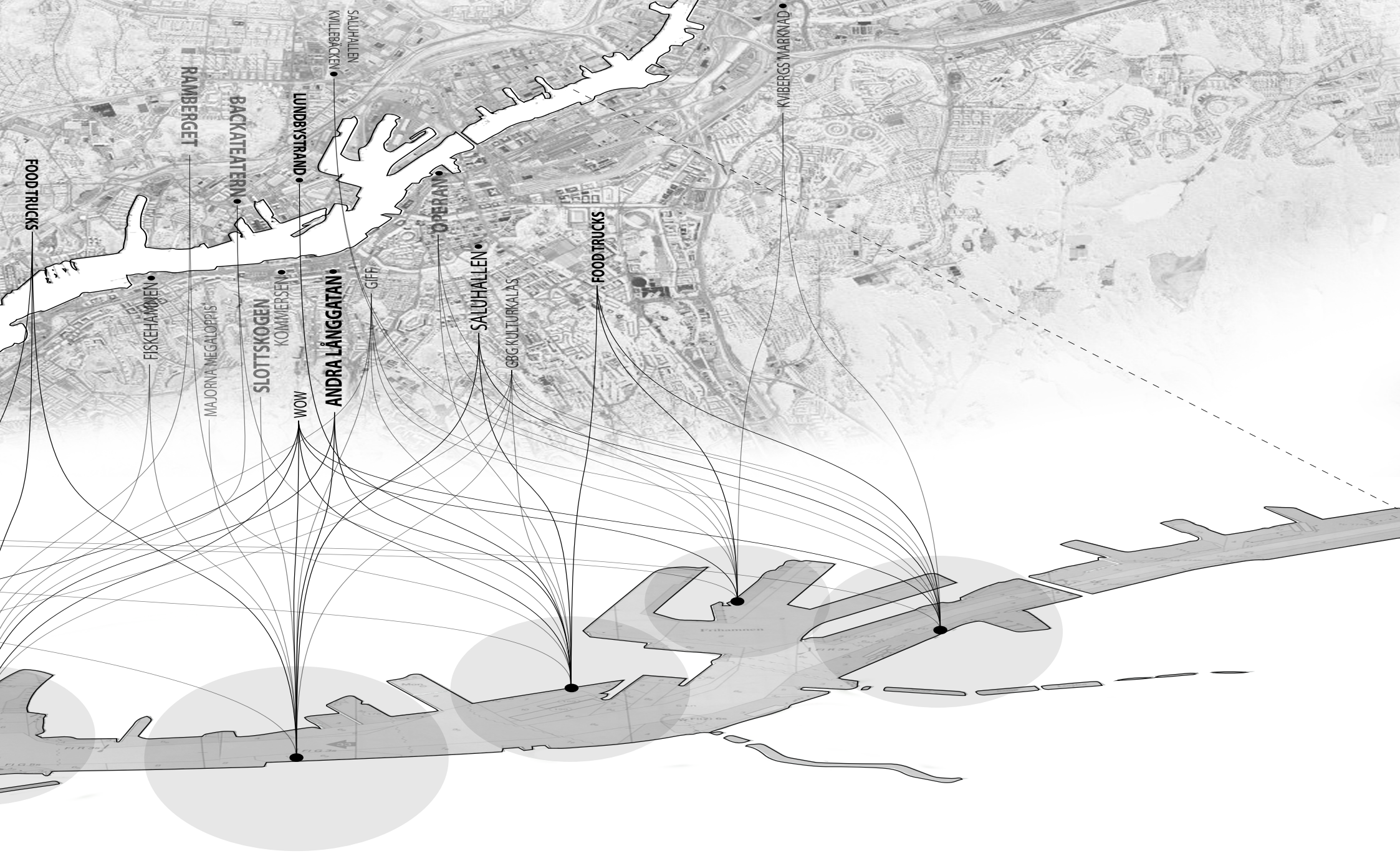


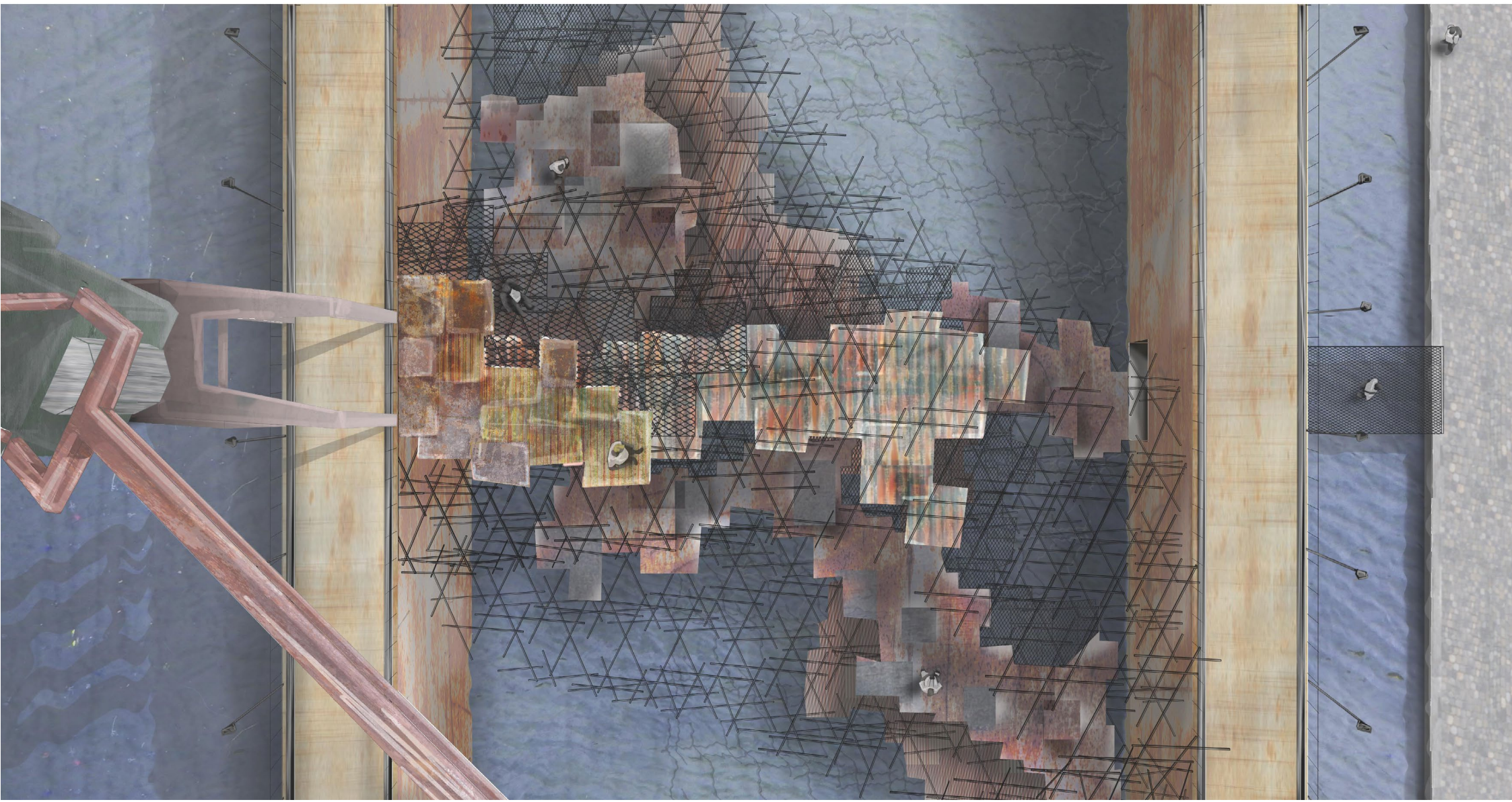
URBAN COLLABORATION

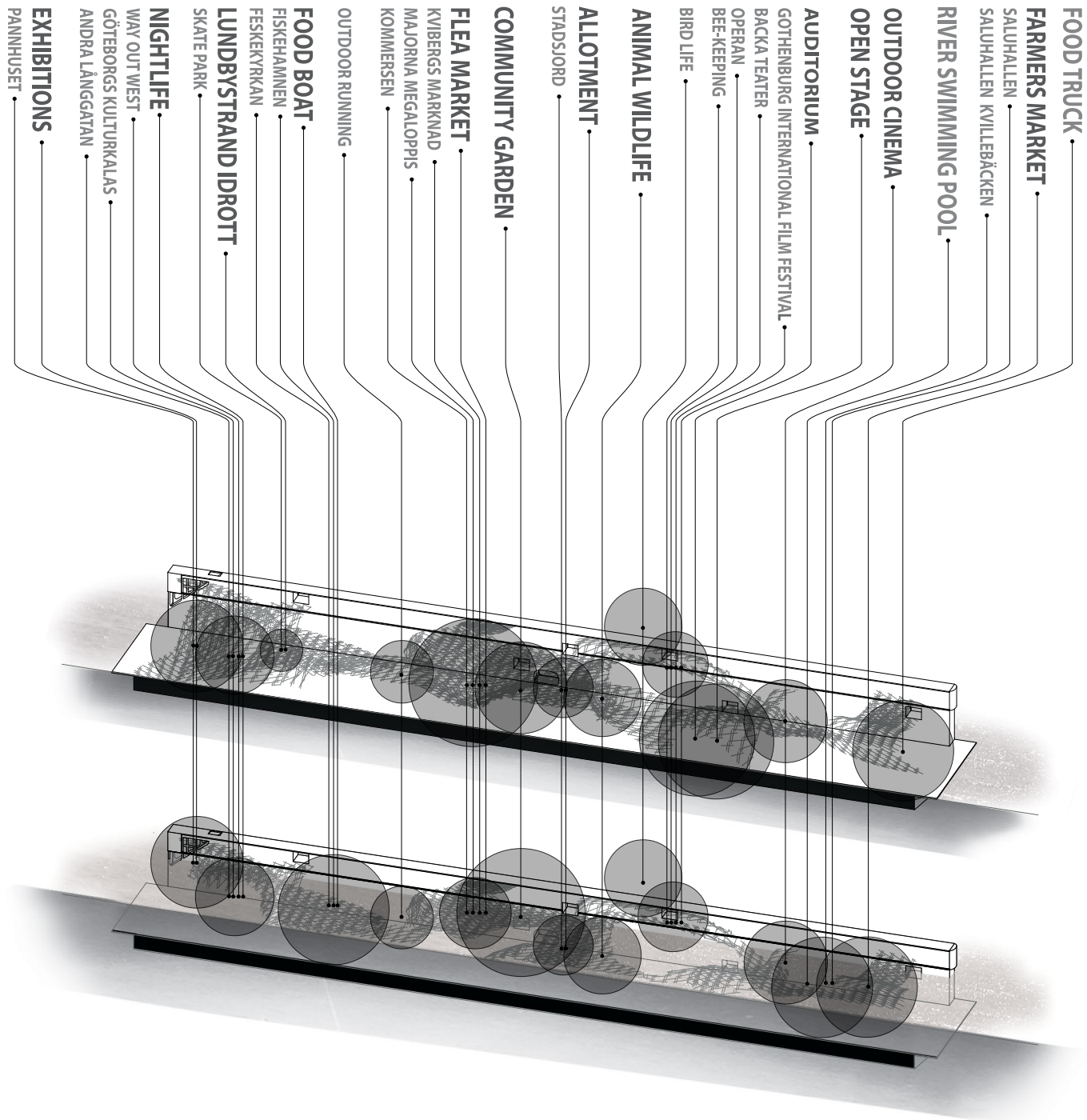
The docks ability to float and move on the river opens up possibilities of connecting to a large variety of functions existing in the city today and future ones. In order to house temporary functions and attract a variation of people the dock is placing itself where it is needed.

Each place offers a new way of experiencing the dock, not only bringing the dock to a place but also that place into the dock. Each stop expands the dock physically and mentally.







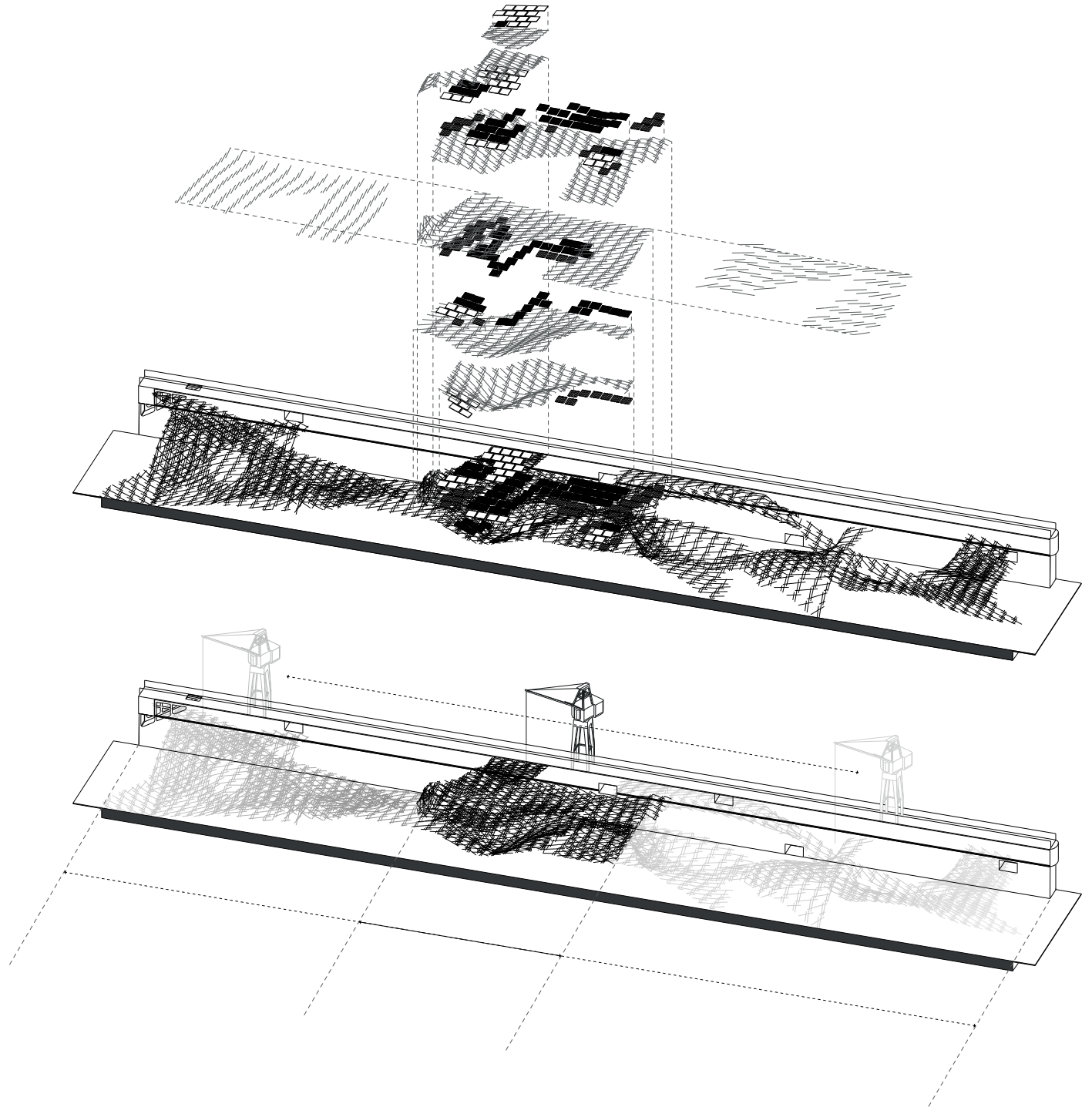


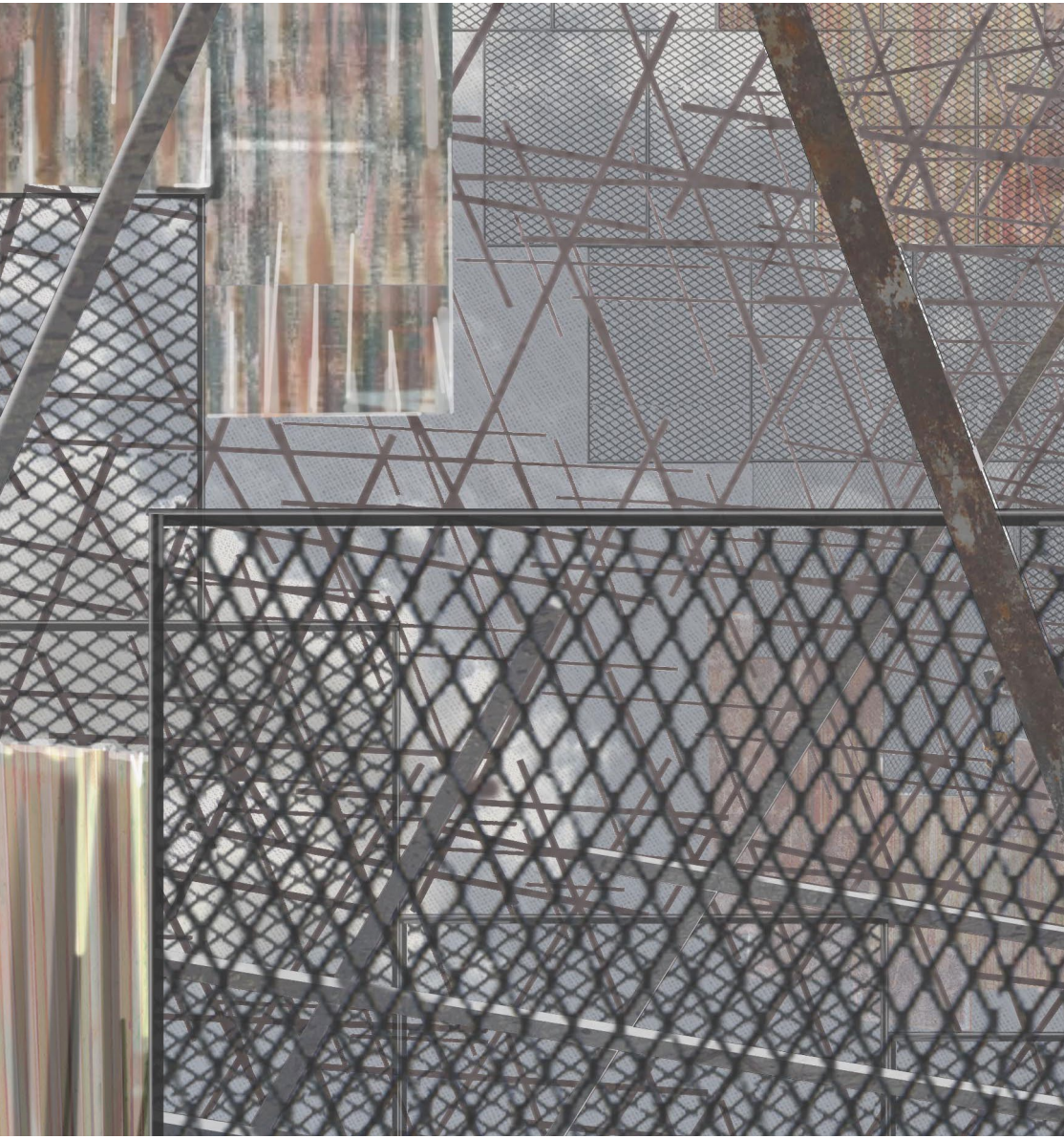
ACTORS

Within the dock the added structure is constructed in order to be generous and general and as such is able to house as many functions as possible. With the dock on top of the river one set of conditions exists, access for vehicles, large spaces that can be covered and stages for performances. With the dock submerged another dimension is introduced, access for boats, possibility of swimming etc. The relation between these conditions provides a practical as well as experienced transformation.

STRUCTURE

The added structure consist of steel profiles added in two directions and repeated to create a artificial landscape. These steel rods are bolted togheter which provides a flexibility for future changes, when needed. On this structure is added a second layer in order to create the conditions required, wether its covering for walking, storing or sheltering. Although the entire structure is possible to change a simpler way to create new spaces is to change the added materials. The structure also acts as provider of neccessary equipment such as lighting







Access

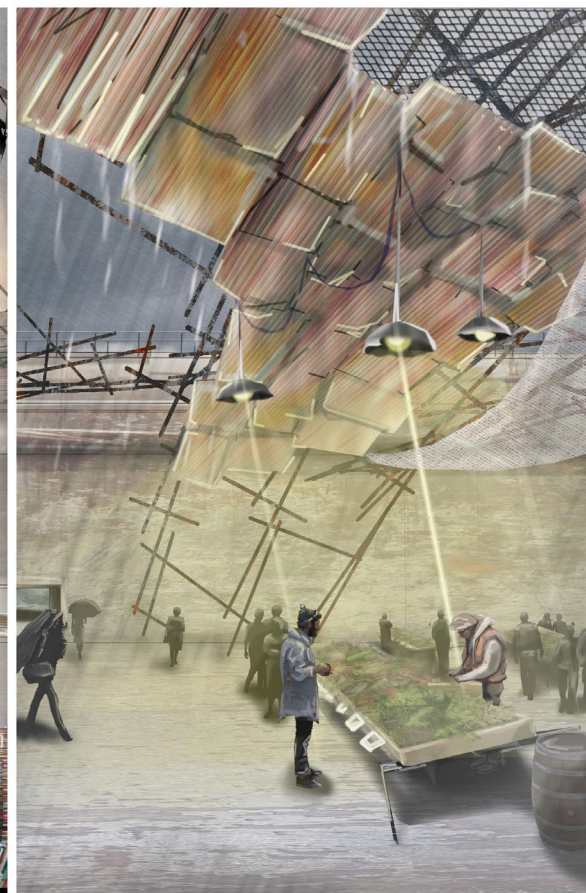
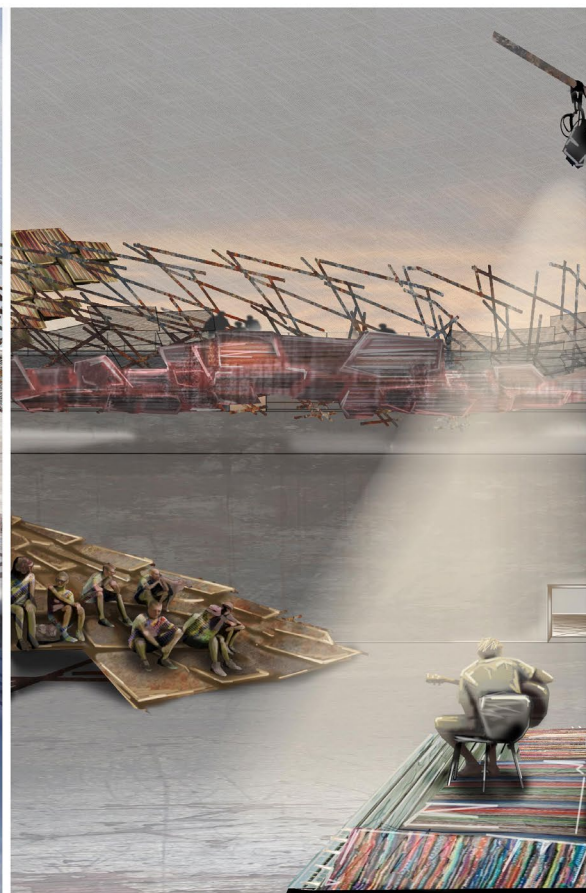
The dock moves around the city and docks to the city providing access to the inhabitants of Gothenburg. A series of holes are cut out of the walls providing access from both sides. These holes are placed on several different levels in order to provide access regardless the current level of the dock in the river.

As the dock arrives at different locations around the city it is not only transforming the space within the dock but as well the space where it is placed.

ENTRY

Moving through the walls of the dock and reaching the inside provides an experience of moving from one outside to another, like reaching a hidden valley. It is a space both open to its surroundings as well as intimate.





ADAPTABILITY

The structure provides the possibility of housing a large number of functions within the large interior of the vessel, making it useful for most functions. Also the same place within the dock is adaptable, by changing the conditions such as the level in the river or/and the materials added to the structure a new space is created.

The transparency of the structure itself makes the experience of the “dock-room” itself intact, making the structure act more as an installation. With activities taking place the structure acts as function. This transformation of experiences gives the dock-space the possibility of both becoming and remaining relevant in the urban fabric.

Future

No matter what the future holds for Gothenburg the dock is well prepared to adapt to it. With its unique abilities it is well suited to provide a democratic public space for the inhabitants of gothenburg for generations to come.



