Thank you all for coming to my final presentation. It is great to see that you have come with so many.

In the next half hour I will explain to you my graduation project called 'The bridge'. In the subtitle, (a) community building, the a is put in parenthesis to make you aware of the analogy between the noun, a community building, and the verb, community building.

I'll start with a short elaboration on the research I have done. I'll lead your through the problem statement, the goal and method and will finish with the conclusion. Thereafter I explain my design proposal. I will give a short analysis of the location, explain the goal, the design itself, the making of and will end with a conclusion.

The societal issue I chose to address is the increasing anonymity in residential urban neighborhoods. A neighborhood without any social interaction is anonymous. The social control is low which makes it a perfect setting for anti-social behavior. Detrimental consequences of anonymous living environments are alienation, insecurity, criminality and sometimes even a decreasing welfare. Furthermore, the commitment and care people have towards their living environment decreases which results in polluted and unmaintained places.

Besides, whereas the mobility of society has increased,
there still are less mobile residents like elderly, families with children and not seldom people with a low income which are left behind in the anonymous places.

De Waal, who has been analyzing the urban society of today says that „Citizens currently are merely involved in the environment where they live, simply because they live there. The neighborhood, and maybe even the city, are no longer territorial unities with whom they feel connected or where they get the feeling of belonging to a community.”

The increasing anonymity in residential urban neighborhoods is caused by a decrease of social interaction between citizens that share the same living environment. Important causes that played a role in this are,...

immigration, new citizens, form abroad or from the countryside, are not familiar with unwritten rules that exist in certain areas. Mutual trust decreases in a neighborhood where everyone become a stranger.

The growing mobility, People are able to maintain social contacts living at faraway places because of the increased possibility of the use of the car and public transport.

and the rise of digital and mobile media, which has been influencing our social behavior.

The government used to subsidize community facilities like sports clubs and cultural institutions to maintain the social coherence.
However, due to cutbacks and a belief in the participation society, the government will gradually pull back and take a less active role in supporting local community development.

slide 13

Within the participation society citizens are asked to take care of their own social and spatial living environment. I think it's possible, but the decreased mutual engagement is hard to ignore if we want the participation society to succeed. Residents will not take care of their own direct spatial or social environment without feeling responsible or committed to the place or its neighbors.

slide 14

In order to create and maintain healthy, safe and attractive urban neighborhoods, residents should become aware of a social environment that is linked to the place. Therefore, social interaction among locals must be stimulated so that local communities are able to develop.

Making citizens interact with each other is however not an easy goal to achieve, it is not 'makeable'. But, leaving the situation as it is is neither an option considering the negative consequences of anonymous environments.

instead,

slide 15

The right conditions could be created in which people are invited to interact with each other. By creating starting points, and not much more, citizens are able to organize local events and activities themselves.

Repeated interaction among neighbors can eventually lead to the formation of a locally bound community. Residents will organize themselves for the common goal of creating and maintaining healthy, sustainable and lively neighborhoods.

The government should take up part of the responsibility by not wanting to control community development but by merely facilitating community development. The government can benefit directly for they could save a lot of money on controlling forces as the social control will increase.
on to the goal of the research.

„It takes a place to create a community, and a community to create a place”.

The design of such a place, a community place or building, that possesses the right conditions in which citizens are invited to interact with each other, is an interesting and challenging task for the architect. The goal of my research became to find the conditions in which local communities are able to develop.

my research question was:
„How can architecture function as a facilitator in the process of locally bound community development in the current society?”

To be able to answer this question

I analyzed several community places in the Netherlands. I analyzed two community centers from the past by architect Frank van Klingeren, the Meerpaal in Dronten and ’t Karregat in Eindhoven.

Furthermore I was fascinated by the bottom-up community places popping up in our cities. I chose to do a case study on the Noorderparkkamer in Amsterdam-Noord and Blijburg on IJburg.

The research resulted in this book.

In this presentation I will go straight to my conclusions for these are interesting in relation to my design proposal.
The research question has been answered by formulating conditions that can lead to different designs of community places that facilitate locally bound community development.

- It is important that the place has a continuous and varied program aimed upon the local population.

- another condition is a casual approachability and accessibility of the place. This can be done by locating the place in a public environment or situate it along a dynamic route. and also by making the transition between being inside the place and outside the place almost unnoticeable. A passerby can easily become a participant.

- a non-dictated use of the place. There is not one way in how someone could use the place.

- the presence of an initiator or initiating team that is attached to the place.

- the presence of general facilities like water supply, toilets and a place to prepare of buy food and drinks.

- an informal atmosphere.

- keeping the possibility of (spatial) change possible. Especially this condition is quite important, because communities are very dynamic. The architect should only design starting points in which many things could happen. He
or she only designs the rules of the game after which the users start playing.

slide 31

I tried to implement the formulated conditions of the research in my design of a community place.

slide 32

Because it concerns a local community the contextual conditions are important for the design.

slide 33

I chose to design a community place for the Buiksloterham in the north of Amsterdam. This is the map of Amsterdam.

slide 34

And here is the Buiksloterham. The Buiksloterham is an old industrial harbor situated near the centre of Amsterdam. It has a lot of potential to become a vibrant place because it lies on the waterfront of the IJ and forms a link between the inner city and the NDSM-wharf, a popular cultural spot.

I chose this neighborhood for it does not yet have a local community. This is due to the still little amount of residents, a government that poorly supports local community development and because it does not contain public space that facilitates the encounter of residents.

slide 35

if we zoom in you can clearly observe that the neighborhood is characterized by industrial activities of the recent past.

slide 36

The Buiksloterham in 1971.

slide 37

and a picture of the current state.
A positive feature of the former harbor function is that the neighborhood has a lot of water. Negative results are the large amount of empty and often polluted plots and the small amount of connections like streets, bicycle paths or bridges.

slide 38

a typical street in the Buiksloterham.

slide 39

some fishermen at the Johan van Hasseltkanaal.

slide 40

The Buiksloterham will be redeveloped into a mixed urban area for living and working. In this case will be broken with the general way of redeveloping. they choose to work with a gradual and organic transformation process.

slide 41

People are invited to built their own house..

slide 42

..and direct living environment like streets and parks.

slide 43

And here I found an improvised setting for neighborhood activities.

slide 44

No urban plan will be presented, instead, the municipality only provides a legal planning framework. This way the neighborhood is able to grow organically.

slide 45

They presented this in a investment plan. The central part will mainly consist of dwellings. They propose a green area for public use along the shore and a
new bridge over the west end of the Johan van Hasselt canal, the largest waterway in the neighborhood, so that the route along the shore can be continued. In the wide canal they furthermore propose a marina.

slide 46

the goal of the design was to create a community place that facilitates the development of a locally bound community by implementing the conditions formulated in the research.

slide 47

And to my opinion the best spot for a community place was this spot, the bridge.

slide 48

The design of a bridge metaphorically suited my goal of willing to connect people. Furthermore I could contribute to the improvement of the neighborhood on an urban scale.

Citizens are able to built houses, streets and parks themselves. building a bridge is however, so to say, a bridge too far.

Bridges are developed by the government and therefor they become places in which the government is able to add value by, for example, creating the right conditions for the development of a local community.

Also, the design of a bridge already contributes to one of the conditions I formulated in the research. The design is not situated along a dynamic route but will becomei the dynamic route itself. A casual approachability and accessibility of the place is yet created.

slide 49

To zoom in a bit more you can observe some leftovers of the old harbor works.

slide 50

two pictures looking out over the Johan van Hasseltkanaal.
and a long pier, also a leftover from harbor works.

The design.

A bridge is a connection between two points and an archetypical bridge would look like...

..this..
To make the bridge accessible for various traffic means (no cars though) and to create a casual approachability

I lowered the bridgedeck.

The bridge needs supports as the canal is approximately a 100 meters wide.

they are put on equal distance of each other for a logical load bearing construction system.

The supports are raised

to define different places,
The supports work like partitioning walls.

slide 61

The bridge supports mainly facilitate the exterior spaces in between.

slide 62

They are made hollow. You could compare them to closets in a room. But the insides can also be used for indoor activities with very small groups like private meetings.

The supports are sculpted in such a way that they facilitate the places in between differently.

slide 63

To let the different supports form a group I however used the same tools to shape them.

slide 64

different corners have been cut out to create more interesting shapes.

slide 65

Shadows become sharper as the surfaces catch sunlight form different angles.

slide 66

and the slanted roofs also control the way the rainwater seeps down.

slide 67

Holes are made in the supports to be able to enter them and to suggest different use.

slide 68

Also small volumes are taken out of the mass. They are provided with fixation points.
And this is reflected on the opposite facade. Herewith the user is invited to construct things.

if we look at the plan you see the supports are shifted towards one side

this is to create a distinction between the passageway and places of residence.

wooden poles in the water provide extra support.

the bridge deck is made of wood so can become very slippery. The deck is provided with grip and the form of it, lines or a field, suggests different use.

Not only the supports, but also the deck is provided with several fixation points to invite the user to construct, temporary tent structures, built a terrace or a theatre, you name it. In this the users get a lot of freedom.

Here I sketched several of the fixation points that can be found in the design, both in the facades and in the bridgedeck.

Here is an example of what they can be used for.
But, a place should not be too flexible. A place also need identity, because people should be able to get attached to the place. This identity, the identity that will remain whatever happens, whatever the users, has been cast in the concrete bridge supports. From the outside they form a family of different sculptures that belong to each other and strengthen each others presence.

slide 78

The places in between the sculptures obtain identity by opposing facades with similar fixation points for possible constructions. (plaatje maken)

slide 79

The interiors are shaped differently to make certain things possible in some of them, and other things rather unlikely. Through their different possibilities they obtain their own character. Their possibilities have been assigned by studying the contextual conditions. One sculpture for example forms a passageway to the marina and another has openings on both side as it lies in between two exterior places.

Slide 80

In the investment plan, the municipality asks for a movable bridge so that boats can pass and get to the marina.

My eye fell upon an old and almost forgotten manner to cross the water; the floating bridge.(vlotbrug)

slide 81

The floating bridge consists of two pontoons that can move under two sloping access roads on each side. They are cheap to build and give the possibility to create large passage widths which was being asked for in the investment plan. But I mainly chose this system because the opposite side of where someone is going remains visible, the connection remains visible. And, the boats that cross can be observed from close by.

slide 82

Here is the situation plan of the bridge in its context.
and a situation plan in which the bridge will find itself in the future, surrounded by urbanity.

slide 84

In the plan and section you can clearly observe the distinction between the large open and free spaces outside, and the smaller spaces inside the sculptures. In the drawing the insides are furnished in a way I think the interiors could work well, apart, and together. Also you can see some general facilities like toilets and a kitchen. The one in the middle will most likely become the office of the initiator, as it is the only one with a window looking out over the neighborhood. But in the end it’s the users who decide what happens. I am not able to predict the future and am certainly not the one who dictates how the building should be used.

As I said, I only create conditions, I make things possible.

But I can show you a plausible story of what could happen.

slide 85

its April 2017. The construction of the bridge has been completed. The neighborhood still has an industrial character but with the arrival of the bridge some new roads have been constructed. Some houses have been built and some trees are being planted.

slide 86

local residents gather at the bridge to have a look and to cross the bridge for the first time.

A few enthusiastic locals are entrusted the responsibility of the place. They got the keys to open and lock the interior spaces and keep an eye on maintenance. But mainly they will organize events and activities. They created their office in the central bridge support, the one with a window looking out over the canal towards the neighborhood.

slide 87
The opening of the bridge is their first event. Inside the sculptures, they created an exposition with pictures of the construction of the bridge. Outside, children can play on some improvised swings. Neighbors meet each other.

slide 88

The opening furthermore includes a presentation to show residents the possibilities of their new bridge. And they also set up some regulations on how residents are able to start an initiative.

slide 89

The summer of 2017 is hot. Local children have holidays and want to get out the house for a swim. Their parents send them off to the bridge because there you are able to enter the water easily because ladders have been constructed.

slide 90

Besides, neighbors and passers by will be able to keep an eye on the children. The ice cream vendor takes his chance to park at the bridge to sell them some icecream.

slide 91

Also, on the inner side of the existing pier a beach is made to create a safe swim environment where boats are not able to pass.

In the late afternoon more people gather to sit in the sun on the terrace.

slide 92

And once a month, the neighborhood committee that runs the activities on the bridge, invites a cook to organize an old fashioned neighborhood BBQ.

slide 93

THAT AUTUMN. More people move to the Buiksloterham, the number of houses, under construction or yet finished, is growing fast. In the Buiksloterham there is a lot of freedom, but no individual atmosphere. „het is er gezellig“. 
Some neighbors took the initiative to organize a market where they can sell and buy secondhand furniture for their new homes. That winter it gets a little more quite.

The committee had big plans for an ice skating event but because of a mild winter it remains just a plan.

There is not much to do compared to the summer. However, in the meeting space the committee works on some plans to upgrade the open air theater into a professional theater and to open a restaurant on the southern side with a terrace.

30 years later, oktober 2037. small plans became big plans. The bridge evaluated into a community building with a theatre, a restaurant and an office that rents out sailboats and kayaks for water-recreation.

to the characteristic structure of the bridge

volumes are added for more and larger interior spaces.

The bridge turned into a building, though, the project developer wanted to take hold on the sculptural bridge supports as they formed the starting point of this place.
Because in the Buiksloterham people are invited to design and build their own house, the construction and making of the place played a significant role in the design. The making of is not merely a technical problem to be solved but has become a major source of inspiration. This is visible in both the building process and the materialization.

By making models of how the building process would work and working with the actual materials, concrete and wood, the constraints have been researched and turned into positive consequences for the design.

First, piles will be rammed in the earth.

Thereafter, large prefabricated concrete foundations will be delivered on large pontoons and sunk and attached to the piles on the bottom of the canal.

The building process is not merely something that happens preliminary to the existence of the bridge. The development of the bridge also partly forms the start of the development of the Buiksloterham community. So..

On the waterfront a large mould will be made for the creation of the five sculptures, to cast them in concrete right next to the site. In five weekends
throughout the year, the concrete sculptures will be cast with the presence of locals that are invited to come and see the making of.

Here they are constructing the exterior mold

slide 109

and the interior mold

slide 110

Then the interior mold will be hung into the exterior mold to cast the sculpture as one piece.

Because the outer dimensions of the bridge supports are the same and they only differ in roof surface and openings, the mould can be reused for all five.

slide 111

First the mould will be filled to a certain amount and will harden out for a couple of hours before the rest will be poured in. This is better to decrease the tensions on the interior mold. The ceiling of the interior is shaped as a dome so that air bubbles can easily escape the concrete mixture.

slide 112

then it’s filled to the top. Approximately 28 days later, the concrete is ready to be released from the mould.

slide 113

It is like a present to be unpacked.

slide 114

the created massive sculpture

slide 115

will be turned the right way up on the waterfront.

slide 116
Ready for take off.. The sculptures weigh around 200 tons which can be lifted
by this crane on a boat. They load the sculpture on the boat and carry it to its
final destination in the water.

The sculptures are lifted
by tying steel cables through two holes which have been cast in the
sculptures.

On its final destination the floor will be cast in place.

the mold of the sculptures is made of reused underlayment panels with rough
knots so that the concrete gets a certain tactility. To express the massiveness
of the concrete, the joints of the mold are recessed, so that the concrete will
squash in. This creates so called beards in horizontal lines. Light concrete will
be used for a lighter weight and for better insulation capacities.

The sculptures will be placed one by one
until they reach the opposite side.
on with the building process.

laminated timber beams will be attached to the sculptures and poles will be dug in the ground.

the foundations do not actually disappear but its better for the image to leave them out from now on.

timber cross beams are placed in between the load bearing construction.

secondary cross beams between those

and at last the timber planks of the bridge deck.

... 

The connection is made....... 

some notes on the installations
The Buiksloterham is a neighborhood with sustainable ambitions, they propose a circular neighborhood. For the design of the community place, the bridge, I chose to focus on primitive ways of energy consumption to draw the attention to the presence of natural available resources.

slide 137

Rainwater will be collected in some of the sculptures through funnels on the roof. The collected water can be used to flush the toilets, wash the deck, water some plants and so on.

slide 138

Drinkwater will be provided from the shore, through pipes lying on the bottom of the canal, to prevent for legionella.

slide 139

Of course you can pass the bridge by night. Solar cells are integrated on top of the poles to gain electricity for night illumination. The sculptures will be illuminated from underneath the bridge deck. The lights shine through the small gap between the bridge deck and the sculpture. The illuminated sculptures become beacons of light in the night.

The ongoing route of the bridge is lighted from under the white steel heads on top of the wooden poles.

slide 140

The holes that first facilitated the lifting process are turned into funnels to collect rainwater, and into chimneys. Heating will not necessary as most of the space on the bridge is public outdoor space.

slide 141

However, in the winter, or on cold summer nights, the sculptures can function as fireplaces for intimate companionships.

The smoke will be directed outwards through the chimneys that first facilitated the lifting process.
Also, instead of the use of gas for cooking, people are stimulated to cook on fireplaces, or organize a traditional neighborhood BBQ. The primitive way of energy supply will suit the sustainable community of the Buiksloterham but also refers to traditional ways of why and where people get together. Both fire and water attract people.

slide 142

the conclusion.

slide 143

I designed a place,

slide 144

by creating a lot of space. Space for ideas, space for creativity, space for various use.

slide 145

By giving this same space some limitations, I try to inspire and invite users to collectively come into action.

slide 146

When everything is thought through, the ability of the people is being undermined. By leaving aspects uncertain or unclear, or you could call it imperfect, users start thinking about what would be best and they start talking to each other.

slide 147

I don’t belief architecture is able to create communities. However, architecture can facilitate community building by creating the right conditions. Not the architecture itself, but the social process that is aimed upon, will decrease anonymity.

slide 148
An architect cannot predict the future and cannot dictate behavior. But it can facilitate.

slide 149

Architecture can make things possible and that’s what I try to show with this project.

slide 150

I hope you all enjoyed my story,

..........................

slide 162

thank you all for listening.

slide 163

I guess it’s time for questions.