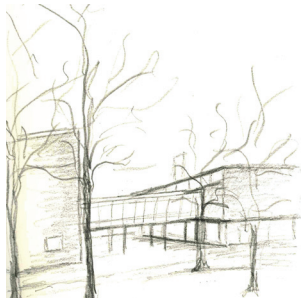


Daniel Goedkoopschool
‘Merging architectural History with new Design’

Herontwikkeling van de Daniel Goedkoopschool, Bos & Lommer

Afstudeerverslag - Inka Thoen - 4092767 - 2014

Transformatie van de voormalige Daniel Goedkoopschool

Herontwikkeling van de Schoen Driehoek

Inka Thoen - 4092747
Duke Ellingtonstraat 82, 2625 GB Delft
0641222742
Inkathoen@gmail.com

Reflectierapport
AR3AR111- RMIT Graduation studio: Conservation-Modification-Intervention-Transformation (Q3 2013-2014)
Tutors: Lidy Meijers & Frank koopman
Gecommiteerde: Inge Bobbink

Delft University of Technology, Faculty of Architecture
(R)MIT

April 2014

Daniel Goedkoopschool

Multifunctioneel centrum in de Scholen Driehoek

Inleiding

Voor u ligt mijn afstudeerverslag, samengesteld naar aanleiding van mijn afstudeerontwerp ‘De transformatie van de voormalige Daniel Goedkoopschool’. Dit verslag is opgebouwd uit een aantal rapporten die geschreven zijn binnen verschilende perioden gedurende het afstudeerproces.

Het ontwerp voor de voormalige Daniel Goedkoopschool valt binnen de afstudeerstudio Mixed Projects van de master RMIT aan de TU Delft. Deze studie richt zich op de transformatie van leegstaande (publieke) gebouwen binnen Amsterdam West en speelt een rol binnen het huidige debat over het behoud van het bestaande en de transformatie hiervan. Een transformatieproces begint altijd met een onderzoek naar de ontwikkelingsgeschiedenis van de plek, het gebouw, de wijk etc. Elke interventie draagt ten slotte bij aan de continuïteit van het bestaande en de mogelijkheid tot voortleven van het gebouw waarbij dit zorgt voor een impuls aan de wijk. Het transformeren van een gebouw is, zoals Jo Coenen beschrijft in zijn intreerede op 19 april 2006, noodzaak aan het worden en heeft zowel sociale, economische als culturele relevantie.

Het verslag is als volgt opgebouwd. Het eerste rapport beschrijft het onderzoekstraject met de te verwachte ontwerp en onderzoeksmethoden. Het tweede rapport toont de resultaten van de stedenbouwkundige, architectonische en bouwtechnische analyses. In het derde rapport worden de eerste ontwerpstappen getoond evenals een esay betreffende mijn positie. Het vierde rapport bespreekt het ontwerpresultaat en het afstudeerverslag wordt afgesloten met een reflectieverslag, rapport 5.

Graag wil ik van deze gelegenheid ook gebruik maken mijn mentoren Lidy Meijers en Frank Koopman te bedanken voor hun inspiratie, morivatie en steun tijdens mijn afstudeerjaar.

Inka Thoen
April 2014

Inhoud

Afstudeerverslag

Rapport 1 Research (English)

Rapport 2 Research results (English)

Inhoud

Rapport 3 First steps to the design (English)

Rapport 4 Het ontwerp (Dutch)

Rapport 5 Reflectierapport (Dutch)

Bibliografie

Deel 1

Resaerch

Introduction

Motivation of studying at RMIT

To graduate within the chair of RMIT has to do with my interest to work with existing structures, buildings, interiors as well as urban fabrics. This interest started during my education at the Art Academy to become an interior architect. During those four years I worked a lot with existing structures and made a lot of redesigns for existing buildings. The research about the underlying stories, the history, structures and ideas, but also the questions “Why the building does not function any more?” or “Did it ever function?” is something I really find interesting within the work field of architecture. Designing with this point of view will give the possibility to bring new life to an existing place, that does have a lot of history and life in itself, but is just not alive and in function at this moment. Finding the balance between the existing and the new brings me joy and for me architecture is about enjoying the built surroundings and to experience space. In my opinion Restoring-Modifying-Intervening or Transforming the existing building stock is nowadays more relevant and necessary than ever. Not only because my appreciation of the existing building heritage, but also from the financial and sustainable point of few. There are a lot of empty buildings all over our country we need to use and our financial window is no longer wide enough for designing brand new projects.

Within RMIT assignments the character of the architecture has been marked by the use of the building and the urban structures during all the years, and the interior is a huge part of the whole building use. During the last years of studying and experiencing architecture, I noticed that the interior of buildings will be forgotten by architects, or at least seen as something less important then the ‘actual’ architecture. But according to my ideas, it is the interior that makes the experience of a building complete. It makes the experiences of the architectural philosophy stronger because the people are living, working etc inside the building. The use of the architectural space is important. Architecture is about people and use, about the human scale.

For me, architecture, interior and urban structures are having the same weight in importance within designing, and at redevelopments it might be even more important. The boundary between public and private spaces is something that interest me, it is something that arises from my fascination about the significance that all layers of building structures are connected and working together in making the experience of a building completely. The way we can experience a building has to do with al our senses and feelings. So as an architect we need to be aware of this, and especially by re-designing existing buildings, we need to use our sensory qualities to find a good balance between old en new and give new life and a new function to the building.

Motivation of the choosen project

The area of our design studio can be found in the west of Amsterdam, between the A10, the IJ, the Nassaukade and the Clerckstraat. This area is a mix of industry, residential areas and the Brettenzone. In the north we find the harbour and industry area. Big parts of this harbour are now transforming into living and working areas. In the south we find the residential area, a dense part of Amsterdam, and comparing to the industry area, the residential area does have canals. We find some main roads and waterways in this area. The railway is an important element in separating the north and the south area. It is the boundary between the industrial and residential area.

My chosen area for designing my graduation work is the ‘Scholen Driehoek’, situated in the neighbourhood Bos en Lommer. In this area al my fascinations about architecture as I have been describing above, can be found. Here there are important architectural philosophies underlying the urban structure, which determine the positioning of the buildings at the ‘Scholen Driehoek’.

The neighbourhood of the Scholen Driehoek is part of the AUP (Algemeen Uitbreidings Plan), which was already build before the AUP had passed the City Council (Rebel, 1983). It consists out of the area Bos en Lommer and is completely build following the principles of the Nieuwe Bouwen. Row building ensembles replaced the building blocks with a lot of green space in between. Within this neighbourhood, the structure, the idea of designing the society according to that philosophy and the dream of the 'Wijkgedachte' was really important. The objects here were mostly secondary and depending on construction and materials.

The principles of the 'Nieuwe Bouwen' are clearly visible in the neighbourhood of Bos en Lommer. Light, air and space are leading as well as the separation of functions (Emeis, 1983).

The former Daniel Goedkoop School, my design project, is situated in one of those 'function clusters' the Scholen Driehoek. It is perfectly fitting in the philosophy of the Nieuwe Bouwen, and build according to the H-School principle, which I will explain in the next chapter. The architectural designs of al the school buildings within the Scholen Driehoek are determined by the consistency of inside and outside space and by that they also determine the public space surrounding the buildings. My interest within this site particularly is focusing on the boundary between public and private spaces and the way in which this determine the use of public space.

Source: Google maps
Overview of Amsterdam, the area of Amsterdam West is marked

Source: Google maps
The neighbourhood within Bos en Lommer, the area of the Scholen Driehoek have been circled.

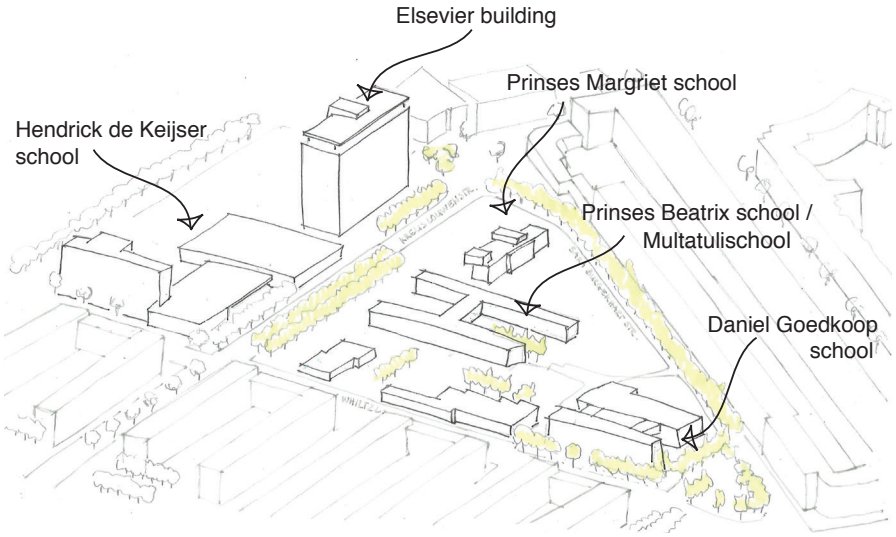
Introduction

Project; Theme and program

The area of the ‘Scholen Driehoek’ is situated where the pre-AUP and the AUP after the Second World War are merging together. On the northeast site of the area, the boundary is formed by the closed building blocks of the pre-AUP period and on the south we can find the semi open building blocs and the row buildings of the AUP plan. The triangle shaped square contains 3 schools. On the north side we find the (former) Princes Margriet School, a kindergarten, in the middle we find the H-shaped former Princes Beatrix School for primary education, now the Multatuli school. On the southeast corner we find the former Daniel Goedkoopschool, a school for ‘uitgebreid lager onderwijs’. The west side of the triangle is marked by in the north, the Elsevier building and in the south the former Hendrick de Keijser School, a school for technical education. All the buildings are placed in a green area and surrounded by a lot of trees and plants. Also there is a lot of playground for the children from the school as well as for the other children who were living in the neighbourhood.

The architectural analysis I will make is focusing on the former Daniel Goedkoopschool. This because I am really interested in the principle of the H-schools we can find in this area. In the following paragraph I will explain this principle. Also the fact that the Daniel Goedkoopschool at this moment not really has any function and I think there are a lot of possibilities in transforming the ‘Scholen Driehoek to a lively and nice area by transforming the use of the building and give it more interaction with the public space from the triangle.

To understand the architecture of the Daniel Goedkoopschool, we need to understand the principle of the H-School. This because the Daniel Goedkoopschool is build in 1960 by the architect M. Peyrot working for the Amsterdam Diens Publieke Werken and following the same principle as the H-School. Most of the schools which where build according to this principle, are having a H-shape floor plan. Then they have an inner courtyard and a central aula, not only for the use of the schoolchildren, but also for a more social use in the neighbourhood. The schools are always surrounded by green and parks for the children to play and the green areas between the ‘legs’ of the buildings are sheltered areas without wind.



Source: S. Tijmensen 2013
Overview or the Scholen Driehoek. All the important (school) buildings are marked, with in the south east corner the Daniel Goedkoop School.

Source: I. Thoen 2013
Principle drawing of the H-School

Source: I. Thoen 2013
Image of the Daniel Goedkoopschool. View to the entrance and the inner courtyard

Their most important characteristic though is the fact that the classrooms are connected without any corridor. So all the rooms have the possibility of natural ventilation and daylight entry from both sides of the classroom (Velde, 1968).

The building of the Daniel Goedkoop School was designed as a school (MULO) and it has functioned well for that purpose. But today it needs to be transformed in order to meet the new requirements. With a transformation of the building and a new purpose, I hope to increase the liveliness of the neighbourhood as well as the involvement of the residents with the place of the Scholen Driehoek and the building itself. The new program for this building is not completely clear at this moment of writing. But after analysing the history of the area it turns out that to improve the quality of this neighbourhood, placing a mono-function in this building will not be helpful.

Source: Google maps, 2013

Overview of the area Amsterdam West, with the different functions marked

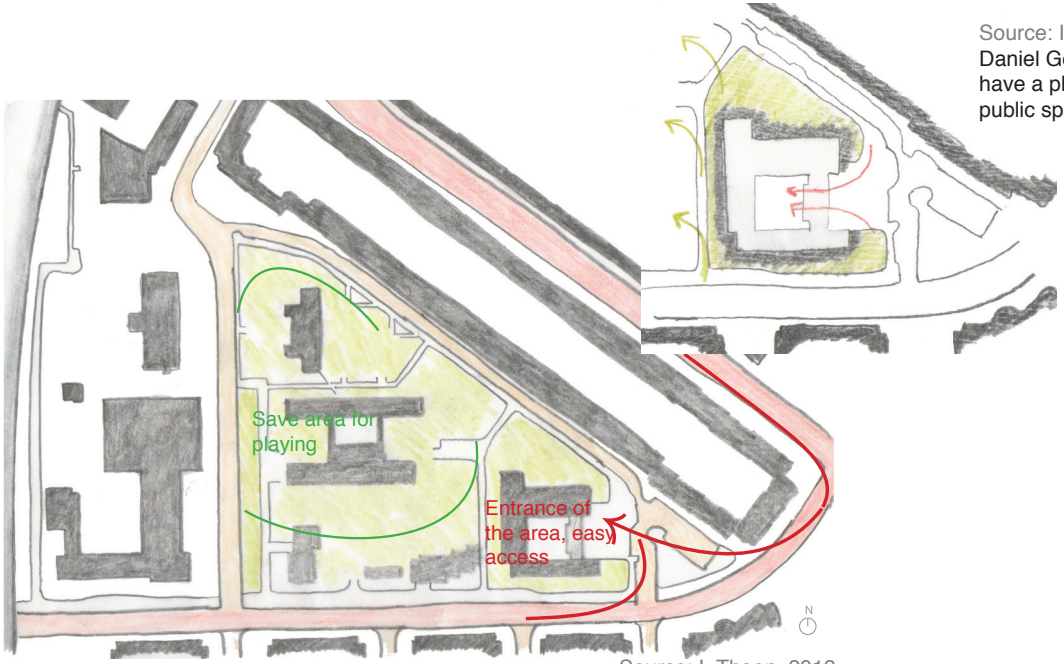
Aims of the project

Problem statement

As already explained above, at the time Bos en Lommer was designed and build, the philosophies of the style: “Nieuwe Bouwen” where leading. That means that urban and dwelling developments were aiming at the separation of functions and providing better living conditions for families with a lot of green and public space.

Nowadays we see that there are a lot of abandoned spaces and a lot of the green and public spaces are completely closed of, so they are not public at all. The society nowadays does not feel any connection anymore with the separation of functions. In the area of the Scholen Driehoek, we see that there are a lot of empty buildings and the open and public space is mostly closed off by fences and outside the school times it is deserted. It turned out that the complete separation of functions is not working very well. The deserted buildings are in need for a new function to improve the quality of the public life and –space in this neighbourhood.

The Daniel Goedkoopschool, which can be found on the right corner of the triangle, is facing the surrounding infrastructure and is less focusing on the urban space of the Scholen Driehoek. The building dos not have a clear function at this moment and need a lot of maintenance. The building houses, temporarily, a few small businesses like a photographer and a wooden furniture designer. But also there are some people living inside the former classrooms. Designed as a school it has a clear function within the triangle, but to day it is almost empty. The neighbourhood faces multiple problems on social-cultural and social economical levels and the quality of public spaces is decreasing. The research and analysis of the Bos en Lommer area done by the KEI institute of knowledge shows that it is the city area with the highest amount of families living from the minimum, 24,5%. The percentage of unemployment is in this area almost the highest with 13,6% comparing to the other city parts about 4% above average.



Source: I. Thoen, 2013
Urban context Daniel Goedkoop School, facing the infrastructure and not the public space behind the building

Looking to the social cohesion, Bos en lommer has the lowest score with a 5,1 out of 10 and also club-activities are poorly developed. There are not a lot of participants, as well as volunteers (KEI centrum, 2008). To improve the quality of life, and the social cohesion there need to be a focus on 'social approach'. Providing activities for children and teenagers to improve the social competences and educational opportunities as well as the social ties to the neighbourhood. One good example of this good be seen in the 'Weekend Academie'; an organisation focussing on children from 10 till 15 years, which provide activities for those children to increase their chances and talents (weekendacademie.nl).

Another important factor will be to improve the business climate for small entrepreneurs and to stimulate an attractive retail offer. Redesigning and re-use the Daniel Goedkoop School will provide the neighbourhood with a bigger variation of functions, social and economical. And by that it can improve the quality of the urban use and the social cultural and economical situation.

Source: I. Thoen, 2013
Daniel Goedkoop School does not have a physical connection with the public space of the Scholen Driehoek

Research Question

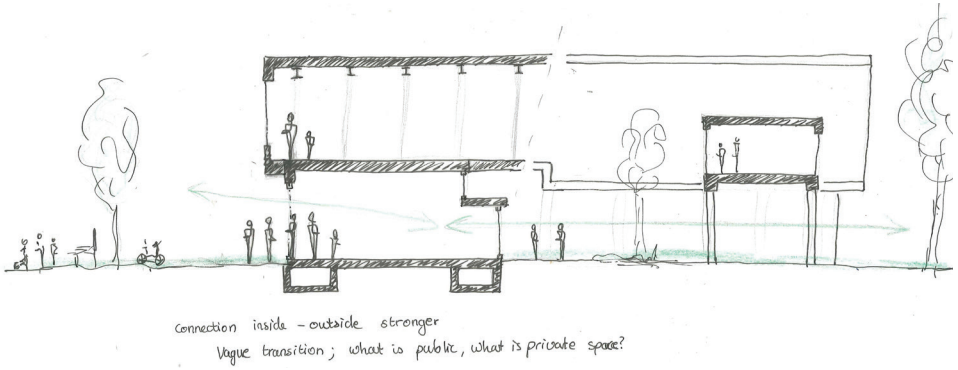
The main research question of my graduation project is about the redesign of the Daniel Goedkoop School in relation to the area of the Scholen Driehoek. It focuses on the improving of the public space and social cohesion by using architectural and social means.

"In what way can the typology and the structure of the H-school principle we can find in the design of the Daniel Goedkoop School, be of value for redeveloping the building so it will add qualities to the public space and social cohesion of the neighbourhood?"

I have started this research with an urban analysis of Amsterdam West following the research question: "How does the boundary between public space and private space characterize the different areas of Amsterdam West?" The results of this analysis where the base of the following analysis of the Scholen Driehoek and the Daniel Goedkoop School, in order to create an overviwue of the social and architectural aspects characterizing the neighbourhood. My architectural analyses of the Daniel Goedkoop School were following the question: "How does the architecture of the Daniel Goedkoop School determine the use of the public space?" During my whole process of analysing, researching and the following process of designing, those questions will be guidelines for reflection.

Goal statement

The focus of this design proposal will be on the Daniel Goedkoopschool, as been said earlier, in order to improve the quality and liveliness of the neighbourhood surrounding the Scholen Driehoek. The ambition is to make the Daniel Goedkoopschool a more integrated part of the public space and to give a positive impulse to the social and cultural structure of the neighbourhood. As I already mentioned, the building as it was designed, is not completely suitable for another function so it needs a transformation. Renovation alone is not enough.



Source: I. Thoen, 2013
First design proposal, to create a bigger physical connection of the building to its surrounding context.

Adding new aspects to the building or changing looks of the facades or the interior, are necessary means. But for me the existing building needs to be the basis for the new aspects. Jo Coenen described it by saying that the 'New' need to be used to make the building viable again. To realize this the existing parts needs to become a participant and a consistent element of the new design. It is about the art of intertwining, about the merging of old and new (Coenen, 2007).

Finding the right answers and design solutions for the redevelopment of the Daniel Goedkoop School starts with a research of the urban structures of the area Amsterdam West, followed up by an analysis of the urban context of the Scholen Driehoek. This in order to know a little bit more about the original design philosophies of this area and the school buildings. Eventually there will be the architectural analyses of the Daniel Goedkoop School itself. After the analyses an urban master plan will be designed as a starting point for the actual design for the building.

With the design of the urban master plan I want to give the building of the Daniel Goedkoop School, as well as the whole Scholen Driehoek, an interesting and beautiful connection with the green park area that is following the Haarlemmer Trekvaart. The Scholen Driehoek lies really close to this area, but it is hidden and without a visible connection. Creating a green area as a link between both sites, will give a better structure to the neighbourhood and the possibility to make a cultural route between the Daniel Goedkoop School and the Westergasfabriek. The Daniel Goedkoop School thus could be transformed into a mixed function building; a building that is providing space for as well cultural, social as economical functions. The building has some beautiful architectural characteristics of the H-shool principle, which are worth to be re-used and shown again to the public. With the design of the redevelopment of the Daniel Goedkoop School I have the ambition to create a bigger physical connection of the building to its surrounding context. This I want to support programmatically by adding the mixed functions to the building that can be used by inhabitants of the neighbourhood and school children as well by people from the nearby neighbourhoods. Thereby it will work on a social level to connect the area.

Social and scientivic relevance

The Daniel Goedkoopschool is on the list of becoming an Amsterdam monument, and since the introduction of monument care in the Netherlands, the number of monuments is increasing (Meurs, 2013). This phenomenon continues to the point theta it seems like every building, urban structure, historic landscape or city view, will soon be a monument. And then, what will happen then?

Initially the attitude towards the monuments was to preserve their existing state (Meurs, 2013). But with this amount of monuments, the attitude of preserving will have the risk of turning the whole country into a museum. Fortunately, there are a lot of ways to deal with heritage and give history a value within our live to day. Preserving is just one of them, intervention another. The goal nowadays is how to develop our (post-war) monuments in a way that it will add historic value and brings new qualities to our daily life (Meurs, 2013). Redevelop the Daniel Goedkoop School does has a big social relevance for the neighbourhood. It is one of the characteristics of the neighbourhood, surrounded by history. By that, they are part of the identity of the area; people could identify themselves with the area through the building. Re-using those buildings gives us opportunities to create a place where people

feel at home and connected to the area. The connection with history stays visible and sensible, even unconsciously, and to feel the connection, it is exactly that which is important for all the inhabitants and people passing by. Preserving those old buildings with their strong identity is also important because they are able to bind new functions and new buildings to the soul of the place (Colijn, 2007).

The area of the Scholen Driehoek is part of the district in Amsterdam where the municipally of Amsterdam West is looking for ways to improve the quality of life and finding a better balance between the old city centre and the later expansions in the west (Keizer e.a. 2010 pp 191-195). Within this frame, the current research and design proposal will give alternative suggestions for dealing with the problems in this area. It also provides proposals to improve the social and cultural aspects in the neighbourhood, as well as the use of the public space. It will investigate the relevance of post-war monuments and their surrounding urban structures within today's society and build environment.

The research as well as the design method is conforming to scientific approach of investigation. A variety of options will be explored and out of these variants, the 'ideal' option will be selected. A lot of the issues arising with the redesign in this proposal will serve further case studies or designs for existing buildings like post-war monuments. It will also serve in the search of the role of heritage within the current building industry.

Source: nederlandsijzermuseum.nl 2013
Entrance pavilion of the DRU factory. This complex has been transformed into a into a place for culture, leisure, living and working. It is one of the examples where the connection with the history gives the place his identity even though the place has been transformed.

Approach of research and redesign

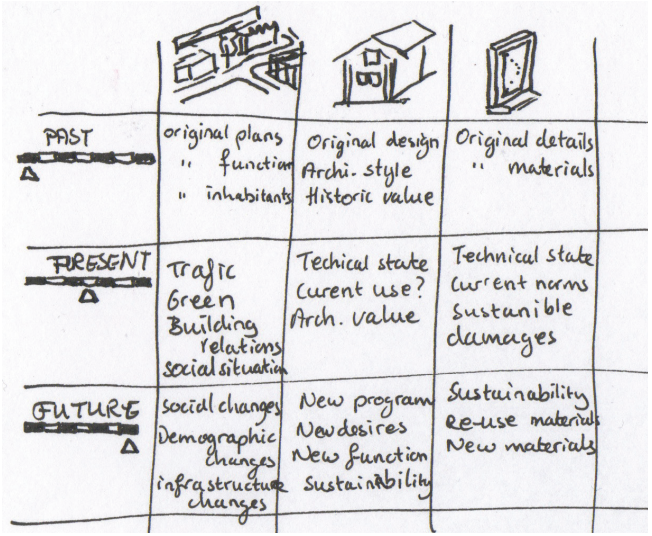
Research method

The whole graduation process will be a process of analysing and designing, in order to find valuable conclusions for the redevelopment of the Daniel Goedkoop School. As explained in the previous chapters, the main goal of the redesign is to make the Daniel Goedkoop School a more integrated part of the public space and to give a positive impulse to the social and cultural structure of the neighbourhood. Thus the goal of this research and design, which in fact also will be a research, is not only an architectural one but also social and urban orientated goal.

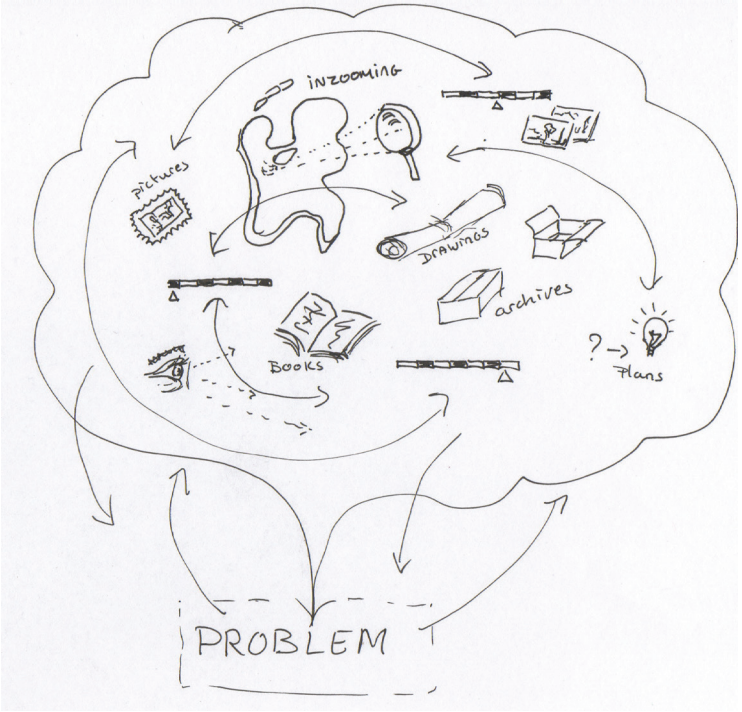
The start of my research was to analyse the area of Amsterdam West, to get a broader picture of the neighbourhood and the area of the Scholen Driehoek. It was a process of in zooming and out zooming, a process of finding the urban and architectural connections as well as the social developments and underlying design philosophies of the past. It had to do with al different scale levels, from urban on city level, till neighbourhood level and architectural and technical on building level. In order to get the necessary information I have used a lot of different sources. Varying from old maps and pictures I found in books and on the internet, till maps of the current situation and my own experiences and pictures as a result of multiple visits of the area. It was a research to look into the history to find out how the site has been developed and an analysis of the present situation as well as a research to the future plans and possibilities of the area. And this all on 3 different levels; Urban, Architecture and Building Technology as can be seen in the diagram beneath.

Looking to all the different times was important to get the whole picture of the area. All the conclusions founded within these analyses have been forming a part of the formulation of the problem statement. The research through books, internet, archives such as the city archive of Amsterdam in order to find the original drawings, and the founded conclusions etc. have narrowed down the problem.

By looking into the history, the underlying design philosophies and the present situation, it will give an understanding of the qualities of the area and the problems that need to be solved. Within this analysis the relation with the urban analysis of Amsterdam West and the following architectural analysis of the Daniel Goedkoop School, have been important. The research method in that sense cannot be seen as a linear process. As can be seen in the diagram on this page, it will be a connecting process of looking backwards and forwards at the same time and finding relations between all the analyses. This in order to find the information and results needed for the following step.

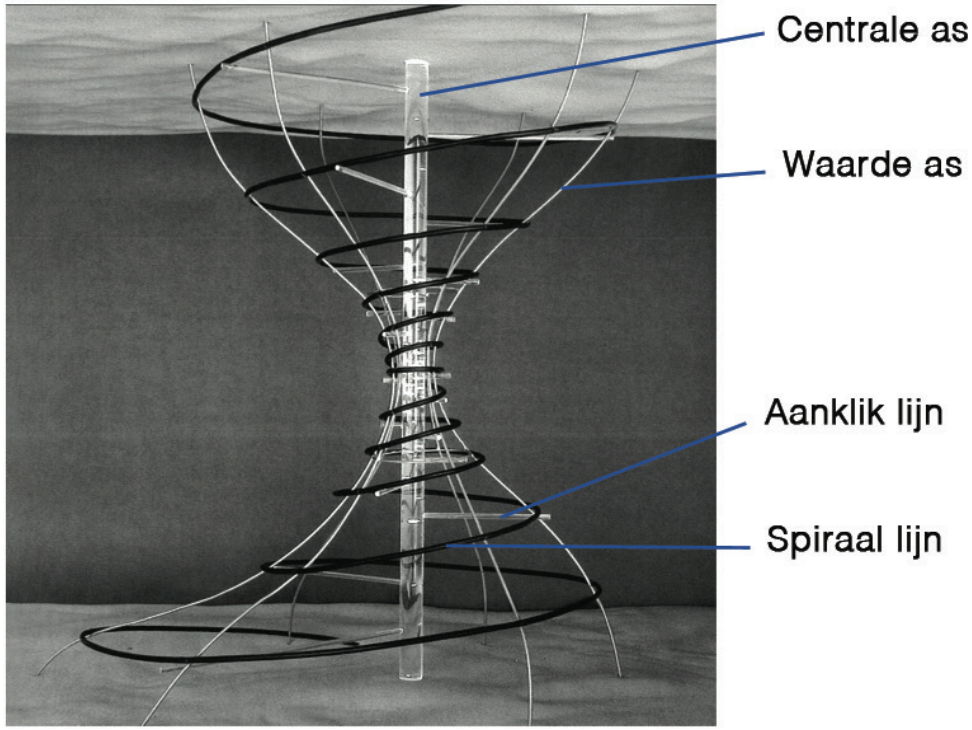


Source: I. Thoen, 2013
Overview of the past, present, future analyses on all scales



Source: I. Thoen, 2013

Diagram of the research method, resulting into the problem statement. A circulair proces where looking back and making connections will be leading.



Source: Roos, 2007, p 32

The three-dimensional model of the Spiral

Redesign method

Designing a new function in, and transforming the building of the Daniel Goedkoop School it will be crucial to always be aware of the existing building, surrounding and context. It is a redevelopment task, so the process of redesigning the Daniel Goedkoop School will demand more attention paid to different aspects of the existing surrounding, architecture and technique of the building. To visualize the design method, Job Roos introduced the Spiral, a method of thought (Roos, 2007). Because of the complexity of a redevelopment task, fixed methods usually will limit themselves, and by that the design task, to a few aspects. This model can be seen as a guideline for the things we need to think of during the design process. The central hollow ax in this model represent the line of historical dimension, continuity and value. This is something seen as an important source of inspiration within redevelopment assignments. This historical aspect is not the only crucial factor, and it is not completely determine because it need to be connected with the future. Exactly this connection is crucial. Without this connection there will not be any redevelopment, and everything would remain as it was. Although the fact that the historical continuity is central in the thought model, it is just one of the many values and aspects that needs to be taken into consideration. This values and aspects are visible by the up running curved lines within the three-dimensional model of the Spiral, the value lines. All possible relations between the values and the historic continuity are visible within the model by the click-on lines. Those are representing the choices the architect must make. The final line presented in this three-dimensional model is the spiral line. This line represents the design process. It leads past all the choices and decisions the architect must make. And when the spiral narrows, the click-on lines increase in number. As can be seen on the following image, the spiral line makes sure that every time, the architect needs to look again to the relation between the value lines and the central hollow ax (Roos, 2007, pp 35-38).

At the junction, everything comes together. At that point, the investigation into the choice intensifies and that will lead to the moment of insight for the design solution. After that, the spiral diverges to help the architect by turning the design solution into a concrete plan, where the design ideas are transformed into a spatial and materialized design (Roos, 2007, pp 39). The connection with the central hollow axis will always be important. Especially when during the design process some things might not be practical and a new solution needs to be found.

For me it will be very important to see the existing building as the base throughout the whole design process. Relating this to the subscribed model of thinking from Job Roos, the building will be visible in the form of the central hollow ax. Redeveloping a building requires interventions and changes. In my opinion those interventions are adding value to the existing building and it will continue to develop the architectural history of the building. Although there are people with a strong opinion about protecting the monuments and keeping them the way they where originally designed, for me that is not the way of living with and designing for monuments. It is like Jo Coenen said, when the building only will be restored, it will be conserved and by that the possibility to live on and develop a new life will be limited (Coenen, 2007). And that while exactly the history of transformations, caused by the restorations of the building in the past decades, has been forming the monumental and emotional value of the building. As well as the fact that it defines the sense of place and the possibility for people to identify themselves with history, building and place.

The connection between old and new, and the merging of the old and new parts, needs to be present within my whole design process. Reflecting and looking back to the existing building and his qualities during the whole process of designing will be important for this.

Jaarplanning afstuderen Inka Thoen 4092767

4 – 10 febr 2013	11 – 17 febr w 1	18 – 24 febr w 2	25 febr – 3 mrt w 3
V O O R J A A R S V A K A N T I E	*Introductie* Locatie bezoek Start analyse heden 1 avond werken restaurant	22 febr = Inleveren reparatie BT *Stedenbouwkundige analyse* Analyse heden Condept rapport P1 Werken aan BT 1 avond werken restaurant	*Presentatie StedB analyse* Begin analyse architectuur History thesis schrijven 1 avond werken restaurant
4 – 10 mrt 2013 w 4	**11 – 17 mrt w 5**	**18 – 24 mrt w 6**	**25 – 31 mrt w 7**
Architectonische analyse Analyse arch. Condept rapport P1 Nadenken over gebouwkeuze 1 avond werken restaurant	*Presentatie Arch analyse* Begin bouwtechnische analyse Werken aan probleem statement thesis plan Schrijven aan history thesis 1 avond werken restaurant	*Bouwtechnische analyse* Maandag: Uploaden probleem statement thesis plan Schrijven aan history thesis 1 avond werken restaurant	29ste = Goede vrijdag *Presentatie Bouwtech analyse* Maandag 25: inleveren History thesis 1 avond werken restaurant
1 – 7 apr 2013 w 8	**8 – 14 apr w 9**	**15 – 21 apr w 10**	**22 – 28 apr w 11**
1ste = 2de paasdag *Waardestelling formuleren* P1 rapport en presentatie maken Dinsdag: Uploaden thesis plan zonder p1 rapport 1 avond werken restaurant	P1 P1 P1 P1 P1 P1 P1 P1 P1 *Dinsdag 9 april: P1* Werken P1 rapport 1 avond werken restaurant	Evt niet aanwezig ivm vakantie Vr 19 apr: Thesisplan en P1 rapport hardcopy inleveren 1 avond werken restaurant	26ste controle moment cijfers *Begin schetsontwerp,* Gebouw kiezen Reflecteren op analyses, uitgangspunten concept formuleren 1 avond werken restaurant

29 apr – 5 mei 2013 w 12	6 – 12 mei w 13	13 – 19 mei w 14	20 – 26 mei w 15	27 mei – 2 jun w 16
30ste = koninginnedag *Concept* Masterplan, situatie gebouw 1 avond werken restaurant	9de & 10de = Hemelvaart *Concept, PVE* Schetsontwerp, massa studies 1 avond werken restaurant	*Terugkoppeling* gebouw & masterplan Massa studies 1 avond werken restaurant	20ste = 2de pinksterdag *Schetsontwerp* Studie vorm, structuur, Schetsen, maquettes 1 avond werken restaurant	*Schetsontwerp* Studie vorm, structuur, Schetsen, maquettes 1 avond werken restaurant

3 – 9 jun 2013 w 17	10 – 16 jun w 18	17 – 23 jun w 19	24 – 30 jun w 20
Schetsontwerp Functie inpassing 1 avond werken restaurant	*Schetsontwerp* Tekeningen 1:200 1:100 1 avond werken restaurant	*Schetsontwerp* Tekeningen 1:200 1:100 Maquette 1 avond werken restaurant?	*Presentatie voorbereiden*
1 – 7 jul 2013 w 21	**8 – 14 jul**	**15 – 21 jul**	**22 – 28 jul**
P2 P2 P2 P2 P2 P2 P2 P2 P2 *Dinsdag 2 juli = P2* Reflecteren op P2 1 avond werken restaurant	Z O M E R V A K A N T I E *Verdiepen in ontwerp* SO omzetten naar concrete plannen	Z O M E R V A K A N T I E Vakantiewerk?	Z O M E R V A K A N T I E Vakantiewerk?

29 jul – 4 aug 2013	5 – 11 aug	12 – 18 aug	19 – 25 aug	26 aug – 1 sept
Z O M E R V A K A N T I E Vakantiewerk?	Z O M E R V A K A N T I E Vakantiewerk?	Z O M E R V A K A N T I E Vakantiewerk?	Z O M E R V A K A N T I E *Reflectie en start VO*	Z O M E R V A K A N T I E *Ontwerpen architectuur* Afstemmen vorm, structuur & concept Plattegrond & doorsneden

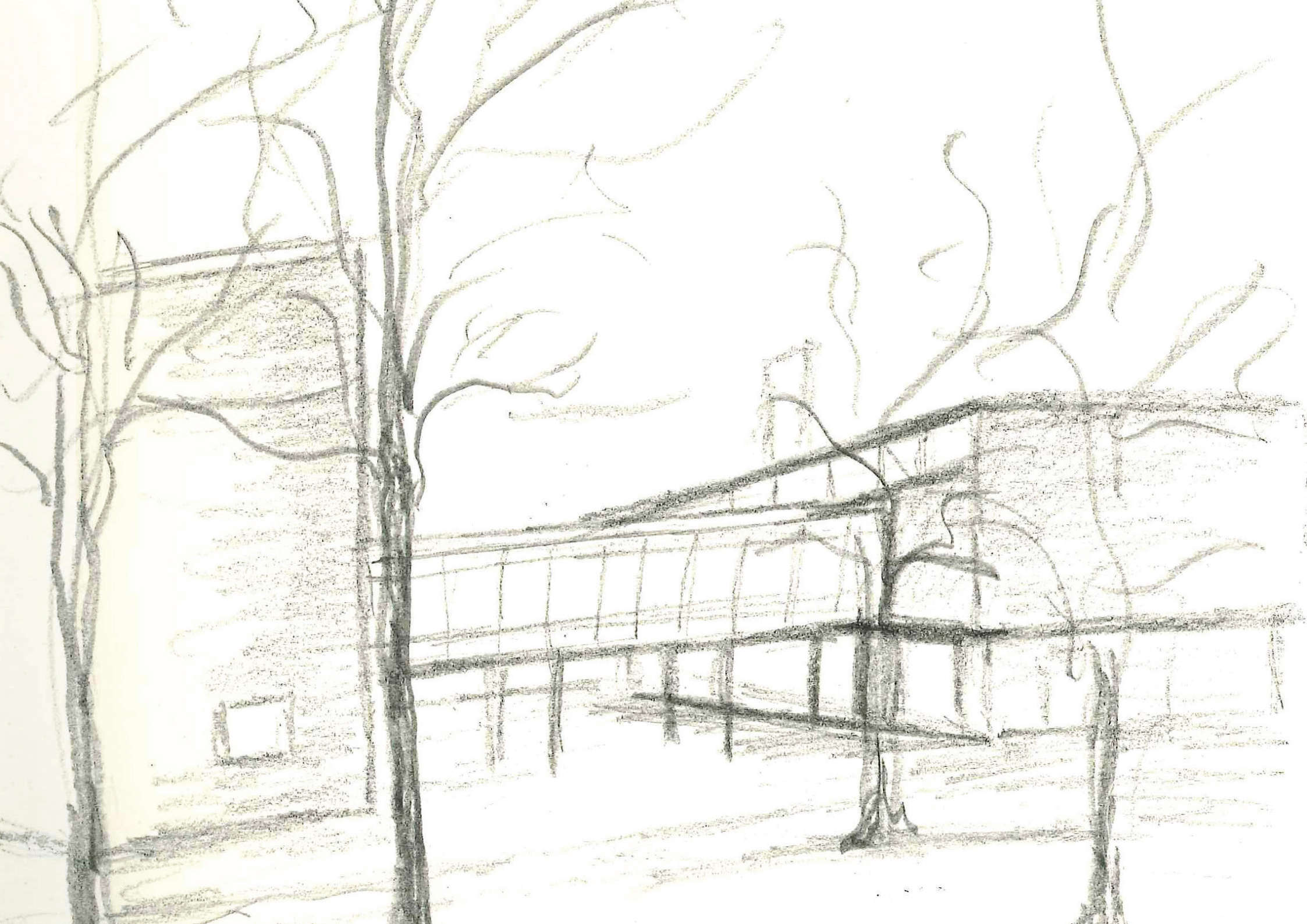
2 – 8 sept 2013 w 22	9 – 15 sept w 23	16 – 22 sept w 24	23 – 29 sept w 25
Ontwerpen architectuur Plattegrond Doorsneden Maquette	*Ontwerpen architectuur* Plattegrond Doorsneden Maquette	*Focussen in ontwerp op:* Materialisatie Klimaat Duurzaamheid	*Ontwerp uitwerken:* Plattegrond Terugkoppelen stedenbouw

30 sept – 6 okt 2013 w 26	7 – 13 okt w 27	14 – 20 okt w 28	21 – 27 okt w 29	28 okt – 3 nov w 30
VO uitwerken Plattegronde Doorsneden Details	*VO uitwerken* Richten op techniek Details Doorsneden	*VO uitwerken* Richten op techniek Details Doorsneden Maquette	*Presentatie voorbereiden*	**P3 P3 P3 P3 P3 P3 P3** *Dinsdag 29 oct = P3* Reflecteren op P3

4 – 10 nov 2013 w 31	11 – 17 nov w 32	18 – 24 nov w 33	25 nov – 1 dec w 34
VO verfijnen tot DO Plattegronden Doorsneden Inzomen op detailniveau	*DO:* Uitwerken plattegronden, doorsneden 1:100 1:50 1:20 Details 1:5	*DO:* Uitwerken plattegronden, doorsneden 1:100 1:50 1:20 Details 1:5	*DO:* Tekeningen verfijnen 1:20 Details uitwerken 1:5 Maquette

2 – 8 dec 2013 w 35	9 – 15 dec w 36	16 – 22 dec w 37	23 – 29 dec
DO: Technische tekeningen verfijnen 1:20 1:5 Maquette	*Presentatie voorbereiden*	**P4 P4 P4 P4 P4 P4 P4 P4 P4** *Dinsdag 17 dec = P4* Reflecteren op P4, bepalen wat aangescherpt moet worden	K E R S T V A K A N T I E *Aanscherpen tekeningen etc*

30 dec – 5 jan 2014	6 – 12 jan w 38	13 – 19 jan w 39	20 – 26 jan w 40	27 jan – 2 febr
K E R S T V A K A N T I E *Maquette*	*Maquette* *Presentatie*	*Presentatie voorbereiden*	**P5 P5 P5 P5 P5 P5 P5**	



Deel 2

Resaerch results

Urban analysis

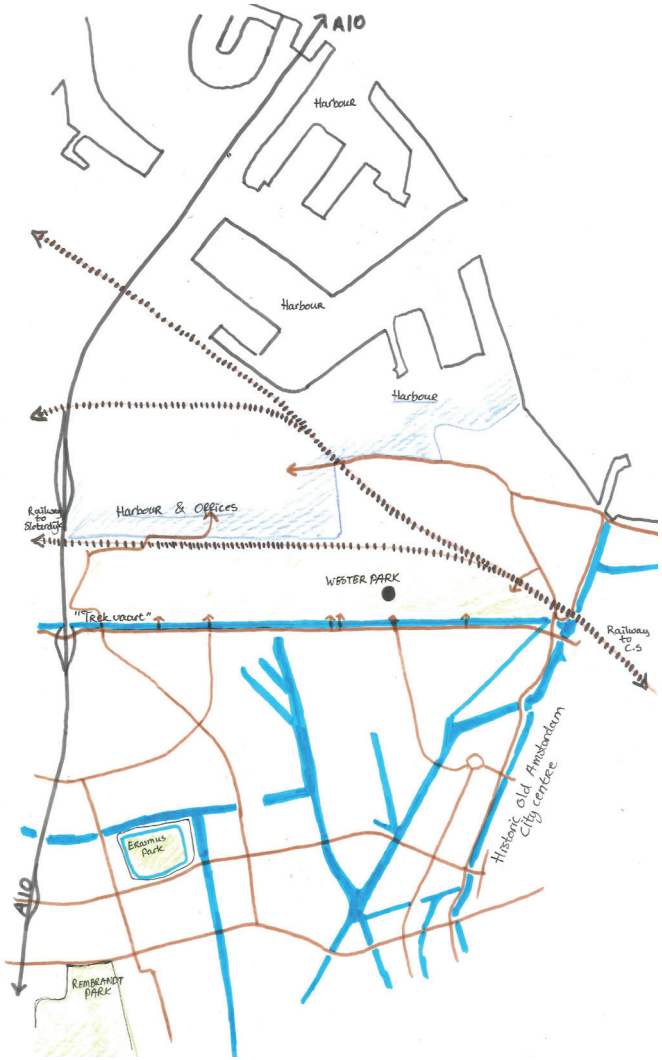
Amsterdam West

The area of our design studio can be found in the west of Amsterdam, between the A10, the IJ, the Nassaukade and the Clerckstraat. This area is a mix of industry, residential areas and the Brettenzone. In the north we find the harbour and industry area. Big parts of this harbour are now transforming into living and working areas. In the south we find the residential area, a dense part of Amsterdam, and comparing to the industry area, the residential area does have canals. We find some main roads and waterways in this area. The railway is an important element in separating the north and the south area. It is the boundary between the industrial and residential area.

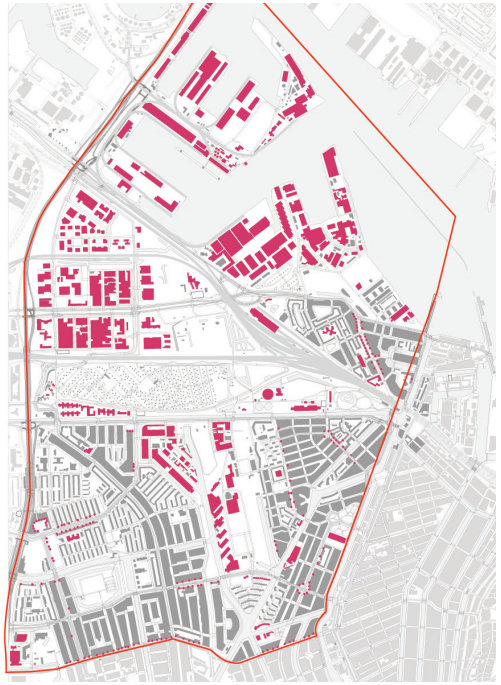
Almost in the middle of the whole area lies the Brettenzone. This area starts at the Haarlemmerpoort and continues till Haarlem with the Haarlemmertrekvaart as the main structural element. The Brettenzone now consist out of the Westerpark, (former) Wester Gasfabriek and gardens.

In the residential area in the south, the public spaces consist of streets, small urban squares, waterfront areas, at certain points inner courtyards of building blocks. But a lot of the green areas between the building blocks seems to be open, but are in fact closed by fences so not public at all. To start this research and the urban analysis I formulated the following research question:
"How does the boundary between public space and private space characterizes the different areas of Amsterdam West?"

Img 1: Satelite overview Amsterdam
Source: Google maps



Img 2: Characteristics of A'dam West
Source: I. Thoen



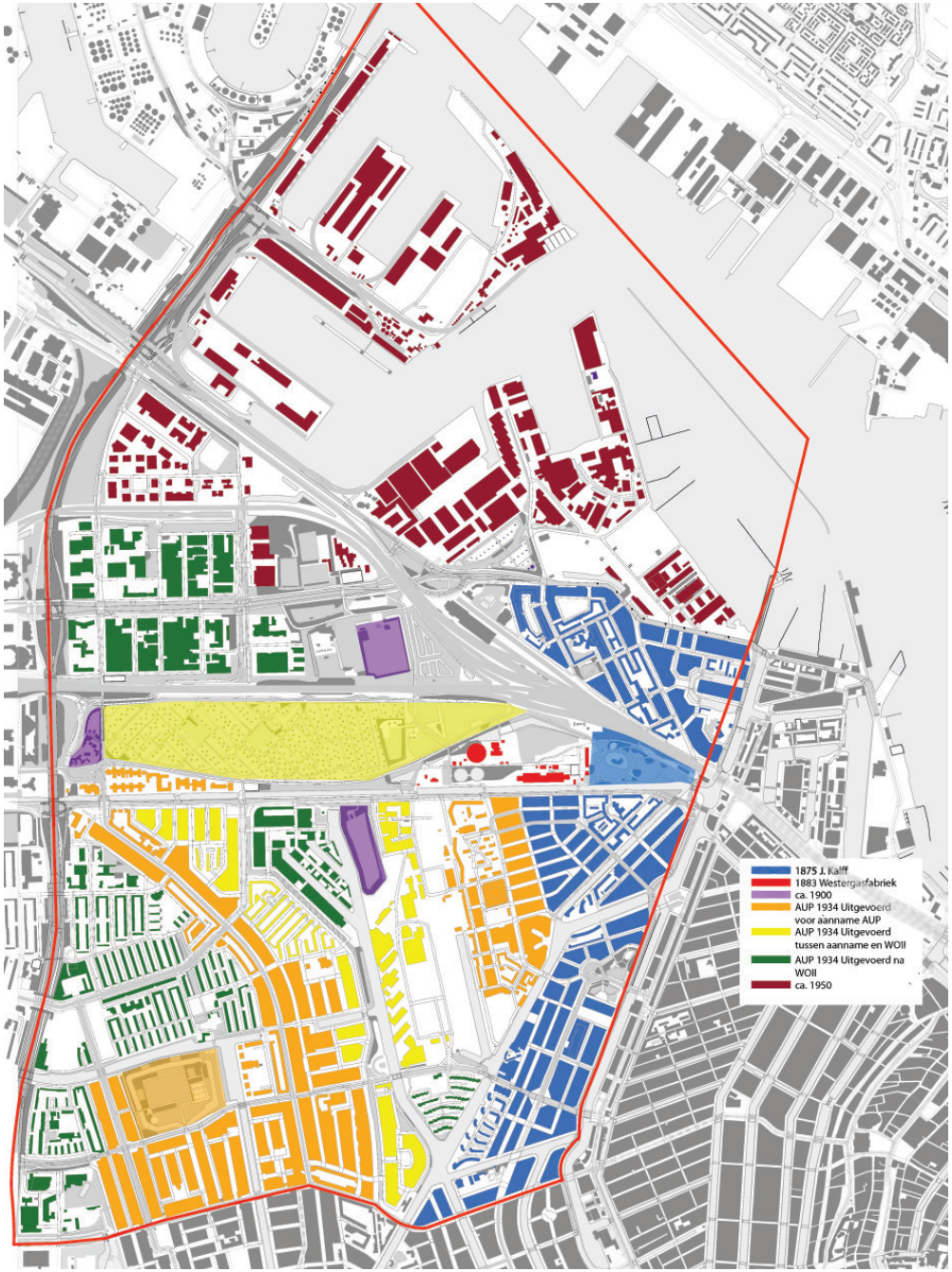
Img 3: Living vs working in A'dam West
Source: I. Thoen

Boundaries & Neighbourhoods

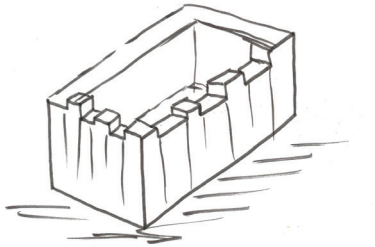
As written before, our area has a few boundaries. The most visible are the A10 in the west and the IJ in the north. In the east our area adjacent to the old city, with a small border in the form of the canal the Doorvaart and the Nassaukade. In the south there is no real border. The road the Clerckstraat is the end of our area, but it is not a strict border and the urban structure does not change on the other side of the street.

In the residential area we can find different types of urban, and architectural, structures which are related to the time they were build (image 4). The east part consisting the Spaarndammerbuurt and the Staatsliedenwijk, bleu marked in image 5, is from Plan Kalf 1875. Within this plan the urban structure is formed by rectangular closed building blocks. Those are designed with details to mark the different houses within the block (image 6). The blocks are close to each other, separated by streets, mostly with a small street profile. There are small squares but there are no (big) parks situated in this area (Volhoeven & Louwe, 1985). We can see that the railway and the Westerpark separate this area. Already at the time it was constructed, the Spaarndammerbuurt was laying on the other site of the railway.

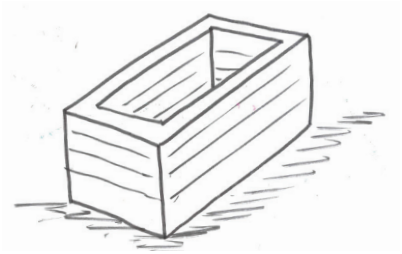
In the middle of the residential area, the orange marked on image 5, we find the part of the Pre-AUP (pre Algemeen Uitbreidings Plan) constructed around 1935. Most of this area consists out of the neighbourhood Landlust. Merkelbach and Karsten have made the design of this area. It is a plan based on the row-housing principle and their ideas about light, air and space. With this design, the end of the completely closed building blocks became visible (Rebel, 1983). In fact they did not use real row housing, but semi-open building blocks. Between the ‘rows’ there was a lot of green and the semi-open building block were often closed off by a separate low row of elderly houses. The (semi-open) building bocks in this neighbourhood are designed with less differentiation and details to mark the individual houses (image 7).



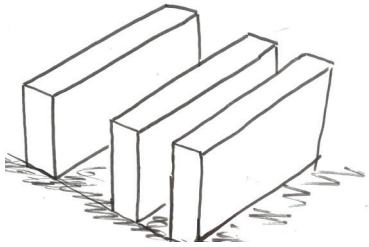
Img 4: Building times in A’dam West
Source: M. van Dam



Img 6: Building blocks Plan Kalf



Img 7: Building blocks AUP < 1935



Img 8: Building blocks AUP > 1945

Img 5: Boundaries
Source: I. Thoen

Urban analysis

Boundaries & Neighbourhoods

The last part in the west, green marked on mage 5, is the part of the AUP which was already build before the AUP had passed the City Council (Rebel, 1983). It consists out of the area Bos en Lommer and is completely build following the principles of the Nieuwe Bouwen. Row building ensembles replaced the building blocks with a lot of green space in between (fig 8).

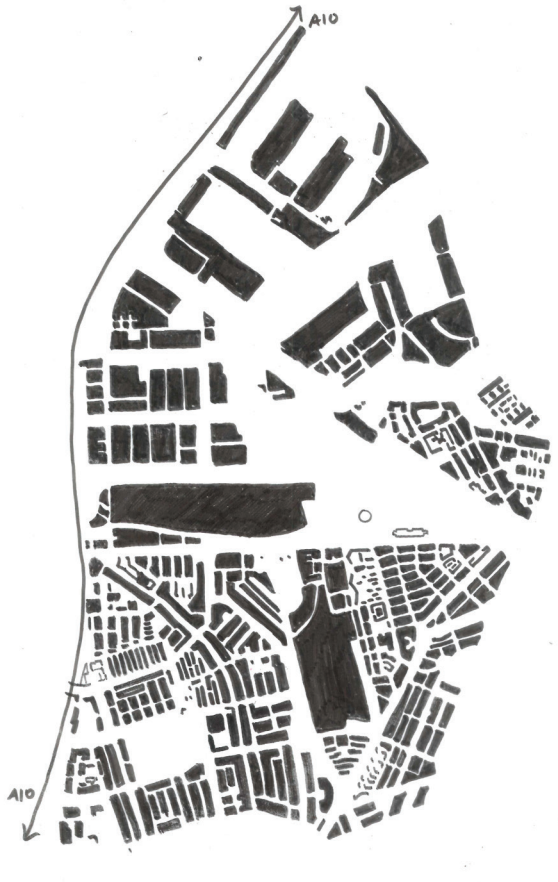
Within my research about the boundary between private and public spaces, I will focus on the separation of those three areas.

Public - & Private Space

Between the urban fabrics lies the public space. To find the characteristics of the public space I compared a map of the building volumes (fig 9) with a map of the public and private space (fig 10). We can see that although it looks like there is a lot of green and open space, this not really is the case. Most of the green and open space in the AUP area turned out to be closed of by fences so it is not public at all. This in contract to the Plan Kalf area, where there might be less open space in between the building blocks, but the space there is does have a public function.

Another thing we can see in these drawings is that the streets in the AUP area, as you can see on image 12, are wider then in the plan Kalf area, that is shown on the sketch of image 13. The principles of the Nieuwe Bouwen philosophy are clearly visible. Light, air and space are leading as well as the separation of functions (Emeis, 1983).

Img 9: The building volumes of Amsterdam West
Source: I. Thoen



Img 10: The public and private space of Amsterdam West
Source: I. Thoen

Img 11, 12, 13: Sketches of the public space in Amsterdam West
Source: I. Thoen

Img 14-18 Public Spaces Plan Kalf
Source: I. Thoen

Img 19-23 Public Spaces Pre AUP
Source: I. Thoen

Img 24-28 Public Spaces AUP
Source: I. Thoen

Urban analysis

Urban & Public Spaces

When we look into the area of Amsterdam West we find a lot of different public spaces. The most characteristics public spaces here are the following: Streets, squares, waterfronts, parks and spaces between the building volumes. The pictures on this page are showing examples of the different public spaces within the different areas of Amsterdam West.

Streets are an important factor of the urban public space of whole Amsterdam West. Within the AUP area the streets are wider then in the Plan Kalf area, and limited by the building volumes. They are bringing light and air into the atmosphere of the neighbourhood. Within the plan Kalf area they are smaller and only wide at places where we can find a square. In this area we can find more squares, smaller and bigger ones, mostly on places were two or more streets are crossing there will be an open area that will form a square.

In the whole area the waterfronts are important areas for the public space. At most places alongside the waterfronts you can find wider boulevards or places with some trees and benches etc. As we already read before, within the plan Kalf area there are no big city parks. The green spaces and playgrounds we find are situated at some squares or within the building blocks. In the AUP area there is a lot of attention paid to green parks and play fields for children.

Within my research I want to focus on the space directly around to the building volumes.; for me that is the place where the most interesting connections will appear of public, semi-public or private space. In this area we can look for the boundary between public and private space and see the different ways in which this will occur.

Analyzing this spaces we can find 3 main categories of how the public versus private space is designed, or is been used now a days. The real big differences we find in the 3 different areas: Plan Kalf, Pre-AUP, Landlust and AUP, Bos en Lommer.

Public & Private spaces around the buildings

The public space around the buildings from plan Kalf characterizes itself by inner courtyards who are accessible by the people who are living in the surrounding buildings and by people who are passing by. That means there are public as well semi-public areas around the houses. Image 29 shows the organization of the public and private space around the building volumes of Plan Kalf. In the Pre-AUP area we see closed building blocks (image 30) and semi open building blocks with green areas inside. This is not accessible for others then the residents. Most building blocks are having a small area between their front door and the street; a green area as separation between the public and the private. You might see that as semi-public, but in fact it is already private, the transition between public and private. The AUP area of Bos en Lommer is designed as row buildings with a lot of open green areas around it. It looks like they are surrounded with a lot of public spaces, but now a day those spaces are completely closed of by fences and not in use at all, not even by the residents (image 31). When I was walking in the area, I saw children playing on the streets and the small playgrounds between some building rows instead of playing on the green areas between the rows.

Conclusion

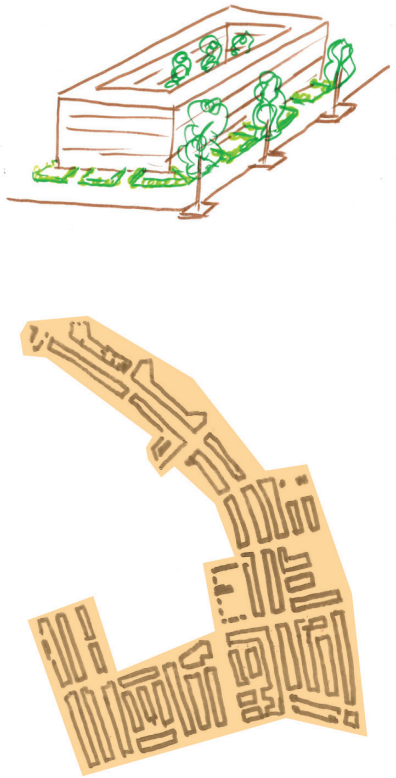
As an answer on the reasearch question: “How does the boundary between public space and private space characterizes the different areas of Amsterdam West?” we can see that the boundaries are defined according to the architectural philosophies of the time it was constructed. In the plan Kalf area there is s transition of public and private space within some building blocks, where the inner courtyards are also accessible by people passing by. In the pre-AUP area the transition lies in front of the building blocks. Formed by small green areas or an entrance that has a set back to soften the transition of public to private space. The transition of the AUP, Bos en Lommer area, is stricter. Between the row buildings and the street there is a wide sidewalk, but that is not a transition between public and private. It is more a transition between the busy road of the cars and the peace of the private houses. The green areas between the row houses are not accessible, so they only could have a visible transition between public and private. The boundary between the public space and the private (green) space is clearly marked by a big fence.

Plan Kalf

Img 29: Space around the buildingblocks of Plan Kalf

Source: I. Thoen

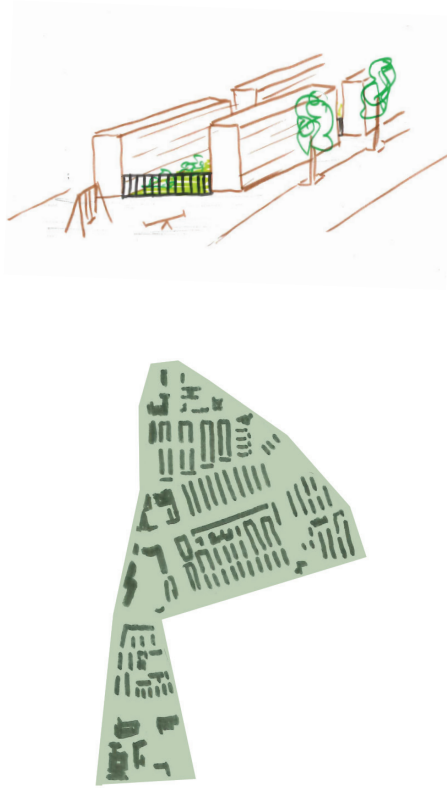
Pre-AUP



Img 30: Space around the buildingblocks of the Pre-AUP

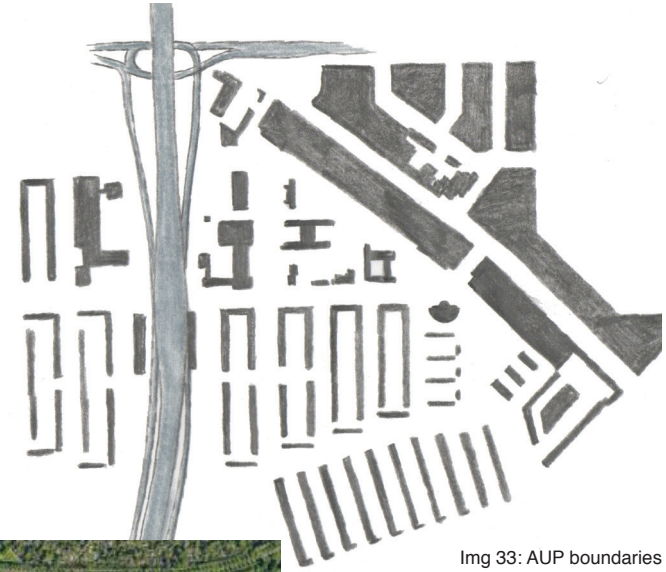
Source: I. Thoen

AU, Bos en Lommer



Img 31: Space around the buildingblocks of the AUP, Bos en Lommer

Source: I. Thoen



Img 33: AUP boundaries
Source: author

Img 32 Overview Bos en Lommer
Source: Google maps

Architectural analysis

Bos en Lommer - scholen driehoek

Design philosophy
The area of the ‘Scholen Driehoek’ can be found in Bos en Lommer. This neighbourhood is designed as part of the AUP (Amsterdams Uitbreidings Plan). The design philosophy was based on the principles: ‘Light, Air and Space’ and the separation of functions. That is why you can see in the area different places for different functions within the urban structure, marked on the image of Bos en Lommer (image 32), such as the schools at the ‘Scholen Driehoek’, the shopping square, the park and playground and the big green park.

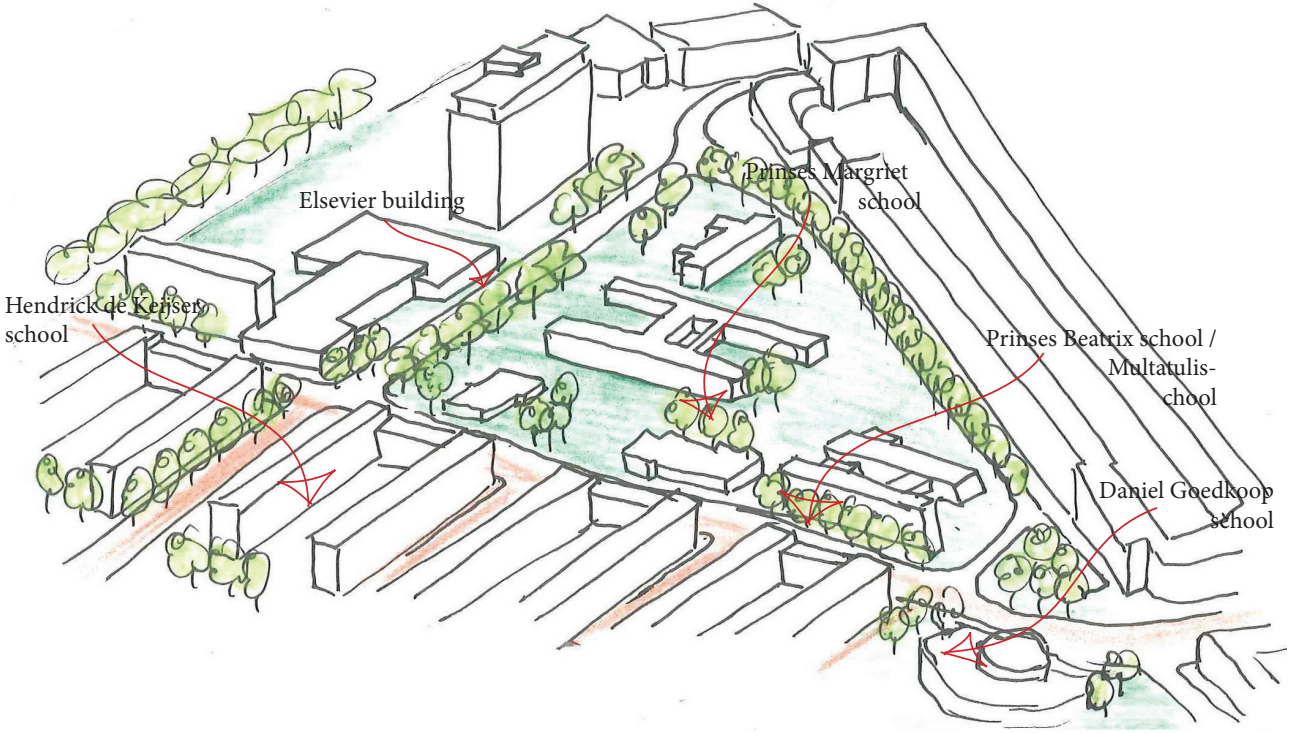
The ‘Scholen Driehoek is situated at the place where the AUP and the pre-AUP area meet each other. Image 33 shows the (semi-open) building blocks, the open building blocks and row housing. On the northeast site of the area, the boundary is formed by the building blocks of the Pre-AUP area and on the south we can find the semi open building blocs and the row buildings of the period AUP before the government approved this general expansion plan for Amsterdam.

Building functions
The triangle shaped square contains 4 schools as you can see on image 34. On the north side we find the (former) Princes Margriet School, a kindergarten, in the middle we find the H-shaped former Princes Beatrix School for primary education, now the Multatuli School. On the southeast corner we find the former Daniel Goedkoopschool, a school for ‘uitgebreid lager onderwijs’. The west side of the triangle is marked by in the north, the Elsevier building and in the south the former Hendrick de Keijser School, a school for technical education.

Bos en Lommer - scholen driehoek

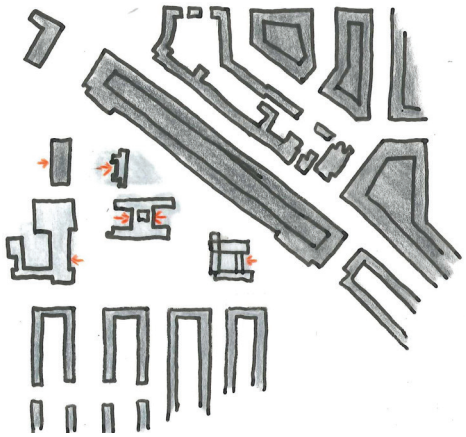
Public space
All the buildings are placed in a green area and surrounded by a lot of trees and plants. There are as well a lot of playgrounds for the children from the school as well as for the other children who are living in the neighbourhood.

Monumental value
The Scholen Driehoek has an important monumental value. On img 34a the value map of amsterdam can be seen, with the purple marked buildings classified as High value. The area of the Scholen Driehoek has a national meaning on cultural historical and urban level while it is developed according to the 'Wijkgedachte' and the separation of functions within the neighbourhood. The Scholen driehoek provided the educational functions that was important on neighbourhood level. Also the amount of green is a strong quality. The public space provided a social meeting point for the neighbourhood.

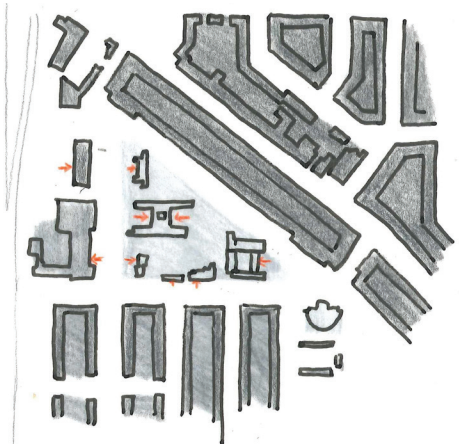


Img 34: Scholen Driehoek
Source: Author

img 34a: Value map AUP area, Amsterdam West
Source: amsterdam.nl



Img 35: Public - private 1960
Entrances marked
Source: author



Img 36: Public - private 2013
Entrances marked
Source: author

Img 37 & 38: Daniel Goedkoop School 1960
Source: Beeldbank Amsterdam

Architectural analysis

Scholen Driehoek, Public - Private space

1960 - 2013
Focussing on the ‘Scholen Driehoek’ itself we can see the contrast between private and public space. The private areas are surrounded by wide and open public spaces. This is still like it was in the 1960s when the area was designed. But there is a big difference between the situation of 1960 and the situation now (image 35 and 36). Between the Daniel Goedkoop School and the Hendrick de Keijserschool there are now several small buildings placed. The result of this was something I really felt when I was walking there; it feels like they are blocking the experiences of the public space from the triangle. By that they are destroying the spatial connection between the residential area and the public space of the ‘Scholen Driehoek’.

Daniel Goedkoop School
The architectural analysis I will make is focussing on the former Daniel Goedkoop School. Image 37 and 38 shows the school in the 1960s with the focus on the entrance area. I will analyse this building because I am really interested in the principle of the H-schools we can find in this area and I want to know more about the building and his possibilities. The Daniel Goedkoop School is at this moment not really in use and I think it has a lot of possibilities in transforming the ‘Scholen Driehoek into a lively and nice area by transforming the use of the building and provide it with more interaction to the public space from the triangle.

To start this research and the architectural analysis I formulated the following research question: ***“How does the architecture of the Daniel Goedkoop School connect to the use of the public space?”***

Architectural analysis

Scholen Driehoek, Public - Private space

Urban context

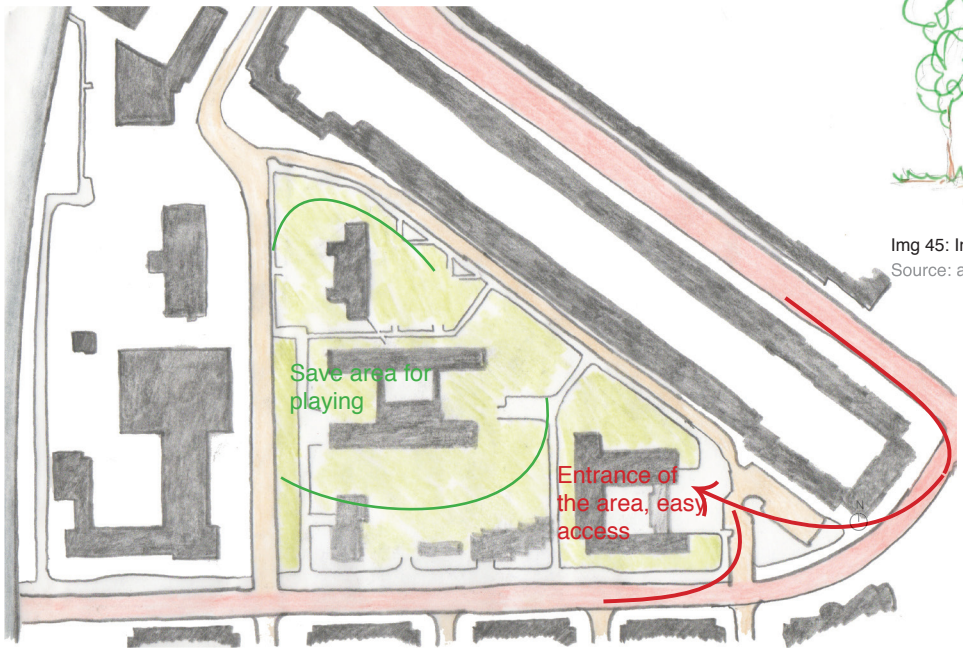
Image 39 shows the urban context of the Daniel Goedkoop School situated within the Scholen Driehoek. Dominating in the design of the triangle is the use of the public space where all the inhabitants can meet. The area is surrounded by private places, building blocks of the Pre-AUP, where the transition between public and private is marked by the staircases and the setback of the entrances (image 40 and 41). Those transitions are the subtile transitions between the public of the Scholen Driehoek and the private of the houses. Especially this building block on the north east side of the triangle acts like a boundary and it protects the area of the busy city and street life of the Michiel de Ruijterweg.

Img 39: Situation Daniel GoedkoopSchool

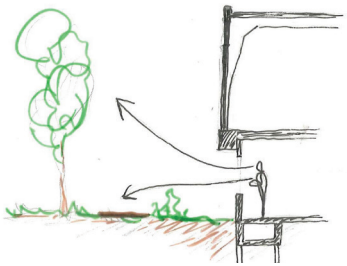
Source: author

Img 40 & 41: Sketches of some entrances of the 'Portiekwooningen' on the north of the triangle.

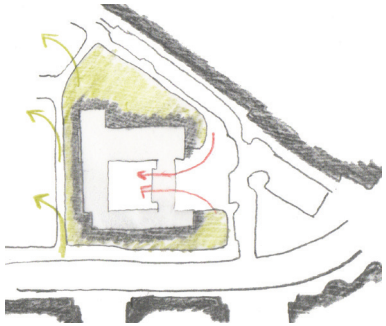
Source: author



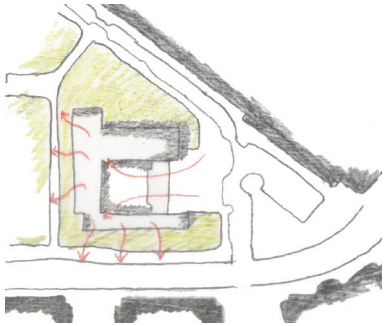
Img 42: Urban context Daniel Goedkoop School
Source: author



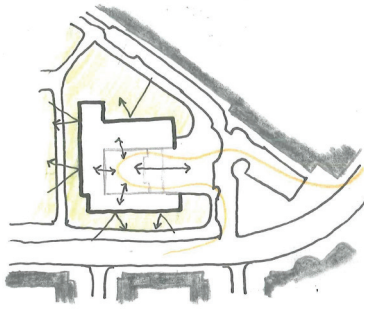
Img 45: Inside view to the public space
Source: author



Img 43: Street access. No physical connection with the public park on the 'backside' of the building
Source: author



Img 44: From the inside there is only a view to the public space.
Source: author



Img 46: The focus of the building on the centralcourtyard where the public space enters the building.
Source: author

Architectural analysis

Position & Orientation

New typologies
The Daniel Goekoopschool is the first school build after the Second World War for 'Uitgebreid Lager Onderwijs' (ULO).It is build in 1958-60 and designed by H. E. M. Peyrot. Who was working for the Amsterdam Public Services (Dienst Publieke Werken Amsterdam). It was designed during the change of the educational systems, which resulted in new typologies of school buildings.

Positions and orientation
As we already said, the Daniel Goedkoop school is situated on the southeast corner of the triangle. This location can be seen as the spot within the 'Scholen Driehoek' where the connection with the city is the most optimum (image 42). The building was designed as a school for secondary education (Uitgebreid lager onderwijs) so the children of that school are already e few years older then the small children at the kindergarten and the primary school. Which means that a busier environment with also traffic etc. less affects them. Also it will provides a better connection between the school, the city and the children.

Transition public and private
By placing the Daniel Goedkoop School at this spot, it forms a natural boundary between the busy area of the city and the save, green area for the children to play. The school opens towards the city with a small green area as a boundary between the infrastructure and the semi private space in front of the school, which emerged with the inner courtyard. This side does provide the only access to the building, or from the building to the public space as can be seen on image 43. On the north, west and south side there is only a visual connection from inside the building to the surrounding public space. The facades on those sides are not having any doors to provide a literal connection (image 44 and 45). The focus of the building is laying on the central courtyard. This is the space where the public space enters the building, where the transition between public and private is visible and sensible.

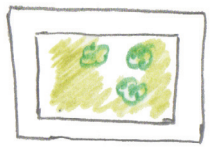
H-School principle

To understand the architecture of the Daniel Goedkoop School, we need to understand the principle of the H-School because the Daniel Goedkoop School is build following the same principle as the H-School.

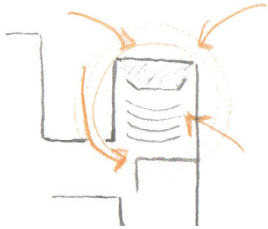
On the right side you can see the diagrams of the most important aspects of the H-School. First, as can be seen on image 47, most of the schools build according to this principle are having a H-shape floor plan. The schools are always surrounded by green and parks for the children to play and the green areas between the 'legs' of the buildings are sheltered areas without wind. Then they have an inner courtyard (image 48) and a central aula (image 49), which was not only for the use of the schoolchildren, but it had also a more social use in the neighbourhood.
The most important characteristic of the schools within the design is however the fact that the classrooms are connected without any corridor (image 50). So the rooms have all the possibility of natural ventilation and daylight entry from both sides of the classroom (Velde, 1968).

H- Schools and Variations
The former princess Beatrix School, located in the centre of the Scholen Driehoek, is exactly build following this principle. Image 51 shows a floor plan and a picture of this school from the sixties. Image 52 and 53 are pictures of the renovated princess Beatrix school, now called Multatuli School. At the same time this new school buildings where designed, they started to design variations in order to meet the different educational typologies. Schools with different shapes, but following the same principle, such as the Marius Bauer School (image 54) were designed. Also the Daniel Goedkoop School (image 55 and 56) as well as the Hendrik de Keijzer School at the Scholen Driehoek are examples of that.

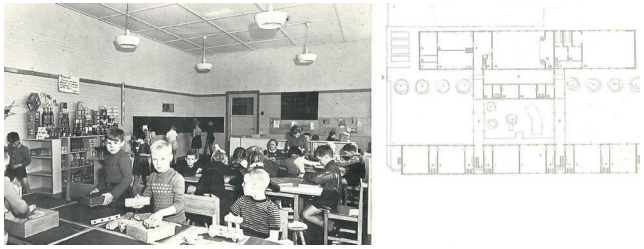
Img 47: H-School,
outside designed as inside
H-Shaped floorplan
Surrounded by green
Source: author



Img 48: Inner courtyard
Source: author



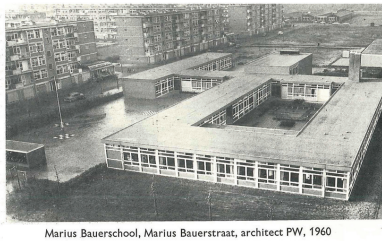
Img 49: Aula, central
meeting hal
Source: author



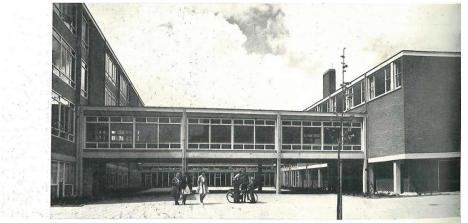
Img 51: Picture and plan Prinses Beatrix school
Source: VELDE, J. J. V. D. 1968

Img 50: Classrooms,
without corridor
Source: author

Img 52 & 53: Prinses Beatrix / huidige MultatuliSchool
Source: author

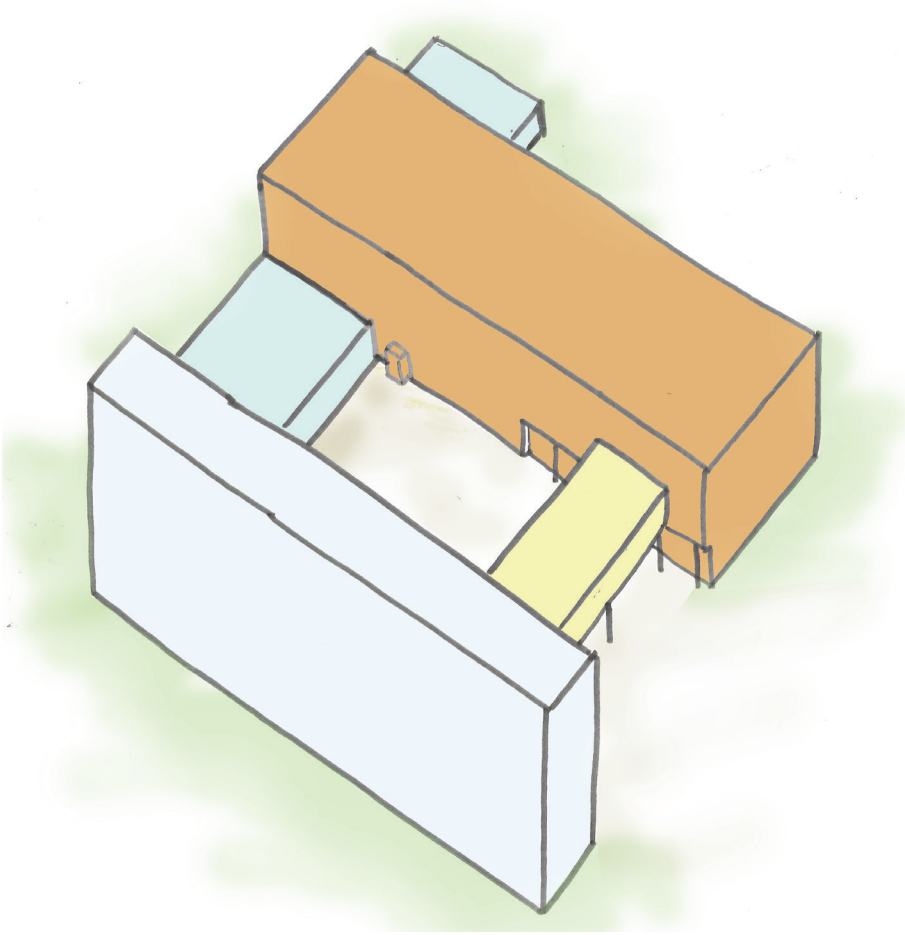


Marius Bauerschool, Marius Bauerstraat, architect PW, 1960
Img 54: Picture & plan Marius Bauer School
Source: VELDE, J. J. V. D. 1968

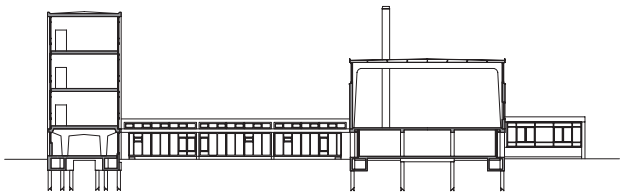


Daniel Goedkoopschool, Sara Burgerhartstraat, architect PW (mej. H.E.M. Peyrot), 1960
Img 55: Daniel GoedkoopSchool
Source: VELDE, J. J. V. D. 1968

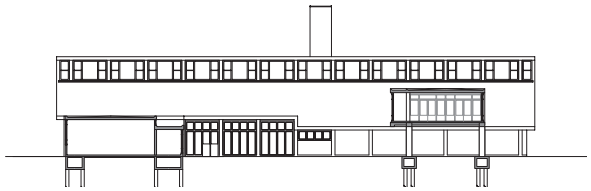
Img 56: Daniel Goedkoop School
Source: author



Img 57: Building mass
Source: author



Img 58: Section A-A scale 1:500
Source: author



Img 59: Section B-B scale 1:500
Source: author

Architectural analysis

Building mass & Organization

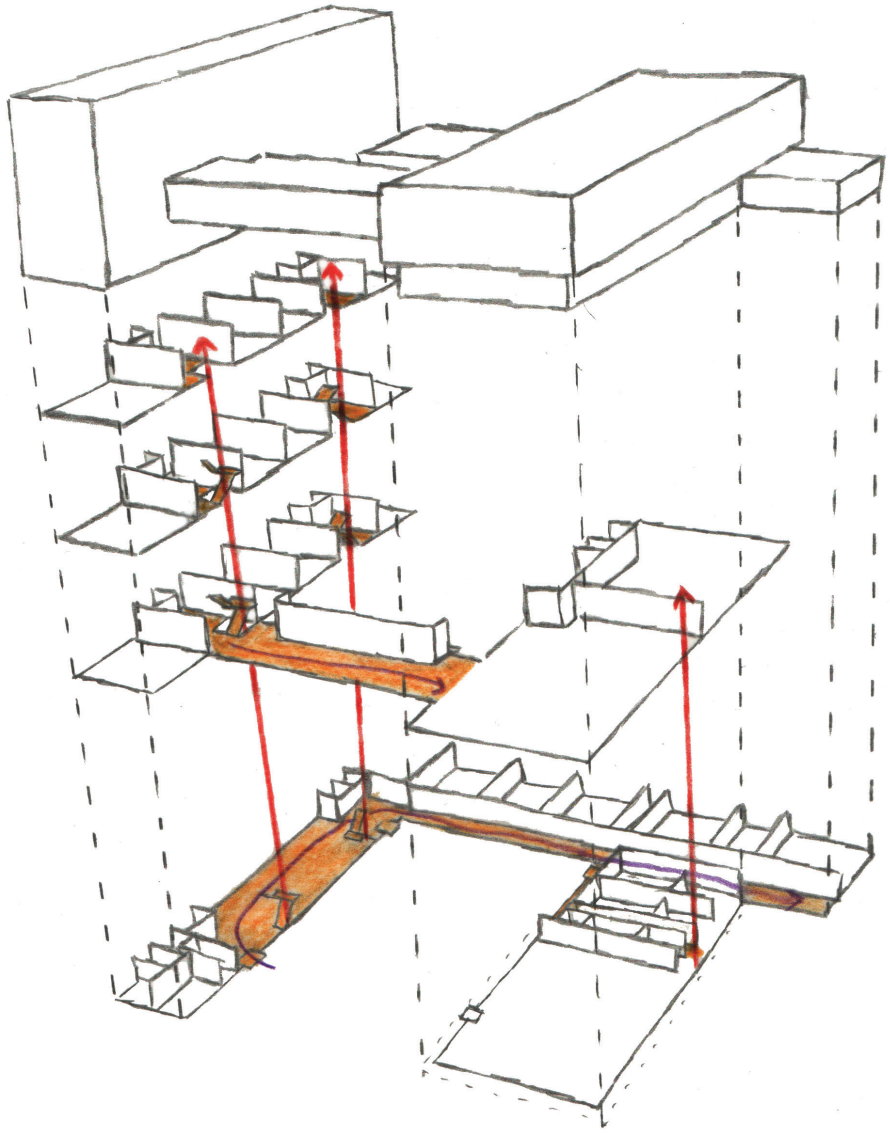
Volumes
The Daniel Goedkoop School consist out of 4 building volumes, composed around an inner courtyard. The east volume, yellow on image 57, has been lift up to the second floor, providing an entrance from the public space to the courtyard where the entrances of the building are situated. The other volumes are placed on the ground floor, closing off the courtyard. All the volumes are having different masses, heights and facades compositions. This all has to do with the different functions placed inside the building. The highest volume consist out of 4 floors where all the classrooms are. The opposite volume houses the gym and central Aula. Both volumes can be seen on the section of image 58.

Organisation
At the inner courtyard there are three entrances, but the main entrance is situated underneath the corridor, the yellow building volume. That has also to do with the fact that the south building volume functions as the main building part from the school. In this part the teacher facilities as well as the classrooms were situated. On the ground floor of this volume we find the connection corridor with remarkable columns (image 58), and the two staircases leading to the upper floor levels. The lowest wing houses the practicum classes and provides a ground floor connection from the classrooms to the gym. In contrast to the highest volume where we can't find any corridors, in the lowest wing there is one. To provide the practicum rooms there also from fresh air entrance on both sides, the volume of the corridor is low than the volume of the practicum rooms as can be seen in the section of image 59. The small lifted volume, also visible on the section of image 59, creates a connection between the classrooms and the central aula. On the next page the floor plans are visible with the different functions marked.

Building mass & Organization

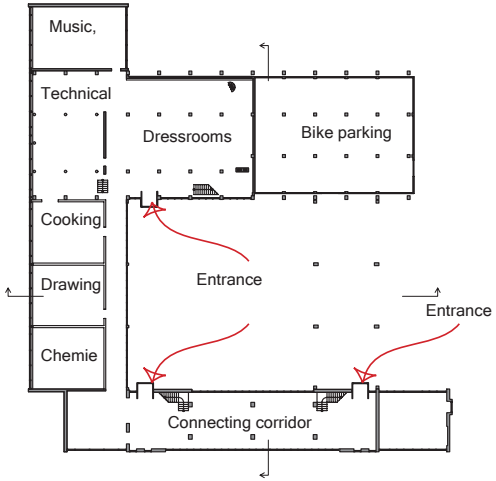
Routing

Image 60 shows the routing trough the building. The entrances are marked by red arrows within the courtyard. The red line are indicating the horizontal routing trough the building, the blue arrows are indicating the vertical routing point. In the highest volume the 2 staircases are really important for the circulation. Basically they are providing access to the 2 attached class rooms. It is possible to walk trough all the class rooms, but there is no corridor so you need to walk trough the class rooms.



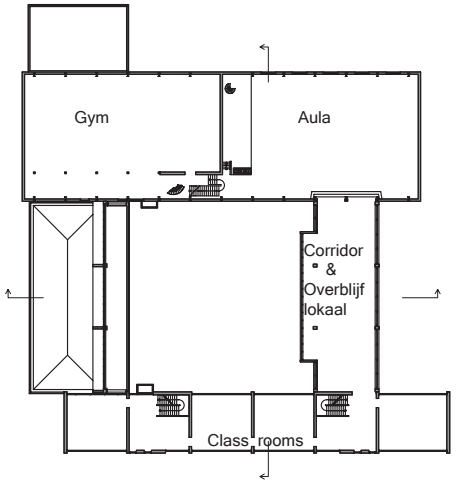
Img 60: Organisation of the levels with the horizontal and vertical routing

Source: author



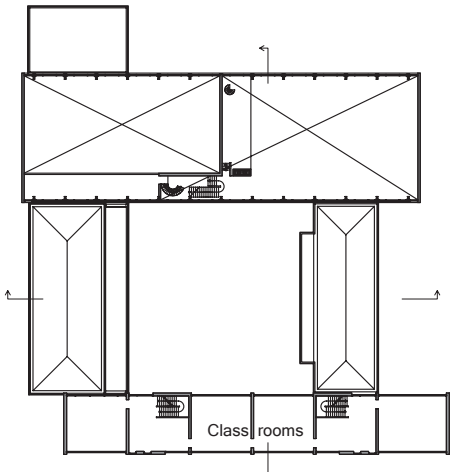
N

Img 61: Ground floor scale 1:750
Source: author



N

Img 62: First floor scale 1:750
Source: author



N

Img 63: Second floor scale 1:750
Source: author

Architectural analysis

Plans, Functions & Facades

Functions

On image 61, 62 and 63 we see the floor plans of the ground floor, the first floor and the second floor (the third floor is the same as the second)

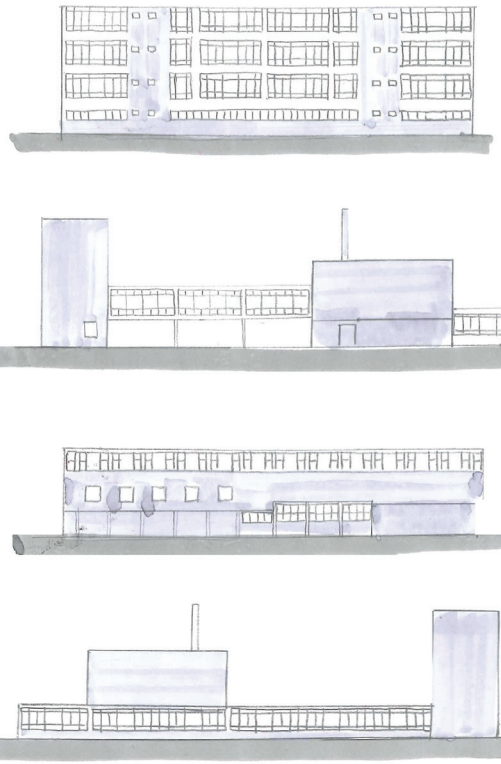
The north volume contains on ground floor level the dress rooms for the gym and the bike parking area. On the second floor of this building volume we find the gym and the central hall, the aula. Those rooms are characterizes by the steel frames supporting the roof, visible on the section of image 58 on the previous page. From the aula you can enter the corridor, which connects the aula to the main building part. Here we find on the fist, as well as on the second and third level, the classrooms. On both sides of the staircases there are two classrooms situated. They are designed without the use of any corridor, which provide daylight and fresh air entering the classrooms on both sides. The west volume is designed for housing the classrooms for practical lessons, like chemistry, music, biology etc. Those are deliberately placed in another wing to prevent the nuisance

Plans, Functions & Facades

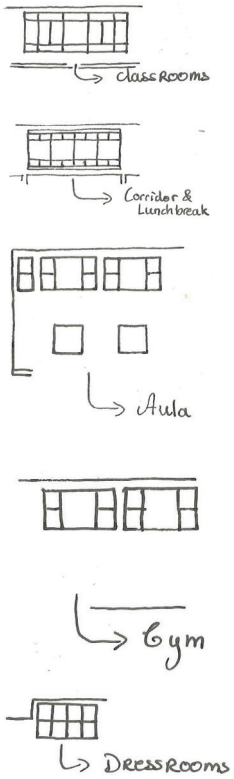
Facades

Looking to the facades (image 64) we see a differentiation in their designs. Three of the four building parts are mostly consisting out of glass. Only the end walls are blind and made out of brick and the north building volume is mostly made out of brick. This volume has places on top of the east volume, providing an overhang. This accentuates the different building parts and looks for a connection with the surrounding urban space. All the different facade as well as the different window types (image 65) are corresponding with the different functions. The building volume that houses the common area's like the gym and the aula, had mostly build out of brick. Only on top of the volume and at the wall of the aula are windows providing daylight and fresh air. At the glass rooms the facades are designed with a lot of glass, but it is important to notice that those windows will start about 1 meter above ground level. By that the connection from the building with the surrounding is only visible from the inside out, it seems like the building has lifted up from the ground to protect everything that is happening inside from a connection with the public activities.

The connection with the space of the courtyard is different. There the windows are all the way down till the ground so the building opens more and it let the outside activities enters the building. Image 66 till 69 are showing the outside facade where the closed parts of the facade on ground level are visible. On image 69a and 69b we see the glass inside facades surrounding the courtyard.



Img 64: Facades
Source: author



Img 65: Different window types
Source: author

Img 66: South facade
Source: author

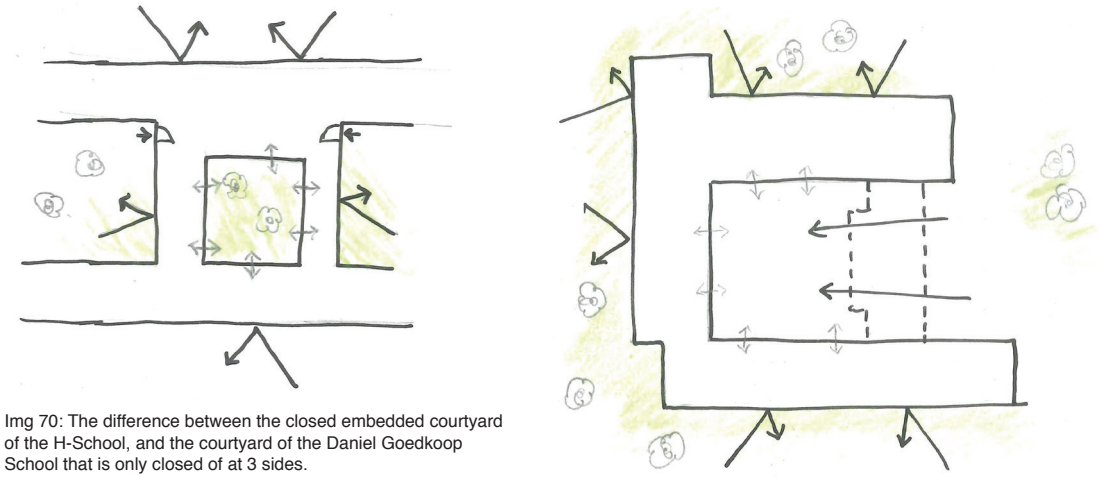
Img 67: North facades, aula
Source: author

Img 68: West facades
Source: author

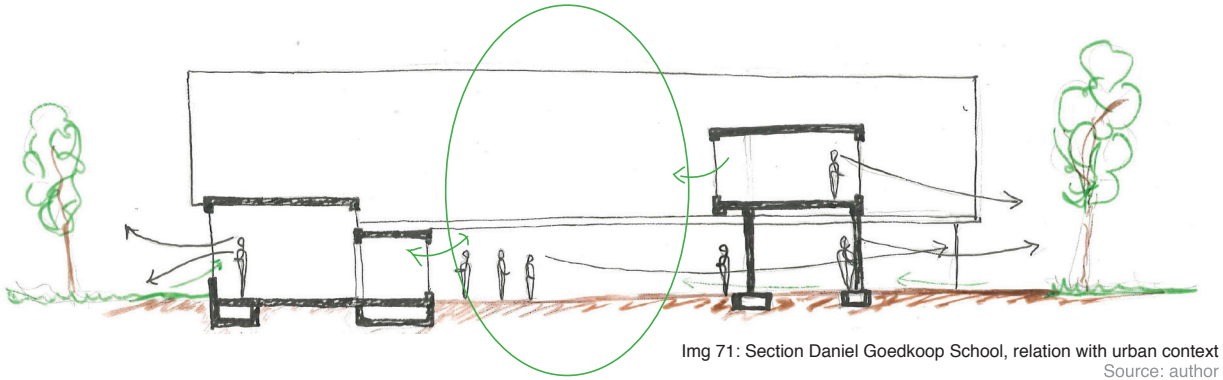
Img 69: East facades
Source: author

Img 69a: Inner facade west and north volume
Source: author

Img 69b: Inner facade south and east volume
Source: author



Img 70: The difference between the closed embedded courtyard of the H-School, and the courtyard of the Daniel Goedkoop School that is only closed of at 3 sides.
Source: author



Img 71: Section Daniel Goedkoop School, relation with urban context
Source: author

Architectural analysis

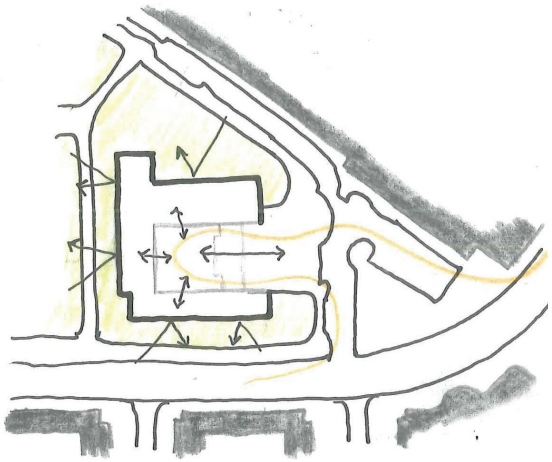
Monumental Value

Difference of the H-School
To meet the educational requirements of this ULO school, the design aspects of the H-School typology needed some transformation. As seen in the analyses of the Daniel Goedkoop School, it is build according to the same principles, but it does has some differences. The most important difference is the composition of the building parts that are surrounding the inner courtyard. Because of the fact that the inner courtyard is not completely embedded in the building, it has a different character then the courtyard of the H-School. At the Daniel Goedkoop School there is a less stronger boundary and the physical relation with the public space is stronger while the public space will merge with the private space of the courtyard (image 70). By that the focus of the courtyard is not only on the building itself, but also on the public space in front of the building, the courtyard could be seen as a more private extension of the public space.

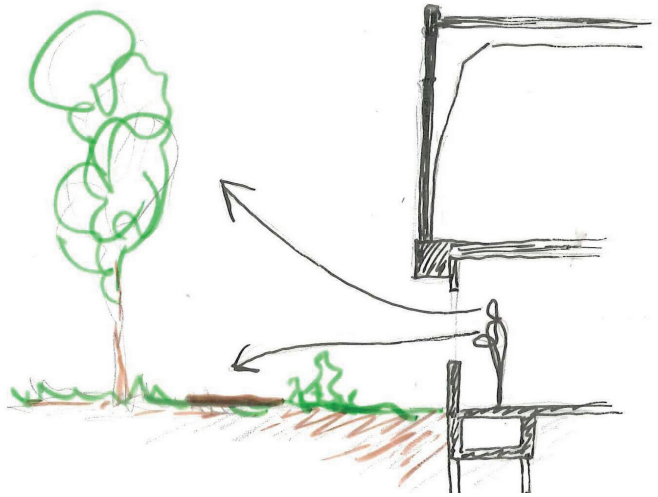
Value
The Daniel Goedkoop School is on the list to become a monument of Amsterdam. It does have a lot of monumental and historical value. First of all because of its architecture. It was build during the change of the educational system which resulted in new building typologies. Here the H-School typology was transformed to adapt the ULO educational system with different building volumes for the different functions. Also the inner courtyard became an important place focussing on as well the building as on the public space creating a transition area from public to private (image 71). Besides the architectural value, it also has a value as being part of the Scholen Driehoek that was developed according to the wijkgedachte, providing the educational functions within the neighbourhood with the architectural typology of the H-School.

Conclusion

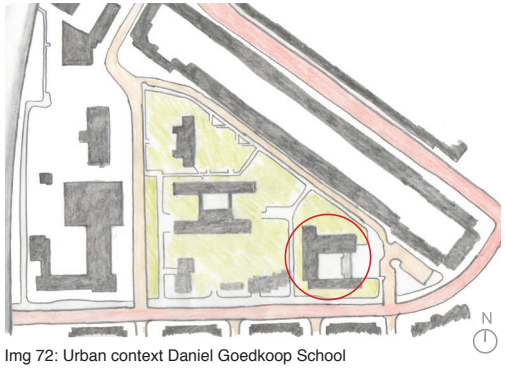
The Daniel Goedkoop School is situated on the southeast corner of the Scholen Driehoek and that position does influences the use and experience of the public space. By his orientation towards the city it creates a buffer zone between the city and the quiet public park of the Scholen Driehoek. All the facades direct connecting to the public space of the Scholen Driehoek are closed in the sense that they don't provide access from the building to the public space. There is only a visible connection from inside the building to the surrounding public space of the park (image 73). Because of the openess of the courtyard, the public space will entre tha building only from the east side. The organisation of the building is focussed on surrounding the inner courtyard, but because the opening underneath the corridor and the visibility and openness of the windows from the building parts, the public space enters the building (image 72).



Img 72: The focus of the building on the centralcourtyard where the public space enters the building.
Source: author

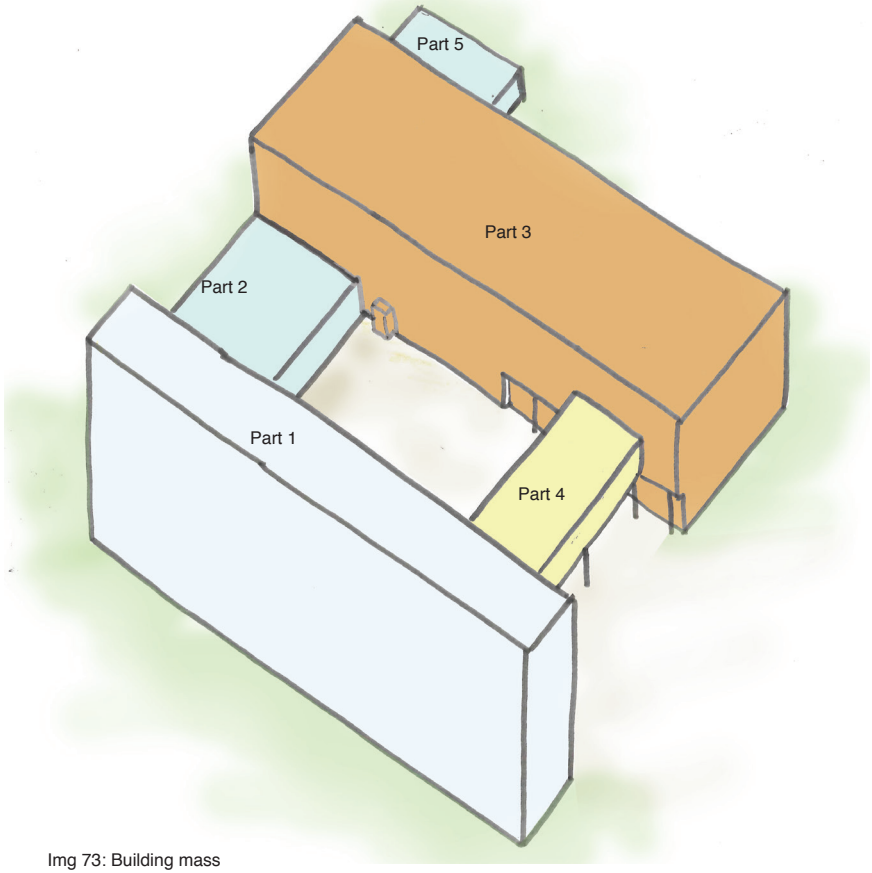


Img 73: Relation with the public space
Source: author



Img 72: Urban context Daniel Goedkoop School
Source: author

Img 74: Building part 1, south volume
Source: author



Img 73: Building mass
Source: author

Img 75: Building part 2, west volume
Source: author

Img 76: Building part 3, north volume
Source: author

Img 77: Building part 4, east volume
Source: author

Img 78: Building part 5, west volume
Source: author

Technical analysis

Structural building parts

The Daniel Goedkoop School, built in 1960 as part of the Scholen Driehoek (image 72), is designed according to the H-School principle already explained earlier in this rapport. When we look to the architectonic expression of the building as we can see from the outside, we see that it consist out of 4 building parts. Analysing the technical principle of the building will show that there are in fact 5 building parts (image 73), corresponding with the structural building parts as well as with the different functions inside.

Part 1
This is the highest volume (image 74). Here are the classrooms situated. The facade mostly contains window frames and a few striking brick parts separating the windows, as well as closed brick end walls.

Part 2 & 5
The lowest wing, the west volume, consist out of part 2 (image 75) and part 5 (image 78). Part 2 contains the rooms for practicum lessons. Part 5 contains, originally the music room. It also has closed end walls formed of brick and long walls from windows, starting around 90 centimetres above the ground.

Part 3
Part 3 is the building volume, which is the only one who is not just attached to the other building parts, but is also covering partly building part 2 (image 76). Part 3 is mostly made out of brick, has the most closed off façade comparing to the other parts, and only some window stripes on the top.

Part 4
The smallest part is part 4. This is the connecting corridor between part 1 and part 3 (image 77) like a bridge on first floor level. By that it marks the entrance of the inner courtyard. The main material used in this part is also glass.

Research question
I will analyse the technical aspects of this building to find an answer on the following research question: “How does the structure of the Daniel Goedkoop School relates to the architectural expression and what is the current state of the structure?”

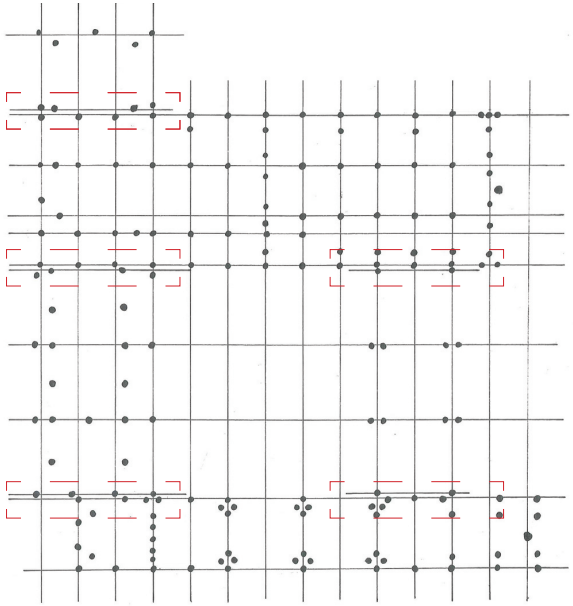
Foundation & Loadbearing

Constructional building volumes
The composition of the different building volumes of the Daniel Goedkoop School is shown directly within the main bearing structure. Image 79 gives an overview of the pile plan of the building. Here the different building volumes are already recognizable. The beam plan of the foundation, image 80, also shows the different volumes.

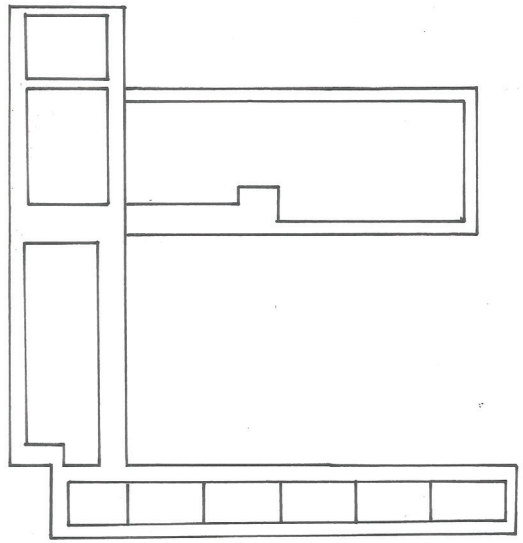
Dilatations
At image 81 the roof plan is shown. Here the dilatations are marked (by red lines), which are found by analysing the piles and beam plan of the foundation. Those dilatations are the clear indication of the different structural building parts.

Load bearing
Almost the whole structure of the Daniel Goedkoop School is made out of reinforced concrete and filled with brick or glass windows. Only the construction supporting the roof of the north volume is made out of steel kinked trusses.
Image 82 shows the load bearing walls, columns and beam structure of the first floor. The different building volumes are visible.

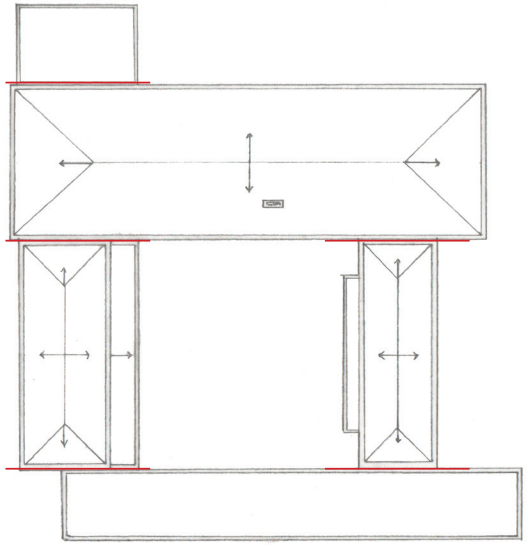
On the next pages, the load bearing in the sections is shown. In image 83 the section crossing the north and the south volume shows also the steel trusses used in the north volume. Image 84 shows the section crossing the west and east volume. The load bearing is marked with red piles, the wind forces by the blue ones.



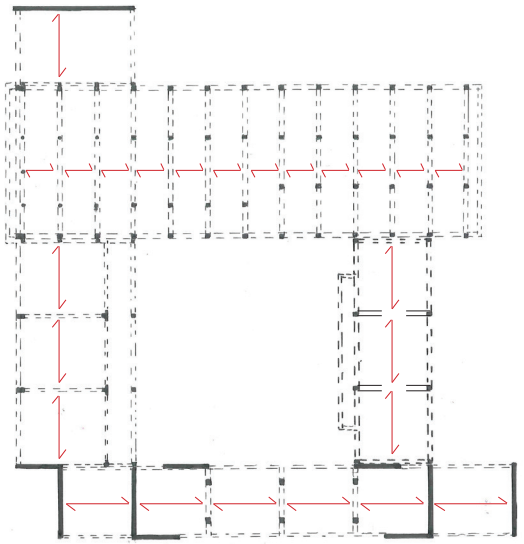
Img 79: Grit and Piles plan
Source: author



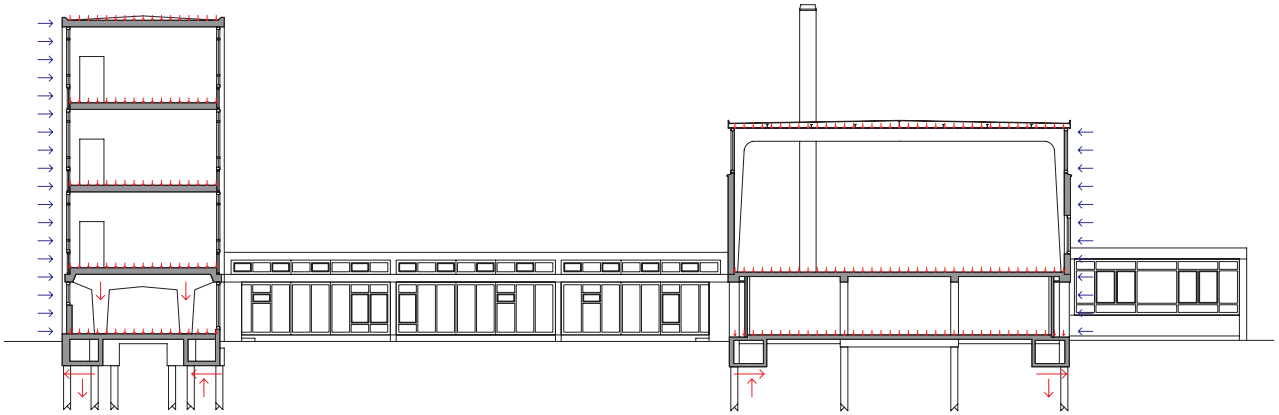
Img 80: Beam plan
Source: author



Img 81: Roof plan with the dilatition markes in red
Source: author



Img 82: Loadbearing ground- and first floor, beam plan first floor and span direction of the rigid floors
Source: author



Img 83: Loadbearing section south and north volume
Scale 1:200
Source: author

Img 84: Loadbearing section west and east volume
Scale 1:200
Source: author

Technical analysis

Loadbearing sections

Load bearing
On images 83 and 84, the load bearing in the sections is shown. Image 83 the section crossing the north and the south volume shows also the steel trusses used in the north volume. Image 84 shows the section crossing the west and east volume. The load bearing is marked with red piles, the wind forces by the blue ones.

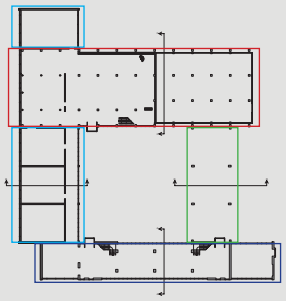
Stability
The stability of the building is provided by a combination of stabile walls and a rigid roof of reinforced concrete. On image 82 on the previous page the span direction of the floors is marked by the red arrows.

Construction of the building parts

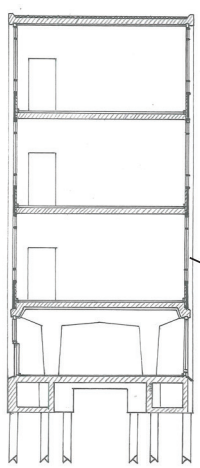
On image 85 we see a floor plan scale 1:750. On this plan the building parts according to the dilatations are marked. I analysed every part. We see a section, an overview of the construction and some pictures of the inside and outside materials.

Classrooms
To start with the south volume, building part 1. This is the highest part and consists out of 4 levels (image 86). The main bearing structure is of reinforced concrete using columns on the ground floor (image 91) and slabs on the upper level which we can see in the 3d overview of this building part on image 90. The facade is filled with brick walls, window panels and yellow panels on the 'outside' facade (south) and red panels on the 'inside' (north) facade (image 87, 88, 89).

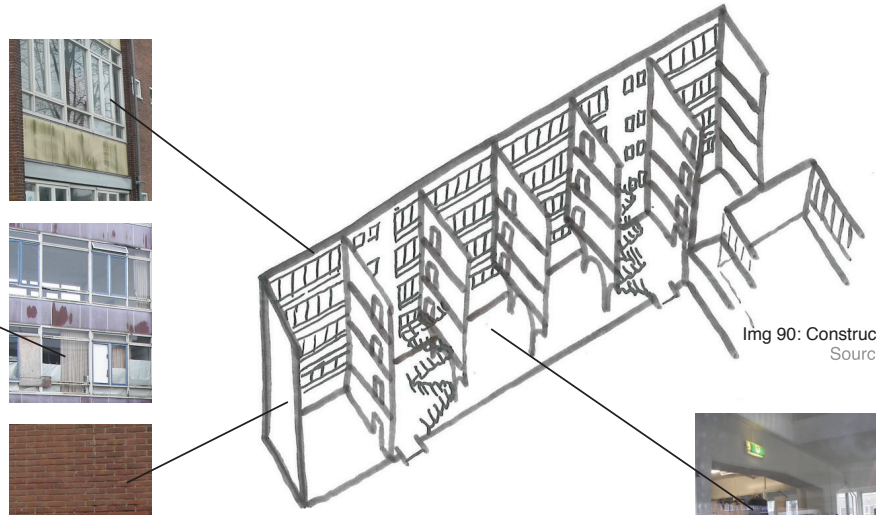
Practicumrooms
The east building volume, building part 2 and 5, is the lowest (image 92). The main bearing structure is also reinforced concrete but the use of columns is different. This is based on the connection with the overlying structure of building part 3. So we see that there are more columns used underneath part 3, round ones as well as rectangular ones (image 96 and 97). The facade of this building part is mostly made out of glass, but does also have 2 different sides. At the 'outside' of the building volume the windows are starting from 90cm above floor level, marked by red panels as can be seen on image 93. On the 'inside', facing the courtyard the facades are only made out of windows from floor till roof (image 94). Image 95 shows the current situation of the interior. We can see here that the original walls separating the different classrooms are removed so there has been one big room created.



Img 85: Ground floorplan, with the different building parts marked. scale 1:750
Source: author



Img 86: Section A-A scale 1:200
Source: author

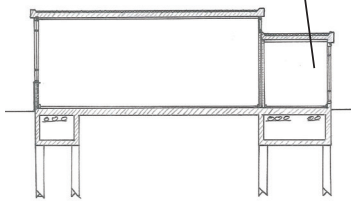


Img 90: Construction view
Source: author

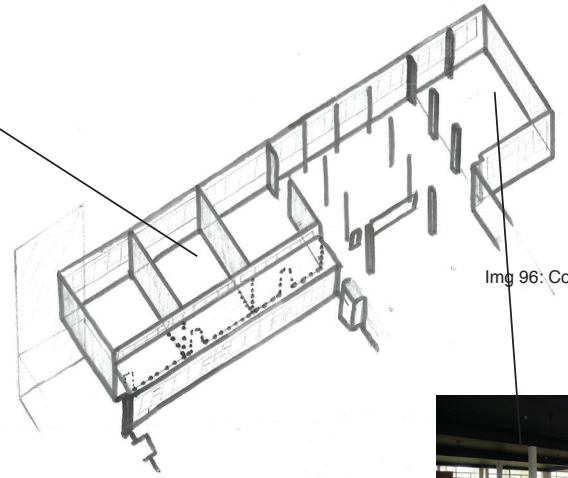
Img 87: Outside facade
88: Inside facade
89: Short end facade
Source: author

Img 91: Interior
Source: author

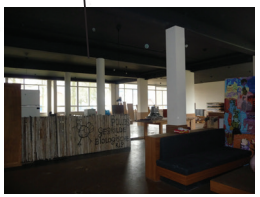
Img 93: Outside facade
94: Inside facade
95: Interior
Source: author



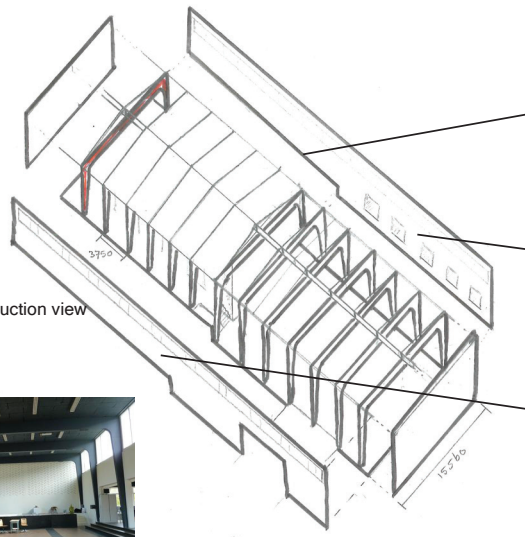
Img 92: Section B-B scale 1:200
Source: author



Img 96: Construction view
Source: author



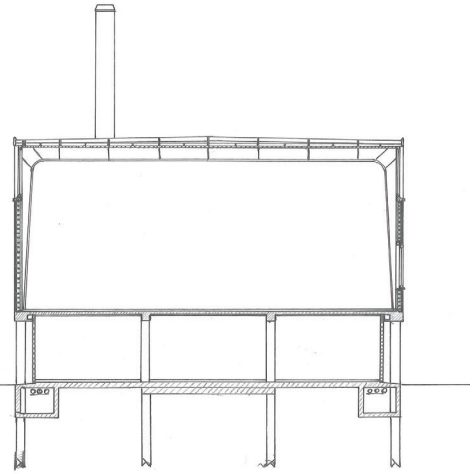
Img 97: Interior
Source: author



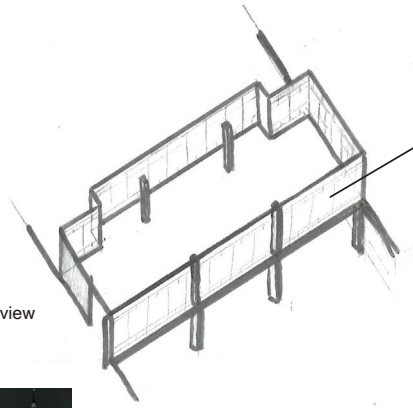
Img 99: Construction view
Source: author

Img 100: Interior aula
Source: Blauwhof.nl

Img 101: Outside facade
102: Outside facade
103: Inside facade
Source: author



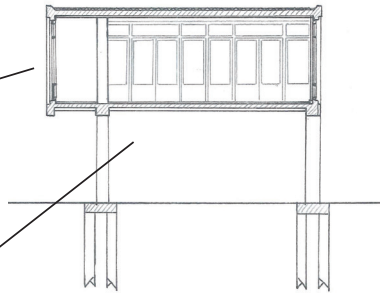
Img 104: Section C-C scale 1:200
Source: author



Img 105: Construction view
Source: author

Img 106: Interior corridor
Source: Blauwhof.nl

Img 107: Outside facade
108: Inside facade
109: Concrete columns
Source: author



Img 110: Section D-D scale 1:200
Source: author

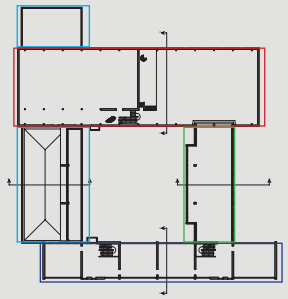
Technical analysis

Construction of the building parts

On the below floor plan, we see the 1st floor scale 1:750. Here are also the different building parts according to the dilatations marked.

Central aula and gym
The north volume, building part 3 has as well a construction of reinforced concrete columns, but that is only the base of the aula and gym (image 104). In order to construct the open space needed for the aula and gym hall, the structural principle has changed into the use of steel trusses (image 99 and 104). Attached to that is the facade, completely closed at the short end walls, partly opened at the long sidewalls. The main material of this building part is brick. At the outside facade, image 101 and 102, there are square windows for the light entrance of the central aula as well as the window stripes on the upper side of the facade. At the inside facade we can also see the same window strip, but there are no square windows in the middle (image 103).

Corridor
The small volume of the west wing, building part 4, is places on reinforced concrete columns (image 110, 109). The whole bearing structure has been formed from reinforced concrete, facades filled with window panels (image 105, 107, 108). The inside area is one big open space (image 105, 106) in contrast to the original design where there where also some rooms placed within this volume.



Img 98: 1st floorplan, with the different building parts marked. scale 1:750
Source: author

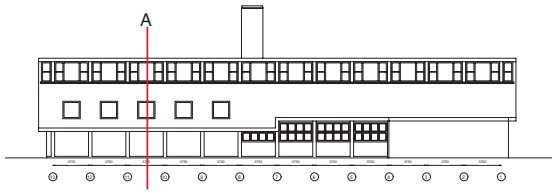
Facades & Materials

As already explained by the architectural analysis, the facades are characterizes by the different types of windows. Image 111, 112, 113 and 114 are showing the facades scale 1:500. To understand how the facades are constructed, we can look into the sections A B C and D of image 115, 116, 117 and 118. On the next page we see more detaild parts of the building construction.

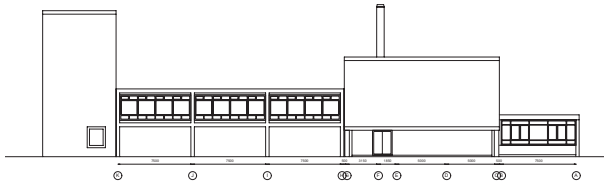
The facades are mostly built out of window frames, brick and panels, presumably made out of asbest. As visible in the sections, the bearing structure, columns, floors and foundation, is made of reinforced concrete.

Section A shows how the volume of the aula connects to the underlying structure from the bike parking and it explains the two different ways in which the windows are placed in the facade. Section B shows the overhang from the gym over the underlying building volume.

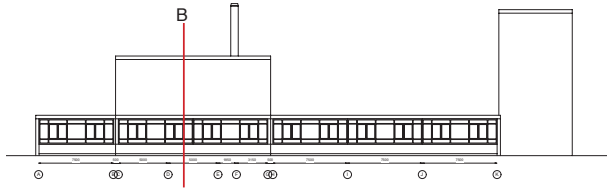
Section C shows the connection of the brick wall in the south facade to the foundation and the small windows we find on every floor level. Section D shows the structure of the same facade but then the construction of the window frames and the houtwolcementplaten.



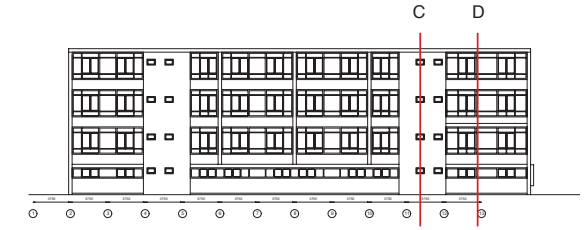
Img 111: North facade scale 1:500
Source: author



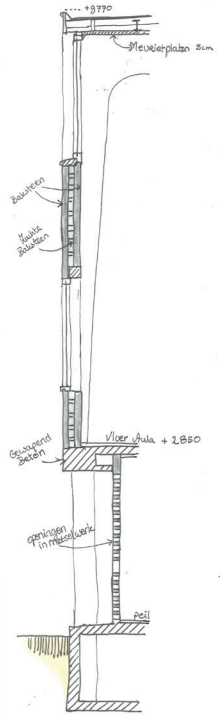
Img 112: East facade scale 1:500
Source: author



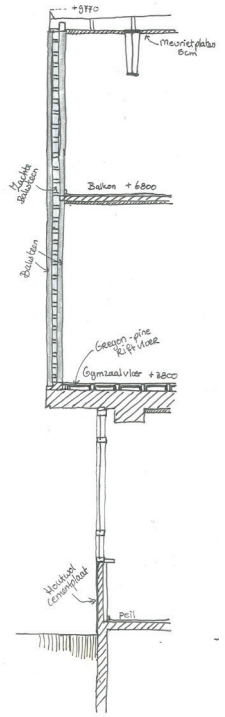
Img 113: West facade scale 1:500
Source: author



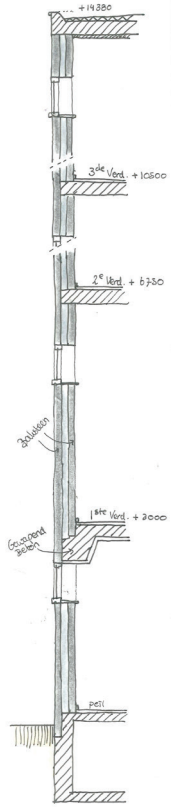
Img 114: South facade scale 1:500
Source: author



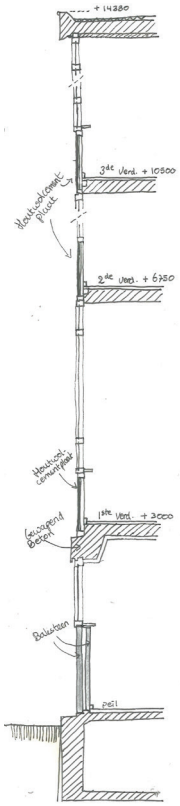
Img 115: Facade section A
Source: author



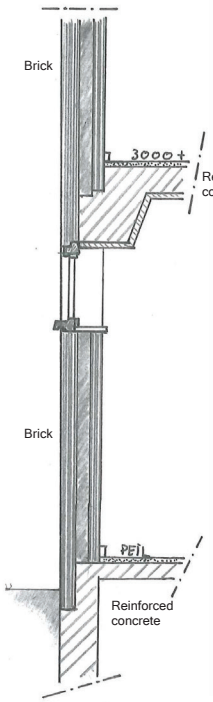
Img 116: Facade section B
Source: author



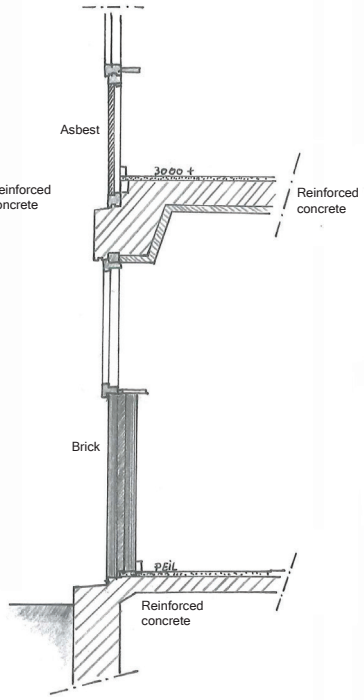
Img 117:Facade section C
Source: author



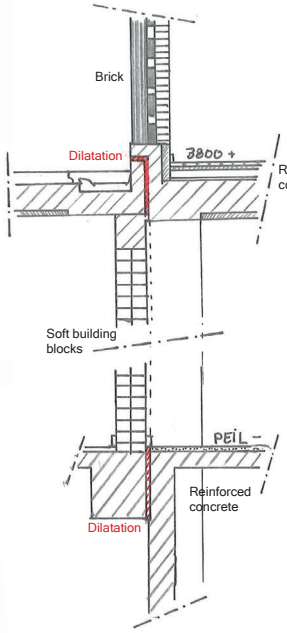
Img 118: Facade section D
Source: author



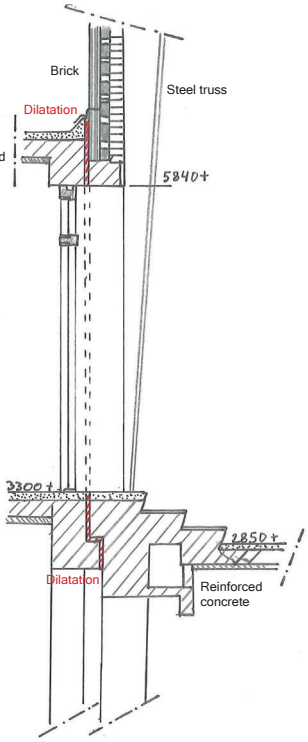
Img 119: Detail section A
Source: author



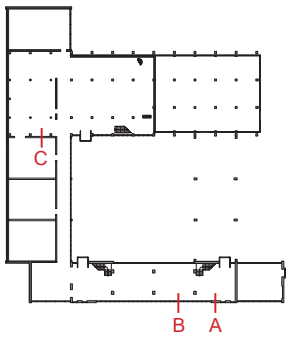
Img 120: Detail section B
Source: author



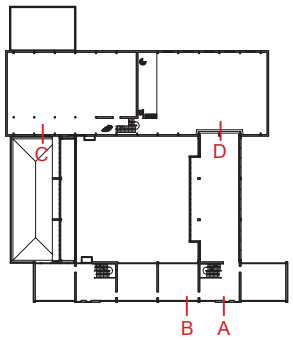
Img 121: Detail section C, red marked lines are the dilatations
Source: author



Img 122: Detail section D, red marked lines are the dilatations
Source: author



Img 123: Ground floor plan, scale 1:1000
Source: author



Img 124: 1ste floor plan, scale 1:1000
Source: author

Technical analysis

Detail sections

Here we see more detailed sections of the facades and connection between the different structural building parts. On the small plans below, image 123 and 124, the location of the sections are marked.

Detail South facade
Details A and B are showing the 2 different facade constructions of the south facade (image 119 and 120). Detail A is showing the brick part of the south facade and detail B the part where the windows are dominating the facade. Although the first part on ground level is still from brick, the windows also on the ground floor are already bigger. From the first floor on, we see the asbest panels and above that, the window frames.

Connection building volumes
Detail section C, image 121, shows the connection of the west volume, structural building part 3, to the north volume. Marked in red we see the dilatation. The dilatation between building part 4, the east volume, and building part 3 is also important, and visible in the drawing of section D (image 122).

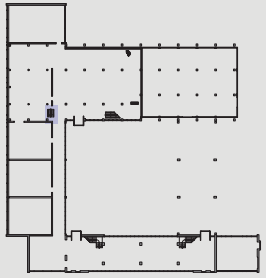
Installations

Heating, Cooling, Ventilation

The heating in the whole building is carried out by central heating. On the sections marked by the red signs. The central heating placed in the building parts of the aula and gym, as well as in the west building part are quit new so the are able for re-use (image 129 and 130). Ventilation is organized by opening the windows, so in the building is only natural ventilation present. This is at the same time the problem for cooling and heat loss, while by opening the window the cold or warm outside air will enter the building. And in case the central heating is working, the heated air will disappear.

Basement, installation shaft

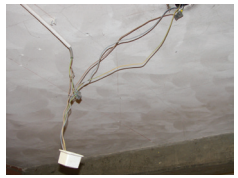
Underneath the building there is a small part where we found a basement. The entrance to the basement is marked on image 125 and we see the stairs on image 126. Dominating within this basement are all the installation pipes and electrical wire (image 127). Presumably this all needs to be replaced by new installations. Also the electrical wire within the building (image 128) needs to be replaced or it needs maintenance. But important for redeveloping the building is to know that there is enough space in the basement for new installations and underneath the whole building, as we can see in the sections of image 131 and 132, there are installation shafts.



Img 125: Groundfloor plan with entrance to basement
Source: author

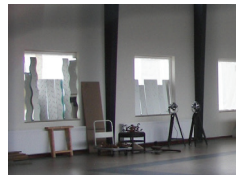
Img 126: Entrance to basement
Source: author

Img 127: Basement
Source: author



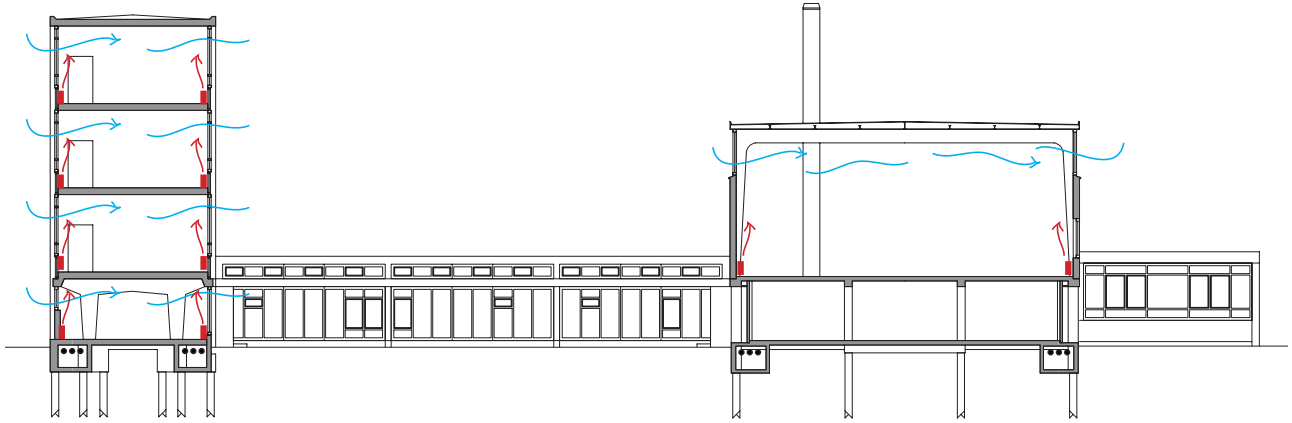
Img 128: Electricity
Source: author

Img 129: Central heating
Source: author



Img 130: Central heating
Source: author

Img 131: Section scale 1:200 showing the climate concept.
Heating by central heating, coolingnd ventilation by natural ventilation
Source: author



Img 132: Section scale 1:200 showing the climate concept.
Heating by central heating, coolingnd ventilation by natural ventilation
Source: author


Img 133


Img 134


Img 135


Img 136


Img 137


Img 138


Img 139


Img 140

Img 133 - 140: damages, most of them are superficial like watterdamage because of the rain drainage and peeling paint due to bad maintainance. But also rotten window frames and some cracs in the concrete construction of the east volume.
Source: author

Technical analysis

Damages, facade and construction

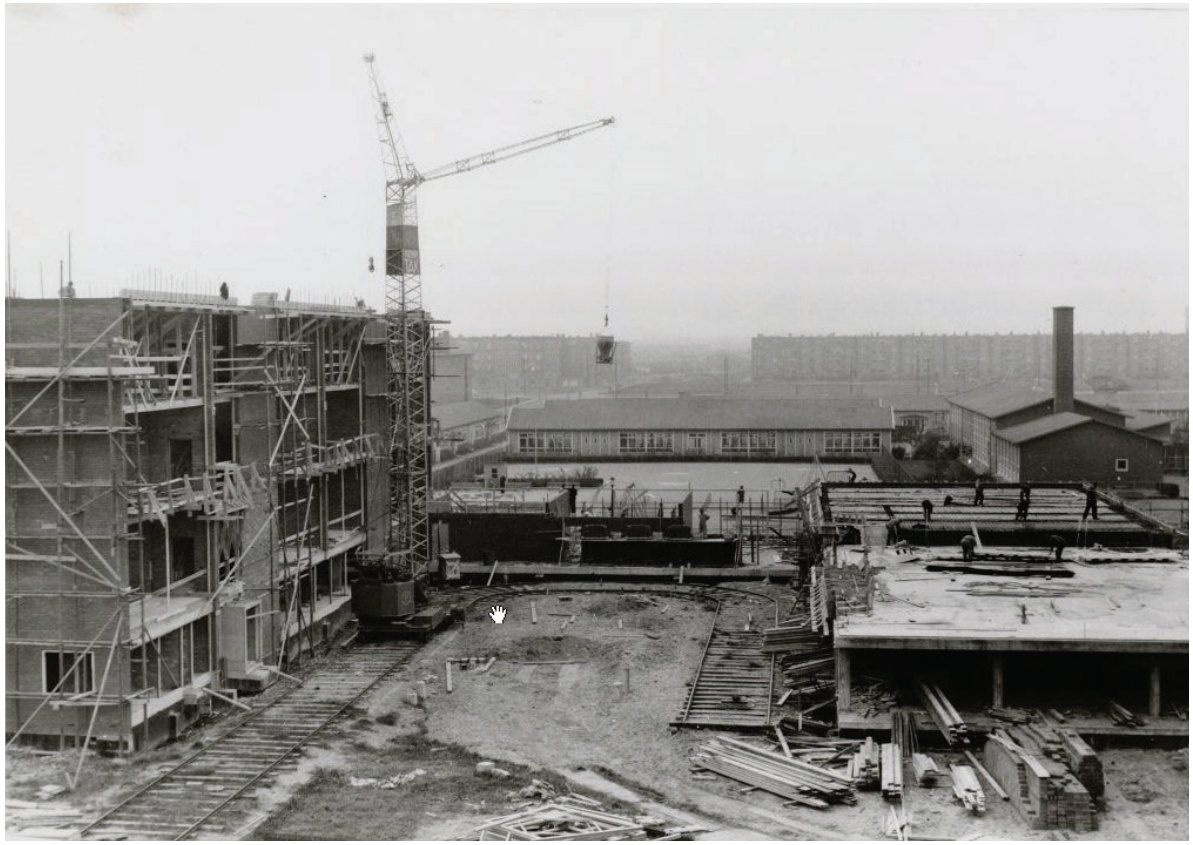
Looking to the building of the Daniel Goedkoop School we see that there are a lot of damages and bad maintenance. But most of the damages are superficial like water damage because of the rain drainage and peeling paint due to bad maintenance. This is visible on the images 133, 134 and 135. The biggest problem of the building is the rottenness of the window frames (image 136, 137, 140). All the window frames are rotten and they will need to be replaced completely.

At some parts we see cracks in the concrete structure. Some of them appear to be super facial like image 139. But in the east volume of the building the crack seems to be more seriously. This could be because of a failure in the dilatations although they appear to be correct on drawing as we have seen on images 121 and 122. As far as I know now, the main bearing structure is intact and there is no problem in reusing it. But it does not appear to be capable of supporting a lot more weight then it has been designed for. To be safe, when there will be made some interventions or new building volumes by redeveloping the building, those will need to have their own bearing structure.

Conclusion

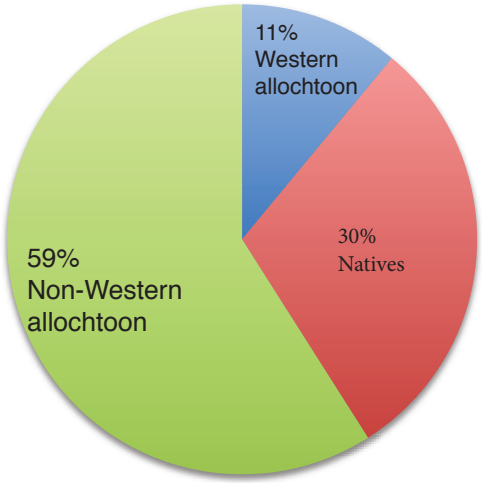
After analysing the technical situation of the Daniel Goedkoop School, it turned out that the current state of the building structure does not need to be renewed. Most of the damages are superficial; accept for the windows and the window frames, which are completely rotten. And the crack in the east wing requires further examination. The instalations also are in need for improvement. At some places the central heating could be re-used, but for the ventilation and further climate control the building needs to get a new system.

Answering my research question “How does the structure of the Daniel Goedkoop School relates to the architectural expression and what is the current state of the structure?” We can conclude that the structure is good to use. The structure itself also had a real close relationship to the architectural expression. The important characteristics of the architecture, like for example the open space of the aula, are formed because of the expression of the used technique. In this case formed by the steel trusses. But important to bear in mind is the fact that by adding new building masses they needs to have their own bearing structure.



Img 141: Building the school.
Source: beeldbank amsterdam

Img 142: seperation of parts Gulden Winckelbuurt
Source: google.maps



Img 143: population Gulden Winckelbuurt
Source: os.amsterdam.nl

Img 144: Badr Mosk
Source: moskeebadr.nl

Social analysis

Gulden Winckelbuurt

To find out what the new role of the former Daniel Goedkoopschool could be in the neighbourhood of the Gulden Winckelbuurt could be, a social analysis is necessary. The analysis was formed by the following research question:
"What is the social situation of the Gulden Winckel buurt and what could be the social role of the Scholen Driehoek?"

The Gulden Winckelbuurt can be separated in 3 different parts:
Scholendriehoek
Bosleeuw midden
Bosleeuw zuid
This is clearly visible on picture 142, with the green area of the Scholen Driehoek in the north. The neighbourhood Gulden Winckelbuurt has a mixed population with a 70% minority (img 143).

There are a lot of social problems in the neighbourhood. Mainly they are focussing on
- ***Safety*** & ***Quality*** of life (Facilities within the public space)
- ***Connection*** with society (low skilled woman)
- ***Language problems***
- Educational career of ***young people***
- ***Parent involvement***
- ***Poverty***

There is a double role of the Badr Mosk (img 144), situated in the north of the Scholen Driehoek, while it organizes a lot of social responsible activities, like homework guidance, but it also attracts Muslims from whole Amsterdam west.

Conclusion

To solve the social problems there are possibilities, and the Scholen Driehoek could have an important role within this solutions. First it will be about Improving ***play- and meeting areas*** within the public space (img 145), but at the main time it needs to focus on strengthening of ***social networks*** (img 146) by organizing projects and activities by and for residents.

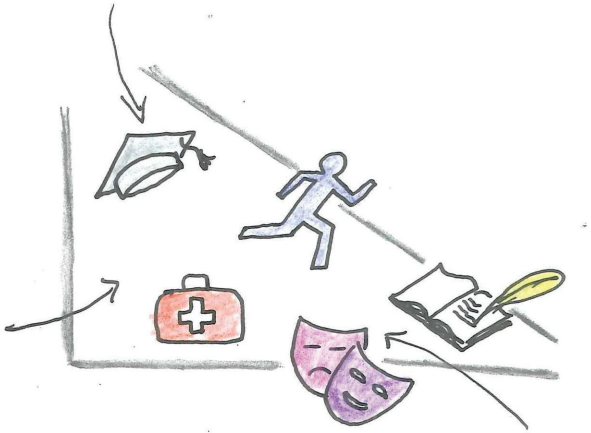
But activating inhabitants is difficult because of the Low ***neighbourhood participation*** as well as the Low ***low self power*** of the residents so ***Professionals*** are needed (img 147).

As already discovered within the previously analyses, the Scholen Driehoek is a strong connecting element within the neighbourhood. So this role could be expand by using ***Sport, Art and Culture*** to improve social networks and for creating ***affiliation with education.***

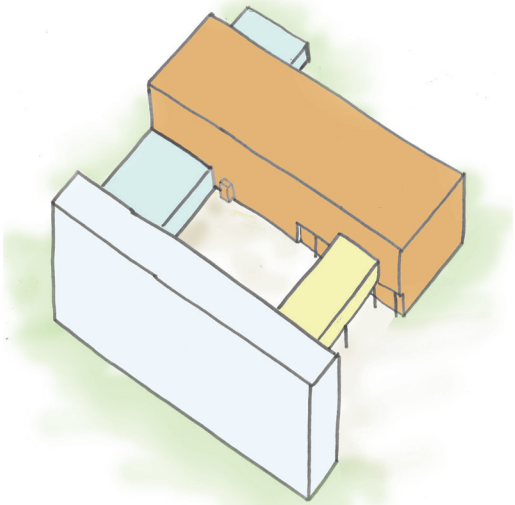
Img 145: Improving public space
Source: author

Img 146: Social activities
Source: author

Img 147: Social activities; professials are needed
Source: author

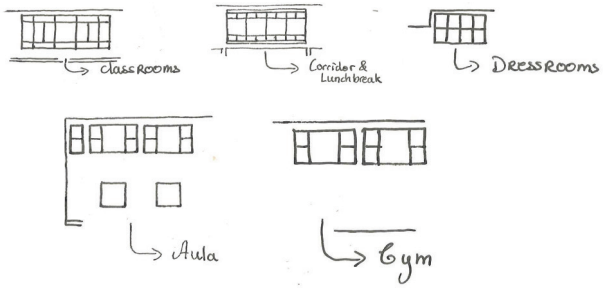


Img 148: Role Scholen Driehoek
Source: author

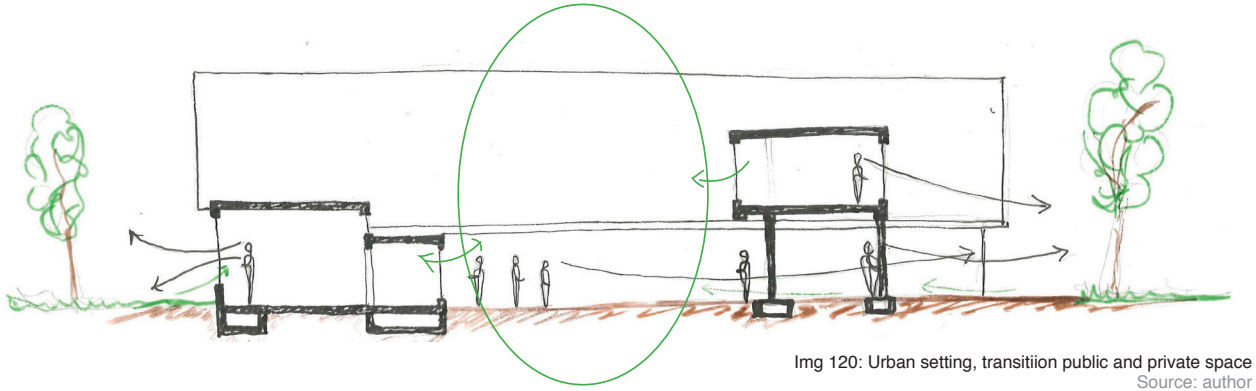


Img 117: 4 building parts corresponding with their functions
Source: author

Img 118: H-School principle, surrounded by green, light and air entering the building
Source: author



Img 119: Different windowtypes, corresponding with their functions
Source: author



Img 120: Urban setting, transitiion public and private space
Source: author

Daniel Goedkoop School

Value Assessment

The building of the Daniel Goedkoop School has a lot of characteristics that are worth keeping; as well as on the field of architecture, as on urbanism and technique.

The most important are:

The Urban setting,* *with the transition of public and private space

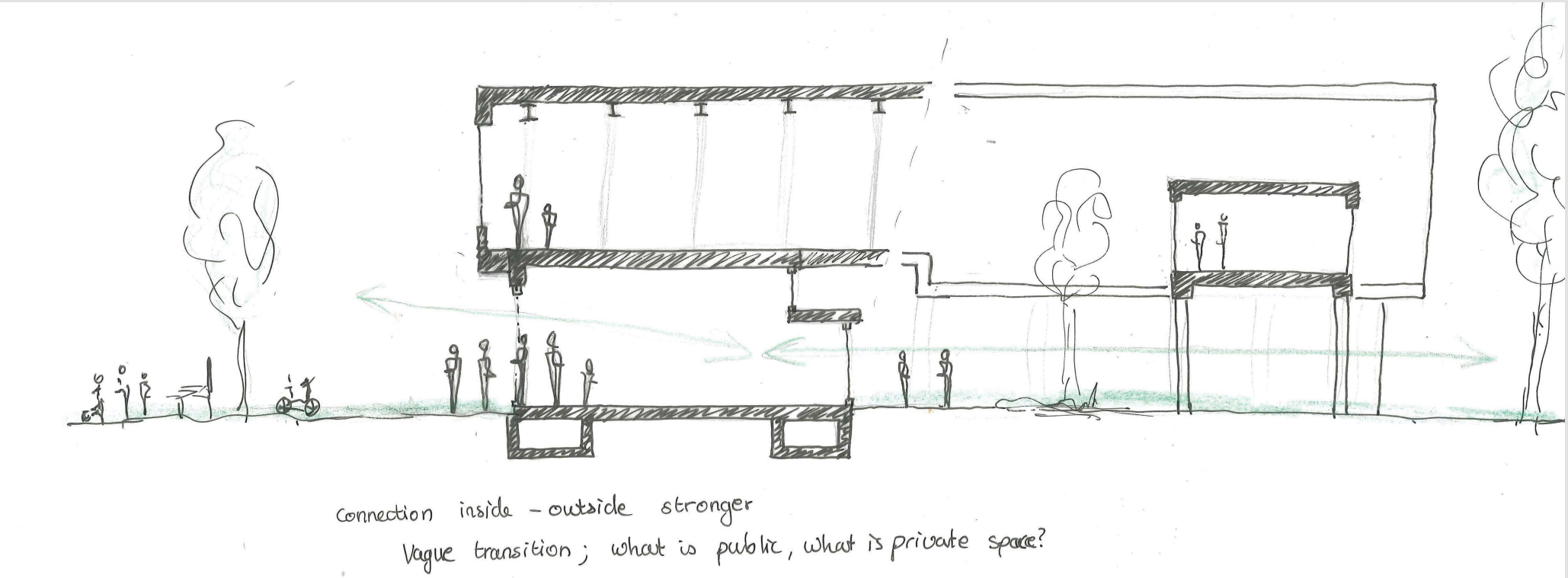
4 building parts,* *corresponding with their functions

The different window types,* *also corresponding with the different functions

The H-School principle,* *light, air and space

Daniel Goedkoop School

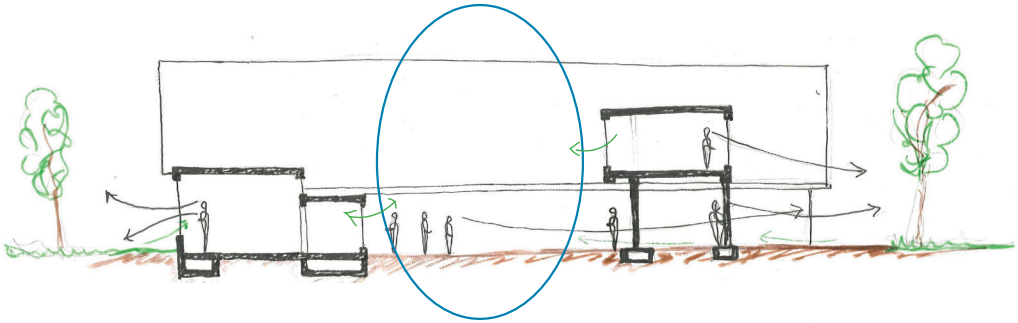
First design proposal

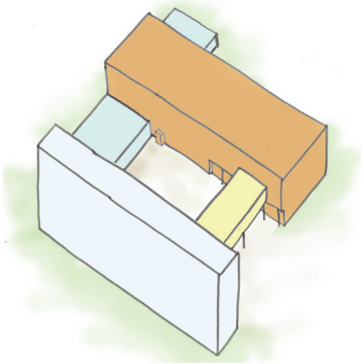


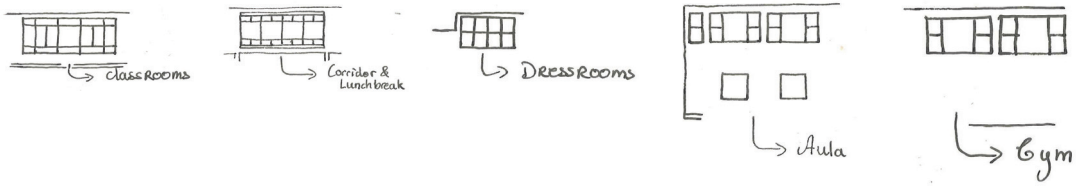
In order to design buildings with a sensuous connection to life, one must think in a way that goes far beyond form and construction.

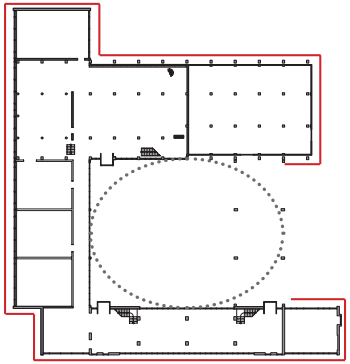
Peter Zumthor

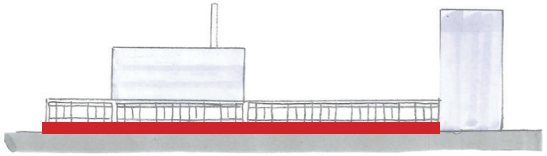
First steps to the design

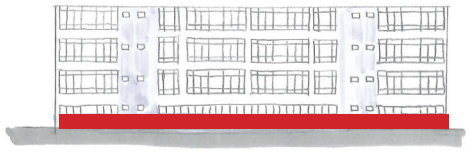












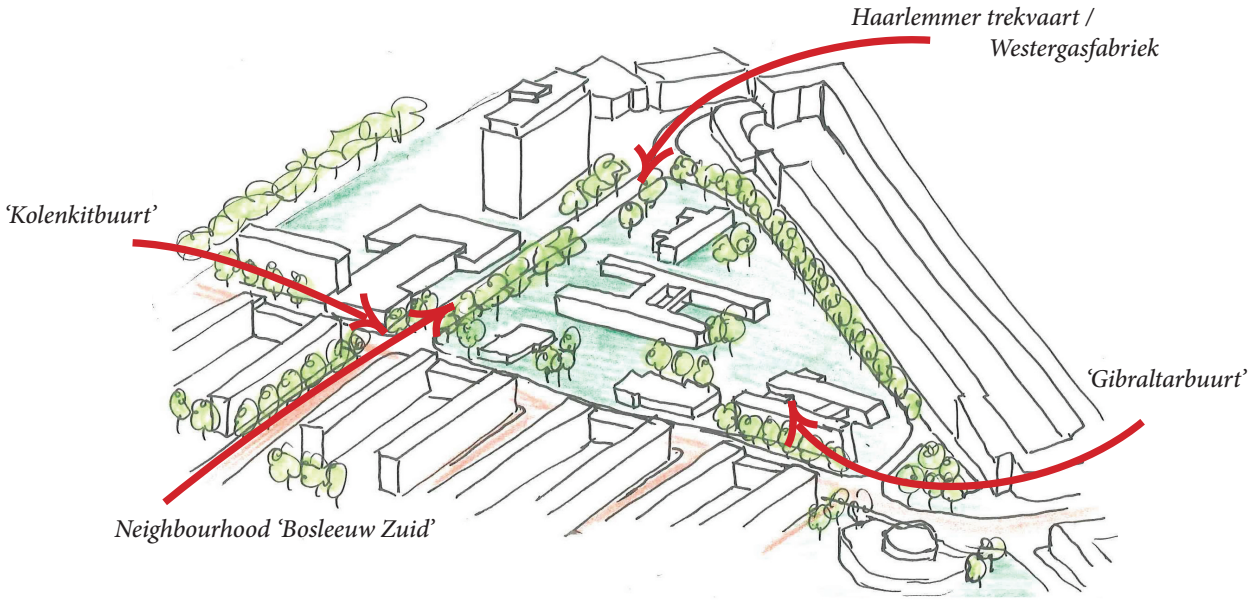
Architecture Value assessment
High

- ***Urban setting,*** transition of ***public and private***
- ***H-School principle,*** light, air and space
- ***Building parts*** corresponding with their functions, surrounding a ***courtyard***
- Different ***window types*** corresponding with the inside functions

Architecture Value assessment
Low

- ***Closed plinth*** of the outside facades

Urban value assessment



- ***Green*** public space
- ***Unknown enclave*** within the city
- Possibility to ***connect neighbourhoods and people***

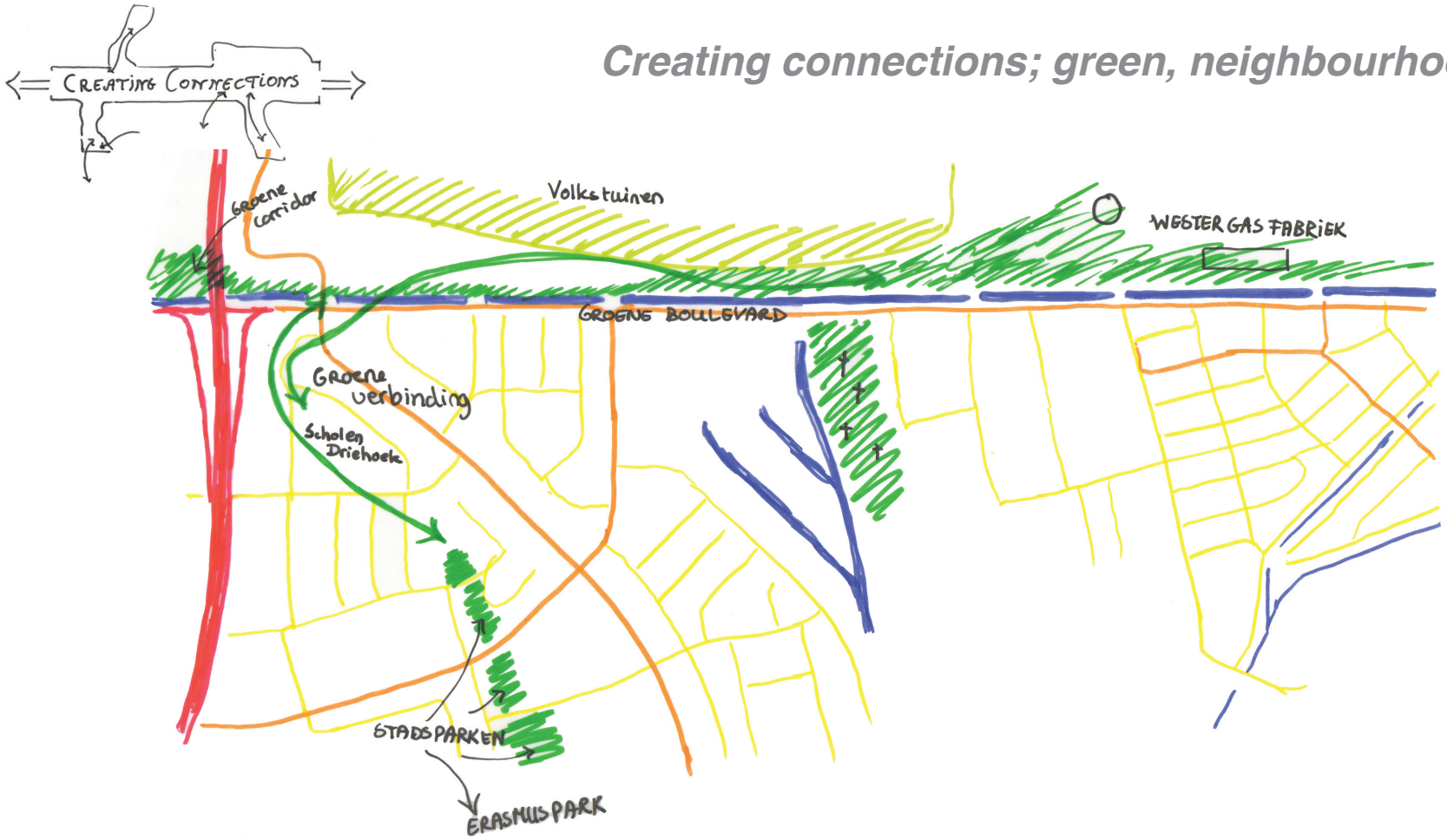
Social situation can be improved by:

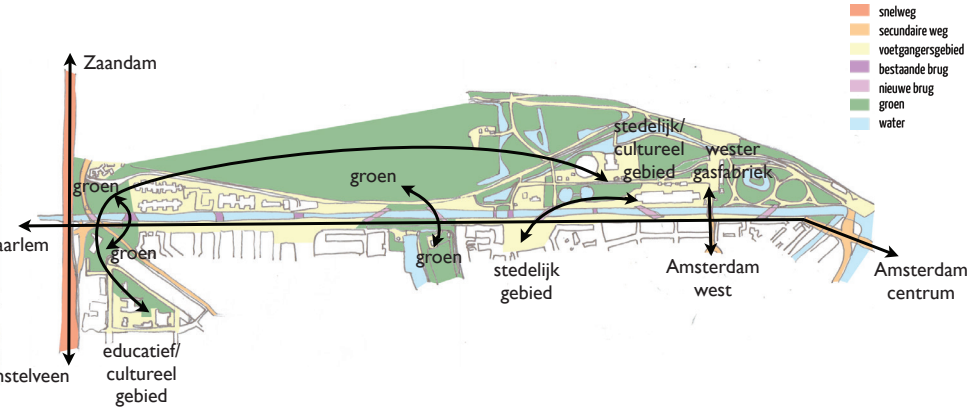
- ***mixing functions*** of public and cultural needs
- expanding the ***facilities of the public space***
- creating a better ***connection between the surrounding neighbourhoods***

Masterplan

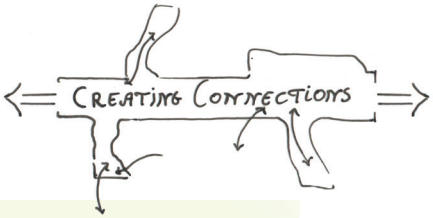
Scholen Driehoek - Haarlemmerweg - Westergasfbriek

Creating connections; green, neighbourhoods & culture





Connections neigbourhoods

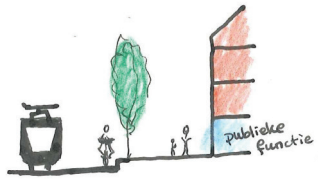


Connections Scholen Driehoek
Source: author, picture: google maps

Unknown enclave, potential to connect neigbourhoods

Neighbourhood friendly road
Wiltzanghlaan

Common activity
Within a green area



Stadsstraat
Michiel de Ruijterweg

Design proposal

Scholen Driehoek - Daniel Goedkoopschool

Daniel Goedkoop School 1960, Source: beeldbank.nl

Daniel Goedkoop School 2013

Research Question:

*"In what way can the typology and the structure of the **H-school principle**, be of value for redeveloping the **Daniel Goedkoop School** so it will **add qualities to the public space** and will improve the **social cohesion** of the neighbourhood?"*

Pre-conditions

Connecting

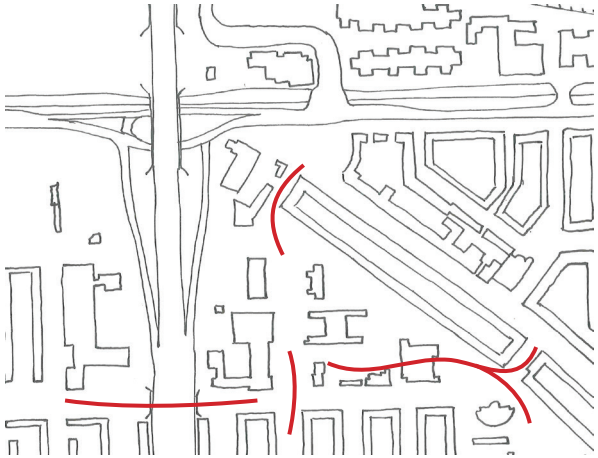
• Create a ***connecting*** function between ***people, neighbourhoods and culture.***

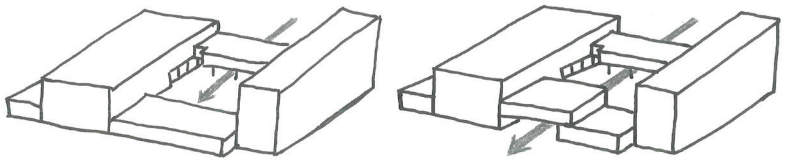
Transition Public & Private space

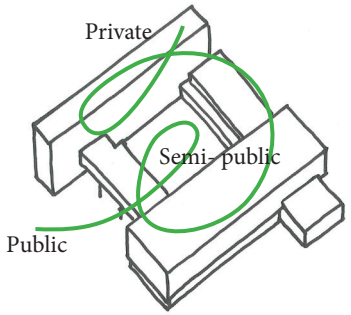
• Present ***within the redesign of the building.***
• The connection of the ***building with the public space*** needs to be improved.
• The orientation of the building needs to ***focus on the public space*** .

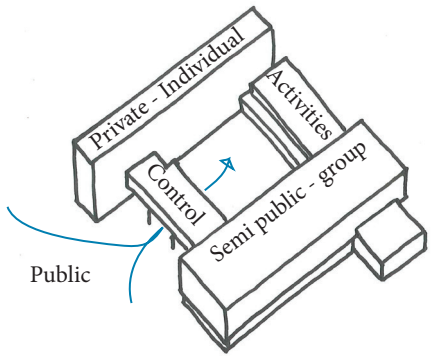
Mixed functions

• The ***building parts*** have their own ***characteristics.***
• The building parts have their own ***function*** from more public till private.







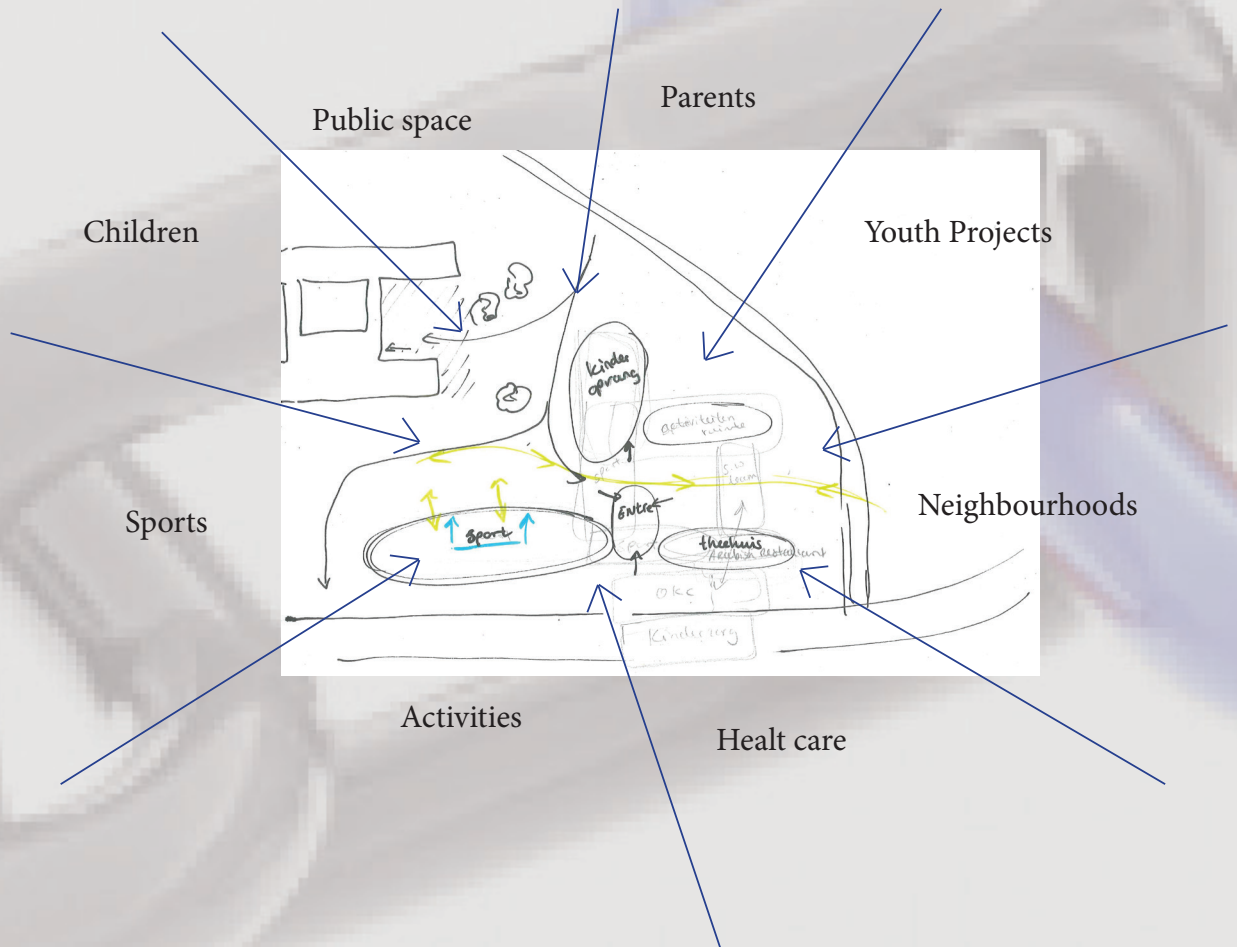


To improve the neighbourhood, the safety, the qualities of life, the social networks, public spaces, etc. it is about:

Creating connections

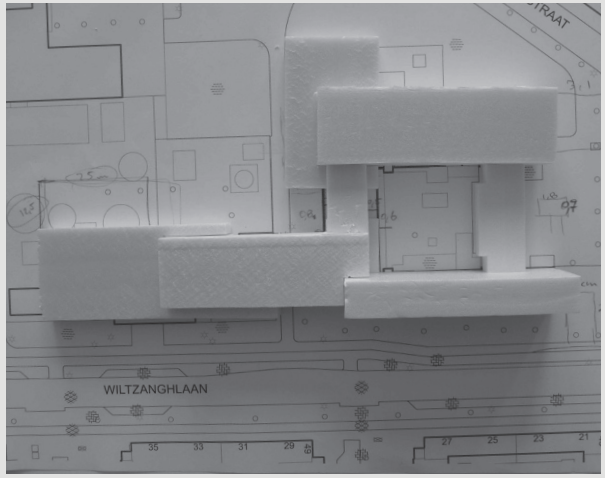
on urban-, architectural- and social level.

The ***program*** for the redevelopment of the Daniel Goedkoop school is an important aspect as well.
It needs to provide a supporting function for education, parent involvement, health care as well as neighbourhood control, sports, interaction and social activities.



Interventions

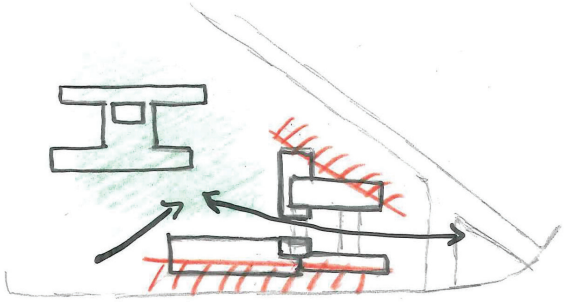
Analyzing the first intervention concept

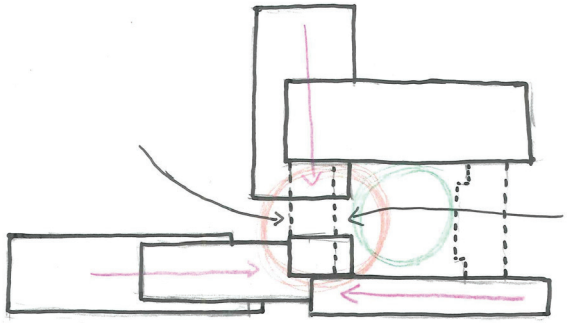


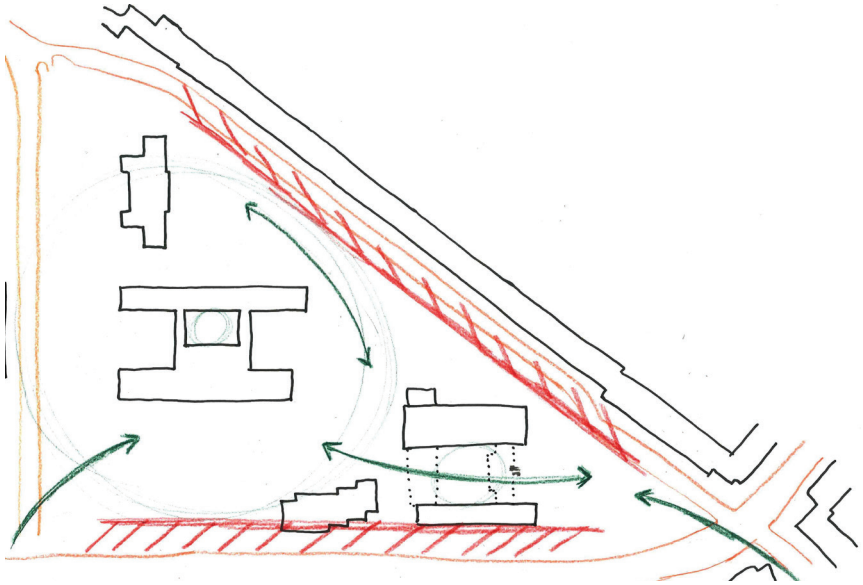
• Why was ‘creating a ***wall’*** and a ‘central ***point’*** important?

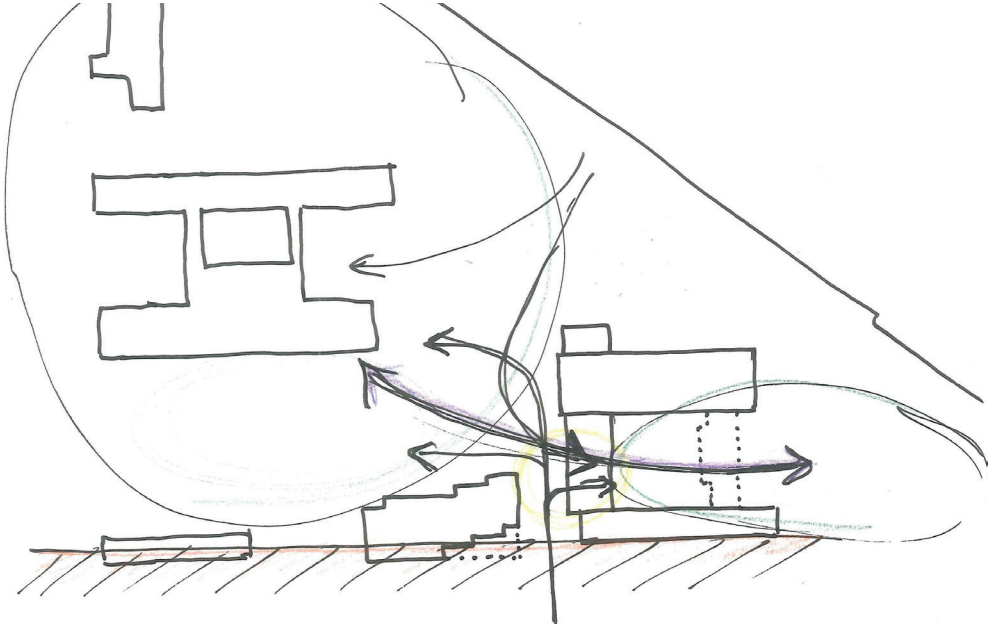
• It is about accentuate the Scholen Driehoek as an unknown enclave, as a ***‘courtyard’*** of the neighbourhood.

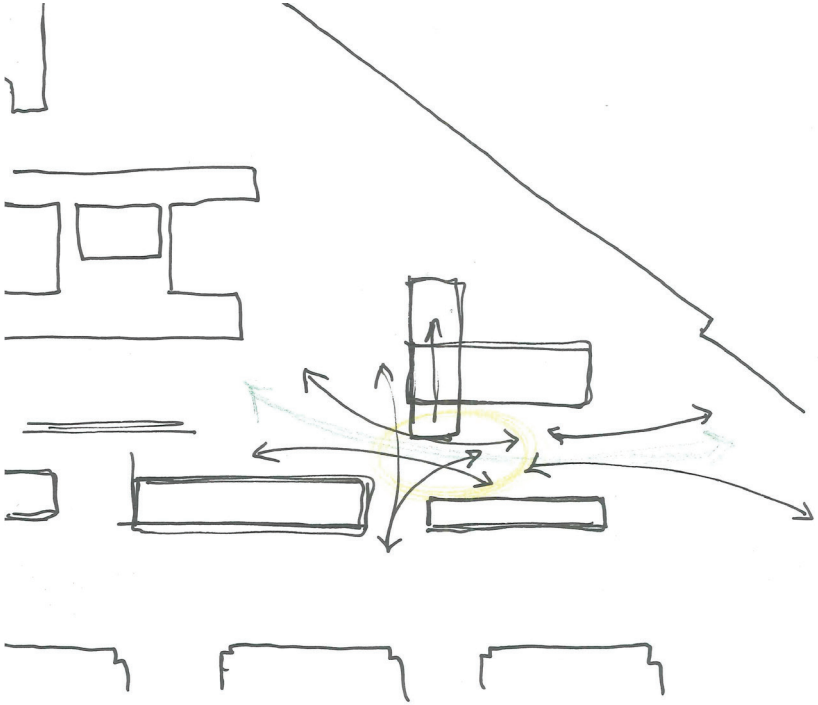
• And about creating a central space where ***‘people meet’***.











Starting points for the intervention

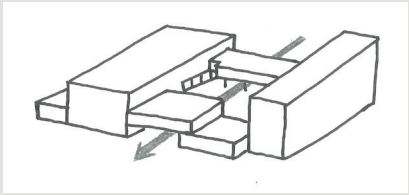
The analyses conclusions

Light & air

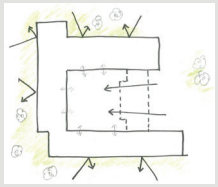
Green

Save area to play/ be outside

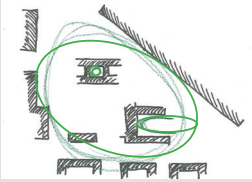
Meeting & Participation



Strenghten the relation of the public space and the building



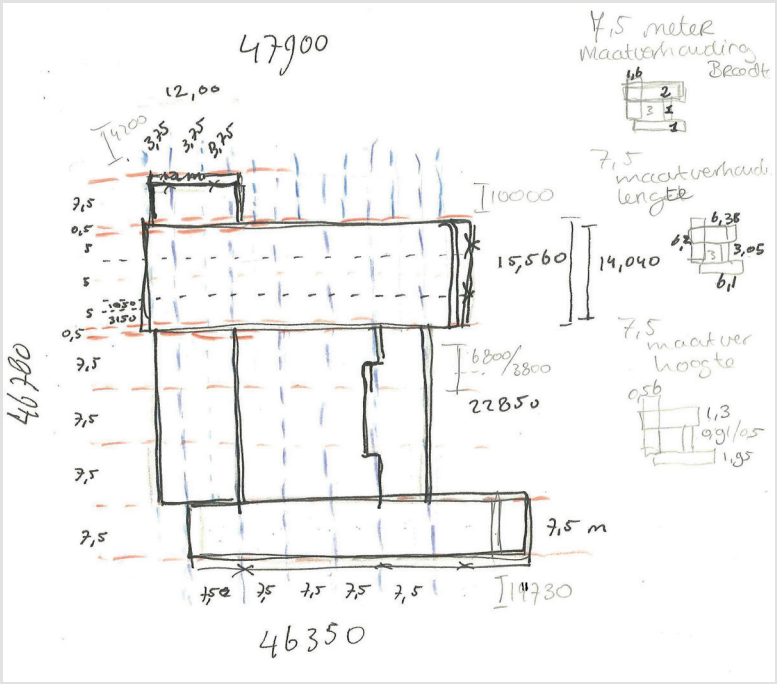
Courtyard with public space access



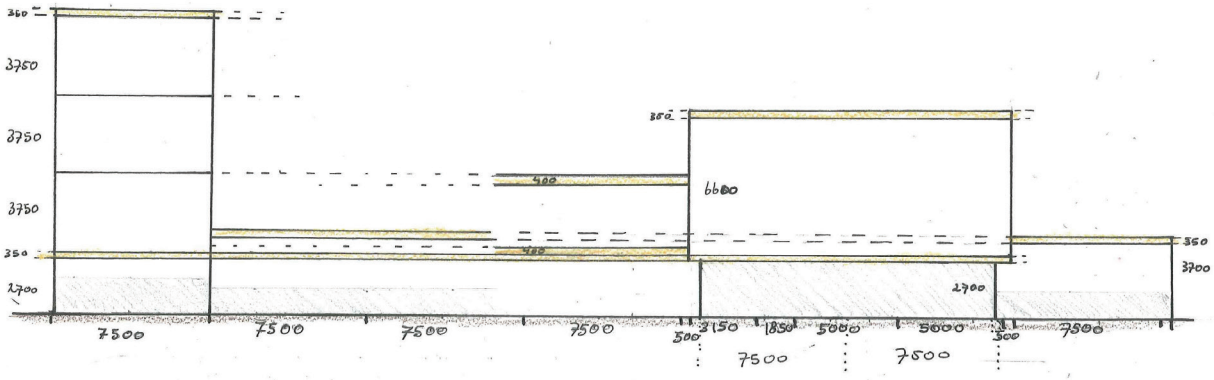
Courtyards on different scales

Starting points for the intervention

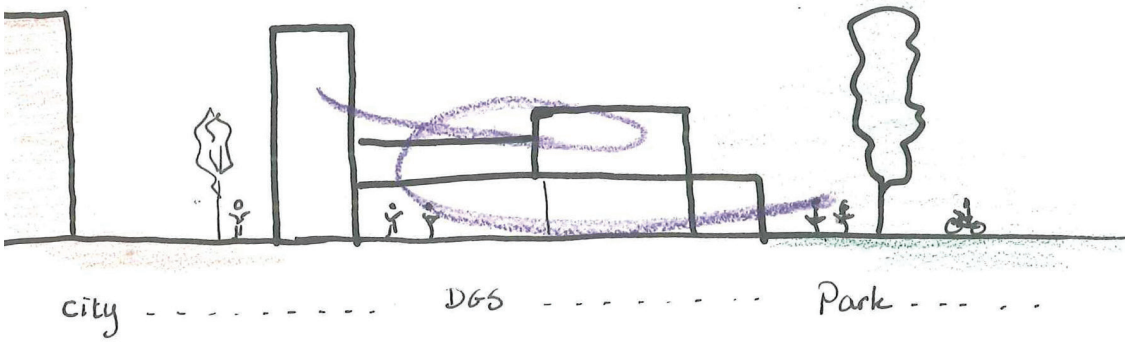
The spacial proportions and relations



Grit



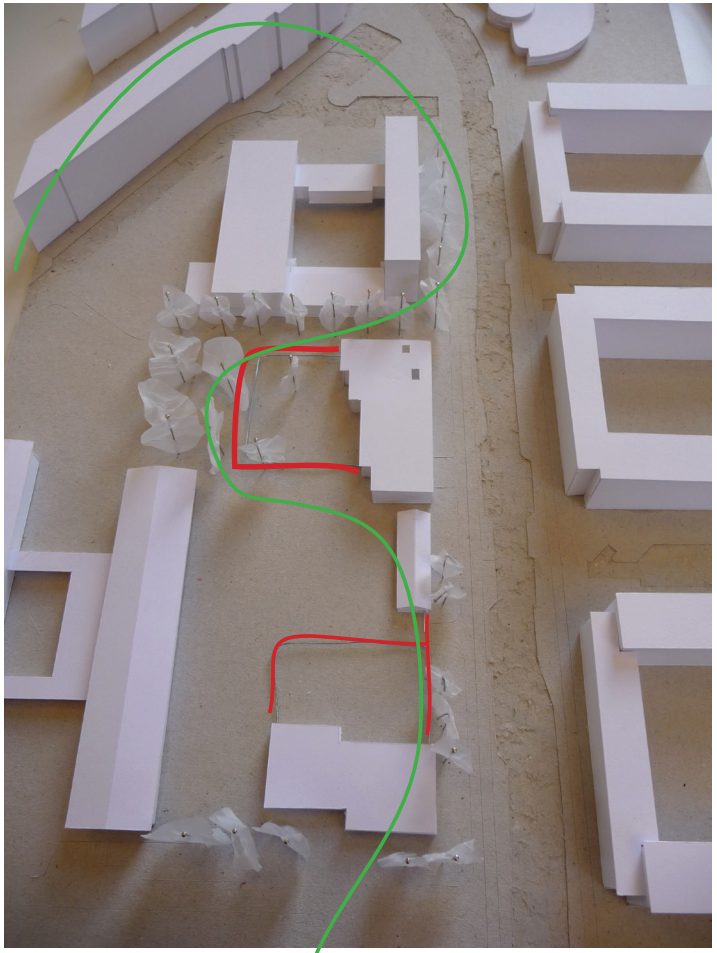
Horizontal layering

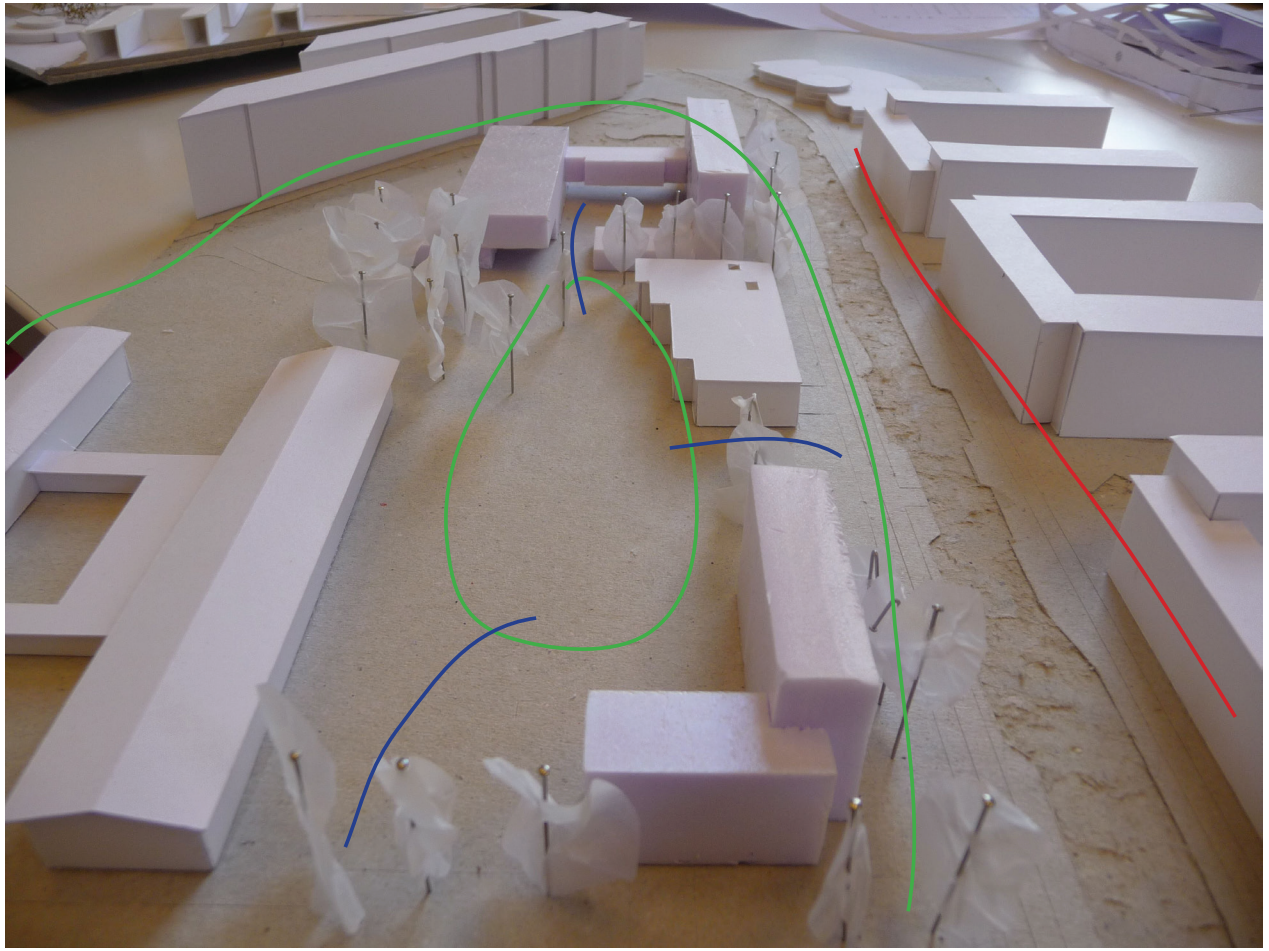


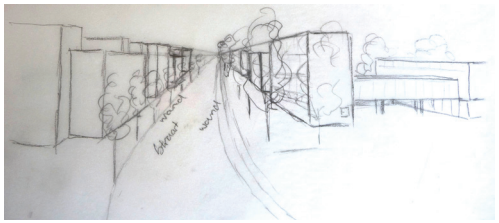
Sequence of space

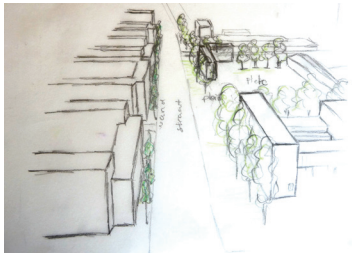
Zonering Scholen Driehoek

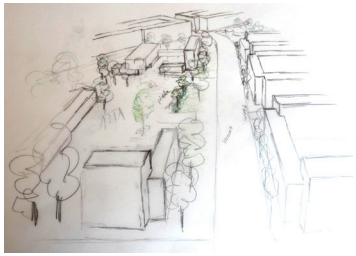

Beschutting
Groen
Rust
Tussen
Kiezen
Actief
Spelen
Wonen

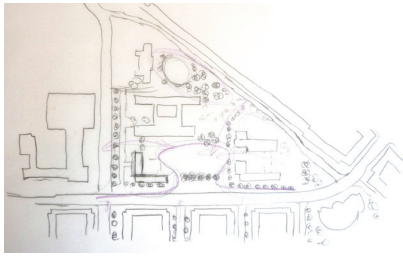




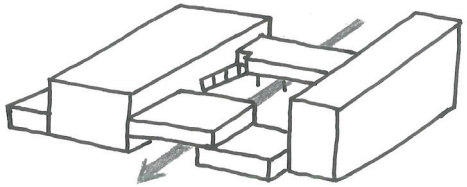




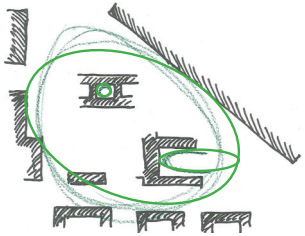




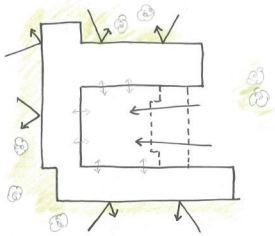
Interventie uitgangspunten



De relatie tussen gebouw en park versterken



Courtyard op diverse schaalniveaus



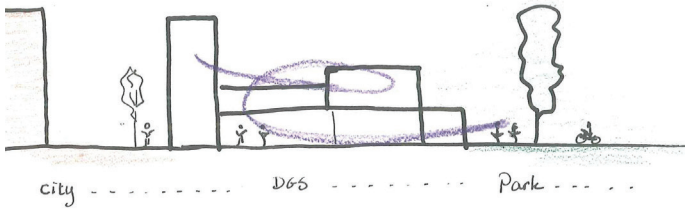
Courtyard met publieke toegang

Licht & Lucht

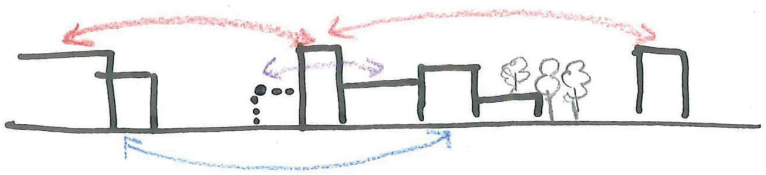
Ruimte & Groen

Veilige buiten ruimte, spelen

Ontmoeten & Participeren



Ruimte sequentie



Relatie met omgeving

- Nieuw versterkt oud en oud versterkt nieuw
- Relatie met nieuwe functies, (technische) ontwikkelingen en mogelijkheden
- Bijdrage aan duurzame herontwikkeling

Merging architectural history and new designs

Designing with the existing building stock is nowadays submitted to a lot of different philosophies and approaches. Within RMIT we are looking for ways of approaching and intervening of the existing building stock and monuments on all different levels. From the small restoration scale to large transformations in the urban structure, it all has to do with change and the way we use this architectural change to provide the building with a new life. The field of operation has grown immense. A large number of for example industry buildings or post-war city extensions are now part of our monumental heritage. All those monuments are dealing with our daily life and the question is: “How can we develop them so they add historic value to our living life?” There is not one correct answer to this question. But all answers have to do with change.

Change and intervention are important aspects necessary to redevelop our building heritage and monuments. It is also necessary since the buildings were not developed to serve the specific goal we want to give them now. By that, the building will never completely fit into the new program[1]. The design process of a transformation project is at some points slightly different from the design process of a new project. It is more complex because the existing building has some building specific preconditions that need to be respected; the building needs to be redesigned within his own contours. This could increase the possibility of unforeseen circumstances [2]. Designing with and for a monument thus will make you adept and creative.

How we intervene on the existing building stock depends on our own values and ideas. It turns out that it is almost impossible to make a design for a monument that will satisfy everyone who has a connection with the building. Although everything in our life is subjected to change, people mostly prefer the existing situation. Intervening with the existing building or monument could bring a lot of attention and discussions between different groups of people attached to the design process. Those different groups are having different value statements from the building. The people who are working or living around the monument are forming the community value. This could be the opposite of the expert value. A building, part of a certain place for a lot of years, has become one of the important characteristics of the place and for the community the building could have a lot of value. Experts on the other hand could conclude that the value is none because the building is not really old, not in a good state or build in a neo-style etc. This could result in intense discussions like happened in the city Weesp. The church in this city has an important value for the community; the city would not be the same without this church. But, according to the experts, the building is not worth renovating.

There are different reasons to love the building and give it monumental value. Besides community or experts value, it could also be the age value; the building is the result of transformations during time, or the design value. When the design is what made the building important and loved, it often results in an immense restoration project, such as has been done at Sanatorium Zonnestraal designed by Duiker (image 1). It has been beautifully restored, but this approach does also have its downside. You could wonder how original the building still is now 95% of the building is new, like for example the window frames and windows etc. This is resulting in a different quantity (and by that also quality) of daylight entrance, and exactly the best quality of daylight entrance was one of the aims of the Sanatorium[3]. But the design and the essence of the building are preserved.

Image 1; Sanatorium Zonnestraal, designed by Duiker[4].

[1]Meurs, P. (2013). Lecture Heritage Development 1. RMIT Delft
[2]Andriessen, J. W. (2007) Transformatieprocessen. (pp 322-326) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[3]Meurs, P. (2013). Lecture Heritage Development 2. RMIT Delft
[4]www.vesteda.com (may 2013)

Other ways of determine the monumental or cultural value has to do with looking to the object or the context. It could be that the object alone is important and should be enlightened or it could be that the object gets his value from the context. Most of the time when the subject of development have to do with an urban site, the context value is leading. For example, at a lot of the post-war city extensions, it is more about the context then about the object. One third of the building stock now is from the post-war city extensions so it is becoming a big part of our cultural heritage. For redeveloping these areas you need to form an opinion about keeping the (architectural) forms or the ideas. This is also important in the area of my master 3 design project, Amsterdam West. The building I will make a redesign for is part of the neighbourhood Bos en Lommer. Within this neighbourhood, the structure, the idea of designing the society according to the pylosophy of the 'Nieuwe Bouwen' and the dream of the 'Wijkgedachte' was really important. The objects here were mostly secondary and depending on construction and materials. The principles of the 'Nieuwe Bouwen' are clearly visible in the neighbourhood of Bos en Lommer. Light, air and space are leading as well as the separation of functions[5]. The former Daniel Goedkoop School, my design project, is situated in one of those 'function clusters' the Scholen Driehoek. It is perfectly fitting in the philosophy of the Nieuwe Bouwen, and build according to the H-School principle. H-Schools are always surrounded by green, having an inner courtyard and a central meeting room (aula). Their most important characteristic though is the fact that the classrooms are connected without any corridor. So all the rooms have the possibility of natural ventilation and daylight entry from both sides of the classroom[6]. In the case of the Daniel Goedkoop School, I don't think it is only the context that provides the value to the object; it is also the object itself. Like Meurs stated within his lecture, cultural value consists out of different components and every area has different value in it[7]. It is always about matching the sense of the place with the new functions when you want to redevelop an area or a building. For me that is an important aspect to keep in mind, especially because at redeveloping the Daniel Goedkoop School, my aim is to improve the quality of the public life and the society of the neighbourhood.

For an architect it is not necessary to solve all the different value statements in one building, but he needs to be aware of those values to be able to react on them. The example of the Neues Mueseum in Berlin shows that it is possible to bring different value statements together in one design. David Chipperfield completed the destroyed museum, by designing the building according to three different parts. One part where the age value is present so you can feel the whole history of the building, another part where the design value is visible by the reconstruction of the original composition and a part which is new and modern to continue the historical development of the building. All the different stories are subject of the architecture; it is not the story from the redesign architect but from the building and the architectural history.

Redeveloping a building requires interventions and changes. In my opinion those interventions are adding value to the existing building and it will continue to develop the architectural history of the building. Although there are people with a strong opinion about protecting the monuments and keeping them the way they where originally designed, for me that is not the way of living with and designing for monuments. It is like Jo Coenen said, when the building only will be restored, it will be conserved and by that the possibility to live on and develop a new life will be limited[8] . And that while exactly the history of transformations, caused by the restorations of the building in the past decades, has been forming the monumental and emotional value of the building. As well as the fact that it defines the sense of place and the possibility for people to identify themselves with history, building and place.

It is known that people do love the redeveloped old buildings or complexes such as the Ceramique factory in Maastricht. Those buildings are surrounded by history and able to evoke associations, something a new building hardly can[9]. By redeveloping the old buildings, it is possible to guarantee the identity and characteristics of the place. Also the complex of the DRU factory (image 2), that has been transformed into a cultural park, is now lively and in use. It is beautifully transformed into a place for culture, leisure, living and working. Even though it was necessary to demolish some of the building parts in order to make the design of a theatre possible, the character of the complex is still intact[10]. It is even stronger now it has a new purpose and a new life.

[5]Emeis, M. G. (1983). Amsterdam buiten de grachten. Amsterdam, Sijthof
[6]Velde, J. J. V. D. (1968). Stadsontwikkeling van Amsterdam 1939-1967. Amsterdam, Scheltema en Holkema.
[7]Meurs, P. (2013). Lecture Heritage Development 2. RMIT Delft
[8]Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[9]Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[10]Boon, A. (2013). Lecture Stichting BOEI, kennisbijeenkomst 'ervaringen en dilemma's bij restaureren'. ERM. Amersfoort

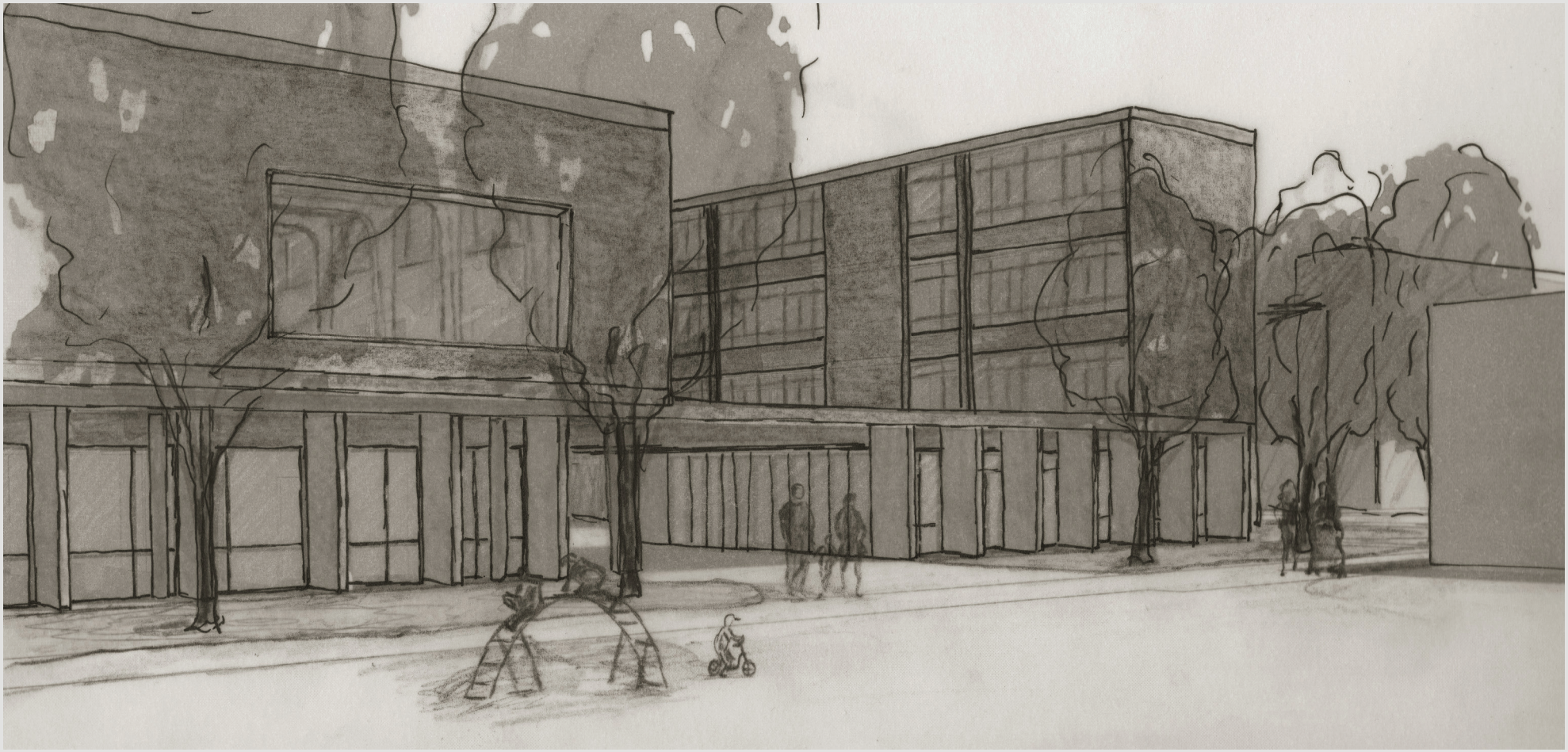
Image 2: DRU Factory main entrance and left the new theatre[11]

Old buildings do not only have their history surrounding them, they also have their own identity. Re-using those buildings gives us opportunities to create a place where people feel at home and connected to the area. The connection with history stays visible and sensible, even unconsciously, and to feel the connection, it is exactly that which is important for all the inhabitants and people passing by. Preserving those old buildings with their strong identity is also important because they are able to bind new functions and new buildings to the soul of the place[12].

Using the existing building to transform and strengthen the identity and liveliness of the neighbourhood and the surrounding areas of the building are important aspects within my redesign project. The building is a symbol of the place and the experience of the Scholen Driehoek. But nowadays it does not have a specific function, and even the temporary functions that the building houses are not visible from the outside, so it does not feels like they are part of the neighbourhood. The building of the Daniel Goedkoop School was designed as a school (MULO) and it has functioned well for that purpose. But today it needs to be transformed in order to meet the new requirements. With a transformation of the building and a new purpose, I hope to increase the liveliness of the neighbourhood as well as the involvement of the residents with the place of the Scholen Driehoek and the building itself.

As I already mentioned, the building as it was designed, is not completely suitable for another function so it needs a transformation. Renovation alone is not enough. Adding new aspects to the building or changing looks of the facades or the interior, are necessary means. But for me the existing building needs to be the basis for the new aspects. Jo Coenen described it by saying that the ‘New’ need to be used to make the building viable again. To realize this the existing parts needs to become a participant and a consistent element of the new design. It is about the art of intertwining, about the merging of old and new. Most of the redesign projects we find from Dutch architects are having a clear separation between the old and new. They clearly show us what the new additions are. The design examples where the intertwining has been carried out with great precision are mostly from foreign architects[13]. For example we can see that at the redesign of the Rijksmuseum by Cruz y Ortiz, where they brought the historical context on to a new level.
Another architect who is capable of beautiful renovations and transformations of old buildings is Peter Zumthor. For me he is a great example on how to use the qualities of the existing on such a way that they increase the qualities of the new and the other way around. His design for the Meelfabriek in Leiden captured all the different building episodes into one design and his design of the Kolumba museum in Keulen (image 3) is presenting proudly all the remains of the old building and archaeological excavations[14]. They are not only exhibited, as they need to be in a museum, they are also a consistent part of the architectural design; all the remains of the different times are integrated within the new design. Finding the right balance between old and new and let them intertwine and reinforce each other is for me the ultimate way of redeveloping. It will sure the building could live on and contribute to the sense of place and the architectural history.

[11]www.nederlandsijzermuseum.nl (may 2013)
[12]Colijn, A. (2007) Identificatie als architectonische drijfveer voor sociale duurzaamheid. (pp 221-229) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[13]Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[14]Tomesen, R. (2008). Kolumba kunstmuseum. http://www.architectenweb.nl/aweb/archipedia/archipedia.asp?ID=11202



Deel 4

Het ontwerp

Nieuwe functie voor de Daniel Goedkoopschool

Programma

- ***Kinderdagverblijf***
  ‘t Groeiparadijs’

- ***Sport- Buurtwerk***
  Buitenschoolse activiteiten

- ***Gezondheidscentrum***
  Ouder & Kind centrum
  Huisartsen
  Psychologie
  Logopedie
  Fysiotherapie

- ***Streetcorner work***
  Homebase voor veldwerkers

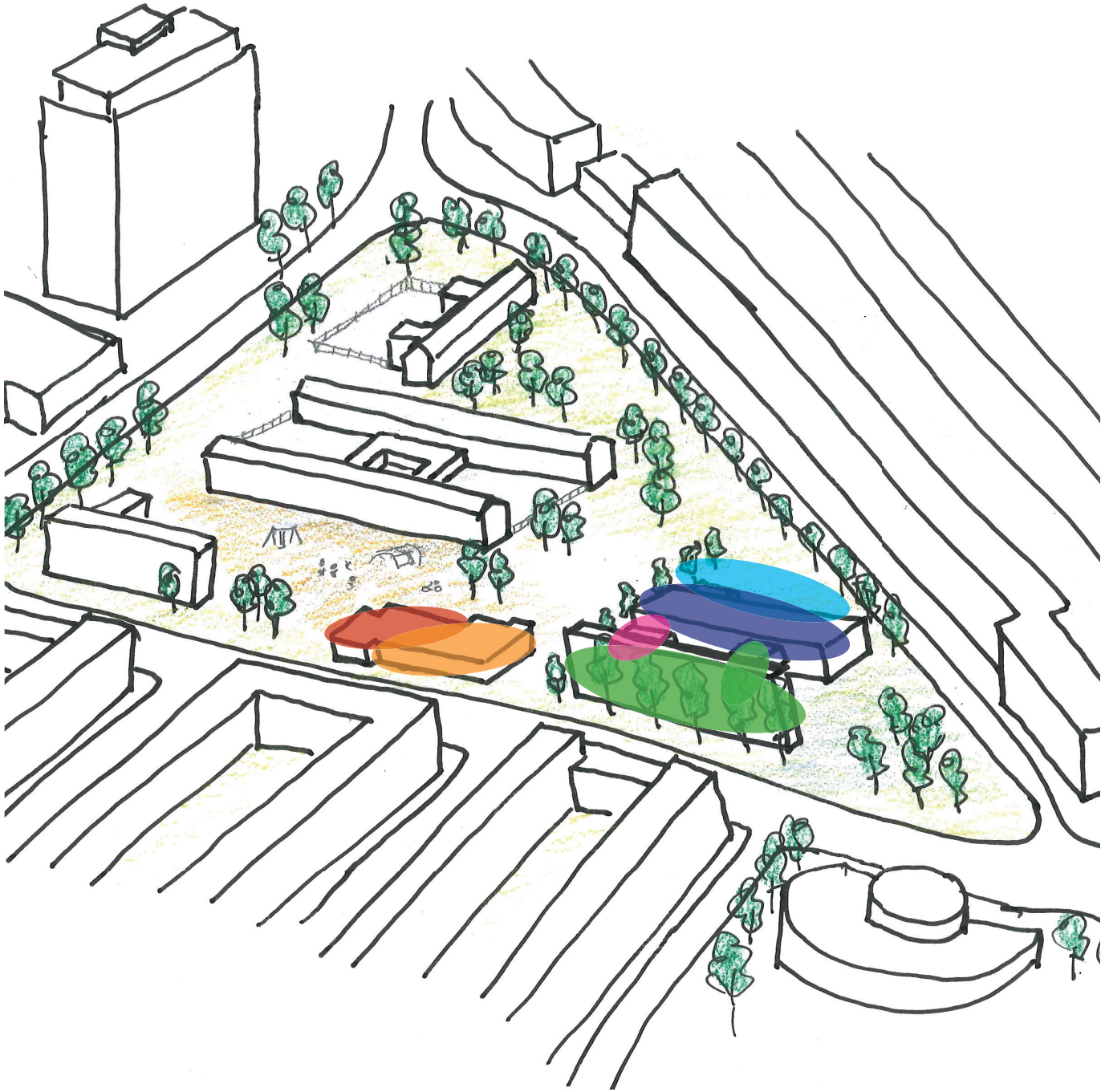
  en jongerenwerkers

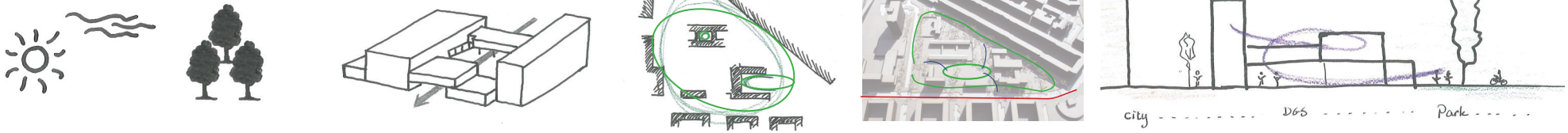
- ***Huis van de Wijk***

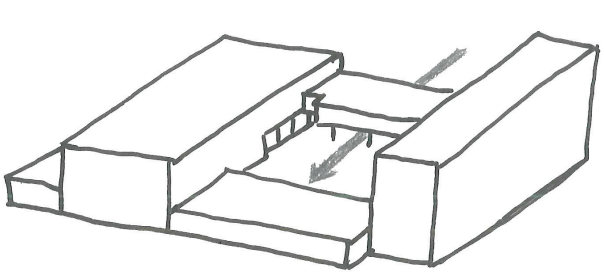
  Buurtcentrum

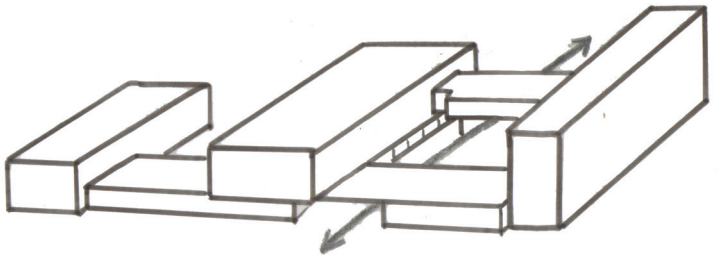
- ***Spelotheek***

  Speelgoeduitleen









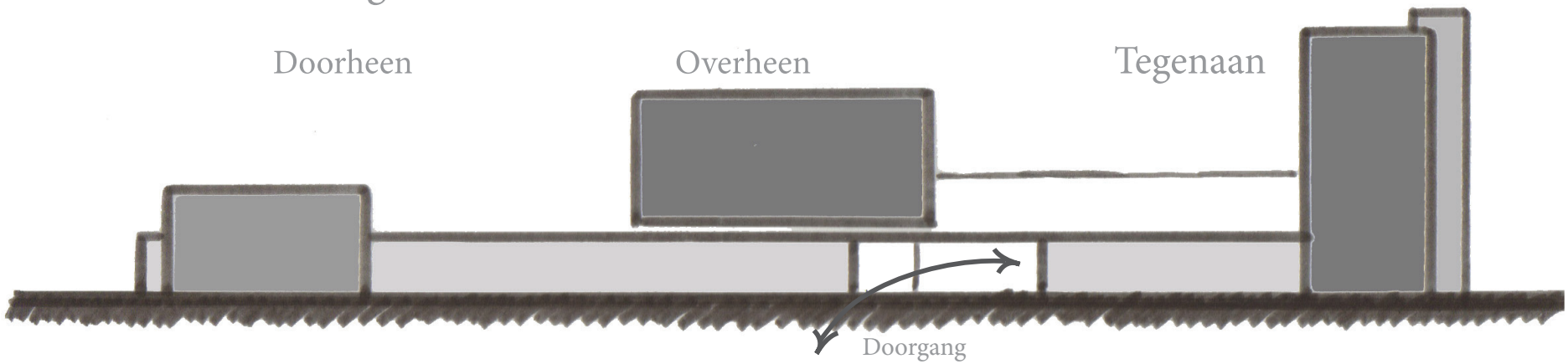
- ***Verbindende doorgang naar het park***
- ***Openen naar de omgeving***
- ***Ruimte voor diverse gebruikers***
- ***Duurzame herontwikkeling***

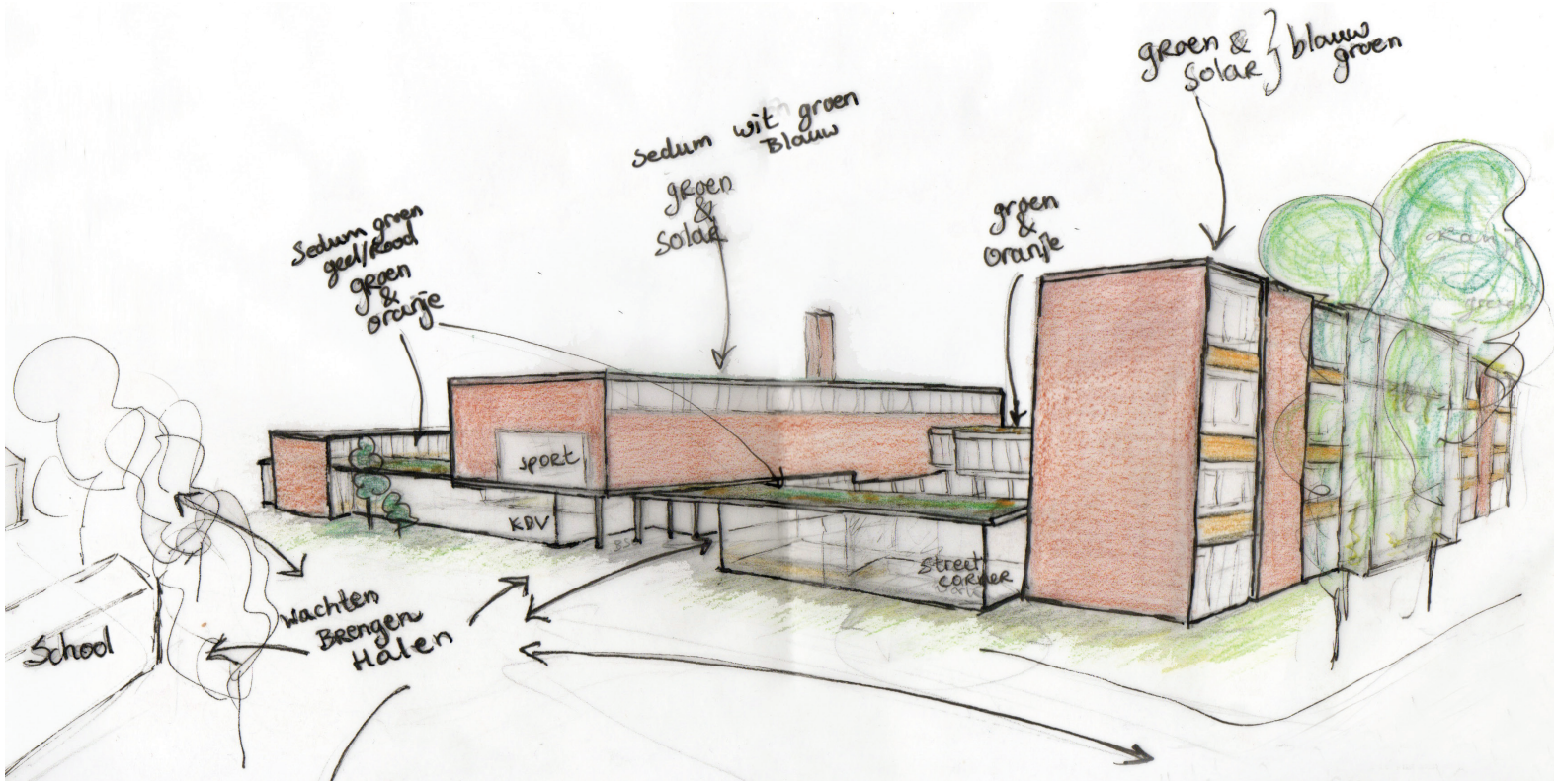
Verbinding;

Doorheen

Overheen

Tegenaan

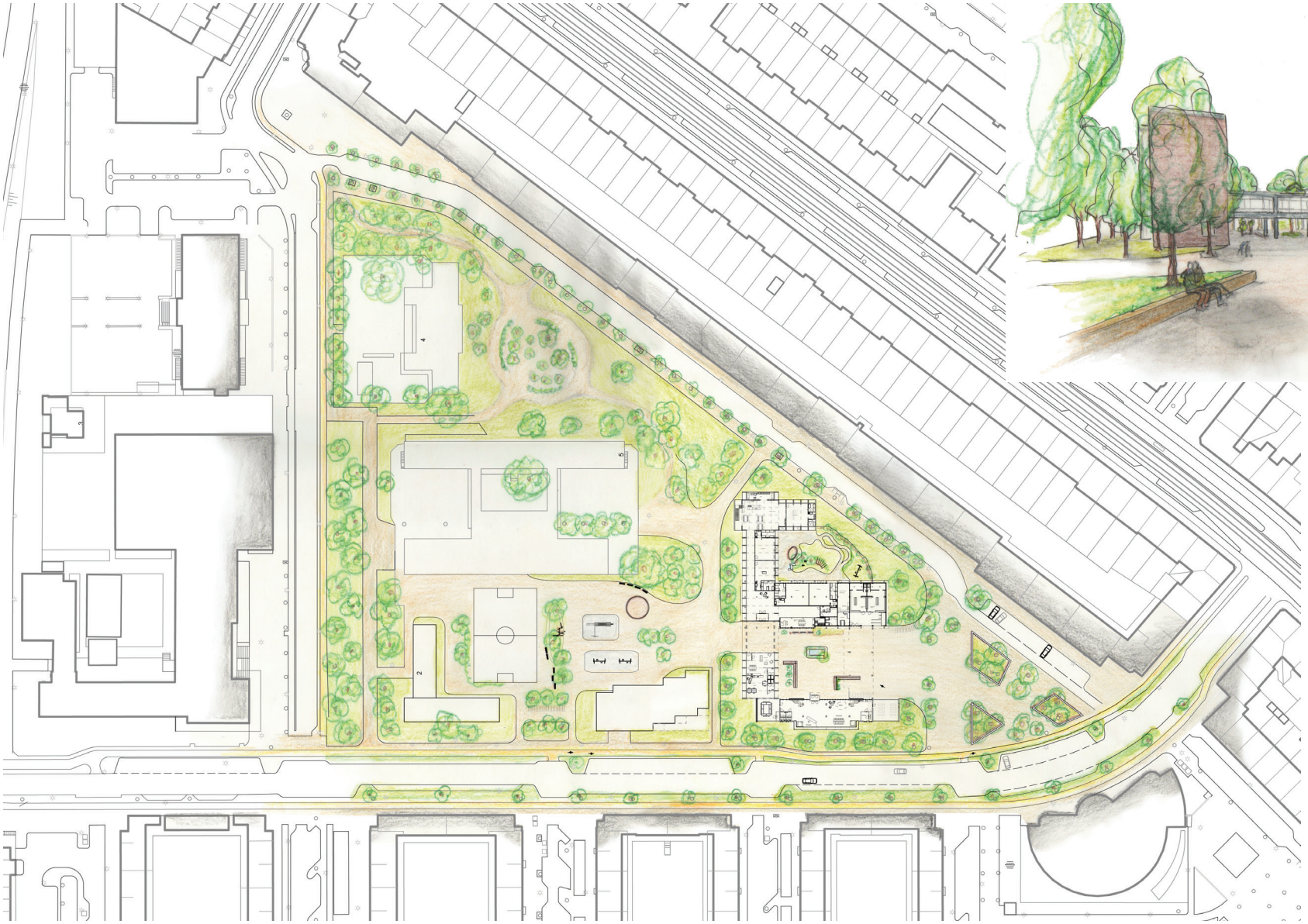




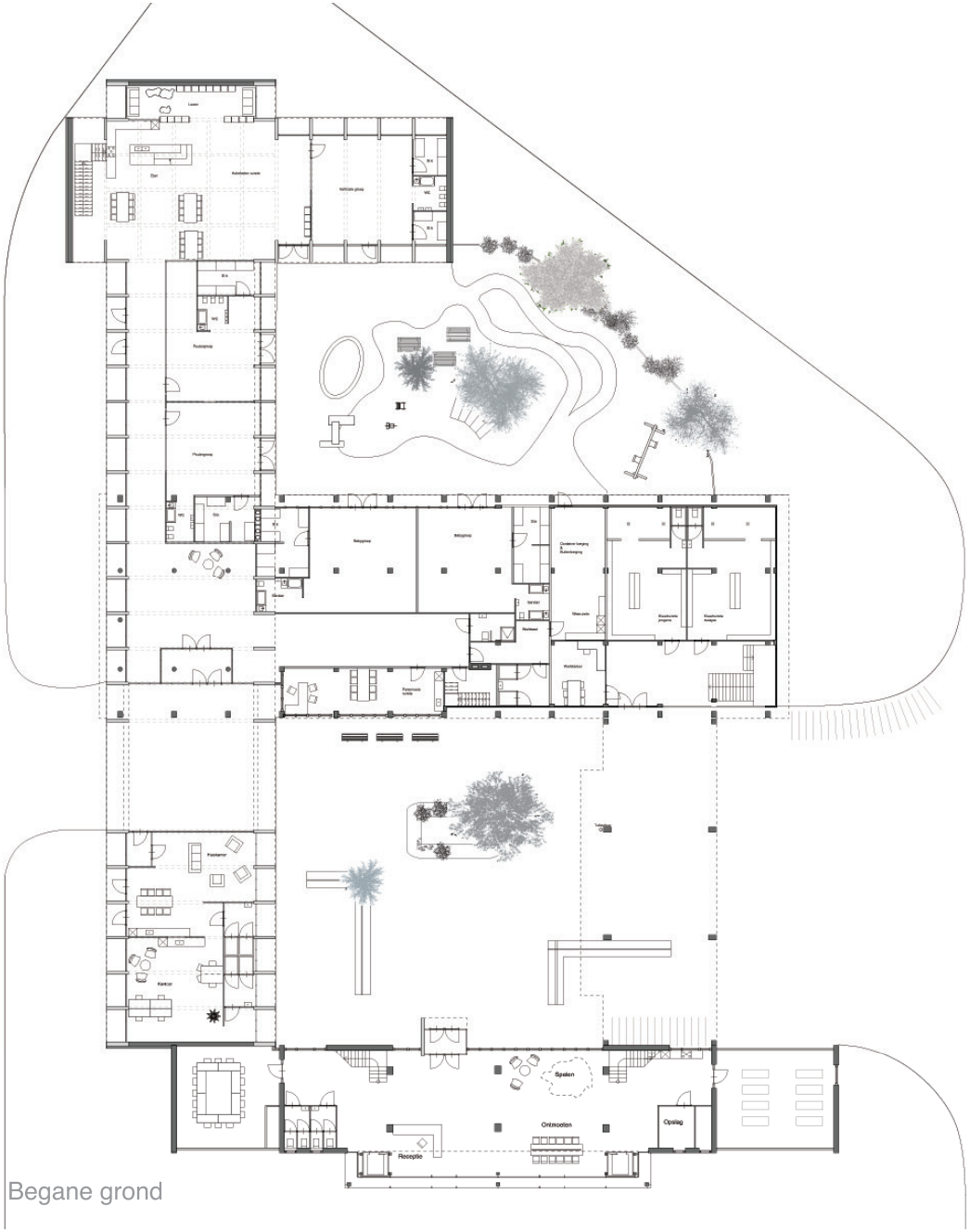
Bestaande situatie

Vernieuwde situatie

Situatie



Plattegronden



Begane grond

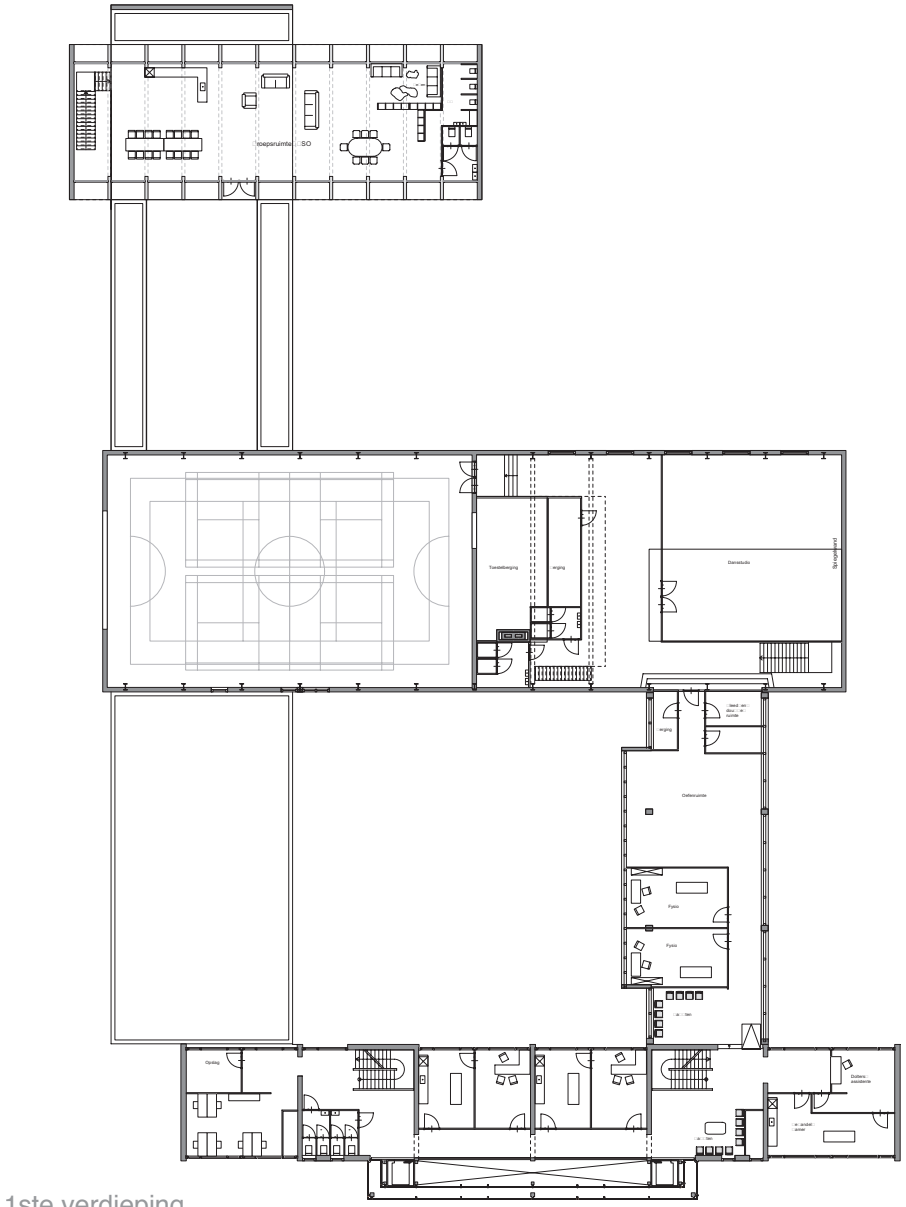
Impressie binnenplaatst

Plattegronden

Buitenruimte kinderdagverblijf

Daktuinen BSO

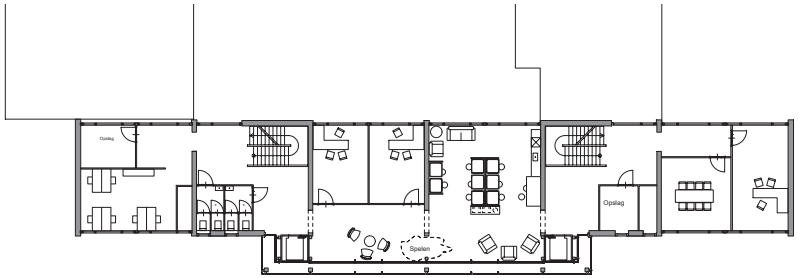
Impressie sportzaal



1ste verdieping

Plattegronden

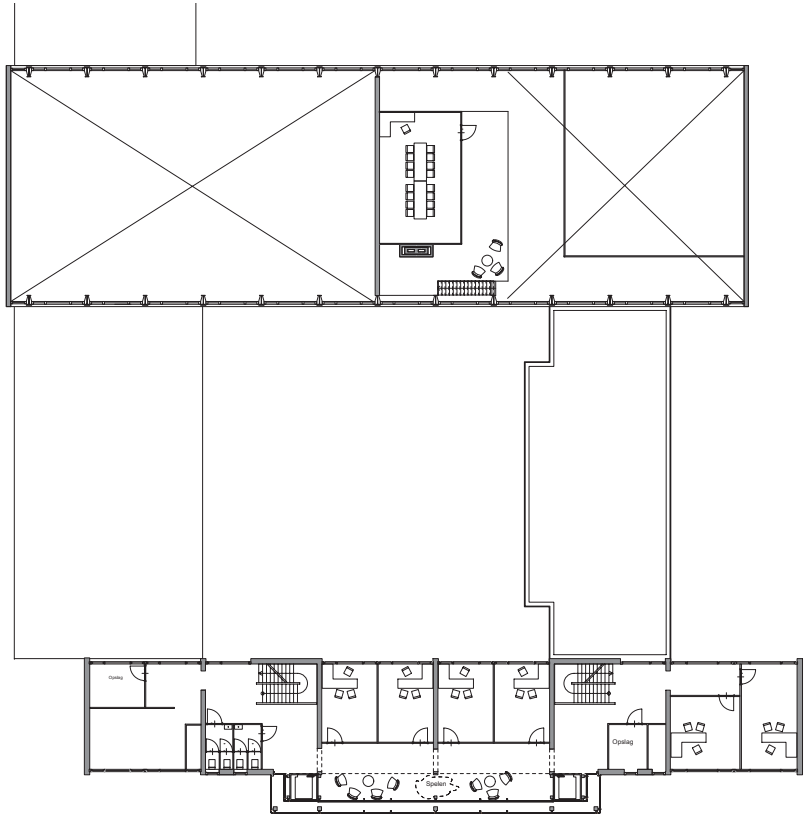
3e verdieping



Impressie daken

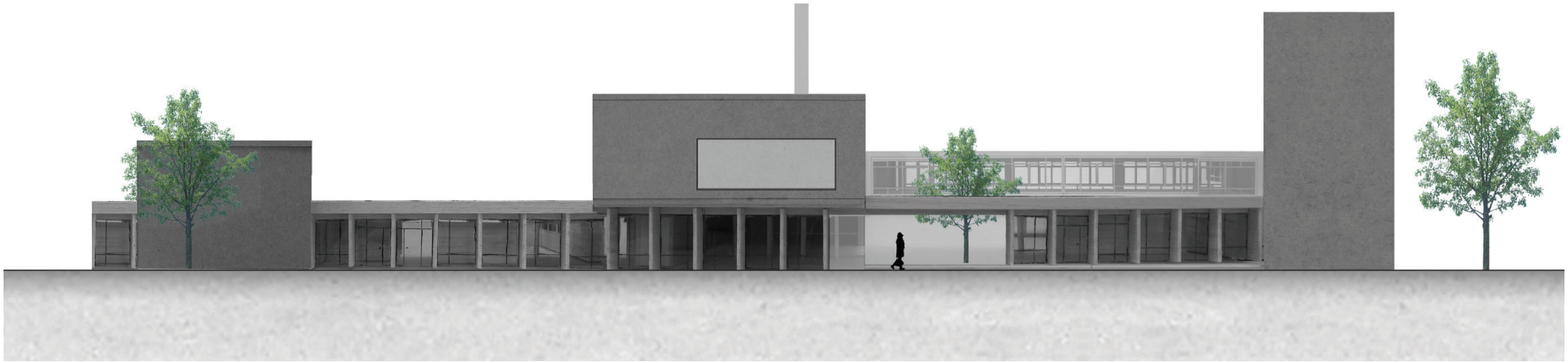
Vooraanzicht maquette

2e verdieping

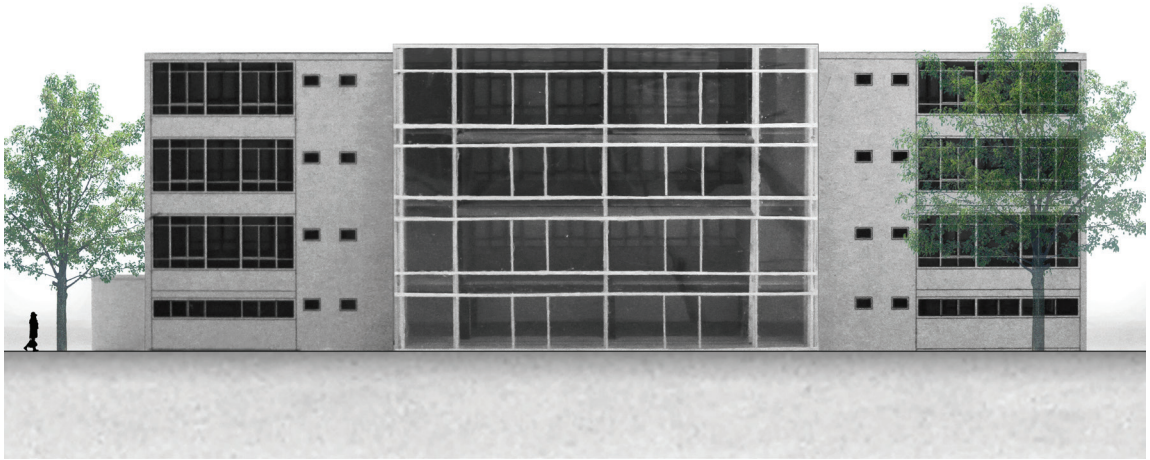


Vogulvlucht

Gevels

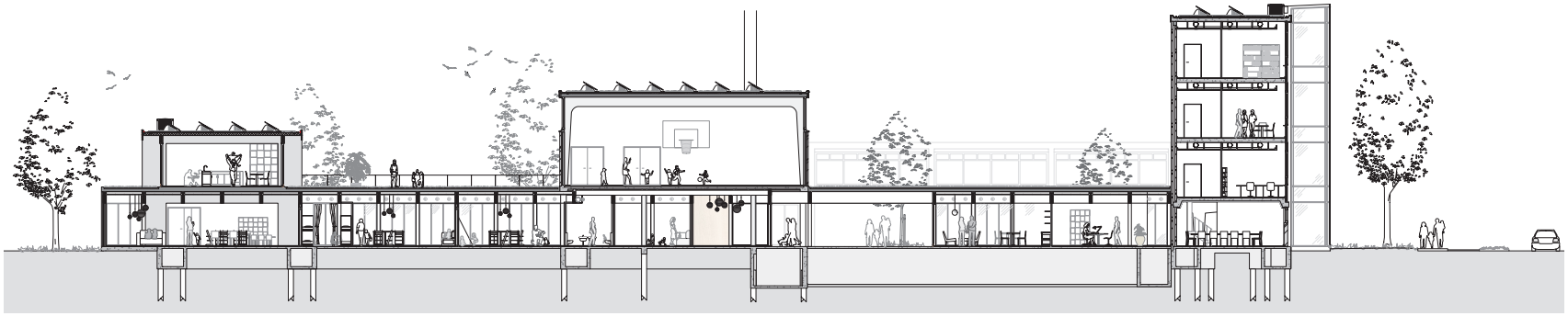


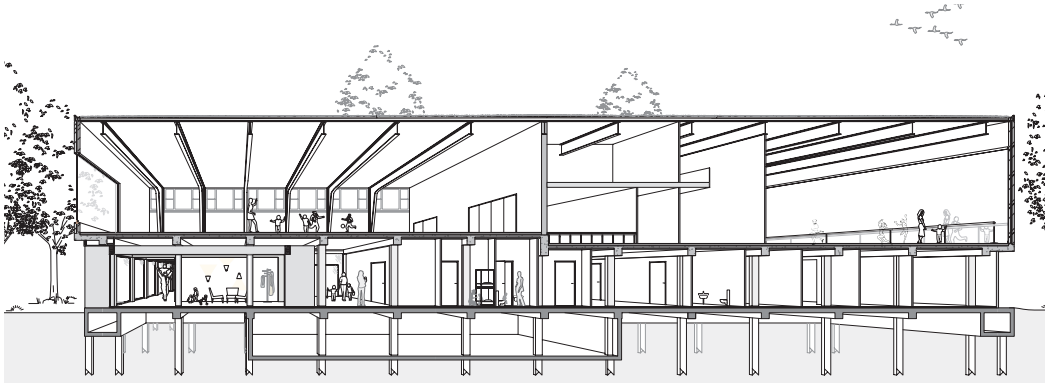
• *West gevel*

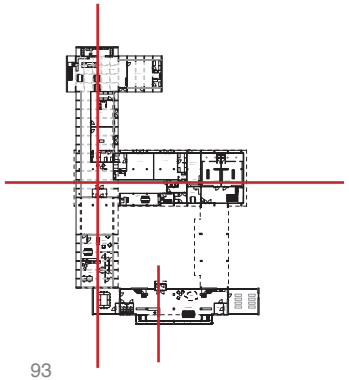


• *Zuid gevel*

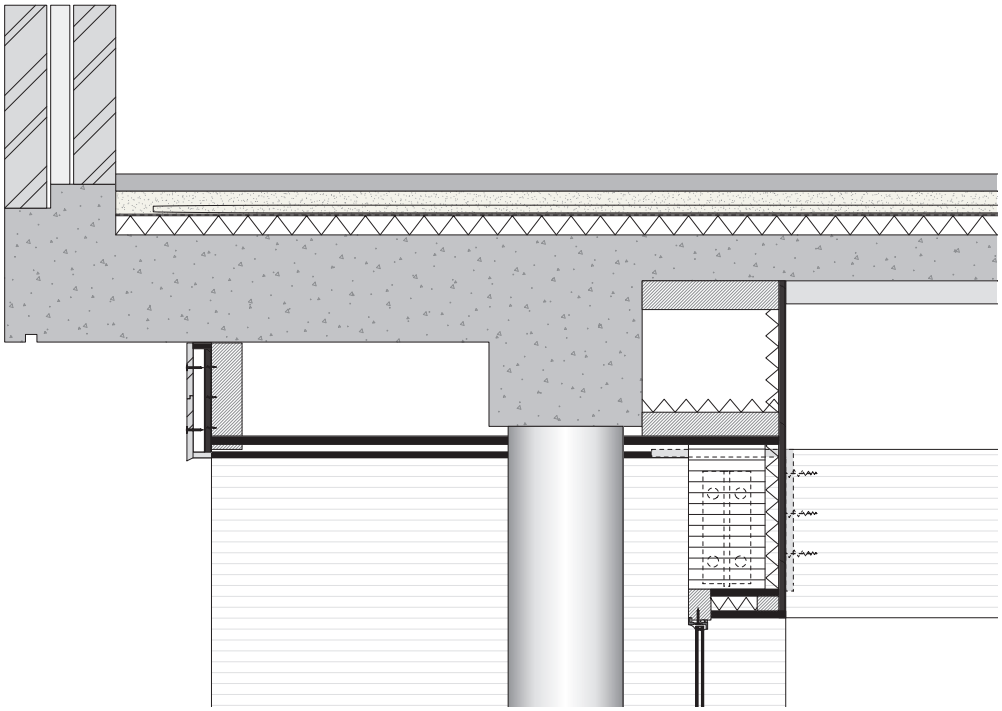
Doorsneden



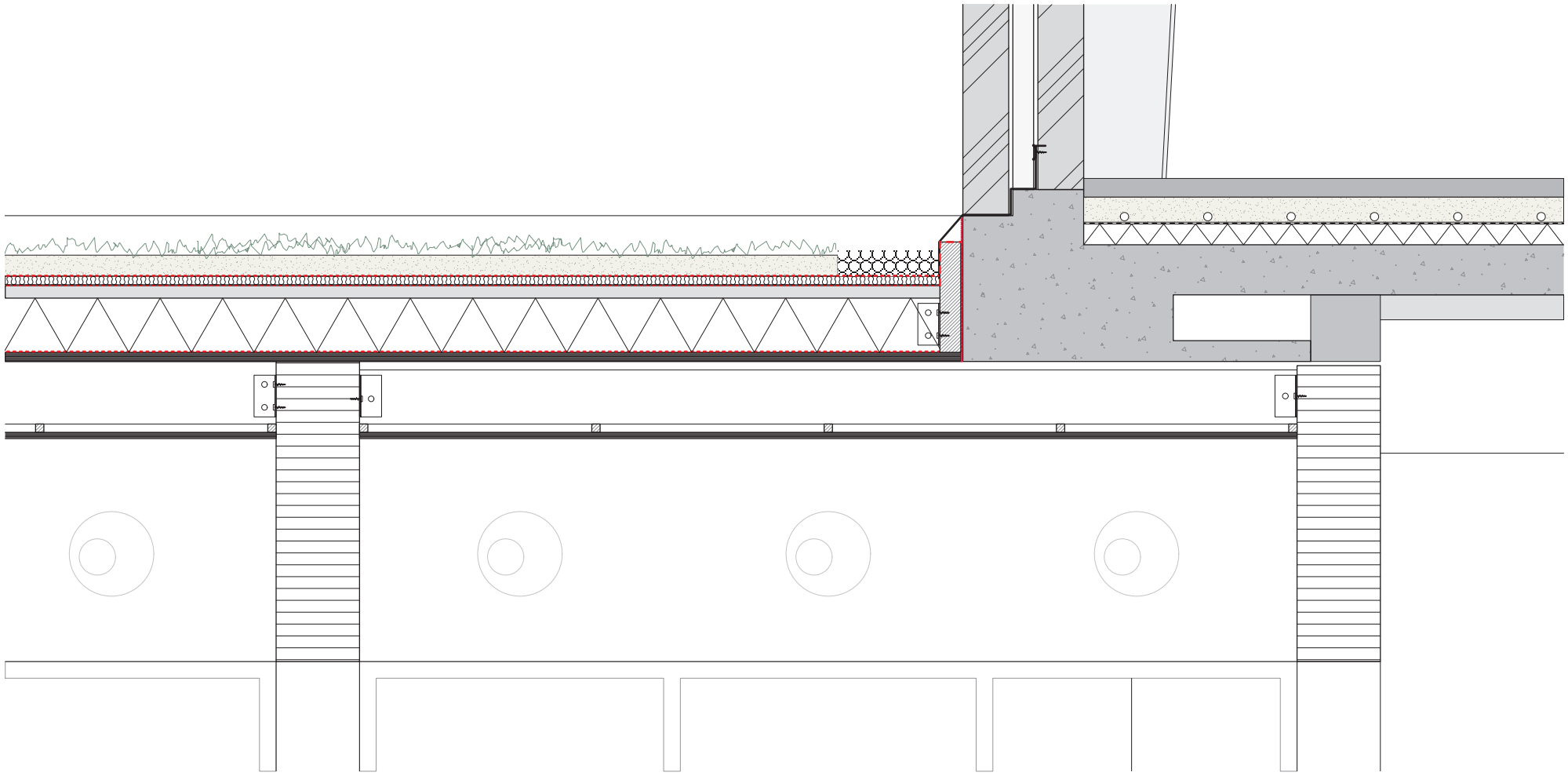




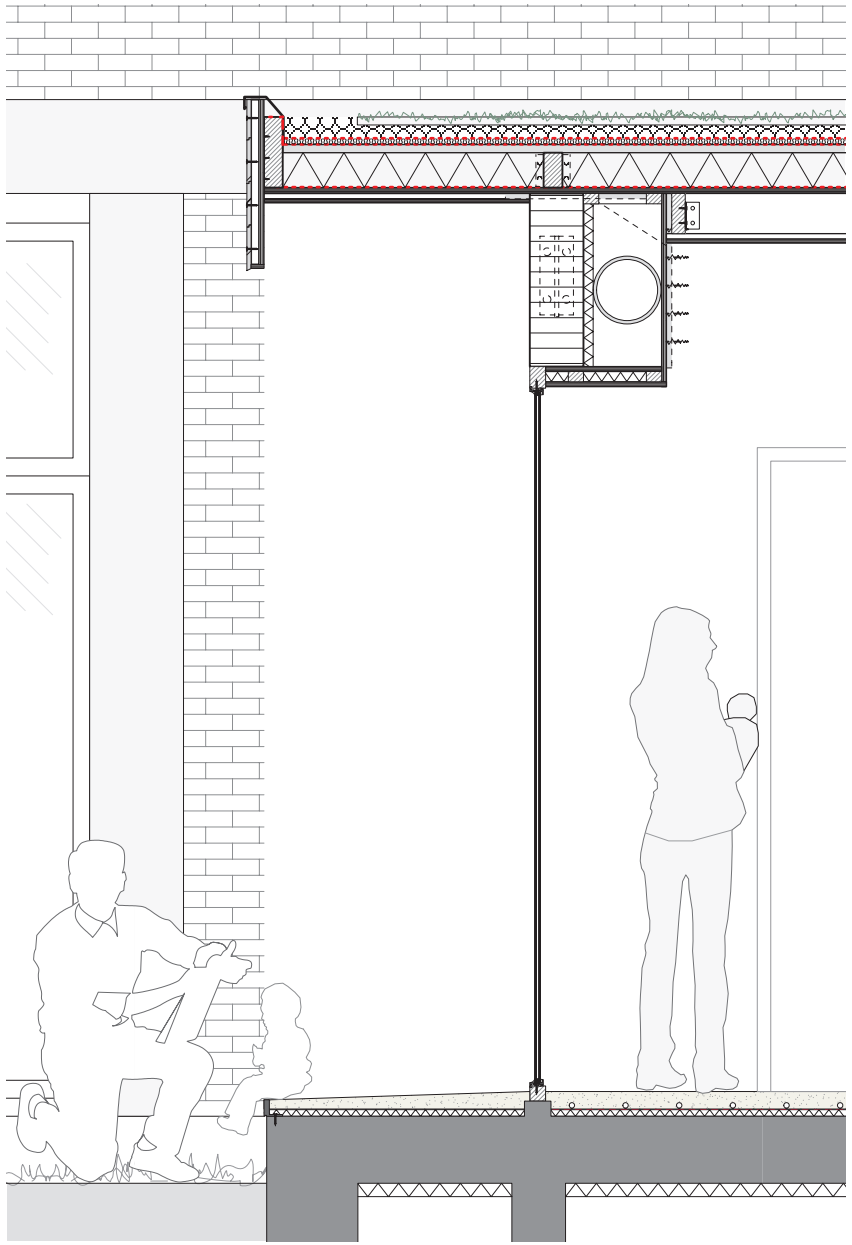
Aansluiting oud en nieuw

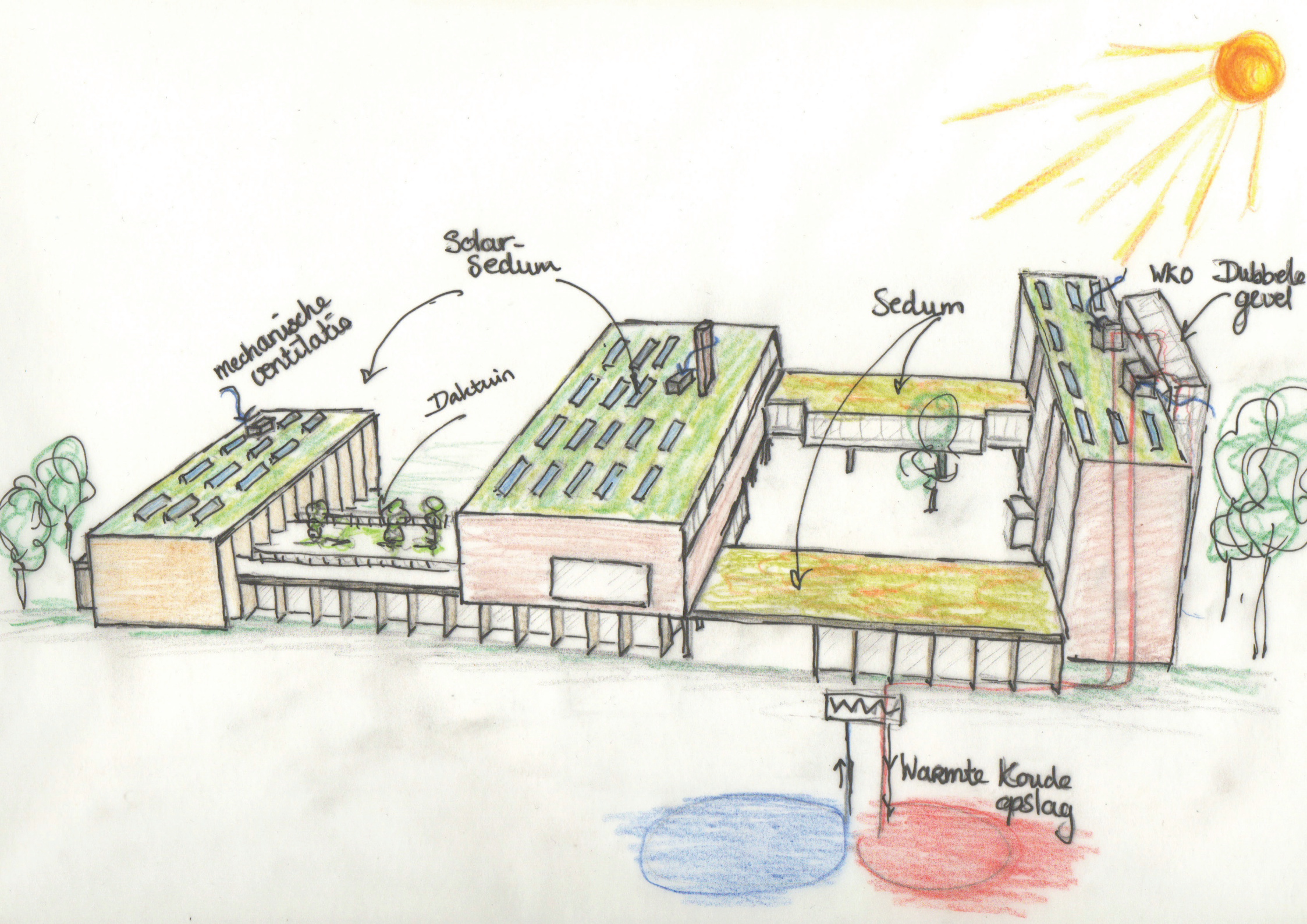


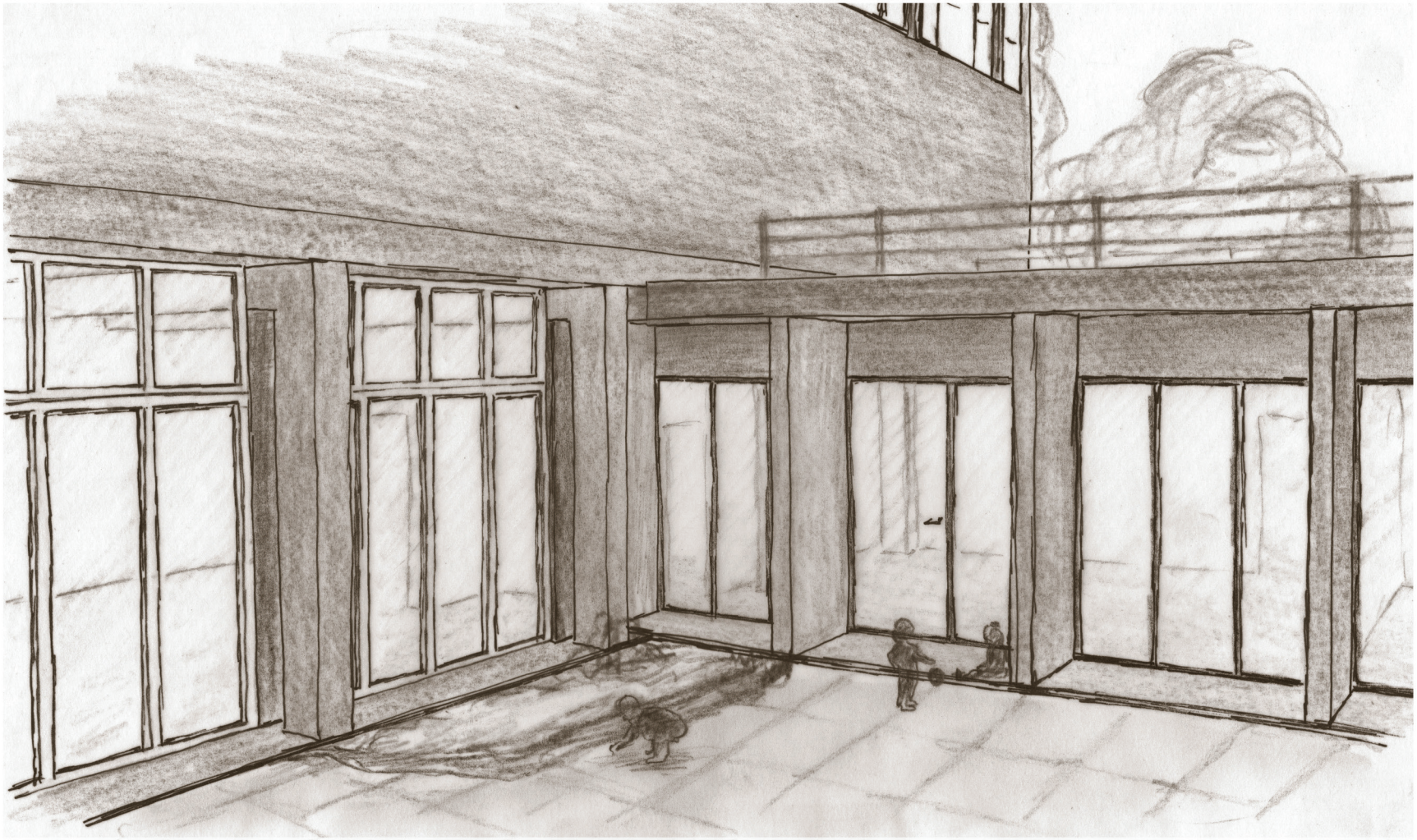
Aansluiting oud en nieuw



Doorsnede nieuwe vleugel




Solar-
Sedum
mechanische
ventilatie
Daktuin
Sedum
WKO Dubbele
gevel
Warmte Koude
opslag



Deel 5

Reflectie rapport

Inleiding

Het laatste rapport in dit afstudeerverslag betreft het afsluitende refelctierapport. Geschreven naar aanleiding van het afstudeerontwerp ‘De transformatie van de voormalige Daniel Goedkoopschool’. In dit rapport wordt ingegaan op mijn motivatie, ontwikkelingen en processen die geleid hebben tot het eind product ‘Multifunctioneel centrum Daniel Goedkoop’.

Het ontwerp hiervoor is gemaakt binnen de afstudeerstudie Mixed Projects van de master RMIT aan de TU Delft. Deze studio richt zich op het transformeren van leegstaande (publieke) gebouwen binnen Amsterdam West en speelt op deze manier een rol binnen het huidige debat over het behoud van het bestaande en de transformatie hiervan. Het begin van een transformatieproces ligt bij een onderzoek en analyse van en naar de ontwikkelingsgeschiedenis van de plek, het gebouw, de wijk etc. Elke interventie draagt ten slotte bij aan de continuïteit van het bestaande en de mogelijkheid tot voortleven van het gebouw om zo zorg te dragen voor een impuls aan de wijk. Het transformeren van een gebouw is, zoals Jo Coenen beschrijft in zijn intreerede op 19 april 2006[1], noodzaak aan het worden en heeft zowel sociale, economische als culturele relevantie.

In de komende paragraven wordt uitgelegd welke aspecten leidend zijn geweest binnen het ontwerpproces en welke invloeden een bepalende rol hebben vervuld bij het komen tot het programma en het ontwerp.

[1] Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam

Motivatie en maatschappelijke relevantie

Het volgen van de afstudeerstudio RMIT (Renovatie, Modificatie, Intervention and Transformation), is voortgekomen uit mijn interesse voor de bestaande gebouwde omgeving en de relatie tussen interieur, gebouw en context, een interesse die al begonnen is tijdens mijn studie Interieur Architectuur aan de kunstacademie te Zwolle waarbinnen ik ook al veel gewerkt heb met het transformeren van bestaande gebouwen. Het belang van onderzoek verrichten naar de geschiedenis en het functioneren van het gebouw werd tijdens deze studie erg duidelijk, evenals de context en de geest van de plek. Dit laatste is door Norberg-Schulz gedefinieerd als de Genius Loci.[2] De geest van de plaats is bepalend voor onze beleving van de omgeving, voor onze identiteit en herinneringen. Het ontwerpen van architectuur waarin de eigenschappen van de plaats samenkomen is het concretiseren van de Genius Loci. Zoals Suzanne Langer zegt: Architectuur ontstaat wanneer een 'totale omgeving zichtbaar wordt gemaakt'.[3]

Ontwerpen is een samenspel tussen alle schaalniveaus en binnen RMIT opgaven komt dat voor mij het meest tot uitdrukking. Centraal hierin staat het transformeren van een bestaand gebouw en het daardoor weer te laten (voort) leven waardoor het opnieuw een bijdrage levert aan de maatschappij en zijn omgeving. Zowel de geschiedkundige-, als de gebouwde- en de sociale context zijn erg belangrijk om de geest van de plek te kunnen begrijpen en het gebouw hierbinnen weer actief te laten functioneren. Deze aspecten bieden daardoor een houvast voor het ontwerp. Tijdens het volgen van een exchange programma naar Brazilië heb ik ervaren hoe het is om te ontwerpen zonder deze houvast. De zoektocht naar de geest van de plek, naar de context om het ontwerp op te funderen is vaak onderbelicht. Studenten zoeken een context in 'voorbeeld architectuur' en verdiepen zich veel minder in de geschiedenis van de plek of de relaties die er door het ontginnen van deze plek mogelijk worden, hierdoor krijgt een publiek gebouw dat ergens op een ontbost gebied buiten de stad komt te staan, bij elke student veel weg van bekende architectuur projecten als het gebouw van FAU (faculdade urbanismo e arquitetura) of andere Braziliaans modernisme en de vereiste 'gedetailleerde' doorsneden van het ontwerp gaan niet verder dan schaal 1:200. Dit fenomeen tijdens de opleiding valt te zien als contradictie ten opzichte van bijvoorbeeld het werk van Paulo Mendes da Rocha, waarbinnen de context juist altijd een erg grote rol speelt. Deze ervaringen benadrukte voor mij in ieder geval hoe belangrijk het te ontwerpen vanuit de context en het gebruiken van alle schaalniveaus.

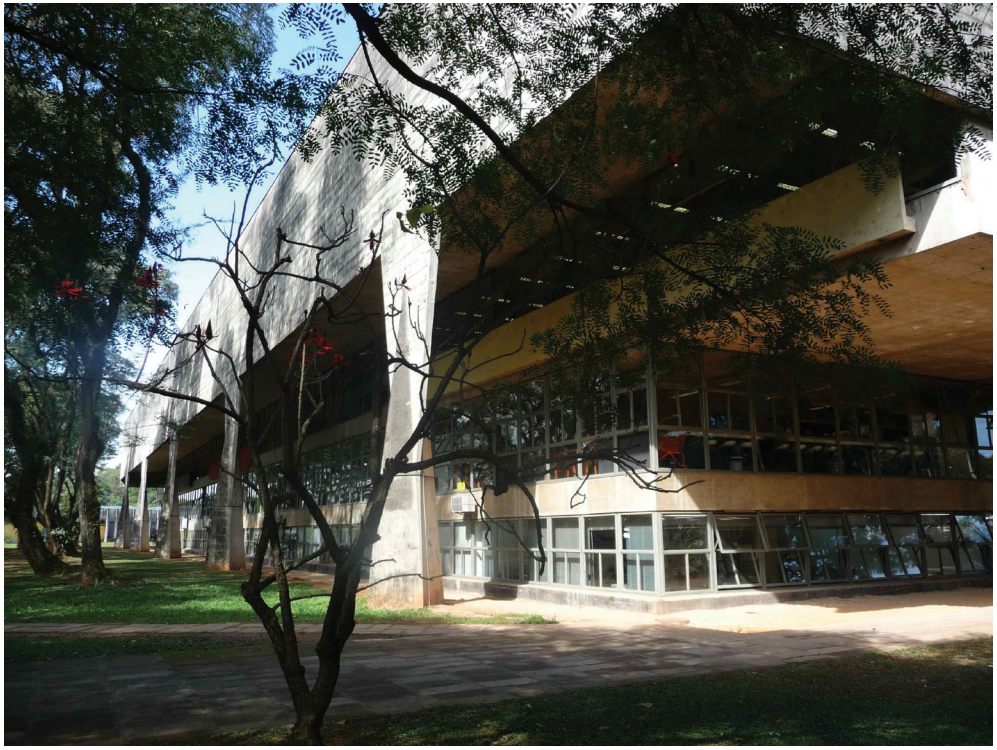


Foto FAU (aculdade urbanismo e arquitetura)[4]

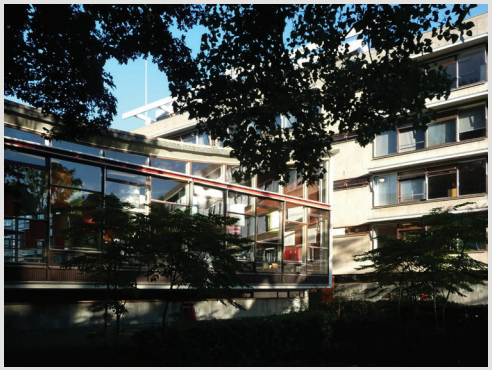
[2] Norberg-Schulz, C. (1979). Genius Loci. Naar een fenomenologie van de architectuur. (pp 530-533) In: Heynen, H. e.a. (2009) 'Dat is architectuur' Sleutelteksten uit de twintigste eeuw. Uitgeverij 010. Rotterdam

[3] Norberg-Schulz, C. (1979). Genius Loci. Naar een fenomenologie van de architectuur. (p 533) In: Heynen, H. e.a. (2009) 'Dat is architectuur' Sleutelteksten uit de twintigste eeuw. Uitgeverij 010. Rotterdam

[4] Thoen, I. (2012)

Architectuur gaat om het creëren van plekken en om tot een architectuur te komen waarbinnen de mens een centrale rol heeft en zich prettig voelt, speelt de context een bepalende rol. Dit in relatie tot de menselijke waarneming en beleving van ruimten alsmede zijn identificatie met de omgeving. Zoals A. Colijn beschrijft is identificatie erg belangrijk voor gebruikers van de gebouwde omgeving[4] Het is dan ook van belang om een prettige leefomgeving te creëren en zo sociale duurzaamheid te waarborgen. Veel hedendaagse wijk- en buurtinvullingen worden cijfermatig en planmatig vastgelegd, de mogelijkheid tot het creëren van een identiteit wordt hierdoor weggenomen. Het hergebruiken en transformeren van gebouwen met een zekere geschiedenis, en dus identiteit, is daarom van groot belang voor de bewoners en gebruikers van de omgeving. Het gaat hierbij om de relatie met de omgeving. Een relatie zowel op architectonisch gebied als functioneel gebied, aangezien het gebouw altijd onderdeel uit heeft gemaakt van een bepaalde stedelijke context en door middel van transformatie en een nieuwe functie weer op nieuw waarde toebrengt aan de stedelijke context. Binnen het herontwerp van de Daniel Goedkoopschool speelde dit ook een zeer grote rol. Het gebouw is als onderdeel van de Scholen Driehoek een sterke spil binnen het stedelijk weefsel van de buurt. De symbiose tussen functie, gebouw en omgeving dient in balans te zijn om de structuur van de wijk, zowel sociaal als economisch gezien, te behouden, verbeteren en versterken.

Naast bovengenoemde aspecten is er tegenwoordig een groot percentage leegstand van vastgoed. Het herbestemmen hiervan en vooral het vinden van mogelijke herbestemmingsideeën is een aspect waar de hedendaagse architect een rol in dient te spelen en een bijdrage aan kan leveren. Twee derde van de toekomstige bouwopgaven in Nederland zal gaan bestaan uit transformatieopgaven; transformatieopgaven die zich op alle schaalniveaus zullen voordoen[5]. De relevantie van deze opgaven en het gebrek aan kennis over hoe om te gaan met deze gebouwen en dan vooral gericht op de ‘nieuwe monumenten’ (gebouwen uit de wederopbouwperiode) heb ik kunnen merken tijdens het werken als lid van DIY-team om in opdracht van en samenwerking met stadsdeel Amsterdam Nieuw West de mogelijkheden te onderzoeken voor het behoud en transformeren van een aantal leegstaande schoolgebouwen in Amsterdam West (afbeeldingen rechts). Binnen het stedenbouwkundig herontwerp van het stadsdeel werden deze gebouwen in eerste instantie, en vooral uit onwetendheid, gesloopt. Toch kunnen deze gebouwen binnen het vergroten van de wijkidentiteit en verbetering van de buurt een belangrijke rol spelen. Transformatie van bestaande gebouwen is volgen A. Colijn een belangrijke stimulans voor de ontwikkelingen van een gebied aangezien zij de identiteit van de wijk weer versterken[6].



Het gebouw van de voormalige Daniel Goedkoopschool heeft lange tijd leeg gestaan, (het is inmiddels verkocht aan een culturele instelling) en staat op de lijst om een Amsterdams monument te worden. Dit transformatie ontwerp laat een manier zien om hoe er om gegaan kan worden met het Nederlands cultureel erfgoed en de (jonge) monumenten. Zoals Paul Meurs aangeeft, groet de lijst met monumenten in Nederland gestaag[7] en het is daardoor onmogelijk deze monumenten allen te restaureren en in stand te houden. Er dient gezocht te worden naar een manier waarop het erfgoed kwaliteit en waarde kan toevoegen in ons dagelijks leven. Transformatie en her-ontwikkelen zijn sterke middelen die hiertoe kunnen bijdragen. Het her-ontwikkelen van de Daniel Goedkoopschool heeft dan ook een zeer sociale en maatschappelijke relevantie. Het gebouw is het een van de beeldbepalende elementen en karakteristieken van de omgeving waardoor het deel uitmaakt van de identiteit van de plek. Het hergebruiken van een gebouw als deze geeft de mogelijkheid tot het creëren van een plek waarmee mensen zich verbonden voelen, ondanks dat er een totaal nieuwe en andere functie aan is gekoppeld. De in dit herontwerp gekozen benadering voor de interventie van de Daniel Goedkoopschool sluit hierbij aan en heeft zich vooral gericht op het vinden van een functie en een architectonische ingreep die tot resultaat hebben dat het gebouw opnieuw dienend zal zijn aan de wijk en daarbij zowel een rol kan spelen in het verbeteren van de sociale structuren als de kwaliteit van de publieke ruimte in de Gulden Winckelbuurt.

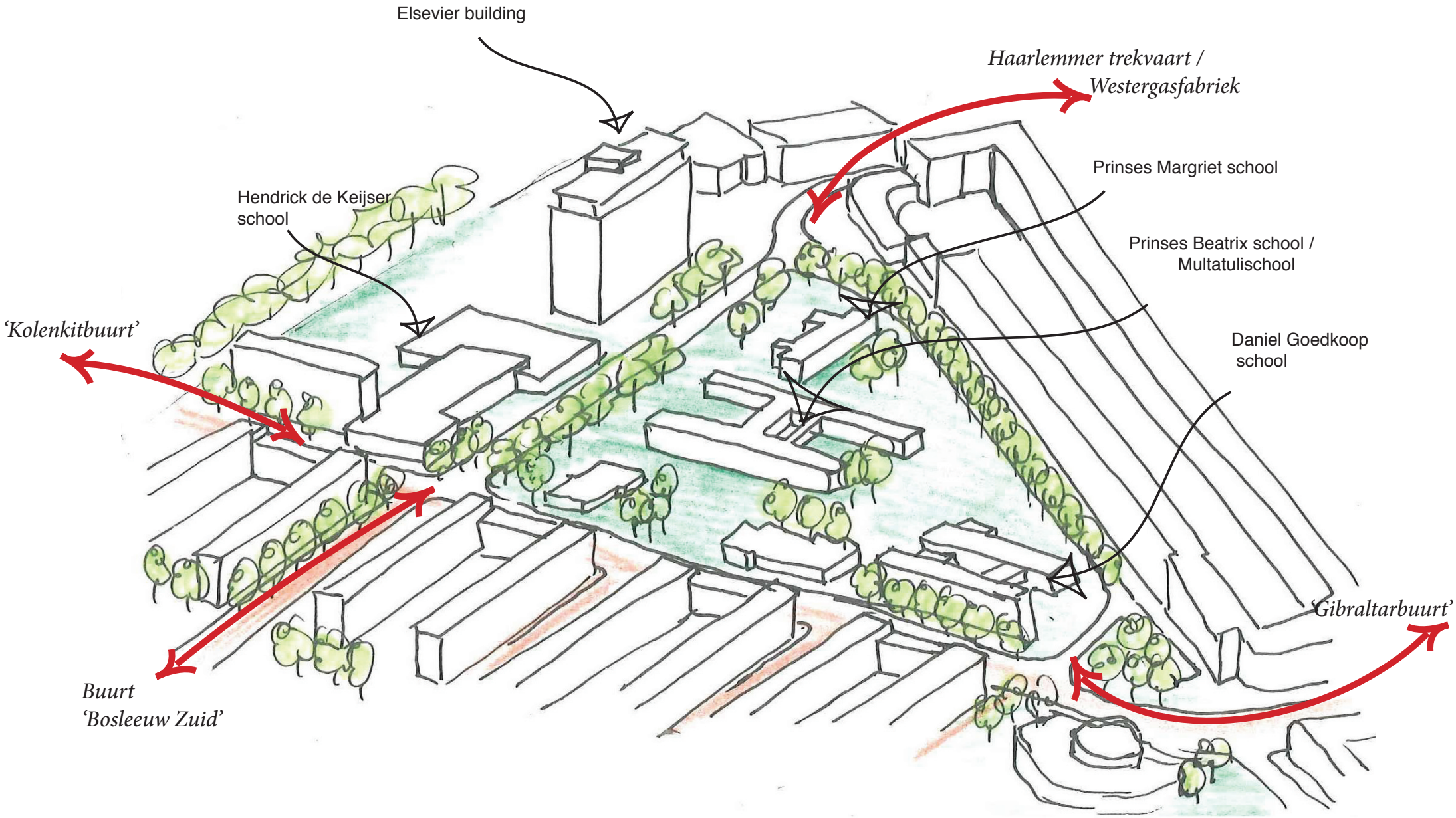
[4] Colijn, A. (2007) Identificatie als architectonische drijfveer voor sociale duurzaamheid. (pp 221-229) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[5] Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[6] Colijn, A. (2007) Identificatie als architectonische drijfveer voor sociale duurzaamheid. (pp 221-229) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam
[7] Meurs, P. Lecture: Heritage Development 1. Technical University of Delft, Delft. 13 Febr 2013.

Reflectie op het ontwerp

Amsterdam West - Daniel Goedkoopschool

De scholen driehoek bevindt zich in de Gulden Winckelbuurt (geel omrand) in het gebied waar 2 ontwikkelingstijdperken van het Amsterdams UitbreidingsPlan (AUP) bij elkaar komen. Het gebied zelf is als onderdeel van het AUP ontworpen volgens de principes van het nieuwe bouwen. Het wordt in het noorden begrensd door een gesloten bouwblok (ook onderdeel van het AUP) gebouwd voor de Tweede Wereld oorlog en in het zuiden door de open bouwblokken en strokenbouw van na de Tweede Wereld oorlog. Het driehoekig gebied bestaat uit een aantal schoolgebouwen gelegen in een parkachtige omgeving. De scholen driehoek is een groene, haast ongekende enclave binnen de stedelijke structuur en vanuit alle kanten goed bereikbaar. De mogelijkheden tot een verbinden functie binnen de wijk zijn groot.

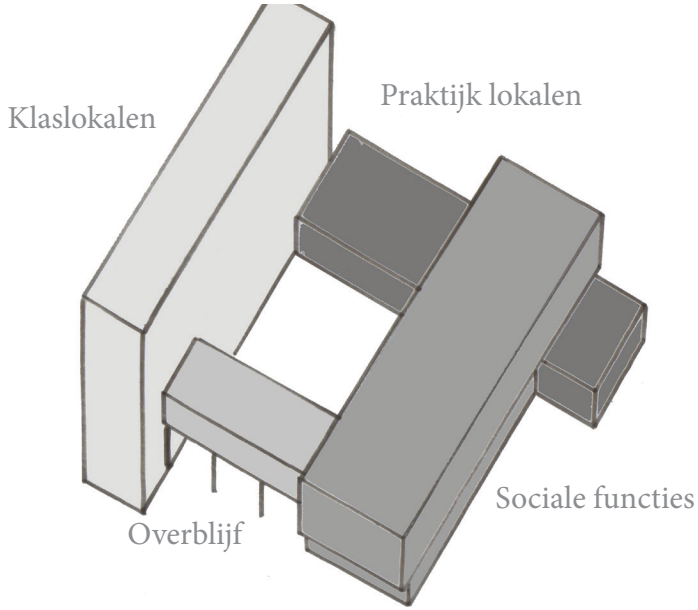
De Daniel Goedkoopschool is gesitueerd op het oostelijk puntje van de driehoek en vormt daarmee een soort afscherming van het ‘veiligere’ gebied in het midden rondom de basisschool Prinses Beatrix. Het gebouw van de Daniel Goedkoopschool is ontworpen door de architect Manon Peyrot in dienst van Publieke Werken Amsterdam en opgeleverd in 1958. Het huisvestte de school voor uitgebreid lager onderwijs (MULO) en heeft lange tijd dienst gedaan als schoolgebouw ook voor het latere ROC. Na een periode van leegstand en antikraak is het gebouw inmiddels aangekocht door een (vermoedelijk) Islamitisch culturele stichting en krijgt het een nieuw leven en nieuwe functie in de wijk. Het ontwerp binnen dit afstudeerverslag voor de Daniel Goedkoopschool staat los van deze (vrij recente) plannen maar richt zich ook op een impuls en nieuw leven voor dit gebouw en zijn omgeving.

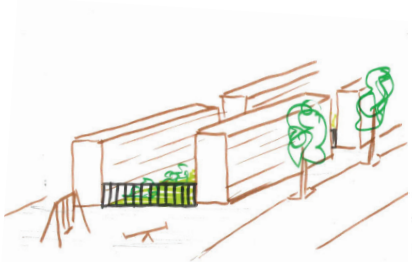


De scholen Driehoek als groene enclave.
Goed bereikbaar vanuit alle kanten, verbindende rol binnen de verbetering van de wijk.

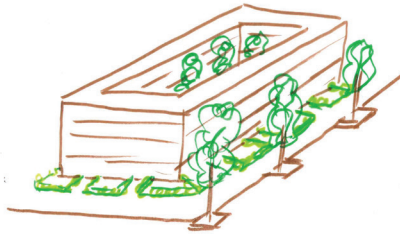
Analyse en uitgangspunten

De analyse een belangrijk onderdeel geweest, zowel binnen het ontwerp, als binnen het proces. Het is een onderdeel waarop vaak is terug gegrepen gedurende het gehele proces en van waaruit belangrijke ontwerpbeslissingen zijn genomen. Het is dan ook een onderdeel dat gedurende het ontwerpproces is uitgebreid en aangevuld. In eerste instantie kenmerkte de analyse fase zich door een zoektocht naar wat de structuren en karakters van Amsterdam West zijn en wat deze vertellen over het verleden en over de identiteit van de verschillende wijken. Welke gedachtegangen en ontwerpfilosofieën ten grond slag lagen aan de ontwikkeling van Amsterdam West en op die manier ook aan het ontwerp en de identiteit van de Gulden Winckelbuurt, de Scholen Driehoek en natuurlijk het gebouw van de Daniel Goedkoopschool. Om de juiste interventie beslissingen te kunnen maken, heeft er zowel een stedenbouwkundige analyse, als een architectonische- en bouwtechnische- plaatsgevonden. Eveneens een sociale analyse van de wijk om tot het juiste programma te komen.





AUP >1945



Pre- AUP 1938

Plan Kalf 1875

Stedenbouwkundige analyse

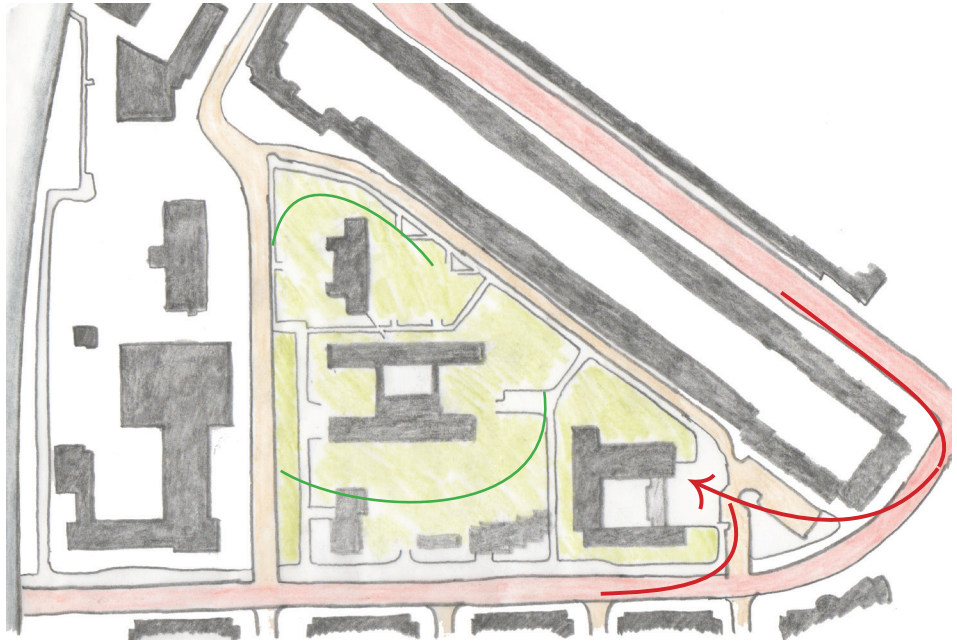
De stedenbouwkundige analyse kenmerkt zich door het achterhalen van de verschillende karakter eigenschappen en identiteiten van de wijken in Amsterdam West. Een karakteraspect dat binnen deze analyse erg interessant bleek te zijn, betrof de verschillen in de overgangen tussen publieke en private ruimten, gevormd door de periode waarin zij zijn ontwikkeld. Deze overgangen zijn aspecten die mij binnen de architectuur altijd fascineren en een belangrijke rol spelen in mijn ontwerpen. Het thema van de overgang tussen publiek en privé is zowel belangrijk geweest in mijn stedenbouwkundige analyse, maar komt ook terug in het ontwerp voor de Daniel Goedkoopschool. De fascinatie voor dit thema komt voort uit de gedachte dat binnen architectuur ruimte ontworpen dient te worden waarbinnen de mens een hoofdrol vervult. Architectuur draait om mensen en is gerelateerd aan de zintuigelijke beleving en waarneming. Overgangen, en zeker die tussen publiek en privé, creëren plekken, plekken met diverse karakters en belevingswaarden.

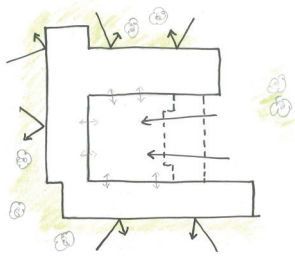
De gestelde onderzoeksvraag binnen de stedenbouwkundige analyse luidde als volgt: “Hoe wordt de grens tussen het publieke en private in de verschillende gebieden in Amsterdam West gekarakteriseerd?” Het onderzoek hiernaar heeft uitgewezen dat de grenzen worden gevormd door de ontwerpregels die er in de verschillende tijdperken golden. In het gebied van Plan Kalf is er een overgang tussen de publieke en private ruimte die zich bevindt tussen de bouwblokken in de vorm van een, voor passanten toegankelijke, binnenplaats. Het pre-AUP gebied heeft een overgangsgebied aan de voorzijde van het gesloten bouwblok in de vorm van een strookje groen en/of terug liggende entrees om de grens tussen publiek en privé te verzachten. In het AUP gebied van Bos en Lommer, is de overgang een stuk abrubter. Tussen de entrees en de straat vinden we een brede stoep die echter meer een overgang is tussen snel en langzaam verkeer dan tussen publiek en privé. De brede stroken groen tussen de strokenbouw in, zijn niet toegankelijk en geven dus enkel een visuele overgang weer tussen publiek en privé. De grens tussen de publieke ruimte en de private groene ruimte is hier duidelijk gemarkeerd door een hek.

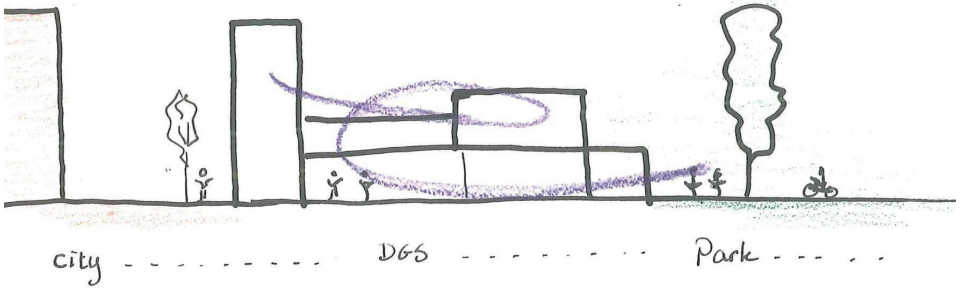
Architectonische analyse

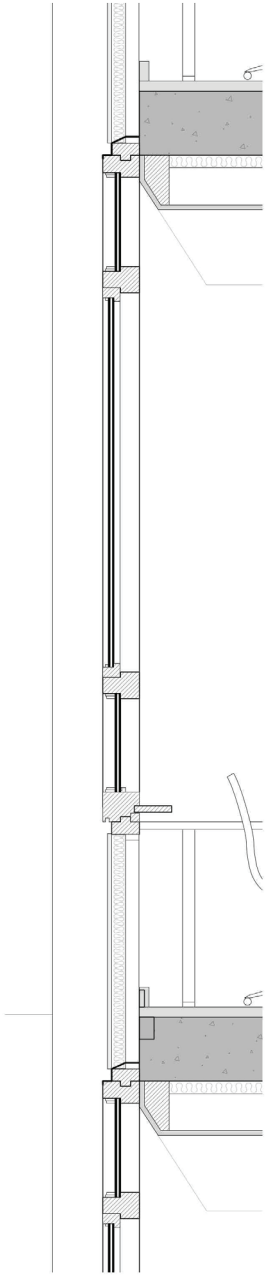
Ook binnen de architectonische analyse zijn de overgangen tussen publiek en privé een bepalend uitgangspunt geweest, even als de relatie van het gebouw met zijn directe omgeving. De onderzoeksvraag hier luidde als volgt: “Op welke manier verbindt de architectuur van de Daniel Goedkoopschool zich met het gebruik van de publieke ruimte?”
De plaatsing van de Daniel Goedkoopschool op het oostelijk puntje van de scholen driehoek zorgt voor een natuurlijke grens en een zachte overgang tussen het drukke publieke leven op straat naar het rustigere en besloten, nog steeds publiek toegankelijke, binnen deel van de scholen driehoek. De Daniel Goedkoopschool opent zich door middel van de door verschillende volumes omsloten binnenplaats naar de stad en deze plek vormt gelijk de enige toegang tot het gebouw. De noord, zuid en west zijde van het gebouw hebben geen enkele letterlijke connectie met de omringende publieke ruimte. Enkel van binnen naar buiten toe is er een visuele relatie.

Dit aspect is, evenals de H-school typologie en de idealen van het nieuwe bouwen naar de ‘licht, lucht en ruimte’ regels die de architectonische grondslag van de Daniel Goedkoopschool vormde, van groot belang geweest voor het ontwerp. De ontwerpregels hebben in het bestaande gebouw hun uiting gevonden in de gang loze klaslokalen vleugel, de veilige buiten ruimte (binnenplaats) en de scheiding van de verschillende functies. Binnen het herontwerp voor de Daniel Goedkoopschool zijn deze ontwerpregels vertaald naar een hedendaagse toepassing die tot uiting komt binnen de positionering en vormgeving van de nieuwe vleugel, de duurzame herontwikkeling die rekening houdt met bijvoorbeeld de ventilatielucht als wel met de buitenruimten rondom en op het gebouw. De relatie tussen de scholen driehoek en het gebouw heeft veel gebracht in het ontwerpproces en is leidend geweest voor belangrijke ontwerpbeslissingen. De richting en de principes van de gekozen interventieoplossing vinden hierin hun oorsprong. Het vergroten van de relatie tussen het gebouw en de publieke ruimte van de scholen driehoek is een belangrijk uitgangspunt geworden en hieruit zijn de beslissingen tot het vernieuwen van de westvleugel met de doorbraak van de binnenplaats naar het park voortgekomen. Ook de aaneenschakeling van de diverse volumes die opgebouwd zijn volgens een sequentie vanuit de ‘stad’ naar het ‘park’ toe is een leidend principe geweest bij het vinden van de juiste ruimte verhoudingen voor de interventie.









Bouwtechnische analyse

De bouwtechnische analyse heeft in eerste instantie tot doel gehad het gebouw beter te leren begrijpen en het vinden van de structurele elementen die bijdragen aan het karakter van het gebouw. Daarnaast is ook de staat van het gebouw geanalyseerd. Hieruit kwam naar voren dat over het algemeen de staat van het gebouw goed is, maar dat er echter constructief gezien niet veel zekerheid bestaat. Aannemelijk is dat het gebouw minimaal is gedimensioneerd waardoor het belangrijk is te weten dat de bestaande constructie geen grote ingrepen en toevoegingen kan verdragen.

Het voorkomen van het gebouw wordt in grote mate bepaald door het uiterlijk van de gevel en deze is in zeer slechte staat. Er is verrotting in de kozijnen waardoor deze vervangen en vernieuwd dienen te worden. Tijdens het ontwerpproces bleek dan ook dat het erg van belang was de opbouw van deze kozijnen goed te snappen om de juiste keuzes te maken voor het hernieuwde ontwerp van de kozijnen.

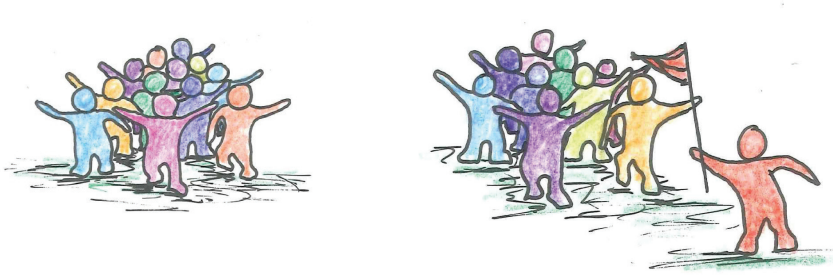
Zoals de architectuur gedomineerd wordt door de verschillende volumes, zo is dat bouwtechnisch ook zo. Elk volume heeft een eigen vorm van constructie waarbij dominante expressies hiervan aanwezig zijn in de vorm van de kolommen op de begane grond van de zuidvleugel en de stalen spanten in de gymzaal en aula van de noordvleugel. Deze constructieve uitingen zijn zeer beeldbepalend voor de ruimten.

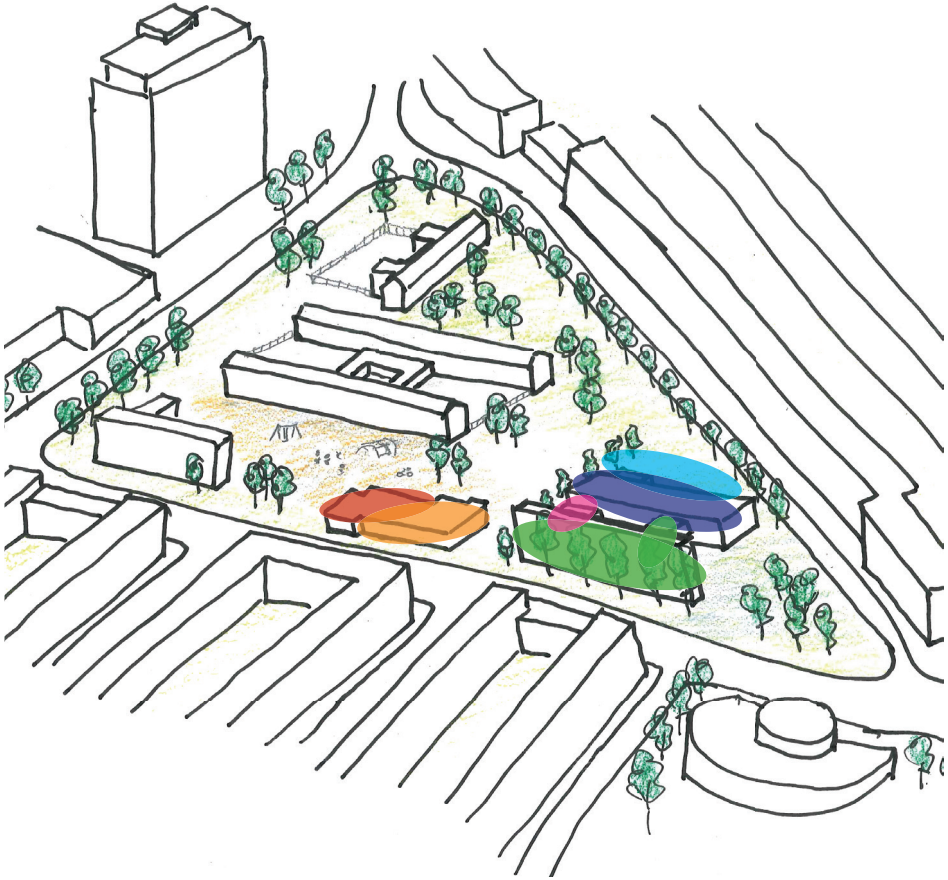
Sociale analyse

Naast de stedenbouwkundige-, architectonische- en bouwtechnische analyse, heeft ook de sociale analyse van de wijk een belangrijke rol gespeeld. Voornamelijk bij het vinden van de functie die er voor kon zorgen dat ook hiermee het gebouw weer dienend aan de wijk zou zijn, zoals ook zijn oorspronkelijke functie een dienende en educatieve invulling gaaf binnen de wijk. De moeilijkheid binnen dit proces was het vertalen en uitfilteren van al de informatie en opties die uit deze analyse kwamen naar een eenduidig programma. Een programma dat veelzijdig genoeg was om aan de sociale aspecten van de wijk te voldoen, en krachtig en compact genoeg was om binnen het gebouw te passen.

Het vinden en bepalen van mijn eigen te ontwerpen programma was nieuw voor mij en het heeft voor mij een andere manier van ontwerpen geopenbaard, een manier waarbij de rol van de architect verandert. Een rol die zich mede vormt naar rol van sociaal onderzoeker en adviseur om op die manier ruimte te ontwerpen voor de mens, de sociale omgeving en de plek. Een rol die binnen de transformatie opgaven waar Nederland voor staat heel waardevol en belangrijk zal zijn. Het was een aspect waarmee in eerste instantie binnen het proces is geworsteld, maar die wel heeft laten in zien dat het een heel erg interessant aspect is, iets waarin uitdagingen zitten om tot goede voorstellen en oplossingen te komen. Binnen de sociale analyse ging het erom het programma ter discussie te stellen. Af te wegen welke programma onderdelen een toegevoegde waarde hebben voor zowel een duurzame ontwikkeling van het gebouw, als voor een duurzame ontwikkeling binnen de sociale structuren van de buurt.

- ***Kinderdagverblijf***
  't Groeiparadijs'
- ***Sport- Buurtwerk***
  Buitenschoolse activiteiten
- ***Gezondheidscentrum***
  Ouder & Kind centrum
  Huisartsen
  Psychologie
  Logopedie
  Fysiotherapie
- ***Streetcorner work***
  Homebase voor veldwerkers
  en jongerenwerkers
- ***Huis van de Wijk***
  Buurtcentrum
- ***Spelotheek***
  Speelgoeduitleen





Uitgangspunten en Ontwerp

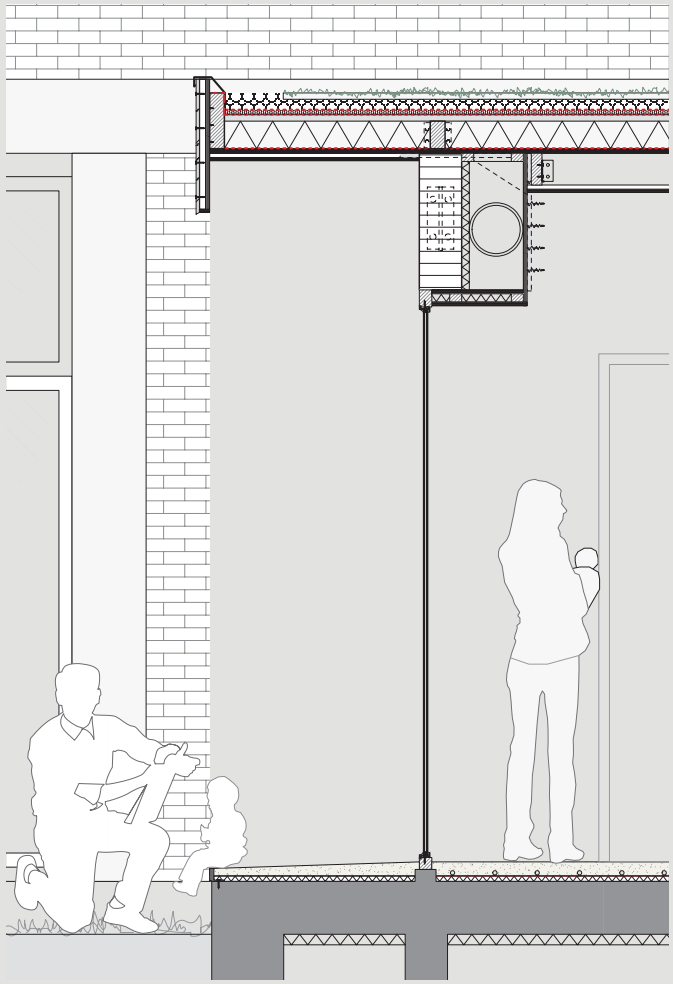
Binnen de interventie is tot doel gesteld de karakter eigenschappen van het gebouw en de mogelijkheden die het gebouw heeft in combinatie met het gebied te versterken. Om dit te kunnen bereiken zijn de uitkomsten van de analyses belangrijk gebleken. In deze analyses zijn deze karakters van het gebouw en zijn relatie met het gebied duidelijk geworden. Aan deze uitkomsten zijn bepaalde waardes gekoppeld, waarbij de hoogst gewaardeerde eigenschappen tot uitgangspunt zijn genomen om te versterken en de lager gewaardeerde eigenschappen te transformeren.

Het uiteindelijk ontwerp is vormgegeven aan de hand van de eigentijdse vertaling van de ontwerpregels die ten grondslag lagen aan de bouw van de H-School typologie. De thema's licht, lucht en ruimte zijn ook binnen de transformatie leidend geweest evenals de functiescheiding en inbedding in de groene buitenruimte.

Het uitgangspunt 'licht – lucht – ruimte' heeft veel van de genomen ontwerpbeslissingen op zowel architectonisch als technisch vlak beïnvloed. De verbinding tussen binnen en buiten ruimten en de zichtbaarheid van het gebouw naar de buurt toe, zowel van binnen naar buiten als van buiten naar binnen is hierin heel belangrijk geweest. Dit is te zien in de nieuwe west vleugel met zichtlijnen vanuit het gebouw naar buiten toe, als mede het creëren van een nieuwe courtyard voor een veilige buiten speelplaats voor de kinderen van het kinderdagverblijf. De nieuwe, eigentijdse ontwerpregels van 'licht – lucht – ruimte' gaan een relatie aan met de duurzame herontwikkeling en komen onder andere tot uiting in de open glazen gevel die is ontworpen aan de zuidzijde en die een rol speelt binnen het klimaatsysteem doordat hij bijdraagt aan het optimaliseren van het ventilatiesysteem en de warmtehuishouding.

De uitgangspunten die gedurende het proces zijn geformuleerd, her-geformuleerd en aangevuld, zijn tijdens het maken van ontwerpkeuzes leidend zowel bewust als onbewust en intuïtief geweest,. Een voorbeeld van dit laatste betreft de massastudie naar de juiste verhoudingen van de nieuwe vleugels. Hierin is veel op gevoel gewerkt en daarbij bleek meerdere malen dat de hoogte-breedte verhouding tussen de verschillende nieuwe vleugels correspondeerden met de verhoudingen tussen de bestaande vleugels. Het uitgangspunt van de ruimte sequentie is bepalend geweest voor de gehele compositie van de nieuw te bouwen volumes in combinatie met de bestaande gebouwdelen en de relatie met het park.

De laag gewaardeerde aspecten die uit de analyses naar voren zijn gekomen, zoals de gesloten plint en de afsluiting van het gebouw naar het park van de scholendriehoek toe, zijn getransformeerd. De gevels openen zich meer naar de omgeving en er is een onderdoorgang van binnenplaats naar park toe ontworpen om de relatie tussen gebouw en park te vergroten. De overgangen publiek-privé zijn versterkt en bij de nieuwe gevel met de open plint, vormgeven als een overgangsgebied tussen de constructieve coulissen zoals te zien op onderstaande afbeelding.

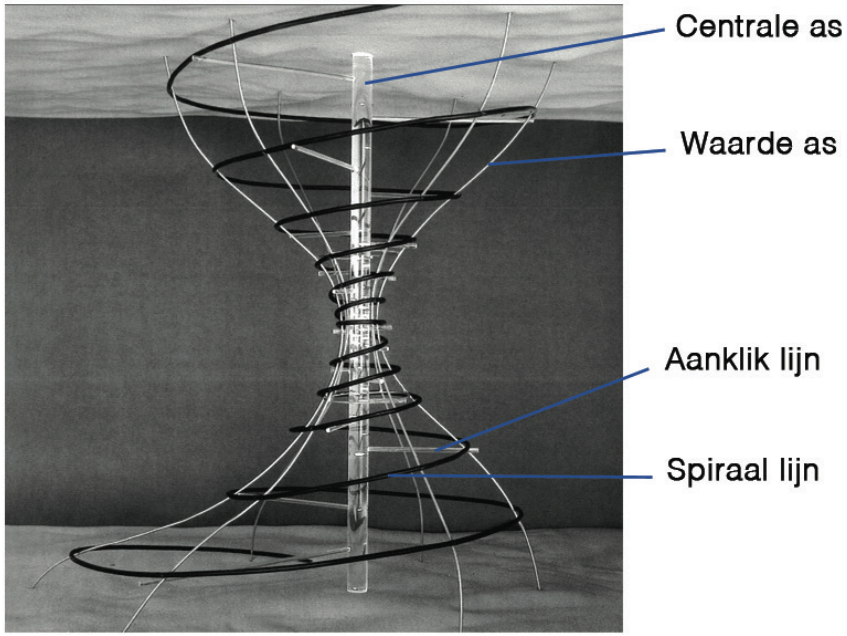


Reflectie op het proces

Ontwerpmethode en proces

Voor het ontwerpen en transformeren van en omgaan met bestaande gebouwen, bestaan geen vastliggende handleidingen. Er zijn wel handvaten waar een ontwerper mee aan de slag kan gaan, zoals uitgangspunten ‘respect voor het bestaande’, ‘contrast opzoeken met het bestaande’, ‘voortgaan op het bestaande’ etc en zoals in voorgaand hoofdstuk aan de orde is gekomen, uitgangspunten die voort komen uit de analyses van het bestaande en de context. De keuze binnen het ontwerpen van een transformatie opgaven wordt vaak gezien als het kiezen tussen harmonie of contrast. Er zijn echter meerdere aspecten die een rol spelen in dit proces. Zoals Roos (beschrijft zou er ook ruimte moeten zijn voor imperfectie, paradoxen of het onverwachte[8]. Bij transformatie gaat het om een goede samenwerking tussen het PvE, de context en de waarde van het bestaande gebouw. Waarbij kennis van de techniek, het constructieve deel, even belangrijk is als die van de architectonische geschiedenis en de context. Om het gebouw te kunnen transformeren en te kunnen verrijken met nieuwe technieken en een nieuw leven mag de hand van de architect zichtbaar zijn. Alle aspecten beïnvloeden elkaar wederzijds. Hoe de ontwerper omgaat met deze handvaten en hoe het ontwerpproces en uiteindelijk ook het ontwerp worden vormgegeven is een combinatie van zijn eigen positie als architect, interesses en fascinaties en de door hem of haar hooggewaardeerde uitgangspunten.

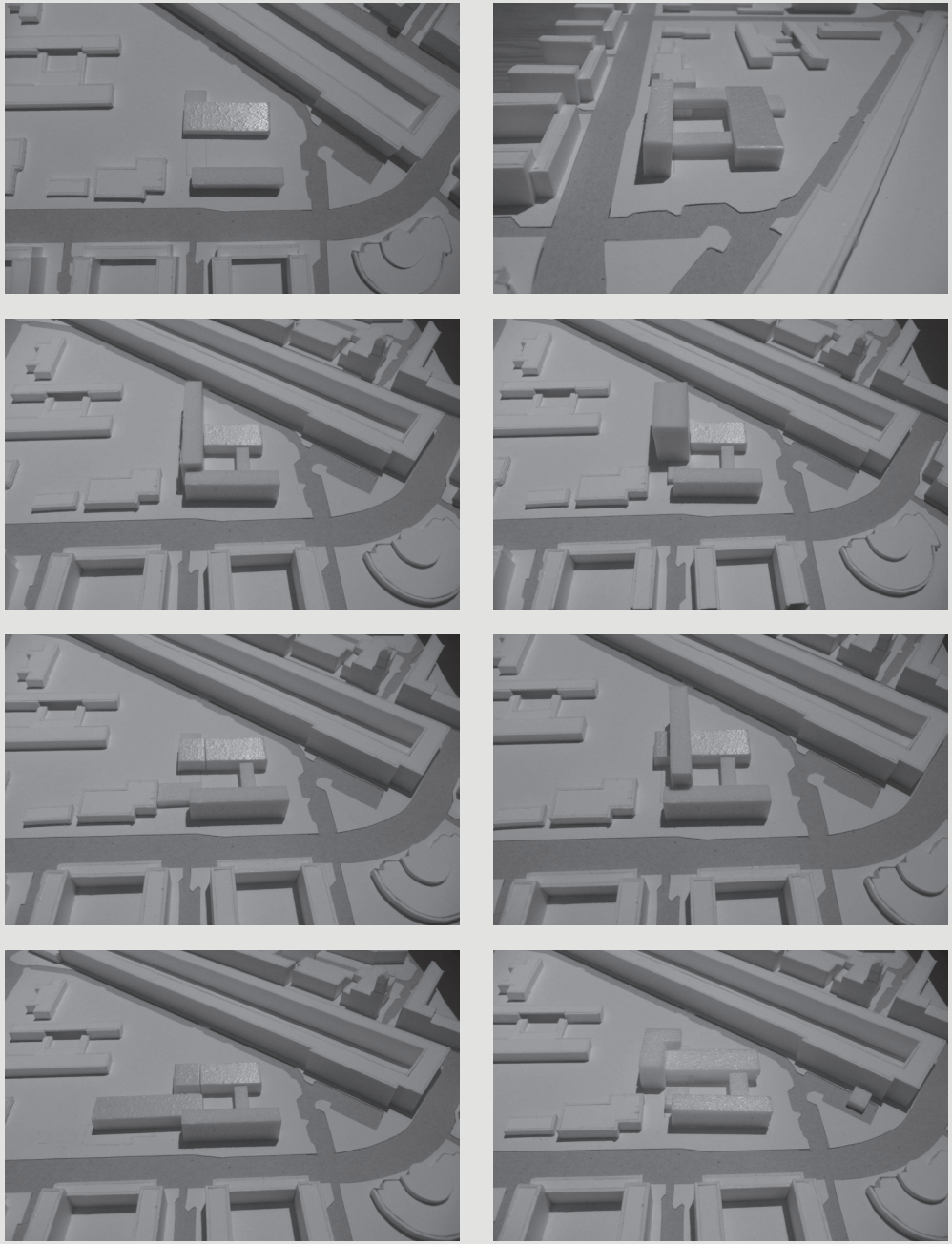
Roos stelt, zoals beschreven op pagina 19 in dit afstudeerverslag, in zijn boek ‘De ontdekking van de opgaven’ (2007) dat een lineaire, dwingende methode een transformatie opgaven te kort doet. Dit vanwege de complexiteiten die zich voordoen binnen de opgaven. Het model dat hij dan ook introduceert is dat van “de Spiraal”. Dit model heb ik besproken als ontwerpmethodiek en de te verwachtte wijze waarop mijn proces zou verlopen. In dit model staat centraal de as van de historische dimensie verbonden met de toekomst, en gebogen assen die symbool staan voor alle andere waarden en aspecten die van belang zijn binnen de betreffende herontwikklingsopgave. Deze assen worden omwikkeld door een spiraal-lijn die het ontwerpproces aangeeft en laat zien dat er elke keer weer opnieuw naar de verschillende waarde lijnen en de relatie tussen deze en de centrale as. Het knooppunt, daar waar alle lijnen samenkomen, is het moment waarop de keuzen intensiever worden en waar uiteindelijk het beoogde inzicht in de opgave ontdekt wordt. Vanaf dat punt divergeert de spiraal weer om zo de architect te leiden bij het concretiseren van het ontwerp om zo het inzicht te vertalen in een ruimtelijk en gematerialiseerd ontwerp. Zeker bij herontwikkelingsopgaven is het van belang dat de centrale as en de waarde lijnen doorlopen tijdens het divergeren. Dit omdat terug koppeling noodzakelijk is, zeker wanneer blijkt dat er iets niet uitgevoerd kan worden waardoor er nieuwe relaties gelegd moeten worden[9].

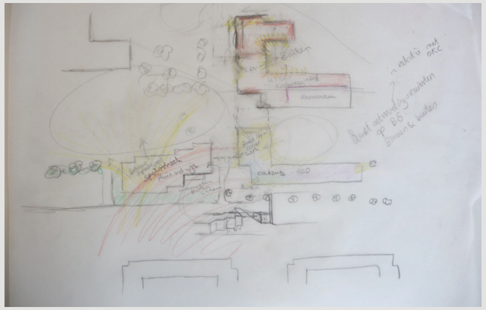


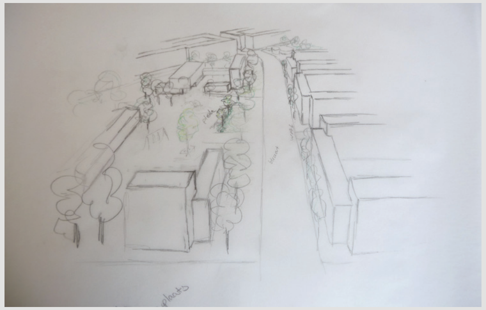
Bron: Roos, 2007, p 32
Het drie-dimensionale model van de spiraal

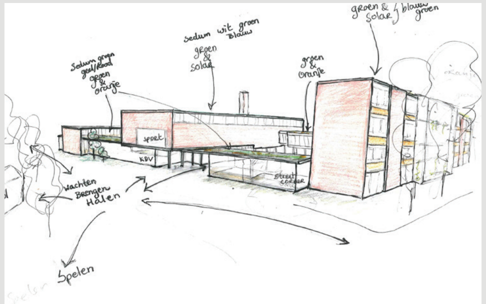
[8] Roos, J. (2007). De ontdekking van de opgave. Delft: VSSD.
[9] Roos, J. (2007). De ontdekking van de opgave. Delft: VSSD. p 40.

Het afstudeerproces kenmerkt zich door een lange zoektocht in het begin naar het vinden van de juiste weg om te transformeren en de interventie vorm te geven. Het is een circulair proces geweest waarin vooruit kijken, terug kijken, connecties leggen en weer terug kijken en opnieuw analyseren leidend is geweest. Analyseren en het vastleggen van de ‘waardelijnen’ in het spiraal model namen veel tijd in beslag. Zeker ook gedurende de ontwerpfase bleek dat regelmatig terugkeren naar de analyse uitkomsten of het verdiepen hiervan, vereist was. Op wisselende momenten in het ontwerpproces bleek dan ook dat er een stap terug gedaan moest worden door opnieuw te onderzoeken en analyseren om verder te komen. Als tegenhang hiervan bleek het noodzakelijk te blijven dromen en/of vast te houden aan de idealen te maken om de juiste stappen te kunnen zetten. Vanuit deze momenten zijn waardevolle conclusies naar voren gekomen. Een van deze belangrijke momenten bleek het nogmaals terug keren naar de locatie te zijn om daar een diepgaande analyse te maken betreffende de zonering van het gebied de Scholen driehoek, voor de hieruit voortgekomen tekening zie pagina 70-71. Hieruit volgde waardevolle uitgangspunten die de interventie vormgaven. Vooral de plaatsing van de functies binnen het gebouw vindt hier zijn oorsprong. De oriëntatie van het gebouw op zijn omgeving, op de rustigere zone van de scholen driehoek in het noorden heeft er toe geleid dat het kinderdagverblijf hier zijn basis vindt, met aan de andere kant het gezondheidscentrum in de zuidvleugel, meer gericht op contact met de rest van de buurt en omliggende wijken. De combinatie tussen deze informatie en het programma van eisen, leidde doormiddel van veel massastudies en schetsen tot de uiteindelijke interventie. Het maken van deze massastudies en het gebruiken van deze studies voor schetsen is een bepalende stap binnen het ontwerpproces die vele malen is voorgekomen en heeft geholpen bij het vertalen van de beelden tot een daadwerkelijk ontwerp. Ook bij het maken van de uiteindelijke presentatiemaquette bleek dat juist het maken van maquettes binnen het ontwerpproces cruciaal is voor het verhelderen en concretiseren van de ontwerp ideeën .

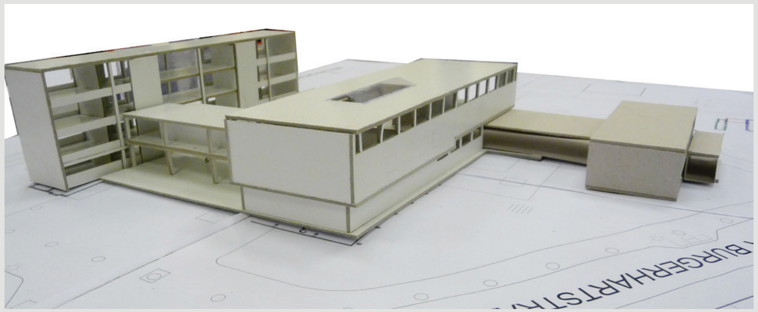


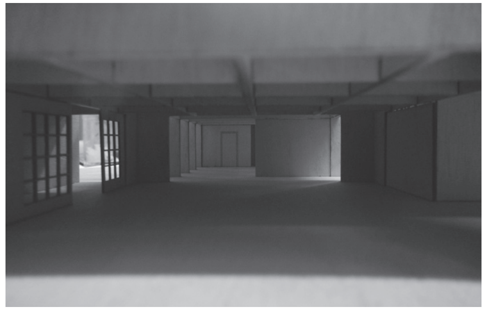


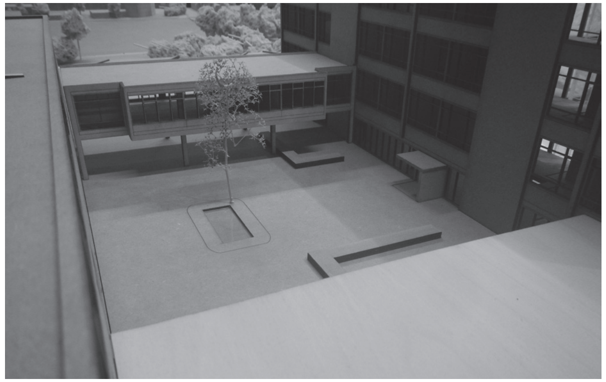



groen & solar
groen & Oranje
Spelen


Beschutting
Groen
Rust
Tussen
Kiezen
Actief
Spelen
Wonen

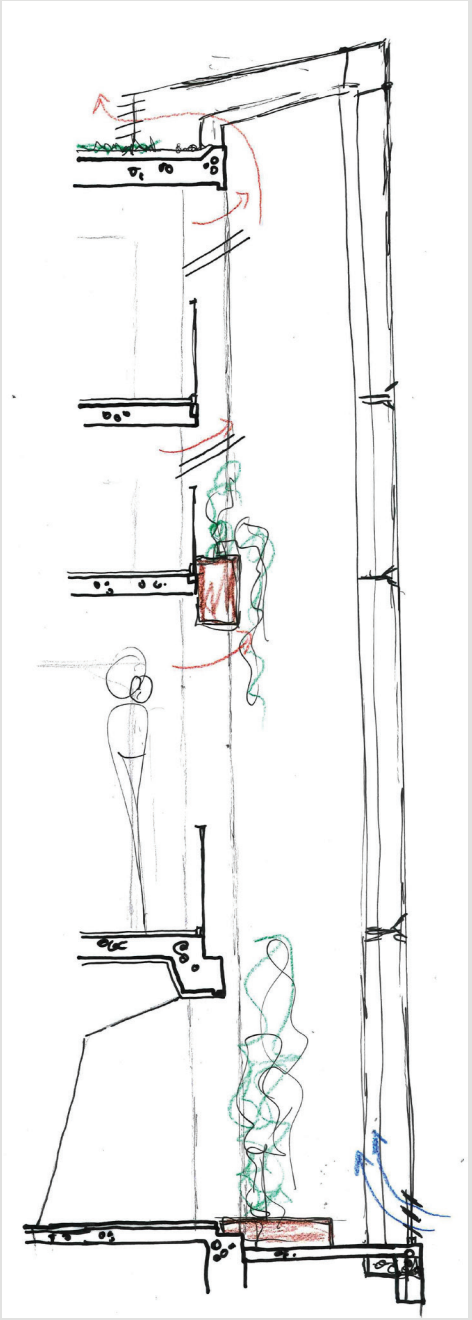


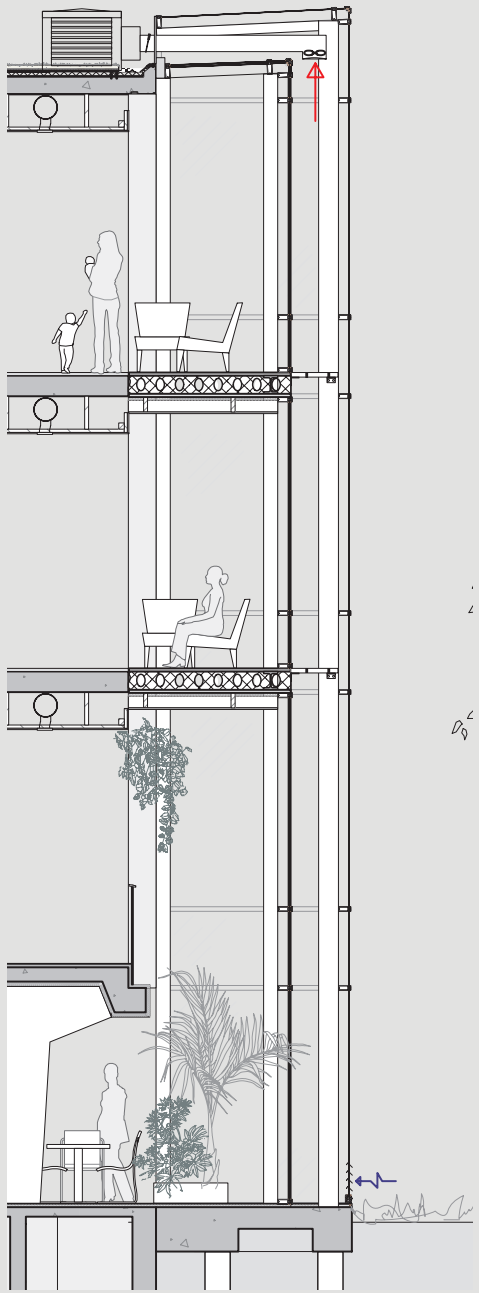




Een ander belangrijke ontwikkeling binnen het ontwerpproces was het uiteindelijk vasthouden aan het gevoel en idee dat een dubbele gevel bij de glazen uitbouw aan de zuidgevel een rol kan spelen in het klimaatsysteem. Tijdens begeleidende gesprekken is hier flink over gediscussieerd, en ondanks gedegen onderzoek naar dubbele gevels en het, voor zover binnen mijn capaciteiten ligt, rekenen aan de warmte behoefte en koel last bleef er twijfel bestaan of dit wel of geen toegevoegde waarde zou brengen. Uiteindelijk bleek het vasthouden aan mijn gevoel waardevol en een gesprek met Leo de Ruijsscher bracht het benodigde uitsluitsel. Het aanbrengen van een dubbele gevel in de glazen uitbouw kan zeker een rol vervullen binnen het klimaatsysteem en effect hebben op de temperatuurbeheersing van de aangrenzende ruimten.

Binnen het gevolgde ontwerpproces zijn zowel algemene als specifieke ontwerpaspecten te onderscheiden. Specifieke zaken die echt te maken hebben met dit herontwerp hebben zich voornamelijk gericht op de ontwerpregels ‘Licht – Lucht – Ruimte’ en op welke manier deze een invloed kunnen hebben op de interventie. Bij dit ontwerp bleek de vertaling van deze ontwerpregels een zeer specifiek ontwerpaspect die al naar voren kwam binnen de opgestelde onderzoeksvraag. Teven is de sterke inbedding in de sociale structuur van de wijk een voor dit ontwerp specifiek aspect. Gezien de sociale problemen in de omgeving die ook vanuit de gemeente worden onderschreven was het van belang dat dit herontwerp een rol zou gaan spelen binnen het verbeteren van de sociale en economische structuren van de wijk. Meer algemene zaken betreffende de aanpak van dit ontwerp zijn te vinden in het feit dat er een bijdrage geleverd wordt aan een duurzame herontwikkeling, zowel op gebouw niveau als op stedenbouwkundig- en sociaal niveau. Deze benadering is iets die bij latere transformatieprocessen ook een belangrijk ontwerpaspect zal zijn. Evenals de relatie tussen gebouw en omgeving en het ter discussie stellen van het programma.





Reflecterend op het ontwerpproces en de ontwerpmethodiek is het antwoord vinden op de vraag: “Wat voor ontwerper ben ik?” een interessant aspect.

> Ik denk voordat ik doe, ik volg mijn intuïtie. Ik kan lang niet altijd meteen verklaren waarop ik een bepaalde keuze heb gebaseerd. Beelden vormen zich in mijn hoofd terwijl ik het beslissen over de definitieve vorm en het vastleggen hiervan kan uitstellen. Immers, hoe concreet is deze oplossing? Waar is hij eigenlijk op gebaseerd? Ik wissel tussen middelen om het te verbeelden, zoek net zo lang naar een goede referentie totdat ik er een vind die in de buurt komt van mijn beeld, gebruik 3d schetsen, doorsnedes en maquettes en aangezien ik vaak het beeld al lang in mijn hoofd heb doordacht, zijn er uiteindelijk meestal niet veel maquettes en schetsen voor nodig om te verbeelden wat ik bedoel. Toch is het vastleggen en uittekenen een stap die het te definitief maakt en ik vaak bewaar tot het laatste waardoor ik doorpraat of denk terwijl de ‘oplossing’ voor dat moment er eigenlijk al (gekrabbeld en wel) ligt.
> In het proces heb ik dan daarnaast geleerd dat het van belang is knopen door te hakken, keuzes te maken en te schakelen tussen schaalniveaus. Om het detailleren en klimaatsysteem uitwerken bijvoorbeeld niet tot het allerlaatste moment te laten liggen. En hoewel dat een aspect waar elke student architectuur regelmatig op gewezen wordt, blijkt het ook nog binnen het afstudeerproces een proces te zijn met vallen en op staan. Het integreren van techniek en architectuur is dan ook nog een aspect binnen mijn ontwerp waaraan ik achteraf gezien zeker nog meer tijd had willen en zou kunnen besteden om het eerder tot een kloppend en samenhangend geheel te maken.

Conclusie

Terug kijkend op het ontwerp en ontwerpproces is er een ontwerp neergezet waarin alle schaalniveaus zijn verweven. Er zijn uitspraken gedaan betreffende de stedelijke context, de architectuur en het interieur waarbij het huidige gebouw en zijn context leidend zijn geweest. De onderzoeksvraag die in het begin van mijn proces gesteld is luidde als volgt:
“Op welke manier kunnen de principes van de H-School typologie zoals we die vinden bij de Daniel Goedkoop School van waarde zijn bij de herontwikkeling van dit gebouw waarbij de kwaliteit van de publieke ruimte en de sociale cohesie in de buurt worden verbeterd?”

In de keuze van het programma en de interventie op gebouwniveau en stedenbouwkundig heeft de focus gelegen op het herinterpreteren en gebruiken van de principes van de H-School typologie, voornamelijk gefocust op ‘licht – lucht – ruimte’. Het aanbrengen van een nieuwe westvleugel met een doorgang naar het park toe en het ontstaan van een nieuw hofje voor het kinderdagverblijf, heeft ertoe geleid dat het Multifunctioneel centrum Daniel Goedkoop een sterkere inbedding vindt in de scholen driehoek waarbij de relatie tussen binnen en buiten ruimten is versterkt om het gevoel van licht lucht en ruimte te creëren. Deze aspecten vinden ook een vertaling in het verduurzamen van het gebouw en het optimaliseren van het klimaatsysteem waarbinnen de kwaliteiten van licht en lucht voldoen aan de hoge eisen gesteld aan de functies. Ook de ruimtesequentie van het bestaande gebouw is doorgevoerd waardoor het gebouw een consistenter geheel uit maakt van het park, en daarbij ook veilige buitenspeel- en verblijfsruimten rondom zich creëert en het weer opnieuw een dienende functie aan de wijk heeft.

Het herontwerp van de Daniel Goedkoopschool heeft ook gezien de hoeveelheid leegstaande gebouwen, en ook zeker schoolgebouwen, die kampen met verloedering van gebouw, omgeving en buurt, een grote maatschappelijke relevatie. Het ontwerp heeft de programmakeuze ter discussie gesteld en uiteindelijk weer een nieuwe functie gekregen waardoor het opnieuw een actieve rol speelt binnen de stedelijke context van het scholen driehoek ensemble en hernieuwde levendigheid in de wijk brengt. Dit zal als een positief effect bijdragen binnen de sociale, economische en stedelijke structuur verbetering van de buurt.

Bibliografie

References Part 1

Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) *Transformatie van kantoor gebouwen*. Uitgeverij 010. Rotterdam

Colijn, A. (2007) Identificatie als architectonische drijfveer voor sociale duurzaamheid. (pp 221-229) In: Van der Voort, T. (2007) *Transformatie van kantoor gebouwen*. Uitgeverij 010. Rotterdam

Emeis, M. G. (1983). *Amsterdam buiten de grachten*. Amsterdam, Sijthof

Keizer, E. Ponteyn, B. Van Zanen, K. (redactie & coordinatie). (2010). Gemeente Amsterdam. *Structuurvisie Amsterdam 2040*, Amsterdam: Drukkerij Callf & Meischke.

Kei Kenniscentrum, (2008). *Kei-wijkbeschrijving Bos en Lommer*. Rotterdam

Meurs, P. Lecture: *Heritage Development 1*. Technical University of Delft, Delft. 13 Febr 2013.

Roos, J. (2007). *De ontdekking van de opgave*. Delft: VSSD.

Rebel, B. (1983). *Het nieuwe bouwen, Assen, het functionalisme in Nederland 1918-1945*. Van Gorcum & Comp b.v.

Rebel, B. (1983). De Amsterdamse architecten vereniging ‘de 8’, in: Andela, Bergveld, Bosma ea. (Eds). *Het Nieuwe Bouwen Amsterdam 1920-1960*. Delft, Delft University Press

Velde, J. J. V. D. (1968). *Stadsontwikkeling van Amsterdam 1939-1967*. Amsterdam, Scheltema en Holkema.

http://www.weekendacademie.nl/home (may 2013)

Stadsarchief Amsterdam, tekenarchief Dienst Publieke Werken

References Part 2

Velde, J. J. V. D. (1968). Stadsontwikkeling van Amsterdam 1939-1967. Amsterdam, Scheltema en Holkema.

Van der Hoeven, C. Louwe, J. (1985). Amsterdam als stedelijk bouwwerk een morfologische analyse. Nijmegen, SUN

Rebel, B. (1983). Het nieuwe bouwen, Assen, het functionalisme in Nederland 1918-1945. Van Gorcum & Comp b.v.

Rebel, B. (1983). De Amsterdamse architecten vereniging ‘de 8’, in: Andela, Bergveld, Bosma ea. (Eds). Het Nieuwe Bouwen Amsterdam 1920-1960. Delft, Delft University Press

Emeis, M. G. (1983). Amsterdam buiten de grachten. Amsterdam, Sijthof

Stichting Informatiecentrum voor Scholenbouw; Ministerie van Onderwijs, Kunsten en Wetenschappen. (1963), Systeembouw voor scholen. Den Haag

Herweijer, M. (1995), De weldadigheid van Licht en Lucht; stedenbouwkundige revoluties in Bos en Lommer. Tijdschrift: ons Amsterdam, jaargang 47, pp 230-234, Amsterdam

http://www.blaauwhof.nl/detail/id/A8DF6788E78D434EA0F7B78813AF932A.html april 2013

Stadsarchief Amsterdam, march and april 2013

References Part 3

Andriessen, J. W. (2007) Transformatieprocessen. (pp 322-326) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam

Boon, A. (2013). Lecture Stichting BOEI, kennisbijeenkomst 'ervaringen en dilemma's bij restaureren'. ERM. Amersfoort

Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam

Colijn, A. (2007) Identificatie als architectonische drijfveer voor sociale duurzaamheid. (pp 221-229) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam

Emeis, M. G. (1983). Amsterdam buiten de grachten. Amsterdam, Sijthof

Meurs, P. (2013). Lecture Heritage Development 1. RMIT Delft

Meurs, P. (2013). Lecture Heritage Development 2. RMIT Delft

Tomesen, R. (2008). Kolumba kunstmuseum. http://www.architectenweb.nl/aweb/archipedia/archipedia.asp?ID=11202

Velde, J. J. V. D. (1968). Stadsontwikkeling van Amsterdam 1939-1967. Amsterdam, Scheltema en Holkema.

www.vesteda.com (may 2013)

www.nederlandsijzermuseum.nl (may 2013)

References Part 5

Coenen, J. (2007). Transformatie als architectonische opgave. (pp 328-335) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam

Colijn, A. (2007) Identificatie als architectonische drijfveer voor sociale duurzaamheid. (pp 221-229) In: Van der Voort, T. (2007) Transformatie van kantoor gebouwen. Uitgeverij 010. Rotterdam

Meurs, P. Lecture: Heritage Development 1. Technical University of Delft, Delft. 13 Febr 2013.

Norberg-Schulz, C. (1979). Genius Loci. Naar een fenomenologie van de architectuur. (pp 530-533) In: Heynen, H. e.a. (2009) 'Dat is architectuur' Sleutelteksten uit de twintigste eeuw. Uitgeverij 010. Rotterdam

Roos, J. (2007). De ontdekking van de opgave. Delft: VSSD