INTRODUCTION

The emerge of Den Haag Zuidwest

Den Haag Zuidwest is a large urban expansion, which has a history that reaches back to the beginning of the twentieth century. Its realisation started to get shape by a design from H.P. Berlage with his ‘Plan Moerweg’. After the death of H.P. Berlage in 1934 a new architect was involved with the plans: W.M. Dudok. Not only ‘Plan Moerweg’ was revised, but Dudok designed a whole new expansion plan Escamp-polder, Maepolder and Ockenburg. The housing shortage after WO II resulted to the order of Den Haag to Dudok for the ‘Structuurplan groot s-Gravenshage’ in 1945 (DSO/RO, 2003). Within the ‘structuurplan’ four districts are realised; Moerwijk, Morgenstond, Bouwlust and Vrederust.

The urban main green structure of Den Haag Zuidwest exists out of the so-called ‘Groene Assenkruis’ and the canals besides the Erasmuslaan and Moerweg (fig 1). Together they amplify the structuring functioning of the grid of main roads. In general Den Haag Zuidwest is determined with green and water as spatial porters. Royal dimensioned street profiles with tree lines and canals with green banks. Besides these green structures, the connection to the nearby situated green areas, like Zuiderpark, Overvoorde, Uithof contribute to the identity of Zuidwest as green urban quarter.

The spatial structure of Den Haag is consisting out of continuous streets that are parallel to the coast and more fragmented street diagonal to it. This spatial structure is also to be found in Zuidwest, where the Erasmusweg, Melis Stokelaan, Moerweg and Hengelooolaan are long continuous street and the streets diagonal to it are more fragmented (fig 2).

With this plan approximately 30,000 dwellings were built for 100,000 inhabitants (DSO/RO, 1999, p5). The offer of dwellings and facilities were tuned to the standards of the society at that time. The shortage of cheap working-class houses was huge, so the quantity of this type of
houses was dominant. The majority of the dwellings consisted out of stacked cheap working-class houses as three- or four-rooms.

The districts within the plan would meet the new insights in the field of urbanism and public housing of that time. One of those new insights was the ‘wijkgedachte’. In the ‘wijkgedachte’ the spatial and social organisation of the city is based on the hierarchy: dwelling – neighbourhood – district – urban quarter – city. This should be a solution to the supposed de-socialisation of the human in the city. The ‘wijkgedachte’ as healthy community forming should give an answer to the destructive effects of individualism. Although Dudok was pessimistic about it, according to him the religious differences would divide the society, Moerwijk was one of the first examples with the urban application of the ‘wijkgedachte’ as structuring principle.

**The development of Den Haag Zuidwest**

After the construction of Den Haag Zuidwest a general transformation started to appear. One of the reasons for this transformation is that the children of the families are leaving their parental houses and the inner courtyards / communal spaces are left empty. Another reason is the change in society, where the households were becoming more individual and where not relying on the ‘wijkgedachte’ anymore. The arrival of the car, fridge and telephone lead to a scale enlargement in mobility and geographical distances become less important; the focus is no longer on the neighbourhood. Finally the original inhabitants start to disappear as well and families with low income and children start to occupy the cheap working-class houses. But these dwellings do no longer meet up with the desires and are experienced as small.

**Zoom-in on Den Haag Zuidwest; Moerwijk-North**

Moerwijk is the oldest part of Den Haag Zuidwest and is situated 4 kilometres southwest of the city centre of Den Haag. The district is divided into five sectors; Moerwijk 1 till 5 (fig 3). The main urban setup
setup is based on a rectangular pattern with the Erasmusplein as heart. On top of this a fine second grid of green and water is placed. The foundation of Moerwijk 1, i.e. Moerwijk-North is based on the earlier mentioned ‘Plan Moerweg’ of H.P. Berlage from 1908. But it took until 1930 before the ‘Raad’ approved the developed plan (fig 4). In 1932 the construction of the streets begun and in 1934 the first houses of the three housing corporations ‘Beter Wonen’, ‘Patrimonium’ and ‘Luctor et Emergo’ were delivered. Moerwijk-North is triangular shaped and enclosed by the Troelstrakade on the north, Erasmusweg on the southeast and Moerweg on the southwest. The Melis Stokelaan is dividing Moerwijk-North in two parts (fig 5).

In Moerwijk-North the urban space is the arranging principle, which leads to high building blocks on the edge and lower blocks in the centre. The building blocks on the edges function as a wall behind which the neighbourhood life occurs (van de Beek, 1987, p39). In the heart of the neighbourhood a big sport- and playground is placed.

The development of Moerwijk-North

At the end of the 80s and beginning of the 90s a renovation wave went through a part Moerwijk-North. The renovation had big consequences on the architectural expression. Brick exterior walls disappeared beneath insulation layers and original window frames and fronts were replaced by plastic or aluminium examples. This resulted in the loss of the detailing of the characteristic ‘wederopbouw’ architecture.

Beside the architectural changes the neighbourhood also starts to transform. The presence of the original functions starts to disappear. Stores like small grocery shops, schools, neighbourhood centres start to close down and get occupied by housing corporations or other offices.
PROBLEM STATEMENT

Den Haag Zuidwest is one of the four ‘krachtwijken’ in Den Haag. Two main goals of the municipality for the restructuring are improvement of the social issues and preventing the out stream of middle-income families (OCW, 2009). From the inhabitants point of view the lack of social cohesion is leading to dissatisfaction (Vroege, 2010, p37). Social issues are forming a big problem in Den Haag Zuidwest nowadays, but this is the contrary of what Dudok tried to realize with the ‘wijkgedachte’. Finding a solution for this contrast that fits the present is very interesting. In the search to this solution the area with the most social issues will be picked. Numbers of the ‘Buurtmonitor’ show that the social cohesion ratings are the lowest at Moerwijk with a score of 4,8 out of 10 (fig 6).

CBS shows that Moerwijk has a limited housing stock with mainly working-class houses of mostly 3- or 4-rooms. This monotonous housing stock exists out of 92% multi-storey dwellings (fig 7) and 8% single family dwellings. The majority of the dwellings is in hands of the housing coorporations (78%) and only 17% is privately owned. The housing stock houses approximately 19.000 inhabitants of which 36% is autochthonous and 64% is allochthonous.

One of the reasons for the lack of social cohesion is in the balance between privately owned dwellings and social rent dwellings. The presence of private dwellings provides a better social network, than with social rent dwellings where the contact between (mostly) allochthonous people is lacking (Karsten et al., 2006, p27). Another reason for the lack of social cohesion is the monotonous offer of the housing stock where there is no possibility to make a ‘wooncarrière’. Lots of the dwellings do not meet up to the standards of today anymore and the consequence is the stream out of middle-income households and flow in of low-income households. This stream out of middle-income families with children is also mentioned in a temporary (anno 2012) architectural discussion of BNA ‘Het alledaags gezin in de stad’. The first results in this research mention that families are the glue of the city with their social and economical power (Liesker, 2011, p5).
RESEARCH QUESTION & SUBQUESTIONS

Based on the main issues mentioned in the problem statement the following research question is formulated for the graduation project:

How can Moerwijk-North be architecturally transformed towards an attractive neighbourhood with a high level of middle-income families and contemporary form of social cohesion, while maintaining the existing architectural qualities?

For an answer on the research question several areas should be investigated. Subquestions like ‘What is social cohesion?’ , ‘Which type of family is most suitable?’ and ‘What are the needs of families in cities?’ must be treated to get a good insight for properly answering the research question.

The answer should not only be searched in the literature, but questions should also be asked in the context. ‘What part in Moerwijk-North is most suitable for middle-income families?’ , ‘What are the existing qualities?’ , ‘Which type of building is suitable for middle-income families?’ , ‘Which transformations should be made to meet up with the demands?’.

GOAL

The goal of this graduation project is to improve Moerwijk-North towards a neighbourhood with a contemporary form of social cohesion (2.0) and child friendly imago. The transformed Moerwijk-North should be a wanted neighbourhood by city-orientated middle-income families with children.

RESEARCH METHOD

The P1 report will be structured in such a way that the required information about the social cohesion and families is treated before the deeper analysis of the chosen location. Firstly the questions of ‘what is social cohesion?’ and ‘what do families want?’ are firstly described on the basis of the found scientific literature. Literature of a wide range of authors, like L. Karsten, J. van der Zwaard, J. de Hart, A. Reijndorp etcetera, are used to collect as much relevant information as possible. With this information the first questions on social cohesion and families will be answered. With a clear image in mind about the wishes of the families and social aspects the location will be analysed. In the analysis the context will be studied to get a good understanding of the neighbourhood. Urban, architectural and material scale will be deeply analysis to obtain as much information. Important sources like archive drawings, sketches of architects or photographs will be used for this analysis. Also the visit to the location will contribute to this analysis.

With the literature study and the context analysis in mind the conclusions and recommendations for the design can be given, which will lead to the starting points of this graduation project. These starting points will be important, because these will result in the first step towards a tangible design; the sketch design.

In the sketch design my vision and concept are projected on the neighbourhood. In this phase sketches by hand, reference projects and models will be usable methods to visualize and clarify my thoughts. The development of the sketch design will later result in the temporary design. In this phase the drawings become more precise and will be digitalized. Models, reference projects, 3d drawings can be used for this phase. Eventually the definitive design will follow after the temporary design. This will be formed by the total package of urban, architectural and material design. In this phase the final choices will be made and the final design is the underlayer for the presentation P5. Again models, 2d drawings and 3d drawings will be important for the final phase.
SOCIAL & SCIENTIFIC RELEVANCE

The significance of this research is in the contrast with the earlier mentioned contemporary discussion about the presence of families in cities. This discussion is very much focused on the popular inner parts of big cities. This means that the chosen families have different financial means (mostly high-income), ethnic background, age and family composition, than for instance the families that are interested in Moerwijk-North. This contrast in conditions makes it so interesting to see if the outcomes are similar. Testing these outcomes is possible in two ways. Firstly to discuss the project with 'Heren 5 architecten' which made the first study for the BNA research on families in cities. A second way is to approach families with children and ask them. Another significance of this research is to see what the (dis)advantages of the applied strategies per scale are. And if these strategies can perhaps be applied on other neighbourhoods that are dealing with social issues and degeneration.

INTENDED END PRODUCTS

The products that will be made for this graduation will probably be in line with the required products that are demanded for the closure of the quarters. The required products according to the graduation booklet will be a guide, but not necessarily the minimum. Of course if necessary extra products will be made to show found results more clearly. For the presentation of the found results and products I want to use methods like sketches, models, 2D- & 3D-drawings and 3D renders. To keep developing myself I’ll try to use as much methods as possible. I believe a broad knowledge about presentation techniques is important for an architect. You can see the end result so clearly and beautiful in your own imagination, but if you fail to transport this positive thought to the client it is getting difficult.

DESIGN

The goal of this graduation project is to architecturally transform Moerwijk-North towards an attractive neighbourhood with a high level of middle-income families and higher level of social cohesion with the preservation of the architectural qualities. The creation of an ‘imagined’ community with ground bound dwellings for sympathizers will be amplified by the masterplan of Berlage, with the higher building blocks on the edges than the ones in the centre, where the daily life should take place. On urban scale the closed building blocks configuration surrounding the communal inner garden will be turned inside out. The communal inner garden will be transformed to a new and active front side. The former front (street side) will become the new ‘communal’ space for the whole neighbourhood. With this inside out concept the goal is create a higher rate of meeting between the neighbours of Moerwijk-North.

The porch dwelling typology will be transformed. The 8 former apartments that are situated around 1 porch staircase will become 4 groundbound single-family dwellings of 200 m². The merging will be vertical and by degree, which means that floors are rotated 90 degrees from each other. In this way an unusual identity, interesting spatial interior space and high surface of facades will be created, what connects with the demands of the target group I try to house in the transformed Moerwijk-North. The existing load bearing structure will be transformed to this new dwelling configuration with a minimum amount of interventions. A second intervention to the dwellings is to apply the passive home concept on the existing. With this the dwellings will be insulated so well, that there is no need for any traditional heating or cooling systems to create a comfortable indoor climate year round. These interventions will give insight in the consequences on the existing. After reflection on the results recommendations can be given, which can serve as transformation strategy similar neighbourhoods or porch dwellings.
REFLECTION

The goal of this reflection is to look back on the project and assess the approach. Not only on the products, but also on the process and planning. In this reflection an answer will be given on the main research question.

1 | Process

In the studio of RMIT the first step is to research and examine the existing and its history. In this analysis the history, possible interventions, present situation will be treated. From this analysis the values and disvalues of the design will be named, which will be used by the designer as a guideline. The value assessment in combination with the designers own starting points lead to a founded renovation, modification, intervention or transformation.

In the first quarter my focus was mostly on the literature research about social cohesion, urban restructuring and single-family dwellings. I lost myself in the heaps of available information on those subjects and was not really able to firmly analyse the actual location. This resulted in a wide research, but not bordered in for my location. Another subject that was important to my method was the temporary discussion (anno 2012) about the out-stream of middle-income families in cities. A research of ‘Heren 5 Architecten’ inspired me about this topic. I was curious whether I could find a way to implement this research in my own project, which is not in line with the RMIT method.

When the design phase started I made huge and unconventional changes on urban and architectural scale. These changes were based on the earlier research outcomes and had potential to strengthen the neighbourhood on the present negative points. The next step was to prove if these changes were plausible and could cooperate with the existing values and qualities.

Although this process is not according to the traditional RMIT method I do think that this different path I chose was very educational. To try to project an unconventional idea or research in the design with the preservation and maybe even strengthening of the existing values is quite an interesting challenge.

2 | Product

2.1 | Theme

‘Many districts in Den Haag and other European cities face complex social issues and degeneration. Making a design for a regeneration area demands a deeper understanding of this complexity. We will spend much time and effort on research. Areas and sites constructed in different periods in history will be studied. Analysis will be carried out using different scales; the urban scale of city and landscape, the architectural scale of buildings and context and the technical aspects of structure, material and detail. We are studying the history, the past of interventions, the actual situation and the future possibilities.’

(Spoormans, L., 2012, p.2)

In this studio the district in Den Haag was already given; Den Haag Zuidwest. After the first visit I noticed the low level of streetlife and high level of rubbish and vandalism. Literature investigation showed that the crime and social cohesion rates of Moerwijk where the most negative, while the design in the 50s was all about the ‘wijkgedachte’. This interesting contrast led me to Moerwijk, which would be analysed on all the scales (urban, architectural, technical) and times (history, present, future). Eventually a large part of the neighbourhood is analysed and designed on urban scale and a building ensemble is picked as case study to analyse and design on architectural and technical scale.

2.2 | Research & Design

Literature investigation and my own observations showed me that my interest was evoked on the low level of social cohesion and the out-stream of middle-income families. Which led to my main research
question; ‘How can Moerwijk-North be architecturally transformed towards an attractive neighbourhood with a high level of middle-income families and contemporary form of social cohesion, while maintaining the existing architectural qualities?’

Research on urban scale shows that Berlage designed the masterplan in such a way that the edges contain higher buildings than the ones in the centre. With this measure the centre becomes shielded ('Berlage village') and protected from the outside. Another quality of Moerwijk-North is the configuration of the building blocks. Many of them are closed building blocks with open corners surrounding an inner communal garden. Back in the 50s these communal gardens functioned as a leisure area where neighbours could meet each other. Nowadays these communal gardens are abandoned and have a hostile appearance by fencing, graffiti and littering. This is due to the changed society (which became more introvert and anonymous), poor access and lacking program.

In my design the ‘Berlage village’ is emphasized more by the inversion of the inner communal gardens. The configuration of the building blocks is turned inside-out. The former inner communal garden becomes the street and the former street becomes public green space. This public space is connecting all the building blocks and creating meeting opportunities for all the neighbours in the ‘Berlage village’. The result is a public green space that is car-free, child-friendly and programmed for sporting and playing.

For the research on architecture scale a case study is picked; 7 Building blocks with porch typology around 2 communal gardens along the Moerweg by architects J.A. Hoogeveen & G. Albers from 1945-1948. In these 7 building blocks 3 types can be defined; single family dwellings, porch apartments with 3 floors and pitch roof, porch apartments with 4 floors and flat roof. This last type was researched for the redesign.

The building blocks are designed parallel to the long stretched streets, which results in long horizontal facades. This horizontality of the brick facades is interrupted by scaling elements such as porches, verges, balconies, windows, doors and ornaments. The brick front façade is of high architectural quality with original steel window framed porches and concrete window frame ornaments. The brick back façade is crumbled by the balconies and of low architectural quality. One porch provides access to the 8 apartments of approximately 80 m2 (divided over 4 floors) and the storage units in the basement.

Another research subject were the demands and wishes of the new target group; the middle-income families. This led to 5 starting points for the design: groundbound single-family dwellings (1), vertical privacy (2), identity (3), sustainable image (4) and private outdoor space (5).

In my design the high quality front facades will be maintained. The 8 dwellings and storage units will be vertically merged towards 4 single-family dwellings of approximately 200 m2 with private gardens on the ground floor. To create a distinctive identity the stacked floors will rotate 90 degrees from each other, which leads to a spiral route and interesting spatial relations in the dwellings. The privacy will be arranged vertically with the more ‘public’ functions on the downstairs and the more private function upstairs. A sustainable image is created with the insertion of the passive home concept.

Research on material scale showed that the materials are in good shape. For instance the brick walls, concrete window ornaments and original steel porches. The original window frames are replaces by plastic window frames, but still contain single glass. Other reasons like cold bridges and lack of insulation (thermal and sound) also contribute to the fact that the dwellings technically do not meet up with the demands of nowadays.

In my design the high quality brick front facade will be preserved by applying the insulation on the inside. If high performance insulation will be applied on the bottom floor, all facades and roof the dwelling will not perform high enough to call itself a passive home. This is the reason to realize a complete new back façade. This façade is composed with 380
mm thick insulation. With this measure the sustainable image of the dwelling is present for the ‘green’ family.

The following very short summary of the important transformation scales will form the conclusion of this product and shows what is really necessary to answer the research question. The most important step is to attract the middle-income families. For this attraction the transformation on architectural scale (typology) is essential. The realisation of groundbound single-family dwellings of approximately 200 m² with private outdoor space and a distinctive identity. The transformation on urban scale is less essential. Does the inversion of urban space really add that much value? This project is not thorough enough on urban scale to give a sufficient answer to that. The transformation on building technology scale is optional. The passive home concept can help in attract families that deliberately choose for conscious and sustainable image of their dwelling and neighbourhood.

2.3 | Reflection

This summarized reflection will be given on 3 levels; inversion (urban scale), typology (architectural scale), passive home (building technology scale).

On urban scale question marks can be placed at the inversion. Are the added values of the inversion enough to justify this huge (and expensive) operation in public space? It only works on large scale if all the building blocks inside the ‘Berlage village’ co-operate with this. So this limits the inversion to neighbourhoods that are completely in hands of housing corporations or vacant neighbourhoods. Another point of interest is the public green space. Nowadays the inhabitants do not use the semi-public green space, i.e. inner communal gardens. Is the new target group (middle-income families) and the new public green space programmed for sporting and playing enough for frequent use? The typology change on architectural scale is most the important. This new typology attracts middle-income families, which contribute to the upgrade of the level of social cohesion. Advantages of the new typology are the spatial connections in the dwellings and the creation of a distinctive identity. Disadvantages are the higher costs for construction in comparison to ‘traditional’ vertical merging, less efficient m² due to the non-linear stacked staircases, difficulties with the length of the fireproof routing according to the ‘Bouwbesluit’ (Dutch building regulations). Although there are a few disadvantages I believe that the advantages are worth more and therefor a successful transformation strategy.

The passive home concept on building technology scale is an optional strategy. In this case the passive home concept leads to more insulation and therefor less m² (approximately 6 m² per dwelling) and higher costs in the building process. The big advantages are lower energy bills for the inhabitants, a better performing and sustainable dwelling than the required standard of the Dutch regulations, a conscious contribution to environmentally minded building.

3 | Wider context

As earlier mentioned many districts in European cities face complex social issues and degeneration. So what can this project mean for the wider context? This can be reduced to 3 levels; urban, architectural and building technology. On urban scale the inversion can be applied on neighbourhoods with building blocks surrounding an inner communal garden. In the case of Moerwijk-North the ‘Berlage village’ emphasizes the inversion. This is one of the strongest arguments to justify this tactic. If the neighbourhood is less ‘sheltered’ the public space, that connects the neighbours and their building blocks, will lose some of its strength. A general toolkit to show what elements are necessary for the success of this inversion is not there. A deeper investigation in the public space is required for this. On architectural scale the project can be an inspiration to show how to transform the porch flat typology towards a more daring and distinctive typology. On building technology scale the implementation of the passive home concept can be seen a general measure. This intervention is on a small
scale and is not bound to the area or porch typology. The combination of the passive home and renovation is possible.

4 I Planning

According to the schedule of the studio the first quarter was reserved for researching of the area and relevant topics. The second quarter was reserved for the first steps in the design (SO). The third quarter was reserved for the development of the design (VO). The fourth quarter was reserved for finishing the design (DO). These quarters were checked by the given dates (P1 – P5). I think this system works very well and forced me to finish certain product on the given dates. The doubts I have on the planning are more on my own time planning and focus. Looking backwards on my process I can see that I lost too much time in the first quarter on the literature research. The research of the case study had to give in. With lack of foundation I proposed certain transformations. Afterwards and up until P4 I had to defend these choices, because the foundation was not firm enough. Another personal development point is the fact that reflecting on my own products is continuously through the whole project and not only at the end.
LITERATURE LIST

KARSTEN, L., REIJNDORP, A. & VAN DER ZWAARD, J. 2006. Smaak voor de stad: een studie naar de stedelijke woonvoorkeur van gezinnen, Ministerie van VROM.

IMAGES

Fig 1/ Google Maps
Fig 2/ Google Maps
Fig 3/ Google Maps
Fig 5/ Google Maps
Fig 6/ Eigen werk
Fig 7/ Eigen werk