P1 Report - Analyses
Typically The Hague are the different atmosphere in the centre, which have an historical background. The town consists of eight areas that each has its own character and appearance. An area that is interesting to me in particular is the 'New core' located next to central station. To me as an 'train passanger' this is the entrance to the city. Although the government has devined many areas with particulary characteristics, my experience of The Hague is that the transitions between these different areas are fluent. For this reason I became interested in how the 'borders' between these regions are experienced, and which elements are responsible for these borders?

Question:

"Which elements devine the borders in the 'New Core' and 'The Historic core' regions in Den Haag? And how are they experienced?"

The new core:
The New Core is formed by a series of high urban development between CS Station and City Hall. The New core is characterized by its new architecture, culture, business centre (concentration of new ministeries) and entrance to central station.

Sources:
1 source: http://www.denhaag.nl/bureau-binnenstad/to/Sfeergebieden-Haagse-binnenstad.htm
2 Idem
Borders in The Hague

The relationship between the New Core and the area South of this area is very little. The wide and busy road, and the building corbeling over this road are creating an huge border between the two areas.

There is a route for pedestrians and cyclists going under the building of 'Binnenlandse Zaken'. It seems that this route is created as an acces route, visible directly from 'Nieuwe Haven'. Probably because of troubling wind-speeds, they made this route difficult to notice. Also the opening, in relation to the building, is very small, what makes it uninviting to use.

Conclusion: The Road in this setting creates an inaccessible border to the new core, making the connection to Uilenbomen inconvenient.

Highrise in The Hague

The new core is recognizable for its concentration of high rise, which can be seen from different angles in The Hague. When you arrive The Hague from the north, the skyline of the new core can be seen as a border for this area. When you entering The Hague from the north, it seems like you are directly entering a very modern area of The Hague. But when we are entering the border of the New Core, we see buildings dating back til the 18th century. The highrise from these streets are from now on only visible from some angles, and when you bend your head backwards to an uncomfortable position.

Conclusion: The actual border of the new core is not shaped with modern buildings, but with 18th century buildings. This creates an fluent transition from 'old' to modern because the surrounding buildings are also dated back to the 18th century. Moderns buildings at the borders of the new core would have made an huge contrast.

Main roads around the New Core

Cars are not allowed inside the New Core. If you are coming from the North, you are most likely to turn right (city centre) or left (parking garage). Strait ahead is only for people working in those buildings.

Conclusion: The new core is inconvenient to reach by car. You need to park your car in the parking garage, or can use the roads around the new core to drop someone off.

Source all images: Own Images
Borders in The Hague

Connection to shopping centre
There is a clear transition between the 'New Core' and the shopping centre (West side of the new core). The pavement on spui is made of smooth granite, while the shopping centre is paved with brick. Somewhere between 2008 and 2012 they placed the same pavement (in brickwork) in the transition zone for the different infrastructures (tram, car, pedestrian). This creates a smooth transition from the New Core to the Shopping centre. The perceived border, created by the road for the cars and the rails of the tram, is made smaller by the usage of brick pavement, which is related to the pedestrian user. Because the tram is not passing by every second, this space can also be used for orientation.

The route coming from the Turfmarkt does not have a direct connection to the main shopping street. People who do not know 'The Hague will probably first walk to the church'. The reason why there is no direct route from the Turfmarkt to the Shopping centre is probably because the city hall wants to make a clear statement of its position on 'Spui'.

Conclusion: The route from central station to the main shopping street has an interesting 'offset' at the border between the new core and the shopping centre. For tourists unknown in The Hague, the Continuation around the city hall can be experienced illogical. The pavement in the transition zone is a connecting link between the two areas.

Public transportation
The 'train visitor' is welcomed to enter the Turfmarkt by the large opening in the building. It is clear that the city of The Hague wants its visitors to use the Turfmarkt for a direct route to the city centre. The tram is creating, may it be small, an obstacle in the middle of the turfmarkt. Because it is coming from inside a building, makes it difficult to notice.

Disconnection Benoordenhout and City centre
The train station creates an huge border between East and West. The route for pedestrians can walk through Central Station in the direction of Benoordenhout, but this route ends in a maze of buildings.

Final conclusion
The area 'Nieuwe kern' has clear borders, and can truly be defined as a distinct area, but tries to make clear links to its surroundings. The main tools that are used to shape these borders are the buildings and the pavements.

---

1. Before 2008, the pavement for the cars was asphalt. Source: Google earth streetview.
2. This was also the view when the Turfmarkt was still a canal.
My first observation when I visited the site was the placement of the building (which I knew beforehand that it was an office building) in a context that was dominated by dwellings. I also knew the large size of 14,000 m². Despite this contrast in function and size, it does not appear dominant in its environment. This observation has led me to the research question: "What elements are used to make the building blend into its context?"

Benoordenhout
The development of 'Benoordenhout' began in 1911 with the acceptance of the expansion of Berlage. The construction of the neighborhood was very gradually from west to east. The neighborhood was designed from the same masterplan, and in the same time period. This means that the architect Robbers knew the designs of his future surrounding buildings, and could easily adapt to it.

FMI
The FMI ("Functie menging index") shows the relationship between jobs and dwellings from LISA- and CBS-files.

\[ \text{FMI} = \frac{\text{number of jobs}}{\text{total amount of jobs + Dwellings}} \times 100 \]

Scale level: Grid cells of 50 x 50 meters.
Building blocks:
The building, together with the Nirwana flat, is larger than its context. Because of this aspect gives the building a different shape than its surrounding closed building blocks. The facades facing van Alkemadebaan and Roelofsstraat do have a closed building block appearance. This was possible because it has a larger open space between the buildings. The building had to open towards the Weissenbruchstraat because of its heights. Therefore an open inner courtyard is designed.

View from Roelofsstraat:
The extension built in 1952 was originally in the same height as the original building. With the extension on top, this wing did not grow to the same height, which would have made a big contrast with the dwellings in front. Now it functions as a ‘stair’ to initiate the main building.

View from Weissenbruchstraat:
The building, which is clearly higher than its surrounding buildings, has carefully placed setbacks that makes the octrooiraad less dominant in its context. When seeing the building at a distance (from Weissenbuchstraat) you can see that the setbacks are corresponding to the sloping roofs in front.

Alignment
The building is placed in the same alignment as the building block in the north, and in the same alignment as the block in the west. Only the West wing has a small setback.

Plot demarcations
The fences around the dwellings and courtyards are of the same materials and sizes. They are all placed in the same line. This gives the building the same ranking as its context.

The demarcation of the plot is done with the same materials as used the neighbourhood. It makes the building be part of the union.
Courtyards:

Courtyard A was used for the parking of bicycles. At night time, this space has an unpleasant atmosphere. The reason is a combination of the fact that it has no function, the height of the Octrooiraad building, the space is facing the rear sides of the gardens and the building is not used at night time.

The bicycle sheds are illuminated with lights at night (while the building is practically vacant), probably to be less attractive for shady practices.

Courtyard B was/is used for parking space, and also has the appearance of a parking space! This is not very fitting for the neighbourhood.

Middle wing:

The middle wing is creating dark 'armpits', especially in the first two floors. This was not a problem when the building was functioning as an office space, since these spaces were used as coffee corners, or meeting rooms.

This middle section was used as the office restaurant. It has a different structure and is two meter wider than the East and West wing. The volume, compared to the two wings, is more bulky, and the facade has a different form language (vertical components), than the other facades. It seems as if the architect tried to give this corner a different attitude, with some characteristics from the main principle.
Secondary objects

The small building in the north, that used to be a bikes repair house, closes the courtyard. With the placement of this element in front of the courtyard, the field of vision of the passer is distracted from the large open space. The scale of the building is experienced smaller by this trick.

Conclusion: the scale of the building is experienced smaller by the placement of this small building, and therefore make it a better fit in its surroundings.

Entrance west wing

In 1933 when the building was used by the octrooiraad, the janitor of the building had its own dwelling in the north side of the west wing, with its own entrance. Considering the height of this wing, which was 15 m in that time, the entrance with its horizontal cantilever and smaller windows to the side, the little stair in front makes this wing more corresponding to the scale of the neighbourhood.

Conclusion: Secondary objects as this entrance in the neighbourhood make the building more fitting to the human scale.

Trees:

There are placed multiple trees in the courtyard of the buildings plot. Looking from inside the neighbourhood to the building; it is impossible to see the building in its ‘total’ form. An total overview of the building would be undesirable, for it would draw to much attention to its large size, which would be unfit in its context.

Conclusion: The trees in the inner courtyard are making it impossible to see the buildings in total. When we cut down the trees, the building will be experienced as a larger object.
Building accesses:
The main entrances to the Octrooiraad building are located at the Roelofstraat (A and B). These entrances are leading to a clear vertical access structure including an elevator.

Entrance A has the most stately entrance, given by the overall composition of the building, and it’s orientation towards the square.

Entrance C can be considered as an ‘back door’ but is connected to the entrance hal B. This entrance was used as a quick entrance for cyclists.

Entrance D was the entrance for the janitor dwelling. It has the same form language as entrance A and B. Entrance D has a staircase connecting the upper floors but, considering that it would only be convenient for people using that particular wing, (and only the first three or four floors since there is no elevator) I specified it as a ‘back door’.

Entrance F gave access to the former postoffice, and gives no access to the building. The form language is the same as entrances A, B and D. Entrance E was for logistics.

The design of the entrances is designed to have a ‘human scale’. Or better: more fitting in comparison to the entrances of the neighbourhood.

Orientation to the street:
Because of the orientation of the entrances, and the use of the entrances, the building positions itself as having a front section (facing the Roelofstraat and van Alkemadestraat) and a rear section (facing the Weissenbruchstraat). Because of the size of the building (covering an hole block) this is an unpleasant experience for the people living at Weissenbruchstraat. These people are looking at the backside of a building.
Interior:
The entrance hall B has an interesting composition. It is clearly designed to impress the visitor. It has natural stone balustrades, and cast iron fence work. The walls are ornamented with large tiles. At every middle section of the stair, the visitor is presented a view toward Van Alkemadeelaan and the 'Haagse Bos'.

The upper floor (C) has a separate stair. If this stair extension was executed in the same cylinder, it would have damaged the overall composition.

The stair case A has is clearly more functional than appealing. It does receive lots of lights.

Picture H shows the characteristic corridor structure of the building, flanked with office chambers. This corridor receives light from openings at the op. Although this picture suggests that the corridor receives lots of sunlight, this is only because the doors are open. Artificial light is necessary when the doors are closed.

Picture D is showing a typical office room on the ground level. The large window openings bring lots of light into the room. The height of the ceiling is 4.5 m. This room still has the original steel window frames. Room E is a typical space at level 1/3. The ceilings are less high (3.5 m).

Picture G is showing the former restaurant on ground level. The openings are on the North side. The span is wider than the other wings. A small opening in the ceiling is created in the '60 to create a relation with the lunch room above. The material used to furnish this space does not have a high value.

Conclusion:
The interior of entrancehall F and B are furnished with durable materials. Entrancehall B is more majestic than F. The interior of the vertical circulation at A is less interesting, but works fine and has lots of daylight.

The height of the windows gives the building a nice quality. The ceilings are lowered, and reduces the quality.
Building and Context

Primary masses:
The main composition, or primary masses, are a playful combination of simple geometry of cubes. There is a variation in the main composition by the placement of a cylinder for the staircase (E). This cylindrical variation is also present in the columns that carry volume A.

With the addition on top in 1959, a nice overflow is created with the existing structure as visible in B. Part C now comes forward as an extrusion from part B.

The corner points of the building A and D, are designed as ‘special’ compositions. This is also present at corner-point elsewhere in the neighbourhood of Benoorden-Hout.

Secondary masses:
The large open faces are ordered with secondary masses to organize, or humanize, the faces. The ‘heads’ of the building are only ornamented with these secondary masses (which are the cantilevered floors (1.)) on ground level. This is probably done by the architect to create a certain rest in the composition, for the total appearance would otherwise be too crowded.

Tertiary masses:
The importance of this added layer is present in the corner points (A and E). These horizontal ornamentation (which are the lintels between to window frames 2.) is connecting the faces in the corners, and ensures that the building is presented as one unit.

Conclusion:
The overall composition is very interesting and designed with great care. The architect have used secondary and tertiary masses to combine and link different aspects in the building. I find this very intriguing.
The East Facade facing the Alkemadeelaan has most of the characteristics that determine all the facades of the building. The characteristics of these facades are:

- Large vertical windows
- Vertical ornaments
- Horizontal lines
- Splitting of the windows that brakes the verticality
- Smaller scale of windows by adding vertical and horizontal frames.

Especially the horizontal lines in the facade, created by extended concrete floors (secondary masses) and lintels (tertiary masses), are very dominant.

Surroundings buildings
The elements in the facade are also present in the surrounding buildings. The horizontality is also very present on the other side of the Alkemadeelaan. Also the cantilevered roofs to the west of the building is making a connection with the Octrooiraad. There are also differences, such as the bay windows that lots of the dwellings have. But also these jumps in the facade, that the bay windows create, can be found in the facade of the Octrooiraad, with its vertical ‘columns’ that jumps out. The style of the Neighbourhood can be placed in the style of the ‘Nieuwe Haagse school’. This style is characterized by brick surfaces in cubic volumes, chimneys, eaves, canopies, lintels and water layers. All these elements were used for horizontal and vertical accents.

Conclusion: This same style of building, that can be experienced through the hole neighbourhood makes the building be part of the union.

1 http://www.architectenweb.nl/a/web/archipedia/archipedia.asp?ID=112
My observation of the facade is that it has a very specific 'form language'. There are lots of different elements that come together, some structural some decorative. From this observation came forth my research question: "What are the principles that the architect have used for the design of the facade?"

For an understanding of the facade I will concentrate on a section on the east facade facing the Alkemadelaan. The elements that come together in this facade are iconic for the building, and the other facades, which some have small variations, are a derivative of this section.

The facade is build using (build) 'kit' consisting of dark masonry, ceramic tiles, natural stone lintels, decorative columns, natural stone beams and facade elements and window frames (steel and plastic).

The facade is not load bearing, besides its own weight. The loadbearing structure consists of a monolith concrete framework poured in place. The floors in this monolith structure are extended at the end, and carries the Masonry facade on top. The principle of this table construction is on all floors the same, with a variation in the top floor.

My first observations made me believe that the beams in the facade were poured at the same moment as the load-bearing construction.

This is probably not the case as can be seen in the picture below.
Masonry thickness

In the drawings the architect has used the term: M.D. to indicate the thickness of the walls. The following measurements are used:

- M.D. 112
- M.D. 224
- M.D. 336
- M.D. 448
- M.D. 560

Because these measurements correspond to the measurements I have done on site, I have assumed that this stands for ‘Metsel Dikte’ (Masonry thickness).

In construction, the measurement of the bricks is determineative for the proportions of the facade. The mason ensures that the stone fits onto a neat way, and always ends on a one stone, a header or a crosscut klezor.

The stone, that has a relative small height, is probably specially made for this project, since it does not match other formats. (If it did, it would probably be a ‘vechtformat’ (or Roman format)). The stones are placed in a ‘Vlaams verband’. This stone is usually used with a larger horizontal joint, which can also be seen in this building that has a horizontal joint of 12 mm. The choice for this stone by the architect could also be chosen by the wish of the architect to highlight the horizontal character, which the ‘Nieuwe Haagse school’ is also known for.

The size of the concrete structure is also a derivative from the measurements of the brick, which was necessary for the integration of the column in the brickwork. (See previous page).

The condition of the brickwork is in most places still in good condition. In some places (with the extensions executed in 1940 and 1959) the joints are done in a different manner. I haven’t figured out if this execution is cost related.

Masonry measurements

Formaten van baksteen vastgelegd in de NEN 2489

Ook wel Romeins formaat:

Bronnen: http://www.ekbouwadvies.nl/tabellen/baksteen.asp
Bronnen: http://habitos.be.msn.com/nl/bouwen/formaten-bakstenen-8001/
Because I couldn't find a accurate drawing of the facade in the archives, I used the size of the brick to determine the exact sizes of the elements in the facade.

It is interesting to see how the architect have used different brickwork bondings in the vertical accents. I am still in doubt whether this is exactly how the architect envisioned it, or if it is the artistic expression of the mason.

The Concrete beams parallel to the facade is for stability, and for bearing the weight of the facade above the windows.
The measurements of the concrete load bearing structure is a derivative of the measurements of the brick. Also the elements are submissive to this principle.

The building addition on the west wing executed in 1940, and the addition on top (1959) is executed with the same facade principle as the original. The addition on the west wing has lower floor heights, which could easily be done without disturbing the proportions because the same principle was used.

Window frames
Most of the facades facing the courtyards still have the original steel window frames. The window frames at the Alkemadeelaan and Roelofstraat were replaced in 1979 by plastic window frames, probably for sound isolation since they are located near busy roads.

The plastic window frames are placed on the old frames, which made it very cost effective. This also made it possible to easily remove them. When we compare the height of the window frames we see that the plastic window frames gives the facade a different proportion than the original steel window frames. The facades becomes more 'massive'.

Conclusion:
The principle of the facade is dominated by the usage of the brickwork, and is also determinative for the dimensions of the construction. Understanding of this principle can be helpful when adding volumes to the building, as have been done in 1940 and 1959 in the exact manner. The outcome of this additions can not be distinguished from the original. This makes it a 'not challenging' approach. It would be interesting to see what would happen to the appearance of the building when you use the same principle in a more playfull variation.
Principle of the Facade

Rainwater drainage
The pipes for the drainage of rainwater are placed with less respect for the appearance of the facade in the inner courtyard, than the facades facing the public domain. With the addition of the '50, less attention was given in neatly designing the drainage pipes.

The question still remains why it is possible for the facade facing the van Alkemadealaan and Roelofstraat to function with only two drainage pipes, while a facade facing the inner courtyard is in need of six?! Maybe the entire roof is sloping towards the inner courtyard.

Ventilation
Only the former canteen, and the former conference rooms are mechanically ventilated. The spaces for the installations are located on the roof, probably located in the extension 'sheds' for the elevators.

The former office spaces uses natural ventilation by opening the windows. Only the window frames that have been replaced in 1979 have airducts in the windowframes. Natural ventilation was/ is possible because the office rooms are (considering the size of 16 m²) used by one or two persons.

The hallways are ventilated by the openings under the doors. These are quite narrow, (10 mm) so opening the doors now and than would have been preferable.
Heating principle

The central heating device is located in the suosterrain. The hallways in the suosterrain are used for the horizontal transportation. The horizontal branches towards the facade are located in the lowered ceiling of the suosterrain. From here, the vertical branches are providing the radiators with water.

Current value facade

When transforming the Octrooiraad building to new functions, special attention should be given to the facade. The brick wall is not insulated. The only option for adding insulation, if we want to preserve the facade, is on the inside. But simply placing insulation on the inside could cause moisture problems. Also, the brick wall can get damaged, because it will 'work' more with the outside climate.

There are also lots of thermal bridges. Although some windows have been replaced by double glazing, most of them are still single, with thin metal window frames.

The positive effects of the Thermal mass of the brick wall can be neglected, because of the large window openings.
Value assessment

The overall composition is very interesting and designed with great care. The architect have used secondary and tertiary masses to combine and link different aspects in the building.

The open block structure makes the building appropriate towards the dwellings in the North.

The "stage structure" of the building makes the building blend into the structure of the residential area.

The interior of the main stair cases are furnished with durable materials, and have an interesting composition.

Secondary elements as the bicycle sheds and trees gives the building a more human scale.

There is a clear 'material palette 'used within the district. The Unity within the district is strongly influenced by this.

The specializations in the corners is characteristic for the district.

The building has high windows and high ceilings.

The use of different materials gives the building a varied image. The different materials used have similar (earthly) colors, which gives the building a modest character.

The state of the brick and joints are still in good condition.

The facade composition is determined by the size of the brick. Knowledge of this aspect can help in the design of interventions.

The district is characterized by a horizontal articulation.

The orientation of the building is towards Roelofsstraat, Witsenplein and Alkemadelaan.

The appearance of the courtyard is not pleasing for the pedestrians.

Because of the orientation of the entrances, the building is given a 'front' section and a 'rear' section.

The middle wing produces 'arm pits' which reduces the quality of the spaces around it.

The buildings surrounding the Octrooiraad are build/ de- signed in the same time period. The alignment of the building is in the same line as the building blocks. Because the architect has used a same material pallett and form language that is recognizable in the whole neighbourhood, an unity of the building and context is created.

The considered usage of pavement in the urban environment is a strong tool that can be used to devine or to connect different areas. This does not only refers to street pavement, but also in materialization of other urban elements such as plot demarcations and the usage of materials in the building itself. The Contect of the Octrooiraad has clear relation to eachother because of this unity in materialization, and the inhabitants is this neighboorhood will have a clear understanding how far their direct environment reaches. For me, this is an important quality for living in the city, that you can devide the transition from private to public in different zones.

Architectural analyses

RQ: "What elements are used to make the building blend into it's context?"

The buildings surrounding the Octrooiraad are build designed in the same time period. The alignment of the building is in the same line as the building blocks. Because the architect has used a same material pallett and form language that is recognizable in the whole neighbourhood, an unity of the building and context is created.

The trees in the inner courtyard are making it impos- sible to see the buildings in totall. When we cut down the trees, the building will be experienced as a larger object. Also, the scale of the building is experienced smaller because of the placement of the small building closing the courtyards, and therefor make it a better fit in its surroundings.

With this conclusion, I showed how the building is perceived to be less dominant in its context than the size would suggest. I think that this is an important quality for the building to be accepted by the inhabitants. Failing in these aspects, the building would be to big of a contrast in both function as in size. Secondary objects like the old bikes repair house do not have an high value assessment for the construction and appearance itself, but for the function it represent for decreasing the scale of the building. An other object could fit this purpose in the same matter.

Technical analyses

RQ: "What are the principles that the architect have used for the design of the facade?"

In the analyses I have showed how the size of the bricks are determinative for the sizes of the ornaments and openings for the windowframes. Although this answer is very obvious (since it is the standard construction method), understanding of this principle is a must for making a redesign for this building. We should not make an exact copy, or firmly hold on to the same execution of this principle. More interesting buildings occur when you find a playfull variation to this principle.