MAKING SPACE AND PRESERVING SPACE

the end of urban sprawl

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1. Poster, Follow the money May 2013 (Dasp)

2. Location (own image)
Before you lies the research of a year’s work for the graduation studio Design as Politics on the faculty of Architecture, Technical University of Delft. The Design as Politics studio aims at finding spatial strategies or solutions for current social problems. In a three year setup the topic of my graduation studio was ‘Follow the Money’. After the crisis many projects have came to a halt often due to a lack of money. For our studio the objective was to find new ways of financing projects. The aim of the project, looking at architecture from a financial point of view, is what attracted me to this studio. Reviewing architecture from a different perspective gave a lot of insight into what architecture needs to address. Therefore the studio made much more sense to me than the previous years of my study, where mainly architecture was the aim itself.

Through an analysis of different financial problems my eye fell on the spatial and financial problems of vacancy in office space in the Netherlands. The oversupply of office space, on this moment 8.3 million square meters (Bron DTZ, zadelhof), together with the fact that offices are still being constructed, interested me to analyse this situation. As a case study I looked at the municipality of Rijswijk (South Holland), which has been my hometown for eight years. I investigated Rijswijk because it is planning to build a new neighbourhood in the south of municipality border, called Rijswijk Buiten, while at the same time 28.5% of the offices in Rijswijk (Bron, Urbanisator) are empty. Via a multidisciplinary research the objective of this research and the strategy is to contribute to the discussion on how municipalities can cope with a high demand in housing while at the same time solving the issue of vacancy in office space. This strategy is therefore also a critique on the way municipalities and stakeholders have looked at vacancy until now.

I hope you enjoy reading,

Thomas Verbrugh
ANALYSING ALL SCALES

THE END OF URBAN SPRAWL
ABSTRACT OF RESEARCH

ARCHITECT AS A RULEMAKER

STRIP THE FACADES
INTRODUCTION TO VACANCY AND MONEY
INTRODUCTION

In six years from now the Netherlands will change. After decades of economic growth and decline, the labour force will decline as a result of the aging of the Dutch society. The decreasing labour force means a stop on the demand for office space. This is in itself not a problem, however the Netherlands has a heritage of vacant office space about four times the country of Monaco. In the meantime parts of the Netherlands are shrinking, on the borders of the country and in the South, and other parts are booming, especially the Randstad. In the Randstad this means a decline in labour force (apart from Amsterdam) and a higher demand in housing. In a land filled with vacant office space this could be the first chance to grow the city within it’s borders instead of ploughing acres of greenfield for a new VINEX-neighbourhood.

The practice, is unfortunately, different. On the one hand companies, developers, architects and contractors are building new offices in the centres of the Randstad and on the other hand municipalities are still ploughing acres of land to house their inhabitants. Politics, money and land policy propels this process.

This thesis proposes this system and tries to take advantage of the now useless vacant space. Furthermore it shows that with less investment than ploughing acres of green-fields, the Netherlands can house it’s inhabitants without loosing the quality of living in a new house with a garden.

To analyse this current short-sightedness of planning in the Netherlands, the municipality of Rijswijk is selected as a case study. With the monofunctional business park the Plaspoelpolder and the plans to build a new neighbourhood for 3500 homes 1 km away from the business park, it gives a perfect example. Through a multi-disciplinary research a (spatial) strategy is applied that focuses on the rejection of Rijswijk-Zuid, the reuse of the vacant load-bearing structures and the quality of the dwelling within these vacant structures. The aim is to provide a different perspective on how Dutch municipalities cope with the question of housing and, if they are, with the (spatial) problems of vacancy in office space.
3. Vacant buildings in red, 2014 (own image)

4. Monofunctionality of the Plaspoelpolder, 2014 (own image)
THE CAUSES AND PROBLEMS OF VACANCY

The Plaspoelpolder is a mono-functional businesspark that has been build during the 50’s. The original function of the whole Plaspoelpolder was industry but this changed during the 80’s when industry left out of town and the area. In the 90’s the area became more mixed with offices. Locations as the Plaspoelpolder, bordered by the highway and nearby the station became popular at the end of the 90’s, because of a steep rise in mobility. Cities grew and new cities (called the VINEX-neighbourhoods) were built for the people expanding cities. At the end of the 90’s vacancy was around 5% in the Plaspoelpolder. This was not seen as vacancy because this is called friction-vacancy, the vacancy needed for businesses to move from one to another location.

Now, in 2014 the vacancy level of the Plaspoelpolder is around 28,5%. What happened in this past two decades? This can be best explained by a common phenomenon in the office market called ‘the pork cycle’.

PORK CYCLE
The pork cycle is a phenomenon that is best explained if we look at the economical growth and the (over)supply of offices. Periods of economical growth are followed by periods of downturn. In periods of downturn there is a low demand on office space because the labour force is smaller. In these periods oversupply are a common thing in the office market. When the market begins to attract, the demand for offices begins to grow. However, because of the slow nature of construction, when the office buildings are ready for use, the demand is lower then expected, resulting in an oversupply of buildings. This process is enhanced by the fact that when there is a high demand in office space but a low offer (at the end of a period of downturn) investors and developers construct on speculation. Sometimes 80% of the new buildings are build without a end user.

This process is even more enhanced by incentives within the market. When office space becomes valuable, investors are willing to pay a high price for an office with a user. With incentives users of an office are seduced by developers with discounts on new rental contracts, which often leads to a less expensive contract then to stay in their current building. The result is a market where old buildings are sacrificed for new buildings.

(EIB, 2010)
5. Graph explaining pork cycle and future prognosis (own image)

6. Shift in demand for a certain location (in blue underprivileged location/in green promising location) (region Haaglanden, 2012)
THE CAUSES AND PROBLEMS OF VACANCY

This pork cycle is has also taken place in the Plaspoelpolder. Figure 5 shows the labour force index and in red the supply of offices. In 2000 economical growth is leading to it highest point. The labour force grows until 2002 when we face a small crisis. At that moment all of a sudden there is a huge oversupply of empty offices on the market. Offices that are build on speculation appear without a user due to a decline in demand for office space (blue line after 2002). An oversupply is seen on the market. However in 2006 the market begins to attract once more and again the cycle starts. Offices are build on speculation and after 4/5 years of the construction period, the offices become available on the market again, to see that the demand is way lower then expected. So four years after 2006, in 2010, we face an oversupply of 244.500 m² in the Plaspoelpolder.

You could say this cycle will play itself once more. However there is a crucial difference between earlier periods and the future period (2014-2040). This has to do with the demand for office space. A big demographic change (aging of the Dutch so called ‘babyboomers’) leads to a decline in demand for office space. When we look at the graph you can see that the labour force will still grow until 2020 (the region Haaglanden will grow in population), but will decline after 2020. What will be left over is at least an oversupply of around 200.000 m². (bron EIB/region Haaglanden/NVM 2014)

LOCATION
A shift in popularity for a certain location also contribute to an oversupply in office space. In the ‘kantorenstrategie 2012-2020’ the region Haaglanden (bron Haaglanden) predicted the demand for a certain office location. There is a shift from highway and business-park locations towards the city centres and the so-called ‘ov-knooppunten’. Where in the 90’s mobility became an issue and the highway locations became popular for their good accessibility, now the multi-functionality of the city centres are the perfect places for firms.

The Plaspoelpolder is next to the highway and is a mono-functional business-park. This fact will contribute to a lower demand and thus a steady oversupply of buildings.
7. Photo of the conference of the BBR the local company network in Rijswijk (photo taken by BBR, 09-10-2013)

8. Exploitation 2011 and 2013. Difference in profit for the land issue has been halved in two years. (bron gemeente rijswijk, 2011 en 2013)
‘Rijswijk will be the fastest growing population in the whole of Netherlands and will expand with 19.200 new inhabitants till 2020’, concludes ‘het Planbureau voor de leefomgeving’ (bron RTL nieuwsbericht). These statistics are mainly predicted because Rijswijk is building a big new neighbourhood with 3400 dwellings in the south of Rijswijk (Rijswijk Buiten), on the other side of the highway A4 and the Plaspoelpolder, that will be finished around 2030.

Furthermore Rijswijk is constructing two new residential towers, called the ‘Hofmeesters’, directly next to the Plaspoelpolder and is planning to construct another residential tower only five minutes away from the Plaspoelpolder. Why are these projects explained in relation to the Plaspoelpolder? That is because the municipality is only thinking about land issue and not about transformation the existing neighbourhoods, which is explained by figure 7. That is a picture of me standing at a conference last year on transformation of the office market in Rijswijk. The question is asked: ‘Did you think about transformation of the vacant office space into dwellings when you began thinking about 254 new apartments that needed to be constructed?’ I got no answer, only the remark that they were very proud they sold the land for 1 million euro’s to Vestia, a well known housing cooperative that lost millions with speculation of money. And within this answer a big cause and problem is exposed in regard to vacancy.

MUNICIPALITY: A DUAL ROLE
Municipalities have been involved in land issue for a long time. Different laws for municipalities to buy or disown land have been made to make it easier for municipalities to engage in land issue. Before the 90’s municipalities bought land from farmers and made it ready for construction of offices or homes. In the 90’s, with the construction of the VINEX-neighbourhoods (on the outskirts of cities) more private investors got the chance to buy land and to make it ready for construction. This was a good thing because municipalities had a weaker position in land issue. Why a good thing?

Because some municipalities became very dependant on land issue to ensure a positive balance sheet at the end of the year. For example; the municipality of Lansingerland has a deficit of 280 million euro’s because they took gigantic risks in buying land that after the crisis of 2008 could not be sold (bron Jelte Boeijenga geld en de stad). In this way, municipalities became to obsessed with land issue, while at the same time, bigger problems, like vacancy in office space, was neglected. Dependency on land issue became a short-sighted tool, where short-term investments in land were more important than long-term
9. Force-field analysis, part 1 (own image)
investments in spatial quality (bron Tetteroo). What is happening now in Rijswijk is exactly the same thing. Land issue is important for the yearly budget and in 2011 the new zoning plan for the new neighbourhood ‘Rijswijk Buiten’ was excepted by the council. This made way to buy huge plots of greenfield, which will be transformed into dwellings. This would not be a problem if the municipality would not face a vacancy level of 28,5%. Furthermore, as can be seen in figure 8, the interest rate on the loan the municipality took turn out to be higher than expected. The result; the profit, predicted in 2011 has halved in two years (bron gemeente rijswijk). It remains to be seen if this neighbourhood will result in profit or loss but it will not help solve the spatial problems of the vacant buildings in the Plaspoelpolder.

A SOLIDIFIED SITUATION
The dual role of the municipality contributes to a solidified situation where the problem of vacancy is neglected. However the municipality is not the only stakeholder that contributes to this situation. In figure 9 a force-field analysis can be seen, where stakeholders (in circles) are connected to each other with money streams and interests (blue lines). It shows the solidified situation in relation to the financial and spatial decay of the whole neighbourhood. In the next paragraphs the problems in this force-field is be discussed.

‘DELAY AND PRAY’
Owners have the problem that they cannot downgrade the value of the building because banks cannot take risks anymore since the crisis hit in 2008. Banks cannot take this risk which results in a status quo where no one acts. Furthermore, during an talk with an owner of a vacant building in the Plaspoelpolder, it became clear that the owner spread his risk by constructing offices across Europe and the Netherlands and basically did not care if this building was empty or not. The result of this risk spreading is a ‘delay and pray’ attitude where the owner just waits for new economic growth. And even if the owner wants to transform he still finds himself in a prisoners dilemma: if he invests first in transformation other owners are profiting from this quality boost and could benefit more than the investor. (bron EIB, 2010)

INCENTIVES AND MORAL HAZARDS
The system of banks, advisers and appraisers before 2008 was widely based on an incentive structure. The office market is a market which is owners and investors are advised. These adviser work on the basis of a provision; higher the transaction, higher the loan for the adviser. With banks the same happened, higher the value of a building, higher
10. Force-field analysis, part 2 (own image)
the loan for the banker. And also with appraisers; higher the valuation, higher the loan for the appraiser. The result of this provision structure are moral hazards; advisors have more knowledge then the one to be advised and can therefore manipulate the outcome against the benefit of the one advised, in favour of their self-interest. The one that is advised has less knowledge and therefore cannot check if the adviser is doing the right thing. This leads to a market where transactions are made for the benefit of making transactions. With banks this became a huge problem, because huge risks were taken in the benefit of short-term profit. After the crisis, more and more advisers stepped out of this incentive structure and returned to a loan per hour instead of per transaction. (Bron EIB, 2010)

‘TRADEGY OF THE COMMONS’
As explained before, municipalities are dependant on land issue for their yearly budget. Because offices are good for selling land, the economy of a city and attracting new residents, municipalities competed with each other to get or keep big firms within their municipality. Land issue, in favour of solving vacancy, became standard. A famous example of this, is the case of the migration of the office of KPMG in Amstelveen. KPMG wanted to build a new headquarters 500 meters from the building they were in. The municipality did not want this because a huge building would become vacant. However, by threatening the council, KPMG managed to get approval for their new building. In return the municipality got a share of the building profit (Bron tegenlicht).

This competition between municipalities results in a ‘tragedy of the commons’ (Gareth Hardin); for municipalities it is rational to engage in a lot of land issue for new firms, while for the office market as a whole this can lead to oversupply of offices, lower land profits and an a waste of scarce space (EIB, 2010). This calls for a regional cooperation between municipalities and the county. However the South-Holland county also benefits economically from several business parks (including the Plaspoelpolder) because a lot of people that work on the highway locations live somewhere else (Economische Visie, 2010). The county therefore invests in Rijswijk and in return the municipality makes the zoning plan very strict (Exploitatieplan 2011, Brink groep). This results in a hold on transformation because it is still very expensive to change a zoning plan. The national government is trying to make transformation more profitable for owners, with a lower V.A.T. on transformation. However at the same time they are cutting of 70.000 m2 in office space due to a shrinking government (bron gemeente Den Haag, 2011). Not the best role model...
12. Badly maintained office on the Frijdstraat (own image)

13. Decline in value of structurally vacant office buildings (dark red) and circles (light red) that represent the contour of the impact (own image)

14. Semi-detached nature of buildings cause often useless in-between spaces (own images)

15. Cars fill the streets during the day and are often double parked (own image)
SPATIAL AND FINANCIAL EFFECTS OF VACANCY
The solidified situation results in a ‘delay and pray’ attitude where no one takes the blame or loss of vacancy. The problem of vacancy therefore remains and the consequences become clear if we look at the area. Buildings of owners who cannot pay for maintenance anymore, look unmaintained, which results in a neglected streetscape. Some streets are partially deserted, which result in a neglect of the public space and deserted streets. The neighbourhood declines on a spatial level resulting in owners that leave the area because of the bad representation (bron koppels en remoy)

Not only spatially but also in terms of money, the neighbourhood will decline in value. In a research on ‘the negative externalities of structurally (vacant for more than three years) vacant offices’, Koppels (jaartal) concludes that with every 10,000 m² new structurally vacant office space the value of the surrounding offices in a radius of 500 meters decline 1,6% in value. It is a small decline but is quantifies the impact of vacant office space on the surrounding offices. On figure 13 I calculated the impact by drawing 500 meter circles around the structurally vacant office space. It becomes clear it almost affects the whole neighbourhood. If these structurally vacant office buildings are not transformed/demolished, the neighbourhood will decline in value, both spatially and economically.

CLUTTERED STREET-SCAPE
Apart from the effects of vacancy on the spatial quality of the area, the area has several problems that cause the street-scape to be cluttered. The first problem lies within the urbanism itself. Buildings are all semi-detached (figure 14), which leads to a narrow space in between. This space in between is part of private land and thus spaces are fenced off or used as streets to reach a parking space at the back of the buildings. Often the spaces are neglected or used as storage for materials. While walking through the neighbourhood this causes a cluttered street-scape with a lot of fences. Furthermore due to the semi-detached nature of the buildings the visitor also often sees the sides of the building, which is often a blind wall.

There is another problem which causes the streets to look messy; cars. This problem is a paradox; the location is well connected to the highway, which is one of the qualities of the area, but at the same time causes the neighbourhood to be filled with cars (figure 15). On some streets cars are double parked and while the neighbourhood has a lot of space, there is still too little parking space. There is a big parking garage near Shell, but this is not used anymore.
16. Borders around the Plaspoelpolder, only 5 entrances for the whole area (own image)

17. Age of vacant buildings dark red = 1950 up till dark blue = 2014 (own image)
PHYSICAL AND MENTAL BORDERS
The Plaspoelpolder is bordered by three physical borders:
- In the southeast the highway (A4)
- In the southwest the train track going to Delft and the Hague
- In the north-west a long green border.
These physical borders cause that the area only has five ‘entrances’ (figure 16); in the southwest the entrance from Delft, in the southeast the entrance from the highway, in the northeast from the old town of Rijswijk and in the north-west the entrance from the new town of Rijswijk. The highway, the water and the train tracks are physical borders you cannot adjust, but the borders in the north can still be changed to make a better connection to the centres of Rijswijk.
However, between the Plaspoelpolder and the neighbourhood in the north lies a park of 50 meters, then a big road of 10 meters, then a ditch of 5 meters and then a green buffer of 5 meters. This border runs on for 800 meters without any connection from this road to the Plaspoelpolder. To enhance this border the municipality build two new high rise towers in the park. In this way the Plaspoelpolder is not a part of Rijswijk but a small city on it’s own. It enhances the mono-functional nature of the area because no own really stays in the Plaspoelpolder.
Apart from physical borders there is a mental border between most of the employees that work in the Plaspoelpolder with Rijswijk. Only 9,000 of the people that work in the Plaspoelpolder live in Rijswijk (bron Economische visie 2010). 22,000 people drive in and out everyday without seeing or visiting Rijswijk. There is no mental connection with the centres of Rijswijk. It illustrates why the county and the municipality benefit from a strict zoning plan for offices and business. However these mental and physical borders, together with the mono-functionality of the area results in a mutual disinterest in the area and a qualitatively poor public space.

AGEING OF FUNCTIONAL FACADES
The average age of the vacant buildings is around 29,4 years. The technical lifespan of an office is around 50 years. This predicted lifespan includes three investments for maintenance every 10 years (bron real estate thesis). However the average age of vacancy is around 4 years. Sometimes in these years the buildings are not maintained, which contributes to neglected buildings. When this happens the building detoriates more quickly and the lifespan is reduced. Furthermore, office and business buildings, often build very quick and functional, now have an outdated image. With no investment in the remaining 15 to 20 years of their technical lifespan, these buildings will detoriate and will probably not attract new users.
SPATIAL STRATEGY OF MAKING SPACE AND PRESERVING SPACE
MAKING SPACE AND PRESERVING SPACE

the end of urban sprawl
18. Current situation with investments of millions into new infrastructure (own image)

19. Strategy of reusing infrastructure (own image)
One of the biggest problems of the municipality of Rijswijk is the impossibility of solving problems in a rational way. Dependant on land issue they are with their backs against away, leading to a situation where top priority is selling land to get a positive balance at the end of the year. The dual role of private developer and regulator has resulted in a ‘tragedy of the commons’: for municipalities it is rational to engage in a lot of land issue for new firms, while for the office market as a whole this can lead to oversupply of offices, lower land profits and an a waste of scarce space. So what can we do about this attitude? How can the municipality earn money while solving the problem of vacancy?

First of all, let’s look at the new land that is being developed in Rijswijk-Zuid. In the exploitation of the area of Rijswijk-Zuid the municipality states that it has to invest 93 million euros in buying the land and land development. But why would you invest millions of euros, with a loan and high rent, if you already have the infrastructure in a neighbourhood where 28.5% of the buildings are empty? (figure 18)

And that’s not all, in Rijswijk Buiten you can live sustainable. Heat from aquifers (layers under the ground) are used to heat the dwellings and solar panels are placed on the roof. But what is sustainable, if you need to plow a huge area and use a lot materials for the roads, while a neighbourhood 500 meters away has all the facilities you need?

The first step of the strategy therefore involves solving two problems at the same time; Rijswijk-Zuid, with 3400 new dwellings, is going to build in the Plaspoelpolder (figure 19). It has two big benefits relative to building a new neighbourhood; it solves two problems (housing and vacancy) at the same time and is more sustainable because it reuses the existing infrastructure and constructions.

A problem with this first step is that the municipality already invested a lot of money into Rijswijk-Zuid. The plans are ready and construction on the first homes in the first phase has already begun. Furthermore land is being bought for the second phase. You could say this strategy comes too late in the day. However the objective is to regard Rijswijk as a case study and thus to show that this strategy can be successful for other municipalities facing the same issues. Furthermore, the municipality still needs to design the third phase of the plan, the ‘Pasgeld’ location, good for 850 dwellings (bron bestemmingsplan 2011). So let this strategy be of use when the municipality arrives at the third phase of the project!
20. Compact city? VINEX neighbourhoods
(google images)

21. Paris Spatiale, Yona Friedman, constructing above the marshalling yars
(bron boek Yona Friedman)
Apart from the benefits of reusing infrastructure and buildings to solve a housing demand, the first step of the strategy also reacts on the way the Netherlands has build homes in the last decades.

In the 90’s with the rise of mobility and a rise in population the government set a new course in planning homes. With the VINEX (fourth memorandum spatial planning extra) in 1991, the Dutch set a course towards urban sprawl. With little space inside the cities of the Netherlands and dissatisfaction about the way new neighbourhoods were build outside of the city, Dutch developers build several VINEX-neighbourhoods at the end of the 90’s where every family could get their own garden and house against a reasonable price. This was also the period that more and more business parks were planned next to the highway. Although one of the backbones of the VINEX was the ‘compact city’, where new locations had to be placed at the edges of the city, the VINEX neighbourhoods still left the city and were placed in the green fields. Ypenburg in the Hague and Leidsche Rijn in Utrecht are examples of this. So the ‘compact city’ expanded (artikel Jelte Boeijinga)

In 2014, this is what’s happening now in Rijswijk. Huge plots of greenfield are developed for a new neighbourhood on the edge of the city. The city is expanding once more.

In the 1959 Yona Friedman, an hungarian-french architect, proposed his strategy Paris Spatial. In this strategy he opposed the total suburbanization of Paris, and suggested a hovering structure above the city. Dwellings for the poor, that lived in the centre would be rehoused to new suburbs. Friedman feared that Paris would be a fast-growing suburbia, where the suburbs would turn into a vast ghetto. He proposed to use the air above the marshalling yards for the trains, which covered 15 to 20% of the whole area of Paris, to build dwellings inside a big frame supported by huge pillars. This allowed the city of Paris to be compact while still providing the additional homes needed (bron boek over Yona)

Paris Spatial was never realised but in relation to the urban sprawl of Rijswijk and the vacancy of the Plaspoelpolder, it offers a new view on how planners have to cope with the demand for housing in 2014. We have been planning new neighbourhoods, and developed scarce green fields to supply in the demand for housing. The big difference between two decades ago and now however is that we do not have to build frames hovering above the ground anymore to keep the city compact. We already have the means (vacant buildings) to do so. Thus Yona’s Paris Spatial can land on the ground in the Plaspoelpolder.
Een huis ontwerpen met Wonen à la Carte is heel eenvoudig. Het concept werkt volgens een slimme menustructuur. Stap voor stap bepaalt u het uiterlijk en de indeling van uw woning. De oppervlakte, de indeling, het aantal kamers, zelfs de stopcontacten. In Wonen à la Carte kunt u kiezen uit hoekwoningen of rijwoningen. Tijdens het bouwproces heeft u alle begeleiding die u zich maar kunt wensen. Uw eigen woonconsulent begeleidt u gedurende het gehele traject. Op al uw vragen is er een antwoord. Praktisch en verhelderend. In een eerste, vrijblijvend introductiegesprek kunt u zich uitgebreid laten informeren. En bent u enthousiast? Dan kunt u meteen al een optie op een van de kavels nemen!

Het allermooiste: als u kiest voor Wonen à la Carte, bent u niet meer geld kwijt dan voor een woning in een project. Ook heeft u altijd zekerheid over eventuele kosten die er nog bijkomen. Die zijn meteen bekend op het moment dat u een keus maakt. Tel daar nu nog eens het comfort bij op van een woning die u helemaal naar uw eigen smaak heeft ontworpen. Dan woont u toch liever ‘à la Carte?’

Een compleet afgewerkte woning is er al vanaf €267.500,- v.o.n.

Kijk voor meer informatie op:

Wonen in Wonen à la carte
Vrienden van RijswijkBuiten
Inge en Barry van de Wall
“de woonconsulent
begeleidt ons heel goed”

Inge en Barry van de Wall zijn een van de kopers van een Wonen à la Carte woning. En? “We kunnen heel veel kanten uit”, zegt Barry. “We hebben invloed op bijvoorbeeld de keuze van de gevel of aanbouw. Je bent als koper vrij om de verhouding tussen de kamers te bepalen. Om die reden zijn we ook uitgeweken naar een andere kavel die meer mogelijkheden bood om ons ideale huis te realiseren.” Inge: “De woonconsulent begeleidt ons heel goed. Zij kan goed beoordelen wat er wel en wat er niet kan. We hadden bepaalde ideeën over de gevel en over een uitbouw. Die ideeën bleken echter niet met elkaar te combineren. Daar loop je als leek dan tegenaan, maar de woonconsulent komt dan met een oplossing.”

Uw woning helemaal naar uw eigen smaak

BuitenWonen RijswijkBuiten, een wijk vol energie

22. A VINEX neighbourhood (google images)
23. Render of a dwelling in Rijswijk-Zuid (bron gemeente)
24. A VINEX neighbourhood (google images) (bron gemeente)
25. Render of the so-called ‘a la carte dwelling’ in Rijswijk-Zuid (bron gemeente)
26. User participation in The Homeruskwartier in Almere (google images)
USER PARTICIPATION

So what do we want? A compact sustainable city with green fields in between or new expensive VINEX neighbourhoods with no space left? The VINEX neighbourhoods were build in a short period of time and with little differentiation. Architects together with developers build a lot of the same, often in a strict urban layout. Rows of houses, everyone with their own garden, became popular.

Now the same is happening to Rijswijk. Rijswijk-Zuid can be seen as a VINEX location; a new neighbourhood on the edges of Rijswijk and Delft build with the same qualities of the earlier VINEX neighbourhoods, a lot of green but with the new quality of sustainability. Two renders show how it could look like. If we compare it to the VINEX-neighbourhood, it looks the same (figure 22 to 25). That has to do with the fact that Rijswijk-Zuid is built the same way as the VINEX neighbourhoods. Only in a small part of the new plan can people design their own homes. But even here user participation is ‘a la carte’; people can choose from predetermined designs. It gives a feeling of designing your own home but in the end does not look different from the ones in the VINEX neighbourhoods (figure 24 and 25).

In the municipality of Almere they took user participation to another level (figure 26). People could design their dwelling following a set of rules. With different types of dwellings a neighbourhood was built with endless differentiation in dwelling types and façades. Why is user participation important?

After the crisis there was little money available to build new VINEX locations. Banks and investors were reluctant to invest in new homes but in the meantime there was still a demand for housing in the big cities. Since the crisis hit homes build on the basis of private commissioning (in dutch Particulier Opdrachtgeverschap) became more and more popular. Especially in Almere, the big new town near Amsterdam more then half of the dwellings were build with private comissioning. With the so-called ‘IBBA regeling’ people with less money could still buy their own home (bron binnenlands bestuur)

Apart from the crisis and financial benefits, SEV (Stuurgroep Experimenten Volkshuisvesting), a research group that specializes in experimental housing, concluded in a rapport, that the social cohesion in the neighbourhoods with self-build dwellings is higher than in a normal neighbourhood with owner-occupied dwellings. This probably the result of the effort people put into their homes (bron SEV)
27. Individual expression of self build homes (google images)

28. The clash of functions, De Meerpaal, Dronten by Frank van Klinger (google images)
THE ARCHITECT AS INNOVATOR

This self-build principle is important for the Plaspoelpolder. Do to the mono-functional nature of the neighbourhood what is needed are these self-builders. Pioneers are needed and if they are offered more freedom, the chance is high the transformation of the Plaspoelpolder will succeed.

User participation in the design and construction process is far ahead of the type of design process in the VINEX-neighbourhoods. However, as an architect, these self-build homes did not really look different than a row of normal houses. This similarity of expression is also shared in a article on self-build homes; “and although on some places a lot of freedom is given, the architectonic extravagance is rare. Outstanding color- and form experiments are outnumbered” (bron binnenlands bestuur). And also SEV (jaartal) states; “most of the self-build homes don't look that extravagant. Residents mostly adjust the floor plan to their needs, the outside is usually neat and conventional.”

This concern of similarity is shared by Frank van Klingeren, an architect from the 60’s that wanted to ‘uncake’ the society. His main concern was the individuality of society and reacted on this by designing buildings with multiple functions and a lot of public space. A good example is the multi-functional hall the ‘Meerpaal’ (figure 28), in which he tried to mix functions by confrontation of several uses. In an interview about the design process of the Meerpaal Van Klingeren stated: “with participation there would not be a Meerpaal”. He believed that participation rarely, if ever lead to innovative ideas, but only led to variations on the well-known (bron boek frank van klingeren). These variations on the well-known is exactly what happens in the Homeruskwartier. People get the chance to design a new home, but it rarely results in innovative dwellings. This means that either the architect is working on the wrong scale or the self-build dwellers get advised wrongly.
Belangrijkste regels voor het bouwen

| Per kavel mag binnen het aangegeven bouwvlak een woning worden gebouwd; |
| De minimale bouwhoogte van de grachtentuinhuizen is 7 meter, de maximale is 14 meter; |
| Om te komen tot de gebogen-grachtewand staan de woningen met de achtersij in de rooilijn, daarnaachter mag tot 3 meter een steiger worden gebouwd; |
| Woningen worden aaneen gebouwd, dan wel op 1.20 meter uit de zijkavelgrens. voor kavel 51 t/m 77 gaat het om de noordwestelijke zijkavelgrens, voor kavel 91 t/m 106 gaat het om de noordoostelijke zijkavelgrens. Hiermee ontstaat de mogelijkheid om aaneen te bouwen of om ‘vrijstaand’ te bouwen. Dit laatste is uiteraard afhankelijk van de keuze van uw buurman; |
| Voor kavel 51 t/m 77 geldt dat er geparkeerd wordt in openbare ruimte, kavel 78 t/m 106 parkeren op eigen terrein; |
| In Homeruskwartier wordt regenwater gescheiden van het huishoudelijk afvalwater en zo lang mogelijk in de wijk vastgehouden. Bij het planontwerp dient rekening te worden gehouden met oppervlakkig regenwaterafvoer; |
| Met betrekking tot welstand geldt dat bouwaanvragen zullen worden beoordeeld conform de basistoets welstandszorg. |

31. Design rules for a canalhouse in het Homeruskwartier (bron brochure Homeruskwartier West)
Another problem that arises within the Homeruskwartier can be seen on a bigger scale. When I compare the self-build homes of the Homeruskwartier in Almere to the office buildings in the Plaspoelpolder I noticed no difference on a bigger scale. Because everything is different, everything looks the same.

In a study on the design rules of the Homeruskwartier (bron Homerusbrochure) two statements became visible that could cause the problem of similarity on a bigger scale;
1) Types of dwellings are classified in clusters. There is a cluster of canal houses, a cluster of work-living dwellings, a cluster of villa’s etc. (figure 30).
2) Rules are specified for one dwelling in the so-called ‘kavelpaspoorten’; lot passports (figure 31).

The fact that rules are only specified for every single dwelling and the types are clustered results in a street-scape where every dwelling is different and results in the same rules for a cluster. But because all of them are different within the same height or with the same alignment no one stands out. There is no visual carrier that enhances the differences. The result is that the goal of self-expression transcends itself on a bigger scale.

The main priority is to enhance the self-expression for the future residents of the Plaspoelpolder. This led to three objectives for the architecture and urbanism of the dwellings in the Plaspoelpolder which is the second step of the strategy:

1) The architect invents examples prior to speaking with future residents. It is the architect that can innovate in new ideas for dwellings or dwelling clusters.
2) On the level of the urbanism dwellings cannot be clustered but must be mixed with each other. For example in the case of the Homeruskwartier this would mean a canal house beside a villa.
3) On the level of the dwelling a visual carrier needs to be designed. The carrier needs to have the same appearance throughout the urban plan. For instance a tower or a framework. This enhances the individuality of the dwelling itself. The architect designs the carrier.
32. ‘Anywhere, Park Avenue, 1970. Is this a bank, office or church?’
(Jencks, 2014)

33. Visual simplicity in the Plaspoelpolder (own images)

34. Strip the facades (bing maps and own image)
The third step in the strategy, now that we are going to build 3500 dwellings in the Plaspoelpolder and invent rules to enhance the self-expression of the dwellings, is to strip the façades.

The vacant buildings have an average age of 29.4 years. The lifespan of the building, as explained earlier, will be up to 50 years. However for the architecture of new dwellings the facade is not capable of expressing something new. Furthermore the façades of most of the buildings in the Plaspoelpolder are very functional. This functionality in buildings is well explained by Charles Jencks (jaartal) who explains the problem of these buildings as follows: ‘The present environment is tending towards both extreme visual simplicity and extreme functional complexity. This double and opposite movement is eroding our transaction with and comprehension of objects.’ When you walk through the Plaspoelpolder this is exactly what you feel. There is no transaction between you and the object and thus no relation between the buildings and the street. A photo of an building on Park Avenue with the title ‘Anywhere, Park Avenue 1970’ perfectly explains this problem (figure 32).

Rudy Stroink (bron tegenlicht), once owner of a big developing firm, explains how architects did the same trick for every building; a functional layout and facade with one designed exception to make it look better. Everything was designed to be cheap and sometimes an investor would build the same design twice, to cut in the designers and construction costs. This carelessness and visual simplicity is very visible when you walk through the Plaspoelpolder (figure 33).

The functionality together with the short technical expected life span gave me reason to invent the first rule on an urban level:
- Strip the facade of a building before designing the dwellings. (figure 34)

This has benefits on several scales;
- You can add new façades that meet the current requirements on the level of insulation and sustainability, therefore extending the technical lifespan of the building.
- You can use the existing loadbearing structures as a visual border to connect the individual expression of every dwelling.
- You can link buildings to each other, either if it is public space or if it is private space.
OBJECTIVES OF THE STRATEGY
1) REJECT URBAN SPRAWL AND REUSE THE EXISTING INFRASTRUCTURE AND VACANT BUILDINGS

2) THE ARCHITECTURE OF NEW DWELLINGS INSIDE THE VACANT BUILDINGS MUST ENHANCE THE FREEDOM OF THE FUTURE INHABITANTS. TO ENSURE THIS THE ARCHITECT AND URBAN PLANNER HAVE TO DO THE FOLLOWING:

1) The architect invents examples prior to speaking with future residents. It is the architect that can innovate in new ideas for dwellings or dwelling clusters. The architect needs to design a set of rules for the future dwellers to play with. These rules can vary per building.
2) On the level of the urbanism dwellings cannot be clustered but must be mixed with each other. For example in the case of the Homeruskwartier this would mean an canal house beside a villa.
3) On the level of the dwelling/block a visual carrier needs to be designed. The carrier needs to have the same appearance throughout the urban plan. For instance a tower or a framework. This enhances the individuality of the dwelling itself. The architect designs the carrier and design a set of rules to ensure this carrier is visual throughout the neighbourhood. These rules are therefore obligatory for all buildings.

3) THE FACADES OF THE VACANT BUILDINGS NEED TO STRIPPED TO ENSURE A GOOD (TECHNICAL) QUALITY OF THE DWELLINGS.
bedrijven in Rijswijk. De werkgelegenheid concentreert zich voor een groot deel in de Plaspoelpolder, Hoornwijck, de Broekpolder, rond het winkelcentrum "In de Bogaard" en nabij het openbaarvervoersknooppunt Generaal Eisenhowerplein.

Plaspoelpolder: een sterke troef
De Plaspoelpolder is goed ontsloten voor auto (A4, A13 en A12) en het openbaar vervoer (sneltrein en tramverbinding). De ca.100 ha. grote locatie huisvest ruim 400 organisaties, waaronder Shell en EPO als de twee grootste. Er werken in totaal bijna 22.000 mensen en er komen dagelijks bezoekers. Daarmee is het een van de grote werkgevers in de regio van de Haaglanden. De Plaspoelpolder onderscheidt zich van andere werklocaties door de grootte, de bereikbaarheid, de diversiteit aan functies en door de internationale oriëntatie.

Rijswijk biedt verder een breed scala aan goed bereikbare voorzieningen. Voor slechts enkele zaken, zoals een universiteit, een ziekenhuis of grootschalig entertainment, is Rijswijk aangewezen op de grotere steden, zoals Den Haag of Delft. Rijswijk heeft een uitgebreid en modern winkelapparaat (met name de oude dorpskern en In de Bogaard), voldoende scholen, sportvoorzieningen, horeca en cultuur.

Kenmerkend voor Rijswijk is niet alleen het groene, stedelijke wonen, maar ook de goede bereikbaarheid (auto en openbaar vervoer). Rijswijk is een sterke forensengemeente – veel van de mensen die er werken wonen er niet, en vice versa.

Mensen in Rijswijk: relatief oud, in kleine huishoudens

De leeftijdsopbouw van Rijswijk wijkt af van zowel de regio als Nederland. In Rijswijk wonen relatief veel 50-plussers; met name vanaf 65 jaar loopt het verschil op.

Figuur 1.1: Gemeente Rijswijk. Bevolkingssamenstelling Rijswijk, Haaglanden, Nederland, 2007

35. Density of the Plaspoelpolder (above) in comparison with Rijswijk-Buiten (own image)

36. Demographics municipality of Rijswijk in 2007 (gemeente Rijswijk, CBS)
DENSITY AND DEMAND OF DWELLINGS

To compare the quality of the dwellings in Rijswijk Buiten to the possible future dwellings of the Plaspoelpolder, I calculated the FSI (floor space index). This index is the division of the square meters of all levels of a building divided by all area on the ground (including the square meters ground level of a building). Starting point of the calculation are all the buildings of the Plaspoelpolder, except for the buildings of the European Patent Office and Shell. This starting point resides from the fact that in 20 years the technical lifespan of the buildings has ended and the strategy assumes the transformation of the Plaspoelpolder will take place from 2015 up till 2040.

In figure 35 you can see that the Plaspoelpolder has a higher FSI because it has more and higher buildings per area. However if the dwellings of Rijswijk Buiten would be built in the Plaspoelpolder with the exact size, it would fit two times. This results from the fact that the Plaspoelpolder has more levels and the dwellings would thus be divided among these levels.

Now if we compare the offer of dwellings in Rijswijk Buiten to the municipal housing strategy of 2007 (bron woonvisie), the offer of detached houses satisfies the need of more ground-based dwellings. However Rijswijk is an aging city, with a big group of age 65+ (figure 36). In the future this group has to be more self-dependant due to the dismantling of retirement homes. There will be a higher demand for apartments instead of detached houses.

Furthermore, the employees that work in the Plaspoelpolder but now live outside of Rijswijk, could be offered apartments or ‘expat’ dwellings in the Plaspoelpolder. This would benefit the Plaspoelpolder and Rijswijk in three ways.

1) attracting employees to live in Plaspoelpolder disables the ‘mental’ border that exists now between the employees and Rijswijk
2) it increases the mix of the Plaspoelpolder and increases activity on the streets
3) it decreases car traffic

To conclude; where in Rijswijk Buiten the supply of housing only satisfies the need of the existing group of 25-55 years, the Plaspoelpolder can satisfy the need for the group of 65+ (apartments in the former offices), the group of 25-55 years (ground-based dwellings in the former halls) and a possible new group of expats or employees of the Plaspoelpolder (apartments or ground-based dwellings).
37. Different techniques to approach the problem (own image/Madrid bron)

38. The four existing typologies in the Plaspoelpolder (own image)
During the year the process of graduation was led by inventing examples for the vacant buildings in the Plaspoelpolder. After deciding to remove the façades I used multiple tools to investigate what could be possible. Models, sketches, interviews with future users, computer drawings and references (figure 37) helped to find an answer on the question; how much freedom do you give to the dweller and where do you step in as an architect? Using different techniques, like using different disciplines to approach the subject, is the key to find a strategy that could answer all the problems on different scales.

In the case of the Plaspoelpolder, with little different functions beside a lot of offices and businesses the impact of one design for instance, the transformation of an office building into a student home, would be too small. The process therefore needed to end with a strategy (not one design) that could survive on multiple scales. I came upon multiple objectives;

1) The architect invents examples prior to speaking with future residents. It is the architect that can innovate in new ideas for dwellings or dwelling clusters. The architect needs to design a set of rules for the future dwellers to play with. These rules can vary per building.
2) On the level of the urbanism dwellings cannot be clustered but must be mixed with each other. For example in the case of the Homeruskwartier this would mean an canal house beside a villa.
3) On the level of the dwelling/block a visual carrier needs to be designed. The carrier needs to have the same appearance throughout the urban plan. For instance a tower or a framework. This enhances the individuality of the dwelling itself. The architect designs the carrier and design a set of rules, as to ensure this carrier is visual throughout the neighbourhood. These rules are therefore obligatory for all buildings.

These objectives are translated in the strategy as follows:

1) Examples are made for the four building typologies that exist in the Plaspoelpolder; a hall with a lot of construction, an office building, a combination of a hall and an office and a hall with a construction that spans the whole building. The examples need to be unique designs in relation to the other in order for the dweller to step out of their conventional ideas about the dwelling (figure 38).
2) The examples for the four typologies differ in how much freedom a future residents gets in designing their own home. There is one typology where the resident can do what he/she wants, one where he/she can, together with a group, design the urban layout of the building and also...
1) Strip the façades

2) At least 50% of the loadbearing needs to remain visible from the street

3) The dwellings need to be build using the existing load-bearing construction (no extra foundation can be build (exception for the towers))

4) Every buildings needs to have pathways to ensure accessibility of the dwellings

5) The architects of the new buildings need to determine a set of rules for the dwellers to work with
one where the dweller can choose the layout of their dwelling. Because the typologies are already mixed through the neighbourhood and because of this mix of freedom, the strategy subjects the clustering of certain dwelling typologies (which can be seen in the Homeruskwartier) and offers a broad spectrum of choice for the future residents.

3) The visual carrier consists of two objects. The first are the load-bearing structures themselves. Because the construction is always based on a certain dimensions and because the construction often consists of a skeleton structure (columns and beams), there is a constant factor in the appearance of a building. The second visual carrier consist of a tower that is placed in the building after the façades have been taken of and prior of the construction of the design. These towers act as the basis from which the design team and the future residents work. After the design is ready the tower is transformed into a space for energy storage, which be explained later on.

To ensure the quality of the examples and the design of the visual carrier, I as an architect invented a few, but simple rules;

1) Strip the façades
2) At least 50% of the load-bearing structure needs to remain visible from the street
3) The dwellings need to be constructed using the existing load-bearing construction (no extra foundation can be build (exception for the towers))
4) Every buildings needs to have pathways to ensure accessibility of the dwellings
5) The architects of the new buildings need to determine a set of rules for the dwellers to work with.

In the remaining part of this thesis I will explain three examples, then I will explain the example I elaborated to get the title of architect (design a building) and afterwards I will explain the visual carrier and the urban design. Figure 40 shows an overview of a part of the area with the examples I will elaborate on.
41. Individual infill of atrium (own image)

Plaatje façades als mix van huidige gevelelementen

42. Communal infill of atrium (own image)

43. Different façades, same carrier (own image)
EXAMPLE 1 OFFICE TYPOLOGY

The first example is the half-empty vacant office building on the Verrijn Stuartlaan 28-30. The vacant parts of the building have been vacant for 13 years.

The office buildings in the Plaspoelpolder often have the same dimensions. Usually there is a hall in the middle with on both sides offices. Due to the orientation of the buildings to the sun and the quality of having direct sunlight in the dwelling I designed several atria to ensure sunlight in every dwelling. This atria are placed on strategic points and also at the former staircase and lift shaft. The lifts and staircases are reused. In the perspectives two possible scenario’s of dwellings around the atria are given. The first scenario shows dwellings around the atria where one can choose it’s own cladding (figure 41). This is the scenario in which more individual apartments are placed. But you could also make it more communal by making the atria communal spaces and making the appearance of every dwelling similar (figure 42). The façades on the outside can also differ. People could choose their own cladding or people can choose the depth of their balconies. These are a few examples on how to cope with an office in this area.

44. Overview office typology (own image en bron makelaar)
... Overview image from the top
(own image)

... Perspective
(own image)
EXAMPLE 2 HALL WITH BIG SPAN

The second example is vacant hall on the Diepenhorstlaan 7. It has been vacant for 10 years.

What is striking about this hall is that it has a free span of 15 meters. The power of this hall is that it gives a lot of freedom to design your own home. You could drive your caravan into the hall and make a small city with other residents or you could make it into an experimental hall for art, where a group of artist share a big atelier. In the design I show, the starting point is a pathway that runs organically through the hall, in contrast with the load-bearing structure. In this pathways are the facilities that run to the dwellings. The dwellings are ‘box’ like, to envisage the possible short-term or flexible nature. These dwellings are situated around communal gardens where people could grow their own vegetables. Growing your vegetables is possible due to a big glass roof that is placed above the hall in which solar panels could supply in the need of energy in the homes. When designing, the most important thing to understand is that these halls are especially good for experimenting with dwellings and configurations, because it offers so much freedom.
... Section through building with greenhouse in between
(own image)

... Perspective of greenhouse
(own image)
Example 3 is hall with offices on the Cort van der Lindenstraat 18. It has been vacant for 6 years. This building is one of the older buildings in the Plaspoelpolder, 55 years old and is already at the end of its technical lifespan. This means it has to be taken out of the market or probably it will deteriorate slowly.

However these combined buildings offer a lot of possibilities. You could build dwellings in the offices and make a greenhouse in between. Or you could make a restaurant in the hall where you can eat between the green ingredients. Or you could span the entire hall with canvas to make it into a market hall. Either way, it is important that the part with the offices can carry more weight than the floor of the hall. Dwellings are therefore more likely to be situated in the office parts and a semi-private or public function without a small load in the hall. Furthermore due to the technical lifespan one might consider to check the existing load-bearing structure prior to designing.
... Idea of the box (own image)

... Configurations of dwellings (own image)

... A family home with the connecting greenhouse (own image)
The typology I elaborated into a design is the old Martini factory on the Verrijn Stuartlaan 32-34. It now has a temporary function as a second-hand store but before this function it has been empty for 5 years. This building is one of the older and characteristic buildings in the Plaspoelpolder, 53 years. It has a concrete heavy construction. The reason I chose this building is because it is situated on the crossing of two beautiful boulevards. Therefore this building is the perfect location to attract new residents.

A rule obligatory for all buildings is that you have to construct the dwellings using the existing structure. Therefore I made a modular home which consists of a box. This boxes rest either on top of the building or on beams in between the existing structure (figure ..). To connect the boxes with each other a greenhouse is placed in between, which acts as a climate buffer in the dwelling. With the modularity of the box multiple circuits (figure ..) are possible; an apartment with one box, living apart together with a greenhouse in between, an informal care where the parents live connected to the grandparents or a family home (figure ..). With one or two boxes, within one building, a lot of dwelling typologies are possible.
... Urban configurations of the boxes
(own image)

... Perspective seen from one of the axes
(own image)

... Section through boxes and public space in between
(own image)
Furthermore an added value of the modularity of the box is that groups of dwellers can choose the configuration of the boxes. You could make a closed garden, you could choose for a random configuration or you could make streets (figure ..).

The material of the boxes is kept the same. While elaborating this example again the question arose: how much freedom do you leave for the future residents and where does the architect step in. After a long process of designing a few rules are made to guide the freedom of the inhabitant;

Rule 1: All dwellings need to have at least a one-sided free orientation
Rule 2: All dwelling cannot be bigger than 100 m².
Rule 3: Dwellings cannot be build directly on top of the main axes
Rule 4: Borders of private gardens cannot exceed 800 mm in height

The dwellings are relatively small, 50 m² to 100 m². The smallness of the dwellings result from the fact that I as a user of public space, think that society is getting more and more introvert. We are more digital, we spend a lot of time in our private domain and we have less direct contact due to the digital medium. This results in a society where people are introvert. Frank van Klingeren (bron boek), an architect that focused on designing public space, proclaimed this trend already in the 60’s: ‘the downward spiral with respect to the public sphere can only be broken by stimulating housing where the private domain is brought back to a minimum. With the released resources and space public space with more collective facilities with a higher quality could be realised.’

In respect to Van Klingeren this is what the example tries to achieve: using the dwelling to increase the public space and how it is designed.
... Existing visual carrier, the load bearing constructions (own image)

... Towers act as reference point (own image)

... Tower as a workplace (own image)

... Tower as an energy buffer (own image)
With these examples, and every vacant building that can be gradually transformed, the question arises; how do you prevent every building from looking different and thus looking the same (as what happens in the Homeruskwartier)?

A part of the answer lies within the first two rules that apply to all buildings;
1) Strip the façades
2) At least 50% of the load-bearing structure needs to remain visible from the street

By stripping the façades and ensuring the visibility of the load-bearing structure, the block gets an order. The structures, with a constant dimension, give the appearance of the dwelling a frame. On the level of the block the dwellings are therefore framed, which reinforces the individual differences.

The second part of the answer lies within the design of a tower. This tower guides the process of design and construction. After the facade has been stripped, the tower will be built inside or adjacent to the building. This tower has several functions;

1) It acts as a reference point when walking through the neighbourhood. When more buildings are transformed every transformation is marked by a tower making it easy to find your way through the existing structures. With these towers a new visual carrier is created (figure ..).
2) After the facade has been stripped, the space inside the tower is designed as a workplace, from which the architect, contractor and the developer can work. Future residents or interested people can come by to discuss their vision and design (figure ..).
3) After the dwellings are constructed the space inside the tower is transformed into a storage point for energy. Water storage into tanks, batteries for electricity or black water treatment can be placed inside. With every tower the building could therefore store it’s own energy and use it for the dwellings (figure ..).

With these visual carriers the Plaspoelpolder can gradually transform without losing the credibility of the freedom of the user on the level of the block.
... Existing borders and fences (own image)

... New situation with cross streets (own image)

... Urban plan with cross streets and parking facilities (own image)

... Urban plan with parking facilities (own image)
ANSWER TO PHYSICAL BORDERS

The semi-detached nature of the buildings in the current urban plan cause a cluttered landscape. Figure .. shows the how owners have trouble to use this space. To prevent people from walking over private land, fences are placed in between. With offices there is usually a parking facility at the back of the building, then the space in between is used as a street. With businesses however, the space is often unused and fenced off.

In order to add more quality in the urban plan and to link buildings together the private space in between the buildings is made public if an adjacent building is transformed (figure ..). The perspective furthermore shows that a small gesture of taking down the fence and connecting the pavement to the transformed buildings enhances the quality of the urban plan. Furthermore it gives the opportunity of crossing the often big blocks and thus connecting the streets to each other. To enhance the quality of the cross streets more public functions could be connected to these streets. Furthermore a new rule arises for the dwellings adjacent to this streets;

6) **Dwellings adjacent to new cross streets cannot have their backsides towards these streets, in order to ensure a certain quality of the cross street**

When viewed in plan, the relation between the cross streets and the transformed buildings become visible. By skipping the pavement from the cross streets into the transformed buildings the buildings are connected to each other. Furthermore with this pavement a smoother gradation of public to private is realised, which could be a useful tool when designing a new typology into the existing structures.

In regard to the problem of parking and double parking first the whole Plaspoelpolder needs to reviewed in relation to the traffic plan. To cope with a future parking problem, I will reuse existing parking garages as public parking for the dwellers. With the transformation of the Plaspoelpolder I have taken into account that an existing parking garage is always nearby new transformed buildings. Therefore I cluster the transformation (which will be explained in the next chapter). Furthermore cars can still park at the side of the road, however not adjacent to the boulevards, to keep the visual quality of the boulevards visible. Where parking still shows to be a problem, a new semi-sunken parking garage could be made, using the scrap coming from the existing façades.
... Transformation phase 1: 2020
(own image)

... Transformation phase 2: 2030
(own image)

... Transformation phase 3: 2040 or beyond
(own image)
TRANSFORMATION OF THE AREA

A prediction of how the Plaspoelpolder will transforming into a mixed area cannot be made. It is totally dependant on which buildings are vacant or will become vacant and which owners or developers are willing to invest in the buildings. However to envision the transformation of the area I made four models (figure ..). In these models I investigated how transformation is likely to take place.

First of all, I suspect buildings will be transformed in the form of clusters (not to confuse with the clusters of the Homeruskwartier). These clusters are useful, because buildings can design the new facilities at once. Moreover cross streets can only appear if more buildings are transformed. In the models I have taken into account that the clusters will always be around an existing parking facility. Furthermore it would be of great importance that first the buildings on the corner, if vacant at all, are transformed. This makes the transformation not only visible from different angles, it also activates the areas around it. For instance on the corner of the Veraartlaan and the Diepenhorstlaan, stands a building that is vacant for seven years. This is the first building one sees when driving into the area. The first view from the car is now speaking for the state of the whole area. This can also change to benefit the idea of the whole area.

Furthermore there are several buildings that may persist. This buildings, like for instance the headquarters of ANP (Dutch news agency) on the Verrijn Stuartlaan 7, the new reptile Zoo on the Bruyn Kopsstraat 10 or the (ugly) Shurgard storage building on the Visseringlaan 14 are important functions that can activate or benefit from the transformation. A new rule in the transformation would be to look carefully to which functions can enhance transformation.
Figure .. Difference in costs to transform and to leave vacant building as it is

Figure .. Difference in investments, for new infrastructure and existing infrastructure
So how does this transformation take place?

First of all, I see a great responsibility for transformation of the municipality. Although they are not directly the cause of vacancy, they are now trying hard not to solve it. The municipality however has the power over the zoning plan and has the resources to buy new land. So what if the municipality could use it’s double role to solve two problems at a time?

First you need a new law saying that on all buildings that are vacant for more than three years, lays the emption of the municipality. In this way if an owner wants to sell the building, he/she first needs to offer it to the municipality. The municipality is the one that buys the existing buildings with the land, strips the façades and invest in added infrastructure for the dwellings. You could see it in the same way as land issue now; the municipality buys the land from the owner and makes it ready for construction. In this way the municipality can finally use it’s double role to serve the it’s core task, serving the community.

The big difference in money is that the investment is not put in new infrastructure, but in existing infrastructure. However the advantage with the Plaspoelpolder is that you get the existing load-bearing structures with it. You do not have to build a new foundation. This process will take place under the guidance of the foundation Urbanisator Plaspoelpolder. This foundation is currently finding new ways to transform the area but is still held back by the municipality. Because this is a foundation the process of transformation could take place without the focus on profit and more on social benefits. When the site is preprepared the municipality can sell the land with the vacant structures to a interested party. This can be a group of people, an investor, a developer or an architect. After the building and land has been sold the design process starts.

To persuade the (money-driven) municipality and owners to take action and solve the (spatial) problem of vacancy I made a comparison of the costs. Figure .. shows the difference between leaving vacant buildings as they are and figure .. shows the difference in investment for the municipality. The figures speak for themselves.
CONCLUSIONS REGARDING DESIGN AND RESEARCH QUESTION
Can a design for a vacant business park change the short-term, money driven attitude of the municipality to an attitude that focuses on long-term benefits for their own citizens?
picture  huidig straatbeeld
picture  nieuw straatbeeld
we can create the same or a higher quality of a streetscape with the existing structures and infrastructure, and thus combine several systems with each other.
picture compacte stad
picture uitgebreide stad
CONCLUSION 2 THE END OF URBAN SPRAWL

We can keep the city way more coherent while solving the need for extra housing. Furthermore we can save a lot of money by reusing existing buildings in a smart way. Yona and Constant can be placed on the ground.
picture regels en vrijheid
CONCLUSION 3 THE ARCHITECT AS A RULEMAKER

uitleg architect als spelmaker. De drager en de mensen
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uitleg belang van schetsen tijdens het ontwerpproces
vanuit een ander perspectief kijken
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maatschappelijke relevantie studio
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uitleg belang van schaal
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TU Delft, Design as Politics