REFLECTION

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Introduction

The past few months I have been designing a centre for asthmatic children within the graduation studio: ‘The Healthy environment’. This studio is a part of the ‘Architecture of the Interior’ chair. In this report I will reflect on both the design and the process. In order to do this thoroughly, the report will focus on different aspects:

Aspect 1: The relationship between the project and the wider social context
Aspect 2: The relationship between research and design
Aspect 3: The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)
Aspect 4: The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

Based on these aspects, I will conclude and explain whether or not my approach and associated (design) methods were successful, to what extent and, even more important, what can be learned from this.

1. The relationship between the project and the wider social context

In the Netherlands asthma is a very common disease and it is even the most common one amongst children. Over 0.5 million people in the Netherlands suffer from this disease and whereof 119,000 are children. This comes down to 2 a 3 children in each school class, who will have to deal with their asthma on an everyday base. In the larger cities, including Rotterdam, the numbers are even worse, 1 of every 6 children. These numbers will only continue to increase in the future.¹

The care for asthma has always been divided. In principle, when a child is diagnosed with asthma, the disease will be treated by a GP or a pulmonary doctor, who will subscribe medication. In addition, most of them will go for check-ups to the hospital or visit the general practitioner a few times a year. In the past these rehabilitation centres were only meant for the worst cases. This means, that only when the medication was not successful and both the asthmatic child and his or her parents can’t control the home situation any longer, the child would be referred to such a centre.² Here, they are educated on how to deal with and control their asthma on a day to day base. These centres were initially situated in the east of the country or in other countries, such as Switzerland, to provide a better air quality. However, the approach to asthma care is slightly shifting as more and more of these centres in the Netherlands are providing outpatient care nowadays. It has been questioned if this care should be made more accessible for less extreme cases of asthma or even for every asthma patient. I strongly applaud this change as indeed, the treatment of asthma is not only about finding the right medication, but often about a significant change in lifestyle (e.g. avoiding triggers, enough exercise, medication discipline.) In relation to this, research indicates that by educating asthma patients from the diagnosis on (mostly at a young age), a lot of problems and uncontrollable situations can be provided later on as illustrated by the following quotes:

¹ www.longfonds.nl
² www.merem.nl/heideheuvel/
In order to provide better care for all asthma patients, the care, as offered by these centres, should be offered on a more regional level rather than a (inter)national level. In the best case scenario the centre would become part of the everyday life of asthmatic patients and in particular children. This is one of the reasons why I have chosen to situate the envisioned centre in the middle of the city of Rotterdam, near the museum park, as asthma is especially a problem within the larger cities. To incorporate the existing centres in the everyday life of children in Rotterdam (and other Randstad cities) is nearly impossible as these centres are too far away and not everybody can afford to go to such a centre. Admittedly, the air quality is a lot worse in the Randstad than in the east of the country, but sending children for a few weeks to these centres will not solve the problem. After all, in the end these children still need to go back to their everyday environment, as indicated by H. Elema (pulmonary nurse at Salem).

"In the end, every child needs to go back to their everyday living environment, so why put them in a glass bubble. You can create a perfect world for asthmatic children and their asthma will improve, but if they don’t learn to cope with ‘normal’ circumstances they will be back in the centre in no time."

Elema H. 2015

The best solution for these children, especially the extreme cases, would be to move to a place with better air quality. However, in most cases this is not a possibility. Therefore, handing these children tools to control their asthma in their own environment is a better solution than sending them of for a few weeks to an inpatient centre and will still improve their lives significantly. By bringing the centre closer to home, it is also avoided that a child is ripped away from their family and it can become a more integral part of the city rather than an independent institution somewhere in the woods. In my opinion it is time to move away from this hidden character of care for an invisible disease, as asthma is. I have aimed for this integration of the centre, the city and the everyday life by making the centre more public than usual and combining it with a kind of large community centre. In this way the centre does not only provide care for asthmatic children, but also offers a gymnasium for the nearby primary schools and a kindergarten, a restaurant and sport facilities for the neighbourhood.

2. The relationship between research and design

The graduation project started with two workshops, one related to gardens and one related to ‘hofjes’, which together formed the AR3Ai050 – studio specific research 1. Next to these workshops I have done an extensive research on the future user of the design project and his/her needs and wishes for the second research course AR3Ai055 – studio specific research 2. The research consisted out of three separate reports. The most important one, was the third report. As explained before the
majority of asthmatic children and their families just deal with the possible (social) difficulties of asthma on their own, as they are only handed medication instead of a lifestyle. Therefore I wondered what these limitations are that they encounter and whether this can be related to different ethnicities, as the numbers are higher in the (multicultural) larger cities. In addition, I compared these needs to what an existing asthma centre offers the patient in order to find out how or if I should change this typology.

My main research question was:

- In which ways can an outpatient asthma centre in Rotterdam improve the everyday life of asthmatic children?

The accompanying sub questions are:

- What are the social limitations for children with asthma within their everyday life?
- What is the relationship between ethnicity and asthma and asthma limitations?
- What are the qualities and flaws of existing outpatient asthma centres for children?

The most important conclusion in this report was, that the awareness and knowledge about asthma should be improved, especially with regard to children from other ethnicities. I discovered that the prevalence of asthma is higher amongst certain ethnicities, often caused by differences in social-economic status, cultural differences and poor housing. But, another great cause is the lack of control over their asthma due to insufficient knowledge. This is strongly related to not sufficient understanding of the Dutch language of the parents and little social support, which lead to insecurities. Even though, improved centres, such as Salem, which already have a regional approach, offer education it is not specified for different cultures. This is the reason why I designed a library and multiple educational rooms within my building, to educate the parents as well. These spaces offer the possibility to educate them within their own language. They can do this on their own: books about asthma in different languages in the library or by attending lectures. By making the centre a more public building the threshold is lowered and will contribute to a stronger feel of support for families as they can meet one another under casual circumstances within the centre.

The second report that focused on the site in relation to the centre concluded that this publicness would also offer great possibilities for the city itself. The main research question for this report was the following:

- What can the site offer the centre and vice versa?

An open route from the Westersingel to the Museumpark would make the site a lot more lively. I have tried to achieve this by creating a large square as an transition zone between the green Museum park and the urban Westersingel. And as mentioned before, I tried to embed the centre more within the city life, by offering functions for the neighbourhood as well.

The first report I wrote was inspired by the workshops we did before and addressed garden design for asthmatic children. For this report I used the following research question:

- How can one design a well-functioning and safe garden for asthmatic children, that can contribute to their wellbeing?

It concluded that these children should be seen as normal children in the first place and therefore are in need for a playful and adventurous garden. However, the garden should also contain elements that are not only activating, but can also decrease triggers or symptoms of hay fever and/or asthma. Some examples of these elements are given. Later on in the design process I became more and more aware that this conclusion not only should be applied to the courtyards I’ve designed, but could also be of great meaning within the building. The asthma centre should not just beautiful building, but should be an exciting building for these children to decrease any anxiety or stress that could occur when a child needs to visit the centre for treatment. We all know how stressful a visit to a hospital environment or a doctor can be. Therefore I’ve created throughout the building several places to climb and play for these children. This is mostly expressed in the waiting areas next to the doctor
rooms, as in my opinion this is the place that could lead to the most stress and therefore should be a very relaxing environment.

3. The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)

The theme of the graduation lab is healthcare and within the chosen studio, the design of a ‘healthy environment’ in particular, as the studio is called. The purpose of this studio is to design a healthcare building, which is not a hospital. The needs and wishes of the specific user group should be key within this design.

I have chosen to design an outpatient centre for asthmatic children in Rotterdam, because I can relate strongly to this subject, due to my own experiences. I have had asthma since a very young age and through this I have been in contact with health care regularly. I have also been hospitalized a few times for my asthma. Therefore I have experienced the influence of an environment, in relation to recovery and comfort, by myself.

The treatment of asthma is difficult, as the disease is invisible. In the everyday life, many patients try to keep their difficulties to themselves or stay at home, when they are not feeling well. Mostly, because they feel misunderstood. The experience of feeling cramped or having an asthma attack is very difficult to explain to another person. Therefore, I have tried to develop a building, which would not only contain the needed programme for such a centre, but would also feel as a kind of sanctuary for these asthmatic children. A place were their problems are taken seriously, where they can play and literally can catch their breath. In order to do this I have used the ideals of the hygienic city movement (during the reconstruction period in the thirties) as a guidance. Light, space and air where their ideals for a reason, namely to offer people a healthier (living) environment.

In contrast to most of my colleagues within this studio, who dealt with the subject of dementia care, I have not designed a healthy living environment. For as, my centre will offer outpatient care. This changes the focus from researching and improving the housing conditions of a patient to a focus on the way a healthcare centre can become a positive influence on a patient everyday life, without being able to change their housing conditions. I have discovered that, in order to contribute to the lives of asthmatic children in this case, the social vision (offering them a change in lifestyle) of the centre is of greater importance than the building characters that are specified on asthma care (such as avoiding dust, clean and smooth materials, allergy free garden). The most important thing is therefore that the building offers the user a positive experience while undergoing the needed treatments. This means that there should be enough space for the different treatments. The building should have a clear lay out, so the users can easily find their way. And the interior should exude calmness and light. It should in no way remind the patient of the long, dark hallways of a hospital. Therefore I used the different courtyards as a tool not only for wayfinding, but also as a way for light and for the patient to always feel connected with the green surroundings of the Museumpark, as greenery or a view on green has been known to have a calming effect. In addition, I designed a large green roof to contribute to this connection with nature.

Although I have designed this centre especially for asthmatic children as I also focussed my research on this subject, it can be concluded that the building could easily accommodate other healthcare services. The treatment method for childhood obesity or diabetes for example are very similar to the treatments offered by asthma centres. They all focus on a change in lifestyle: proper nutrition, exercise and psychological support.
4. The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

The chair of interior is known for their use of models within the design project. I have embraced this approach within my process and found out that especially the larger scale models, such as 1:20 and 1:50 proved to be very helpful to keep grip on the scale of the building and it helped to extend the core values through the interior, construction and details. As every consequence of a design decision is researched in 3D instead of just by sketching in 2D the overall design can become a much more integrated entity. This because, through making such a model every connection of materials, thickness and placement is in automatically need for attention. I think that by the combination of sketching, collage making and model building I was able to create an appropriate building for asthmatic children with a calm and light interior, without it being a sterile environment as the larger models offered me the possibility to research the atmosphere of different spaces.

During the process I have learned to focus on core aspects. As a graduate student, you try to achieve the most beautiful design you have ever made during your education. However, adding too much interesting elements can result in the opposite as is well known, less is more. Both myself and my design have calmed down a lot during the process, by abstracting my core values and design concept in diagrams. These diagrams helped me to make decisions on different scale levels without losing the overall concept.

The workshops about hofjes and gardens in the beginning of the project, also offered a lot of guidance within my own project. ‘Hofjes’ are a great tool in healthcare buildings, as they make it possible for the building to be more opened up instead of the very closed institutions as hospitals often are. By dividing my building into smaller parts that surround one large courtyard, the very internal character of a healthcare institution can be dissolved as the patient will move from one aspect of the treatment through another part of the treatment by crossing the main courtyard. At the same time privacy can be maintained as a ‘hofje’ is always an enclosed space. In this way the threshold of the building will be high enough to keep non-users of the building (for example tourists) outside. A critical note is that because of the strong focus on ‘hofjes’ I almost forgot that there are a lot of other ways to bring in light and nature within a building, such as patios, glass houses, the connection to the green roof or just roof lights. So ‘hofjes’ proved to be a great tool, but should be used modestly.

The workshop about garden design was strongly related to the ‘hofjes’ and I have really enjoyed designing a garden in detail for one of the MsC 4 students during the MsC 3. Mostly because this aspect has never been given that much attention during other projects. Therefore, I found it a bit disappointing that we didn’t have the time or possibility to give the same amount of attention to our own garden designs.

All in all, I think that the combination of the focus within the interior studio on the user perspective and the combination with workshops and the use of models helped me a lot to create depth in my design and to keep focus on the purpose of the design, rather than to get lost in designing just a beautiful building. The design has become much more than that and could really be a part of the everyday life of not only asthmatic children in the region of Rotterdam, but also children in the neighbourhood (as a community centre). It will offer (asthmatic) children a great relaxing place to be, during treatment or even just to play after school and meet their friends. Seen from the location, the centre is a bit too large, as I try with my building to join the monoliths in the museum park, such as the Kunsthal en the Boijmans museum. However, I have made this decision because the centre should have a regional function and in order to accommodate the needed programme, it should be a large building.