

BACK TO THE ZAAN

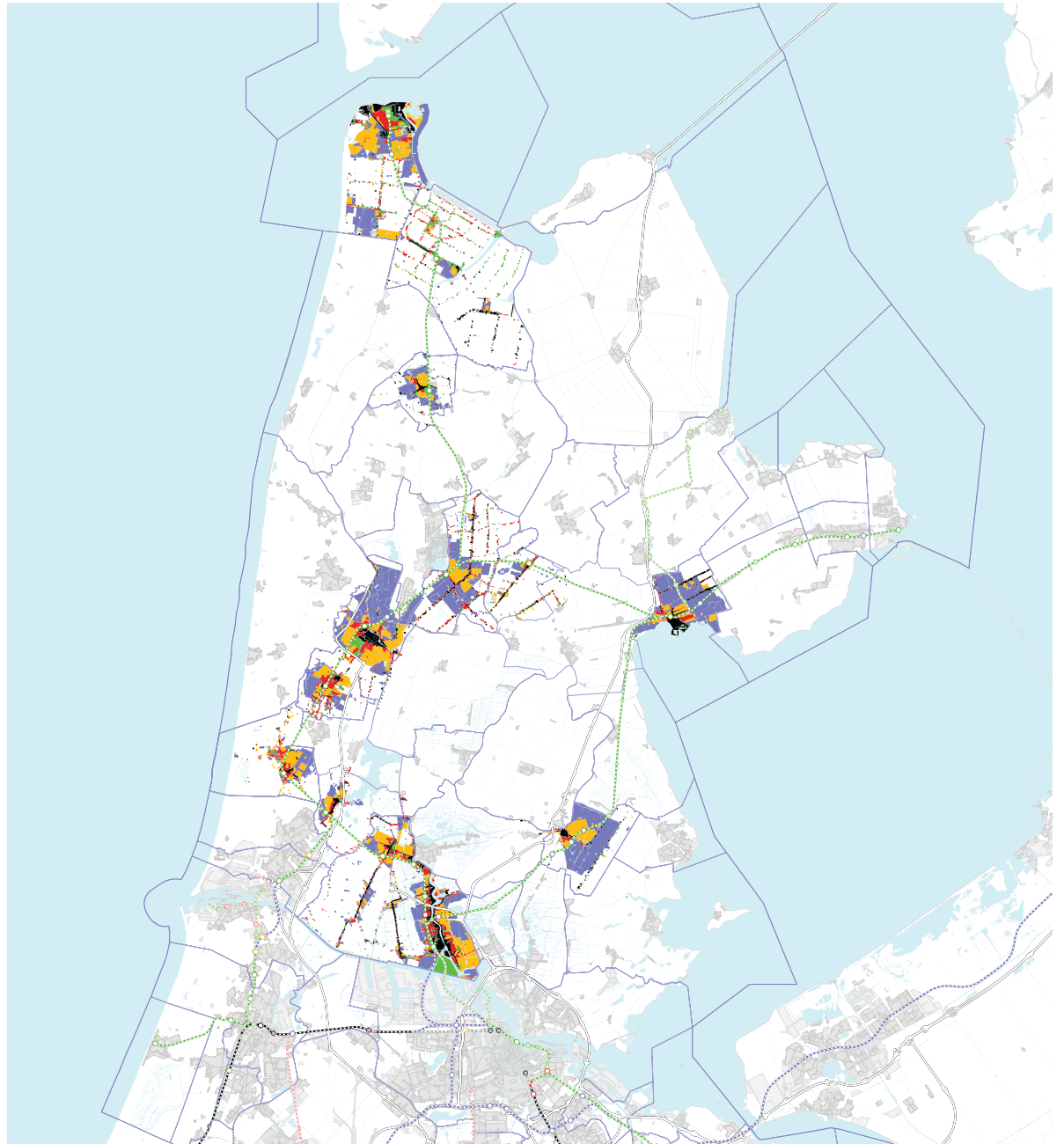
regeneration of industrial area in Kogerveld

final report GRADUTION LAB HYBRID BUILDINGS

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GENERAL

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TITLE OF THE GRADUATION PROJECT

Back to the Zaan, regeneration of industrial area in Kogerveld

TABLE OF CONTENTS

GENERAL	2
PERSONAL INFORMATION	
STUDIO	
TITLE OF THE GRADUATION PROJECT	
TABLE OF CONTENTS	
INTRODUCTION	4
PROBLEM STATEMENT	6
METHODS AND TECHNIQUES	9
EXPERIENCE OF THE PLACE	
HISTORICAL ANALYSIS	
PROGRAMMATIC ANALYSIS	
MORPHOLOGICAL AND TYPOLOGY ANALYSIS	
REFERENCE ANALYSIS	
ANALYSIS AND ARGUMENTATION	12
PUBLIC SPACE AND LIVELINESS	
PARK RESEARCH	
HISTORICAL DEVELOPMENT OF THE CITY	
PROGRAMMATIC CONTEXT	
MORPHOLOGICAL AND TYPOLOGICAL STUDY	
ENVIRONMENTAL RESEARCH	
MASS STUDY AND RELATION WITH STATION	
CONCLUSION	20
REFLECTION	22
LITERATURE	26
ARTICLE	
BOOKS	
REPORTS	

INTRODUCTION

During the years that I'm interested in architecture the field of architecture has changed several times. This change is the result of different parameters influencing the timeframe.

How do we approach these changes is the question, or should there be no change at all? Within the timeframe we are in now, architects have to work in a way that is delivering a building or masterplan which not only gives something for now but also something for the future.

The studio of Hybrid Buildings focuses on three topics; city renewal, densification of station areas and improvement of station areas.

The first topic; city renewal. City renewal is a way of working within the urban fabric. It uses specific projects to create a better livability, economic base, social cohesion or improving things like; sustainable development, housing, accessibility, public space and other improvements of the urban area.

Secondly the densification of station areas, this has to do with the research that show as decrease of accessibility to the public transport and especially the train and a research that shows that if you live within a 10 minute walking distance of the train station you most likely will use the train as way of transport. If you combine this two researches you could draw as circle of 800 meter radius around the station. This area is than suitable for urban densification according to the two starting points.¹

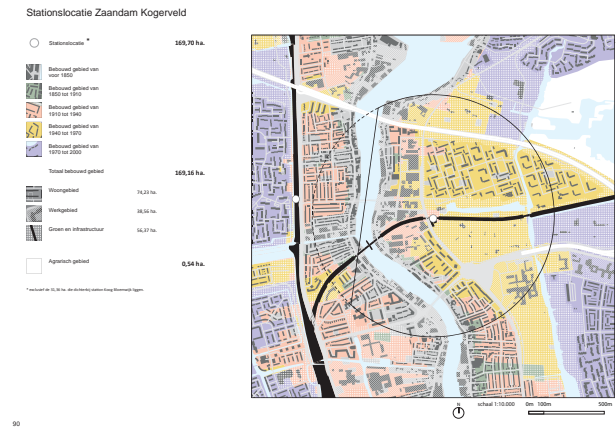
The third topic has a direct relationship with the second topic because when a station area is densificated, the number of daily users will grow and the use of the station will change. When the idea of the station will change there is a need for improvement of the station and the direct area around it.

The reason why I did choose the studio of Hybrid Buildings for graduating has to do with the relation between urbanism and architecture as main element in the studio. But also with the specific issues on which there should be found a answer, like; railway station, urban densification and hybrid building.

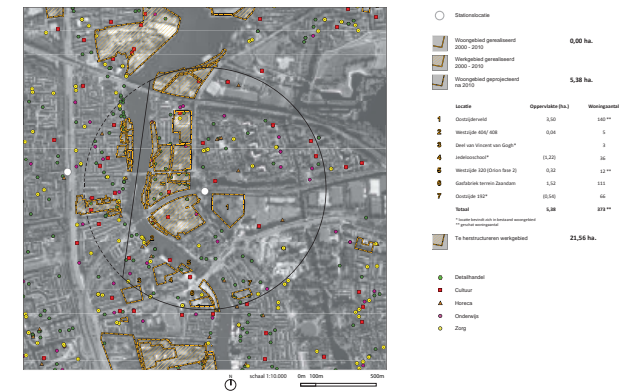
The studio focus is on the area in the north of the Netherlands just above Amsterdam, here is the city of Zaanstad. Zaanstad is a consolidation of smaller village which starts in the south of the municipality with Zaanadam and ends with Krommenie-Assendelft in the north. The Zaanstad is part of the greater metropolitan area of Amsterdam. A lot of commuters from this area are working in Amsterdam so commuting is of relevance for this area. If the people want to work they have to commute in a way to Amsterdam. These days they are mostly use the car for this. A result of that is the traffic jams and the decrease of public transport use.

*"The Zaanstreek is a old industry area, that became world famous in the 17th century because of their mill industry. The changing from the mill industry to the steam-engine industry is one that happened slowly and wasn't without any setbacks. Mills and steam-engine machines have also worked side by side for a while. After that the steam industry was being replicated by the electric driven machines which happened quit unnoticed."*²

The area has a rich history as it comes to industry and the working middleclass, a water element such as the Zaan and use of the railway system. In different periods of time the villages evolved in to a small city and grow closer to each other. As a result this the industry was enclosed within



ill. 1 [from report Engel, Waaijer; 2011] result on the historical research done for the report



ill. 2 [from report Engel, Waaijer; 2011] result of the places available to do densification

¹ Engel, Waaijer [2011]

² translated from; Kingma [2003] p. 113-119

the urban tissue. Nowadays a third change is coming; the industry is being slowly removed from the urban tissue and urban development's take their place .

So all the different arguments of choosing this studio are being introduced; city renewal, urban densification, improving station areas, train stations and the railway itself, hybrid buildings, river the Zaan, and the existing industrial areas.



ill. 3 [own ill.] drawing of different station area within the Zaandstad

PROBLEM STATEMENT

The big urban densification that Zaanstad proposes to build in the coming years brings a lot of attention to this area. This attention could work out for economical and social reasons. Here lies also the opportunity to make a statement and define the question of urban densification to the larger debate of city renewal. On the level of city renewal urban densification than becomes a tool to evolve the idea in to reality.

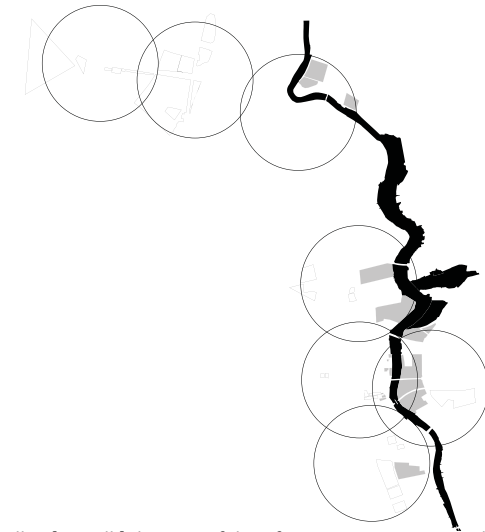
The main problem of doing a densification assignment is to make a area that people find worth living in. This means that not only you propose a large densification assignment, but also the necessary program to bring public space and supporting functions in to the dwelling area. By bringing these functionalities within the urban densification it could become more alive and people like to live there. The problem of public space and brining function is to urban densification is also being defined by Claessens and van Velzen in the following quote;

*“Project areas show a large variety of scale. Quite often it concerns area of decent size. But most they stayed in line with the Dutch tradition, this form of urban renewal is primarily perceived as a statement of dwellings, on which the public functions in the form of facilities or public space is 'only' a small part.”*³

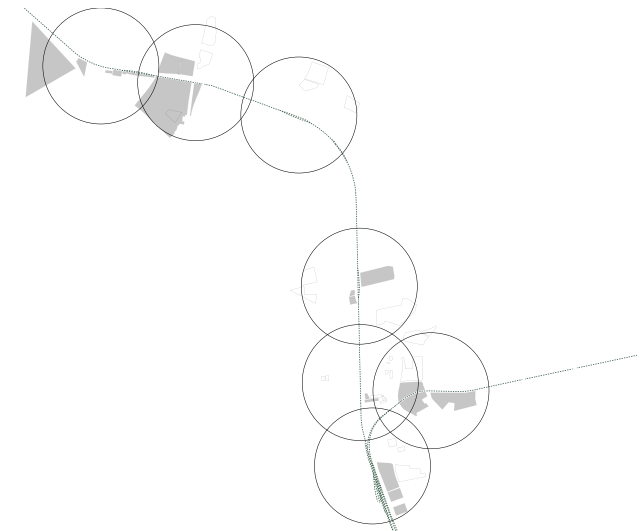
Public space and functions as a motivator in to an area can make the dwelling area more lively and active, and as a ultimate result make the densification project a success. Another problem of doing a densification project near a station area is the functioning of the station before and after the proposed project. To get a idea of the importance of the railway and therefore the station it's important to look at the users and how they use it on daily basis.

*“Zaanstad is only 10 minutes with train to Amsterdam. This is a strong point if you want to attract new dwellers, companies, tourists or congresses. But it's also a treat, you don't want to become a overflow area for Amsterdam. Than Zaanstad is becoming a add-on. That's exactly what they don't want. They want their own identity, their own story their own life.”*⁴

This quote by Soeters is of importance for the developers and developments that take place in the Zaanstad area. Strange about this statement is that the Zaanstad has a rich history and therefore a identity and a own life as it is now. History tells us that the area has always been a area of working population. The working population used to work as fisherman in the different water areas around the Zaanstad. This type of working is nowadays not present anymore because the open water connection that used to be there no longer existing. The appearance of the first polders exterminated this type of working. After the period of the fisherman's the first windmills came to the Netherlands and especially to this northern part. The windmills had the ability to cut wood by using the wind and the water levels. This became the new identity for the Zaanstad in the 16th century. In the last decade the identity of the Zaanstad was mainly on the big industrial areas that where around the river. The concentration of activity along the river can be explained form history. Back in the days the river was needed to transport the goods around the area. It was the most important route for the working population. With the appearance of cars and motorized vehicles the river transport was less used. So the roads became the most important traffic routes. Nowadays the buildings along the river are a bit neglected and the industry is surrounded by



ill. 4 [own ill.] drawing of densification areas connected to the river



ill. 5 [own ill.] drawing of densification areas connected to the railway

³ translated from; Claessens, F.; Velzen, E. van [2007] p.33-39

⁴ translated from; Soeters [2010] p. 18-20

dwelling areas.⁵

Soesters has also said something about this;

“The skyline of the Zaan is changing appearance for the third time in history. First there were the mills, in the 19th century more than thousand, they are all demolished. Then there were the factories, most of them are still standing whether or not rezoned in to apartments, offices or cultural incubator.”⁶

Interesting about this is that he talks about buildings, only mass and volume, not about feeling and ambiance. The project that Soesters would propose would then be a project that is only about making program, dwellings, offices and other square meters. This should be done different, it should be densificated from the idea of livability of the area and not from the dry program itself.

For the municipality of Zaanstad the industrial areas within the current urban fabric is something they would like to change. They want the different industrial areas out of the dwelling areas. This is the first step of the city renewal, but the next step than becomes the infill of these ‘empty’ industrial areas. There lies a task for architects to propose urban densification projects. It is one thing to remove the industrial functions from the area but the buildings is another aspect, in some cases they are re-usable and give a sort of ambiance to the area. A historical layer within the new dwelling area.

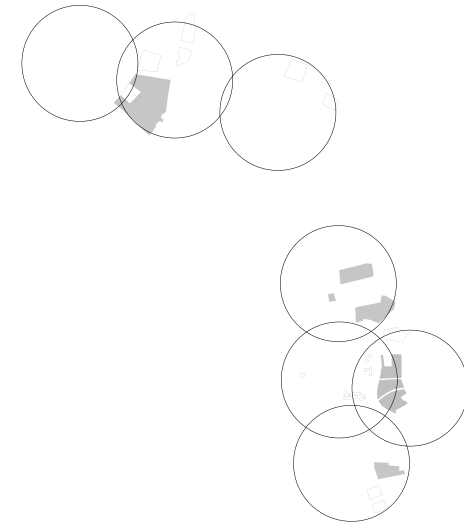
As mentioned earlier the function of the industry changed more than once. From fisherman, to wood windmills, to industry mostly related to food nowadays. This is of relevance for this area it gives a identity. This identity is something that can't demolished because somebody thinks

there should be a densification on that site. There should be a interaction between the old and the new. Reserve what is useful and complete it whit new buildings.

A last element of the coming urban densification assignment for the Zaanstad is the way the railway system is going to be integrated in the whole. The railway system became of importance for this area and is also a evolvment of time. It began with the industrial revolution in the Netherlands, that was the start of the train system. It became the new way of transport after they used to use the river as the main transport line. That’s also why the railway lies next to the river and close to the buildings on the river bends and the provincial road. Due to the shortage in space between the river and the provincial road they also began building on the other side of the railway and the road which made these elements dividing elements. It splits up the more historical centers of the villages with the newer dwelling areas. It creates a boundary on which the coming densification project should find a answer. The main bulk of the densification projects are located in the direct surroundings of the stations. Therefore its logical that the make use of the current stations, but they should also propose a new situation around the station and within the urban densification.

The station provides a way of transport for the people who only live in the Zaanstreek, but work in the bigger metropolitan area of Amsterdam, so commuting is a factor in the theme of the railway and the upcoming reconsideration of the station area.

The specific plot I’ve chosen is around the station of Kogerveld. The choice of the site is based on the elements that are described before. I’ve categorized them in to four groups, the first category is the connection to the river



ill. 6 [own ill.] drawing of densification areas with industry function



ill. 7 [own ill.] drawing of densification areas based on scale of project

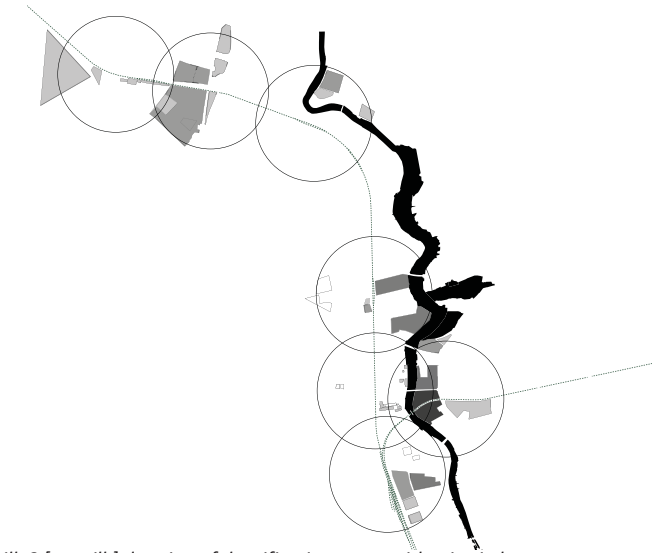
⁵ based on; Kleij [2003] p. 5-32

⁶ translated from; Soeters [2010] p. 18-20

Zaan, this is a structuring element in the area and therefore of relevance for new densification projects. The second category is the connection with the railway and the train station, this has relevance with the theme of the studio and the preference of working with the railway as structural element.

The third category that was important while choosing the plot is the connection with industrial areas. The industry is important in the history and the development of the area so therefore it's interesting to use this as a layer in the design. The last category is the scale of the project, to make a statement project within the larger context of the build environment the project has to have some weight within the densification assignment of Zaanstad. Otherwise it will be lost within the bulk of densification assignments that are already happening in the Netherlands.

To conclude; the main problem is the lack of public space and functions in the general urban densification assignments. Sub problems in this context are; urban densification in itself [morphology and typology wise] necessary public space and functions [city renewal and urban densification] and functionality of the current station or the station after the urban densification [improvement of station area].



ill. 8 [own ill.] drawing of densification areas with criteria layers

METHODS AND TECHNIQUES

The problem statement has to do with the public space and the liveliness of the urban densification assignment. The idea that not only dwelling should be build but there is also the question of how to make it in to a pleasant place to be and as a additional quality for the people who are already living there.

The main episteme where this problem statement would fit is the idea of phenomenology. This episteme focuses on the study of perceptual experience. The space as you will experience it. It has the elements of perception, perspective and movement as major influences and tools.

Experience of the place

The experience of the place is something that is important for the design but is also very hard to grasp. For decades it's not clear what people think or want from a place, but also for decades architects try to make places where people want to be, that feel like home, that people experience as home. Home is a good way to direct the experience of people.

*"In addition to the feeling that nature is close and yet larger than I am, landscape also gives me the feeling of being home"*⁷

According to Zumthor there is a relation between the landscape and the feeling of home. Or it could contribute to it. This is a approach which makes the user of the landscape feel like home. It could also be that you don't want to create home, but a elements that gets you home. This could be interesting for the design. The station could be a marker in the larger urban environment which people relate to and will get them home. That is more the way Lynch is talking about the landscape and the recognizable point in the urban

area.⁸

But then the question still is; What is home in relation to architecture? It creates a sort of good experience to the place they are. Everybody relates to the idea of home, from their childhood, from now. The real problem than is how to connect every individual in to one design. That is impossible, and already stated by Lynch when he researched for a image to represent the city;

*"Each individual creates an bears his own image, but there seems to be substantial agreement among member of the same group. It is these group images, exhibiting consensus among significant numbers, that interest city planners who aspire to model an environment that will be used by many people."*⁹

What we search is a combined image that represent the same for most of the people. There is a picture that tells almost everybody, this is where I life, this is where I want to be. So the methods should give the analysis some ideas about what is that image and how can that image be connected with the idea of creating the public space. Is it enough that the image contains a big green space alongside the train station or is there more needed for this image.

Historical analysis

The history of a city is relevant for every design. It's important to know what happened before. Also could the history give the questions that maybe occur only now and never used to be in that way on the location before. It could emphasize a layer of design that is not considered before. There is a need for some context to your design. City renewal projects without this layer of history don't exists. Every city has some history that made it in to the city that it

⁷ Zumthor [2005] p. 95

^{8,9} Lynch [1971] p. 7

is now. The image that people of a project site is something that is developed, it's not something that just dropped out of the sky.

Programmatic analysis

Contrary to creating an image is creating reality, program is creating reality, what you propose to build. When it's clear what is needed for the area a realistic proposition can be made.

The masterplan gives a rough start of this program brief. It has no relation what is needed in the area or is wanted to add to your design. It's based on what from a larger scale is the first step in to a specific program. It gives a rough start of how many dwellings are needed in that area. There are no functions yet, there is no public space yet, just the assignment in terms of number of dwellings needed or wanted there.

The program gets influenced by the analysis. What is needed to serve this new number of dwellings? What are the functions that are missing in the area? These elements keep shifting as long as the analysis are made, the analysis give input for the program to be defined.

Morphological and typology analysis

With a defined program morphology can be a helpful tool to make a next step in the analysis. Morphology gives an idea, an starting point on the design, the first proposal can be made. It says something about build and un-build, green, parking spaces and dimension of the block or the combination of units.

Morphology represents itself in drawings like as a figure ground. The problem with these type of maps is that they only show the build and un-build, but there is no next step, you can't see what happens in the open space and you

have no idea on what type of building it is. To understand and grasp on what is happening, typology can be used for that and makes it more specified. The typology of buildings is already a good step forward in understanding the build volume in the area.

The study of typology contributes to the architectural design by giving combinations on which the design is enriched in architectural space. Combination could result in unique space and an contribution to both functions. Typology is research that needs categories to understand it and make it useful. The study of type is based on elements that are characteristic and make them a group. For example, the build volume has typology like; dwelling, industry, school, office. They are different functions but it's all in the group of build volume.

Open space can be defined in to more detailed space that make you understand more and more the use and the liveliness of that space. The typology of the open space gives interesting outcomes which can be used for the design.

Open space can be for example; street, square, boulevard, passage, mall, dyke, park and field.¹⁰

The last two categories of the open space are important for the design. This is because a park or field is one of the elements that is used to create the public space that is claimed in the problem statement. This is chosen on personal preference and the idea that a park on this spot gives a unique architectural space. Research from the municipality of Amsterdam also shows a growing use of parks within the city, they link that to the growing prosperity and the fact that the people are higher educated and therefore have more interest in the use of leisure places like a park.¹¹

¹⁰ Meyer et al. [2006] p. 83-173

¹¹ Gemeente Amsterdam [2008] p. 11

The big difference between a park and a field is the buildings that stand in the green space. A park is typology wise a space where there are no dominant buildings like apartment blocks and offices, but just green space with trees, scenic routes and natural elements like water. The field in contrary to that is a building plot where the dwelling blocks are so organized that green space is created in between. So the main element here is buildings where in a park it's the green space.¹²

Reference analysis

The analyses of references is helpful for the development of the design. It gives you ways of making typology, space or function. Most things that you propose are already done or at least intended. There is no need to reinvent the wheel, you only improve it. By taking a reference projects, you can learn how it could be done and take the conclusion to your design and bring it to the next level. Before looking at references it should be clear what you are looking for in that reference.

For my design it is interesting to see how a park and field are working within the urban context of a city. How are the boundaries of a park defined? How does a park stop? What is the functionality of a field? Is it possible to combine a field to a park?

But there is more than only the ending of a park. References can also say something about how the architecture looks within a park and how it's different from the architecture within a field. What defines the park? What are the elements that structure the park and create different kind of spaces.

I've looked in to the Royal parks of London to find the answers for the questions formulated before. Next to this reference if looked at the competition designs of Parc de la

Villette of Tschumi and Koolhaas, this was more about the way you can use elements to design a park. They are more theoretical analysis. Learn how to write or formulated a vision that has a large park in it.

The conclusion that is taken from this description is that the way I design with phenomenology. The experience of space and the perception of the space. Only the methods to find solution for this design are more in the field of typology(morphology) and praxeology(history and program). Therefore the episteme is almost never one, it's a combination of ideas that lead to the overall idea or vision for that particular design assignment.

To create a image of a city you need element like type or things that people recognize as element. The majority of the target group should react on the image that is created by combination of the results out of typological and praxeological research.

¹² Meyer et al. [2006] p. 83-173

ANALYSIS AND ARGUMENTATION

Public space and liveliness

Public space is a commonly used term in the architecture. It indicates a place of openness where people can come freely and do whatever they want. There are no real restrictions to this term, in a way that is an advantage but also a treat. It creates a sort of blur in-between zone that is not really defined. It needs a little bit more than that. They get some grip of the term it is important to understand what it really means.

A public space is a space that is open and accessible for everybody. It belongs to the people. Good examples of public space are; street, square, boulevard, passage, park.¹³ Then there are also buildings with a public appearance like a library or a shopping mall.

My own preference lies in the type of park. This is because I believe people always enjoy parks and green spaces, secondly because I see quality in a park on this location and last because I see a new connection between a park and an elevated train station.

The question then becomes why other public spaces are not needed in this densification area? Let's first look at the scale of Zaanstad. It's a combined municipality, it's grown from smaller villages to one city. If you look at the population it is about seven times smaller than the commuting brother Amsterdam, and has only a seven percent part of the metropolitan area pie of Amsterdam. So if you consider the population of Zaanstad a public space like a boulevard is not useful to implement in the densification area. This type of public space is more useful for bigger cities like Amsterdam or Paris.

The street and the passage are public spaces that need something more than people. A street is created by boundaries and a passage needs the same boundaries but in most cases these boundaries have commercial functions that

make people want to pass through.

The square as public space. It is from tradition a place in the center of a city where large amounts of people could gather around some sort of happening. This is an interesting type of public space but not one that is fitting in my conceptual idea of bringing public space first with some functions. I'm not making a new center of Zaanstad. They already are building something like this in Zaandam with the new station and municipality building. So the square could be useful but in a less important way than it's intended from history perspective.

The terminology in the back of our mind we look at the green spaces in Kogerveld. The current public space in the area of Kogerveld is now a bit underrated. Within the 800 meter circle the public space is not really defined. There is a small public square with some functions in the dwelling area left above the project plot, that's all. The larger public spaces, like the recreation area and the Burgemeester in 't Veldpark are further away than a five minute walk. Weak point for those green spaces is also that you have to cross some big roads, so for the urban densification this is not really connected to the project location.

When a new densification is proposed this brings more and new people to Kogerveld. The lack of public space then only grows. By bringing such an amount of new, extra dwellings to this area. Give something that makes them want to be there, make functions create open space, public territory where parents can meet, children can play and the dog can run. If you first do the space that makes it worth living the people will follow.

The new public space there is not only a place for the new dwellers to meet, it can also combine what is already there



ill. 9 [own ill.] inventory current public space



ill. 10 [own ill.] inventory of current green

¹³ Meyer et al. [2006] p. 83-173

as inhabitants and link them also to the new population and create one neighborhood, with a public space to live, meet and play.

Public space is not just a open grass field or a paved square. There is more to it, there should be also reasons to go there or want to be there. The pleasure of being able to buy something or go to a shop. The pleasure for children to run through a playground.

Public space is open and accessible. Not necessary on ground floor, it's space where people are free to come and go. Between build an un-build is a balance. The ratio differs with the intentions of the architectural project. More public space means less space to build in most cases higher buildings on the place where it's possible to build. By creating densification developers and designers should feel the obligation of creating places people want to live. Nowadays it's important that developed dwellings will be sold rather than that it's a really nice area to live in. A important element of living in most cases is that it's alone. There are people around, family but also neighbors. People you like and you want to meet, not only in your own dwelling but also outside it. For that you need public space. You need a area where you can meet. A square, a street, a train station, a shop, a park. Things like that, things that make people want to be there want to live there. There are some small squares and there are streets, but none of them function really as a meeting place, to play, stay and talk to each other. Just like they do when they are home.

Park research

To get some grip on the concept of a park and that in particular a park within a urban context. If chosen the Royal parks of London as analyzing object. The Royal parks of London were analyzed on; edge of park, buildings in or next

to the park, routes trough park, elements that creates space and the general landscape design.

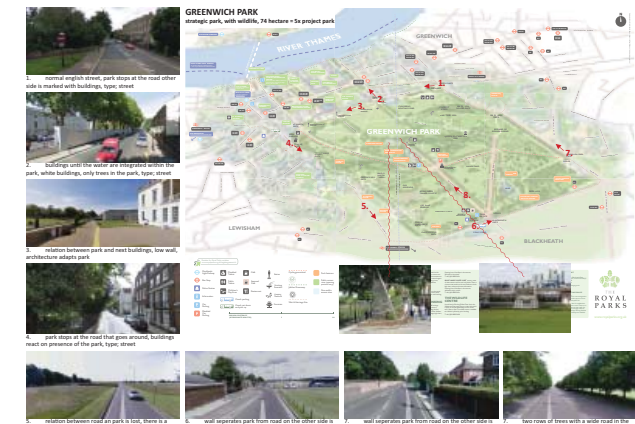
There are eight different parks some really embedded within the urban context like; Hyde park and St. James park and some more on the suburbs of London like; Greenwich and Richmond park.

The Greenwich park is one of the parks that if found most interesting. This interest has to do with two elements; one the connection with the river Thames and secondly the hill in the park which creates a view point for the surroundings. This made it very useful for the comparison with my own intentions for the location in Kogerveld.

The edges of the parks in London are never in direct contact to the public street next to it. There is always a element that creates a buffer between the park en the rest of the public space. Sometimes it's a extra road, sometimes it's a building that is partly in the park and partly not. These buffer elements has to do with the idea that a park should have something private, a sort of secret world behind the urban world.¹⁴

The buildings in the Royal parks are of important elements within a park. The buildings are able to mark specific spaces and create atmosphere. The park buildings need to relate to the adjacent park and be able to connect with the park, there must be a integration between park an building. The parks of London have from history buildings next to it of high stature. The people that used to life there paid with their dwelling a part of the cost that is needed to make the park. In that way the buildings had a real connection with the park.

The routes through the park can be categorized in to two groups. The first group consist the routes that are needed to go from point A to point B. These routes are straight and have as main purpose to limit the time that is needed



ill. 11 [own ill.] example of park analysis; Greenwich Park



ill. 12 [own ill.] example of park analysis; St. James Park

¹⁴ Whitaker, Brown [1971] p. 40

to move between these points. The second group are the roads that are used for leisure and by the people that choose to be in the park. They are not in a hurry they want to enjoy the landscape. These roads are curved. These curves create a more scenic route, the curve conceals what is happens at the end of the path.¹⁵

The elements that are used to structure the London parks are very different. It could be a couple of trees that stand together, but also a combination of roads that result in a space that lies in between. Space can also be created with non spaces. In the London parks they have preserved some spaces to keep the possibility open to do sports within the park. The ability of playing sports within in a park is not always the best solution, some landscape architects believe that the sport is disturbing the peace within the park. Others think that the park bring liveliness to the space and people can enjoy the space in more than one way.¹⁶

The creation of space by using elements is important and therefore some more analysis is made. The competition entries for Parc de la Vilette if used for this. The proposal of Tschumi eventually won the competition but also the idea of Koolhaas is worth looking at. In the references you can see different approaches of Tschumi and Koolhaas, not only in design but also in text. Where Tschumi is talking about points, lines and surfaces¹⁷, Koolhaas is creating a strategy for making a park with these conditions. Tschumi is more about making it in to a logical park that works for the people that use it. While Koolhaas is focusing more on the experience when you are there. You could say that Koolhaas is using a phenomenology way to design the park while Tschumi is more focused on semiotics. This idea of phenomenology is something Koolhaas is deliberating more on when he defines the design for a park in Melun-

Senart. There he is talking that he want to do nothing in that beautiful landscape and therefore he first designs the places that should stay empty, because he feels that's more important there. He asked himself the question where not to build?¹⁸ Eventually he creates a sort of Leonidov strip where he putt is all the functions and therefore leaves a lot empty. He recently repeated this method in the design for a big conference centre in Toulouse.

As last element of the Royal parks of London the general landscape design is analyzed. This analysis is saying something about the forms, lines, height differences and the illusion of a park. The forms and lines are the elements that are used to create different spaces. The buildings have in most cases a form that relates to a square, if than the landscape is going up and down there is a contrast created that people find enjoyable and it's clearly a different language than the urban context. The changing of levels should happen careful and not to rigged. The illusion of a park is also important, that is about the experience people have when they are within the park, that means that you could emphasize on the illusion that the park is a ongoing surface of grass and trees so in that way you are totally out of the urban context.

Historical development of the city

The historical development of the city is showing that the general development of the area along the river bends of the Zaan. The developments moved from the river bends to the hinterland of this river bends, due to the fact that the space between the river and the first structuring element; the road, was reached. This road has also some historical value, it moved from the edge of the city, to a road that cuts the city into pieces.

¹⁵ Meyer et al. [2006], Whitaker, Brown [1971]

¹⁶ Meyer et al. [2006], Whitaker, Brown [1971] and Church [1956]

¹⁷ Tschumi [1987]

¹⁸ Koolhaas et al. [1995]

When they reached the road as boundary the hinterland was being made in to polders. When this was completed the areas were transferred in to dwelling areas. These dwelling areas are mostly build after the WWII, this is the period where there was a shortage of dwellings not only in the area of Zaanstad but also in the larger area of the Netherlands. The area of Kogerveld kept expanding with dwelling in different periods, every period stops when they reached a boundary. The elements that created a boundary for the development of the area were; the nature/recreation area, the railroad, the river Zaan and the highway. The historical development shows also that the building strip along the Zaan is not only the beginning of the building stock in that area, but it's also a line that through the decades stayed untouched. In this timeframe it, as mentioned earlier, only has changed function, from dwellings to windmills and from windmills to industry as it is now.

Programmatic context

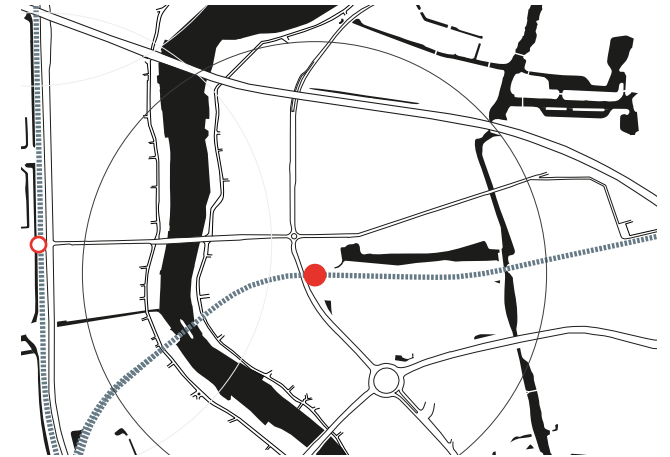
The station of Kogerveld as it is now functions just as a stop on the track from Purmerend to Zaandam. A lot of people from this area are working in Amsterdam or it's metropolitan area. Every day more than 1600 people use the station of Kogerveld as a portal to the public transport.¹⁹ So with the urban densification that is proposed the station becomes more used and could evolve in to a station that is more like a public space, a place to meet people. Especially when you are a commuter it's a place where you come every day it's a substantial part of your live. It should try to feel like your second home.

The current station is nothing more than a building. The building is old and dirty and the station area is not really defined. If the area is being redeveloped why not use the opportunity to give the station and the area around it a

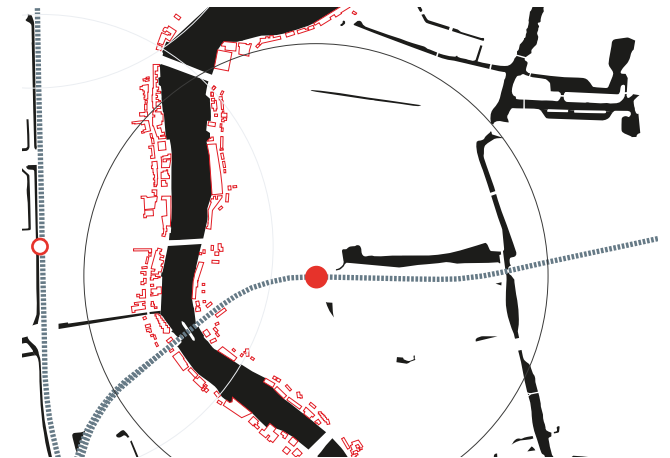
boost. Give it meaning for the everyday use. Let people want to be there. Maybe even when they are not using the train to travel.

Programmatic research shows that there are little or none real functions for this way of everyday life. Except some small shops and functions the area lacks a concentration point of attention. A space where you know some shops are and you can go to get some supplies. This is quite logical if you see the huge amount of industrial buildings that are now standing in the area. With removing this industrial area the opportunity rises to create a center point and use the station and the public space around it as a activator for the area. The attract new entrepreneurs and shop owners to go in the area and create the liveliness you need to get the densification process going.

But public space alone is not enough, is a terminology that needs program, it can't function on the term itself. The functions are therefore also needed, these functions will work as activators for people go there and want to be there. In the direct surroundings there are no real functions that could be relocated and used as activators of the public space. There's only one function that comes from the context is the relocation of the theater school and making a theater to perform the educated skills. A restaurant or bar could also easily be integrated in the new designed program. The station and the functions can work together. They stimulate each other to a new level. The station brings the people in to the area. With the new HOV line that is coming there and the improved station a result of the densification plan. Over 4000 people each day will pass this station. But the functions also give a new dimension to the area. They give people a reason to go there, because they need groceries or they want to go to the library. With these criteria you can also claim that the station is activated, this is the



ill. 13 [own ill.] inventory of the current structuring elements; river, railway, roads and highway



ill. 14 [own ill.] historical buildings along the bends of the river

¹⁹ Gemeente Zaandam [2011] p. 26

place where the functions are located. They connect the city side of the plan with the park. It becomes more than only an entrance space for the station, where bikes stand, busses stop and taxis wait. To create the diversity that accommodate the different groups of people functions like a bike grocery shops, observatory, dependence of library, drugstore and workspace, can help.

The station also needs functions to work as a station things like; kiosks, bookshops, toilets, service desk for tickets.

Morphological and typological study

The morphology of the buildings in the area of Kogerveld could be labeled with the name "stamp" neighborhoods. This means that the town planners use one or more types of morphology and repeat them in a reasonable order. These stamps have a normal building volume that is in most cases defined by the size of one unit.

Remarkable examples of this type of urbanism are the Bijlmer in Amsterdam, but also the design by Lotte Stam Beese in Pendrecht. These areas have a large concentration of dwellings per building block.

The idea of Stam Beese was to make a masterplan for Pendrecht where the buildings were within the space instead of using buildings to create boundaries to the space. By opening up the closed building block, it was possible to create strings of building blocks. These building blocks were connected by an ongoing space around the building blocks. The traditional urban elements like street and courtyard were gone and the idea of an ongoing field was created. On that field independent buildings blocks were created.²⁰

Interesting to see is that the dwelling area where the stamp typology is used the typology has little relation with the surrounding green fields. The buildings are just simple

apartment blocks. The typology of the dwellings could be more merged with the way of using the field as public space typology.

The industry buildings in the area are from a different morphological size than the stamp typology of the dwellings. This is clearly visible on the figure ground map of the area. The public buildings and the industrial buildings have a more massive building volume. They are more concentrated on the ground floor, than dwellings, dwellings have a more vertical relation to the building volume. The typology on the terms of the functionality of the building stock shows that most of the buildings are dwelling blocks. Another big part of the building stock is filled with the program of industry.

If there is a typological comparison made between the build and un-build. It will show that of the un-build the most is the green of sport fields. More decentralized from the location there are also some green parks and natural reservations are present in this area. Interesting note with these green spaces is that none of them are present alongside the river the Zaan.

If we then look at how the functions work in this area. That means what happens within the build volume, what is the programmatic infill. This shows that it's mostly dwellings; now represented as unit. Secondly a lot of building volume is has the industrial function. Remarkable is the lack of functions that support the direct neighborhood. There are some functions that serve the larger area around station Kogerveld like; schools, fire station, hospital, gas station and a church. But besides a small gym, restaurant, bakery and a supermarket there are no real functions that make the area worth living and could bring people to the come live in the

²⁰ Meyer et al. [2006] p. 83-173

proposed urban densification area.

The last scale of typology research is based on the appearance in the 3d space. So not only using a figure ground of other 2d maps, but with taking the volume in to account. The most typologies around are three or four layers high. They differ between apartment buildings and ground bound dwellings. These types are mostly used in the big stamp neighborhood of the area. The mixture and the difference is also being influenced by the ownership of the different buildings. Some are owned by the dwellers themselves while others are owned by housing cooperation's.

Environmental research

When dealing with a site that has elements like, railway, industry, water and highway, the environmental influences of these elements are of importance for making a new design for the renewal of the industry areas.

Living alongside a railway; that is an important theme of the design. Is it possible to live with the noise of the passing trains. It's something logical when you are talking about densification of station areas that the railway noise is an important factor on the livability of the area. About the railway noise. The direct connected area to the railway has a sound level of 55 dB this is within the boundaries of where you can live in. So this zone is livable. The railway on its own has a higher noise value. So if there are going to be buildings in this part of the noise zone. The buildings must have technical solutions which lower the noise value down to an accepted value.

Most of the people will think that the noise is annoying but it can also feel like an extra feature that creates a

atmosphere within the area. In the current situation the amplitude of the noise is the biggest when the train crosses the water, this is also the amplitude it probably will do on the part where the public park is situated. This has to do with the buildings that block sound and the direct relation between railway and context. The station building will block most of the radiation of sound, that will function like a soundscreen.

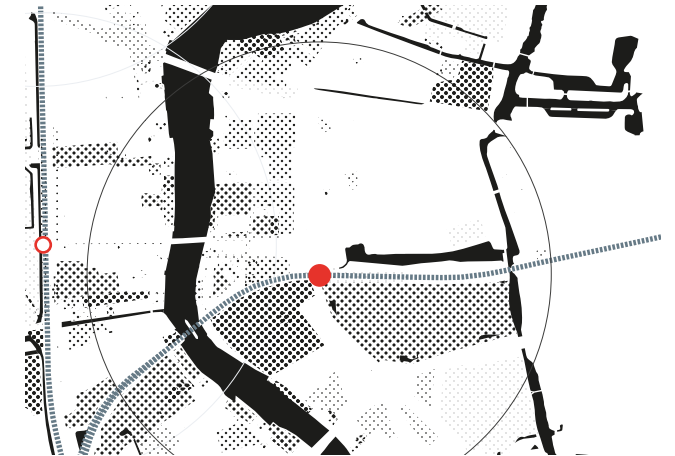
The ground pollution is normal when developing an old industrial site. The industrial buildings pollute the ground with oils and other bad chemicals that are of harm for the human health. This ground pollution is of relevance when a masterplan is developed for such an area, for example the pollution influences the economical situation of the city renewal and the urban densification.

Mass study and relation with station

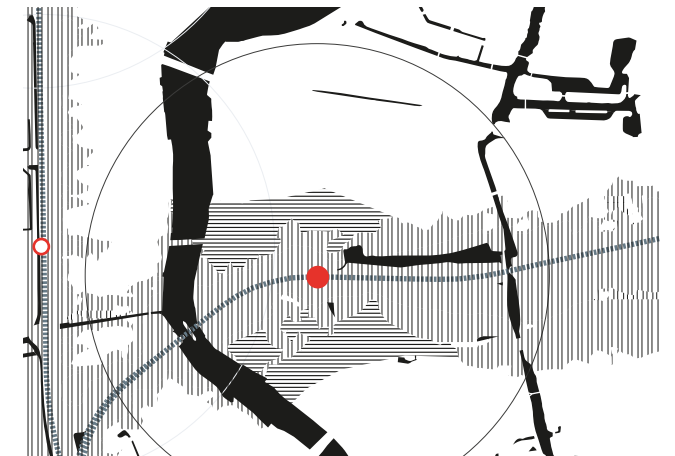
The mass of the densification assignment is of importance for the relevance of the design. A densification assignment should be embedded within the urban context and not be an island project. It should reflect to the surroundings as it was always there.

The above statement is the reason why the northern part of the densification assignment as well as the southern part are being densified with normal row housing. The dwellings are three stories high and can be sold to families. These neighborhoods should develop themselves. The people that live there create the ambience and the atmosphere.

The edges of the park are being marked by apartment blocks. This is a result from a mass study if made to see how the edges of the proposed park should be made. This mass study was made with the theoretical context of the park research. The apartment blocks are four stories high. In that



ill. 15 [own ill.] ground pollutions {bigger grain is bigger pollution}



ill. 16 [own ill.] noise amplitude of the railway

way they are bigger than the surroundings but still fit within the context and are the buffer between park and city. By using the apartment for this on the waterside of the plan the apartment block refer to the historical industrial buildings by volume. In the architectural way they should do the same. These buildings should have a industrial feeling to it.

Than the zoom-in location. The station, a station cannot be defined as a volume. A station is no building. It's a place where a train stops and goes further. So this has no real body or volume to it. The station should integrate within the park as a element that belongs there and should be there. To create a park there with the densification that is stated within the masterplan somewhere the dwellings must appear. The big public space has to be compensated somewhere. It's the friction that occurs when you want a big public space and a densification assignment that shows densification in the Dutch way.

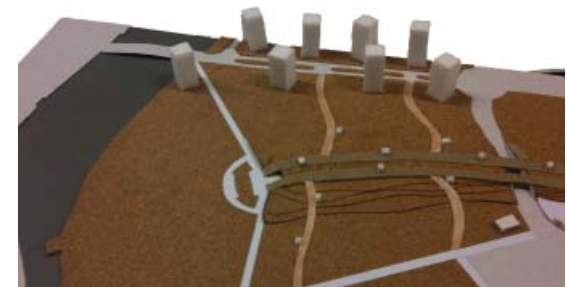
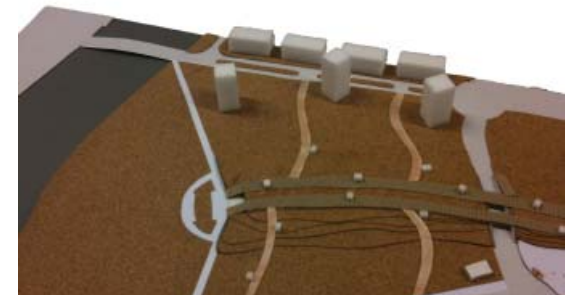
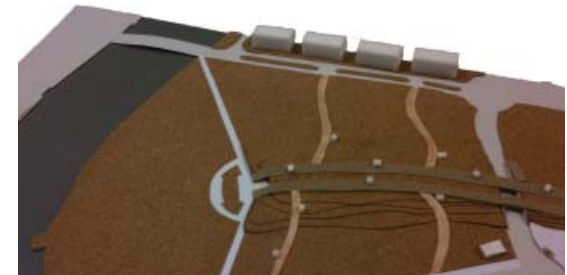
A search for that solution is found in the mass study of the area. When the boundaries were determined it occurred that the station is a horizontal element within the public space. So therefore it has not optimal visibility.

The idea than occurred to use vertical elements within the park to create visibility from around the project location. People than now that something is happening there the no were to go. They no were the station is. Other advantages for the vertical dwelling volumes (towers) are that the people who live there have the nice view from there dwelling they can enjoy the surroundings as the surrounding average is five layers.

So the new view that is created for the people who live there is a great asset. But then the question becomes how do you combine the vertical element with a park and with a station? That was a hard one. From the analysis it

shown that almost never a dwelling residence is standing totally within a park. That has to do with the thin line of public and private space. So they should be on a edge of the park, on a spot where they somehow add something to the park without getting the hazard of interference of public and private. The mass study showed that if you want a connection between station and towers they should be rather close together otherwise the relation is lost. It should represent itself as one design solution. Should it be up on the station, next to it, on one side or both sides? All these questions were appearing and when not a clear vision of the concept was formulated everything can happen. The conceptual idea said that the station and the public park should become one, the space of the architectural intervention should merge to one. The station has a start and an end, it has a certain length that is needed for the train and after that is just tracks. The park has no stop and start its fixed by boundaries. On this location the road and the water.

The park is a solution that integrates the train station. But the park is important for the whole densification plan it is the backbone, it uses the station to make it more unique. The station does not need a park to function. It's two tracks, two platforms and some shelter for the travelers. And the last part isn't even part of the station is a result of the weather trough out the different seasons that make you obligatory to design some sort of shelter. What are the problems of a elevated station are than of relevance? The biggest from is that its elevated. You can't reach it directly, you always needs some sort of slope or stairs. But as it now elevated, they solved is with stairs and with a slope so that's done. While seeing that during a visit something else draw my attention of this elevated station. There are no crossing underneath. Only the road that go from one side



ill. 17 - 20 [own ill.] mass study of edge park

to another. And the earthwork that is made underneath the closed parts has no functions it's just grass. There I saw a opportunity, what if you take the park and you let it go up to the station an let is touch there. You have a new sort of space. It's between the station and the park and you integrated the station within the park. Its literal embedded within the landscape. So the park goes up where there is a station. But then how does it stop? The bigger parks stops ad some boundaries, what are the boundaries here? And where is the entrance, is it down or up? What is the front? If approach it like this; The station has two sides, one side is next to the provincial road that goes adjacent to the location. This is the city side, the front of the station. Here doe the busses stop, the station square is and the station starts. But this is also the side where the towers are standing. They have a city side and a park side. They are standing on this station square.

The other side is the park side. Here the station merges with the park. Here are some small functions that serve the park. These volumes at the end are with the towers the earth blocks where the landscape is being framed in. It gives the up going park a start and a end.

That the station itself, as claimed earlier the station is no building, at least it doesn't needs a building to function. It's a stop on a line. But why than make a building as station, why do architects make station buildings? That has mostly to do with the weather in the Netherlands. As it's raining more than it's dry, it's nice to have some shelter when you are waiting for the train. So for now there are three elements already defined. Tracks, platforms and shelter over the platforms.

The integration of the station within the park has to do with the way you design the station as a element of the park

or the park is just around the station and nothing more. From the analysis of the parks it almost never in the park. Something is needed that defines the borders of the station and clarifies what is park. A park element can be used for that, something like a pergola, but the problem of a pergola is that is open, you need something for making the shelter. The idea of making an combination between a glasshouse and a pergola than is interesting. The pergola stands for the basic construction of the station, they are just beams and cross beams for the stability. The glasshouse has a similar way of working. It's a frame with a cross frame, the advantage of a glasshouse is that is provides shelter is has glass, its needed to keep whatever is inside the glasshouse away from the different weather types. The round form of the beams is chosen based on the way to construct this shelter. It should not have columns in-between that stand on the platform is should span in one time. And the reference image of a pergola does also allow this. A pergola is a element that guides plants within a landscape design, so it has no specific form. The round form has also something to do with the landscape that is going up, it's the last flow of the hill. So if you approach the station from the park, there is no hard line. A curved construction is visible. The crossbeams between the main beams hold the glass, like it does in a glasshouse, and like the crossbeams in a pergola hold the plants.



ill. 21 - 24 [own ill.] mass study of edge park

CONCLUSION

The problem statement explains the idea of urban densification as it is now and how it will destroy or at least not improve the public space and the public life. So therefore a combination of analysis results give a solution to this problem. This combination has to do with; park as public space, historic building line and connection park to station, station to city and city to park. First the green public park, this is in Kogerveld not present that well, the dwelling areas have collective green space around them. The first green park is a bit further. The recreation zone that lies near the highway road. So the element may be there now but you don't really experience them if you visit.

The analysis shows also that there is no green space along the river bends and that the public space is more the current fragmented green space around the dwelling instead of a larger public space.

Therefore the new public space in the typology of a park is very welcome and because there is no green near the river the Zaan this becomes the first green area near the river bends. In that way it becomes connected with the Zaan, this gives some extra élan to the new public space that is now not present in the area.

This connection to the river bends is the second element of the densification plan. Kogerveld has almost everywhere buildings along the river bends. By making an exception along this water element the new proposed park gets more quality because it creates a new image for the river, an open spot.

The third element is the historical road. This road is now crossing through the urban space, but to make a park space along the Zaan and to formalize this road this road is being moved. In the new way it touches the station where it becomes functional for the use of the station but

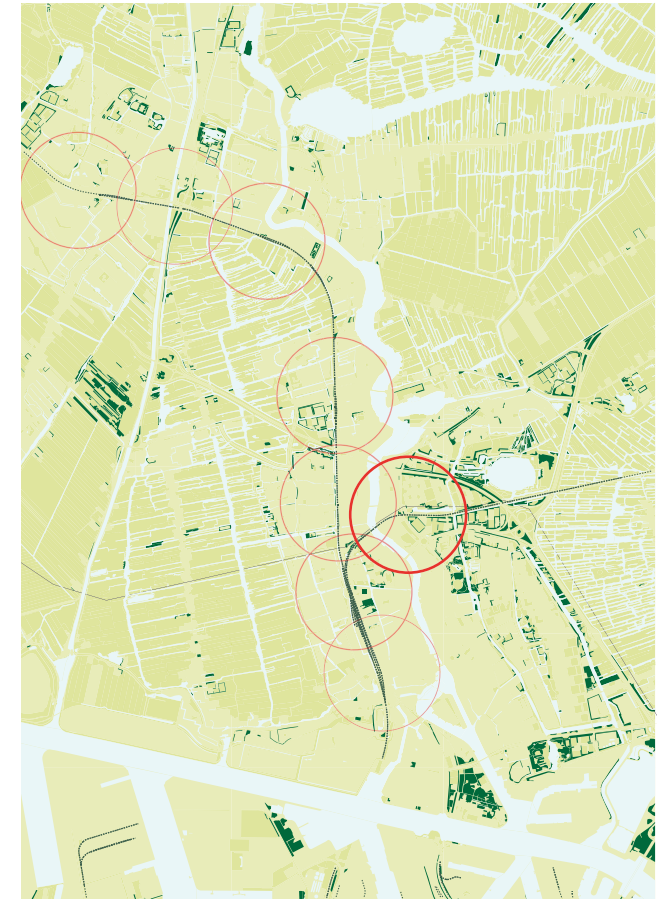
also creates different parts in the park that give the park different characters.

The station and the park are connected, not only to make it easily accessible from the park but more for the other way around. When you arrive from outside and you step out of the train, you are in the middle of a big public park, with a lot of green around. The biggest part of the station is in the park because it is an element that structures the park and the park can give something back to the station.

The new station has to be more public and has to have not only functions for the station itself but also for the public space around it. This is on the city side of the plan. There the functions not only work for the visitors of the station but also for the people of the neighborhood that can get their groceries there.

The station has a side platform typology, that because it's than possible to access the station from both sides of the park.

The main concern of bringing densification in to the station area. The masterplan created beforehand states that a sum of 1500 dwellings should be developed upon the project location I've chosen. But 1500 dwellings means 1500-? new people within this environment. This new group of people should feel attracted by the fact that they have the opportunity to live next or even in a public park. They could have their home just minutes away from a station with the necessary functions for the everyday life and have the pleasure of the park as a relax zone or playground. So the park comes first, with the park you also update the station, with an updated station the connection to the metropolitan area is improved. This improvement creates a place where new dwellers want to live. This need is being filled by the urban densification. The urban densification provides



ill. 25 [own ill.] inventory of the current green spaces
light green; polders etc./ dark green; public parks etc.

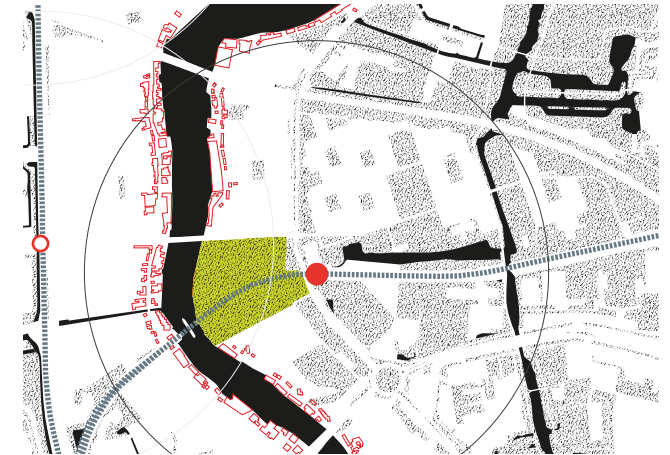
enough people to make shops and to develop the whole area.

The conclusions of the park analysis have mostly to do with the boundaries of the park. The park has to stop somewhere. The idea is that the buildings must mark the edges of the park. So a sort of transition space is created. This transition space is made in the form of the dwellings on a field of public space.

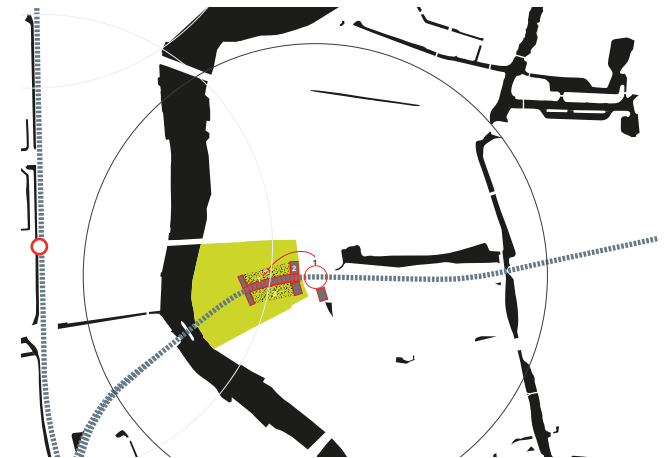
For the architecture of the buildings within the park, the buildings that are really functions the must be integrated within the landscape and must be really part of the design. The other dwelling buildings must relate to the industrial site that was there and must integrate the green within the building.

The environmental analysis have as result that the design gets more boundaries. The polluted ground has to be removed from the side even before the urban densification can start. So if it's necessary to start digging in the ground this also gives the opportunity to make a parking garage for cars here. In that way you combine the problem with an solution for a some need in the area. The access of the parking garage can be connected with the station, station square and the up going landscape provides enough space to reach the parking needs.

The problem statement I've stated at the beginning of the design is a statement that for me has relevance and has a valid hypothesis. There is a better urban densification created by making a park and integrate the station within that park. This park as public space is a activator which can provide the liveliness and urge to continue on densificated this total area.



ill. 26 [own ill.] continue the green until the river bends to create unique space



ill. 27 [own ill.] order of intervention;

- ¹ move and upgrade station
- ² add building mass
- ³ create upgoing landscape

REFLECTION

At the start of the project my research mostly focused on the theoretical approach of the studio theme. Because of the abundance of designs possible within this project a good and thorough theoretical framework was required. With this broad range of possibilities it was quite difficult for me to decide which design assignment I would choose and what I wanted to accomplish with it. This is of great importance because the previous design project handed you half framework at the start of the design. You then only had to choose which approach you would pick for the design. Now that is different, there are no restrictions. There is so much interesting literature on densification available that one might easily lose sight on choosing a focus for the project.

The relation between research and design

This relation is of great importance, because a design needs to be theoretically grounded. There is an ongoing discussion in the faculty about if architecture is a scientific study or more art. For me it's both, you need the scientific input to create the theoretical framework. I believe that if this theoretical framework is lost, architecture dissolves into an exercise of meaningless form and color. It then is all depending on the taste of the designer. The taste of the designer then becomes the most important parameter of the buildings that stand within your everyday life.

Furthermore, the design of projects always depends on where the project is located. Therefore, research on the project and its location is essential. The studio already pointed out the importance of a good research question, as in which problems did you encounter regarding the location and what do you like to change? This kind of questions together with questions about city renewal and densification added a new dimension to the research for the

project.

The relationship between the studio theme and the subject/case study

The choice of a graduation project starts with choosing a studio. There are several reasons why I chose to work with this studio. First of all, my choice was based on the focus of this studio on the relation between urbanization and architecture. Secondly, I found the specific issues that the studio had to deal with like; urban densification around a railway station, city renewal and a hybrid building as design result, quite interesting.

So the choice of your subject is not only based on the theoretical part, it's also determined on your personal interests.

I claim that the urban densification project, as we know it in the Netherlands, is not what we can use in the nearby future. I suggest that there is need for another approach on future assignments. It must change into densification assignments that have relevance for the people, instead of just making money out of every left over piece of ground in the Netherlands. The last years we took the approach of making money and until now it hasn't brought us very far. Within this design I created a relation based on certain keywords present in the explanation of the studio theme. The studio theme was about; railways, densification, industrial heritage. I made my choices of keywords based on what attracted me as a designer and what was of importance to the area. I used these elements to create a framework on the location of the graduation project. The relation I tried to create gave me some struggles because of the broad scale of the studio theme. The theme was based on a complete city, with a focus on seven

station areas. Despite this might have been too much it handed me a lot of information on the area and provided different angles from which I could aim my problem statement.

The relationship between the methodical line of approach of the studio and the subject/case study

I found the methodical approach of the studio quite well considered. The studio started with a brainstorm week. In this week the topic was explained and all the designers had the opportunity to get familiar with the location and the coming research and design. This was a good start of the graduation process. After the introduction week there were a couple of assignments. Each assignment was about a topic that had a relevance for the studio, without having a real connection to the studio. This way of working gave us the approach to think about the assignment theoretical and to think about our personal vision about the given assignment. Which we could later on use within our designs.

The last assignment of creating a master plan for the larger area of Zaanstad was very useful. It gave us designers already some arguments for choosing a location by presenting the problems and opportunities for creating a problem statement.

During the beginning of this course, two other courses also began. The other courses consisted of an urbanism course and a theoretical course that should help you with writing the report. The course that contained the urbanism was of a too large scale for me and was not connected to a location. It felt like the work I was doing there was useless. This feeling of feeling useless was reinforced by the fact that no other designer took the location I've picked, to develop the urban densification assignment on. In contrast

to the urbanism course I found the theoretical course more appealing. The things I've learned in the theoretical course were very useful for the creation of the framework of the assignment.

The presentations during the study were a good support. It developed my presentation skills about the topic. Presentations are important in the process of design. The presentations force you to conclude what you've done so far and make this into a logical story.

The presentation showed already in the first quarter that almost everybody had no architectural project locked within his framework. I did it completely wrong. The elements with which I started the P1 presentation did not change during the study, however the research and design in the P1 presentation was way too wide and changed in the course of time. During this process I started focusing on completing the framework and by thinking about the assignment, I wanted to give myself.

Within this project the learning plan was a great support. In the beginning it seemed a meaningless document with a view to the main goal but at the end it resulted in an overview of clear questions and a clear vision. The learning plan has become a short version of the final report. It explains what I wanted to accomplish at the end of the graduation process and it tells me if I succeeded, so indirectly is also helped me with this reflection.

The final report we had to write becomes more and more useful as the project develops. It gives a textual explanation about your design and the intentions you started with. The only problem is that there is no real tutoring for this report, which made it difficult to write while working through on the design. This brings pressure.

The relationship between the project and the wider social context

The wider social context of the design shows a relation between the need of urban densification and the problem of the economical real estate market. The real estate market totally flushed and the building environment is going nowhere. Craftsman are getting fired every day. So it's getting to a quite critical stage. This timeframe is the time to start a new sort of idea about how we should develop big densification assignments. We should be less focused on the numbers and more on how and where people want to live. Also the mindset of designers and policymakers should be reconsidered.

We can all see now that we are at a junction. Or we continue with this way of building and designing, in that way the build environment will attract somewhere in the coming years because the economical parameters will improve in the coming years. Or we take this opportunity to do something different and stop focusing on things that are less important and give more attention to the quality of design.

The contribution to the social and scientific framework for the graduation project focuses on the urban densification. It shows that urban densification on its own is not enough to regenerate a area. If that is done, the public space is lost and the area becomes less livable. The graduation project shows a way to use a public park as a activator for a large urban densification assignments. Also the improvement of the station area brings a way of design to the discussion, it shows the station as a public space, in combination with functions and nearby dwellings. The way they give something to each other.

The goal of the graduation project was to provide a solution for urban densification in a station area of the Zaanstreek and by doing so the station area is upgraded. It gives a new idea about railway stations in the Netherlands. They could be more then only a "metro line" They should get integrated within the urban tissue as they are part of it. They can give something to a area more than a infrastructural element. It can be a combining factor with a urban environment.

The graduation project also shows a way to create a starting point for future development in this area. The design gives an idea about how to activate people and policymakers in to rethinking about their urban environment and how to make an infill for the urban densification assignments that have to be done in the coming years.

The point of the re-use of industrial areas and regenerate them is also a topic that could serve the larger public and create a debate. These embedded industrial areas have to be removed from the dwelling areas and become potential locations to create urban densification projects. The industry I've seen on the site of Kogerveld has no real value. This insight wasn't there at the beginning of the project. Then I toughed I could save or re-use something. However with re-use it's the same as with a lot more. It must have meaning, it cannot stand on itself.

When the topic is re use, there is a link to sustainability. The term sustainability is one that is heard quite often these days. Everybody tries to be sustainable. That on its own is a good development of time. The design therefore fits within that idea. I tried to be sustainable, use natural materials and be aware of the environmental parameters of the plan. The agenda of sustainability is something that has relevance

for everyone. It's not important the it's totally green or a balanced energy consumption. Every building that is a little more sustainable that it used to be is a good effort. It mostly has to do with the mindset of people. We as designers have to make it common that sustainability is something that is considered. We have to think of sustainable designs as a standard.

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