

REFLECTION GRADUATION PROJECT

Heritage & Architecture: Adapting 20C architecture
21-05-2020
Leila van Coeverden
4796802

This heritage assignment is different than usual. The case focuses on the typical Dutch residential area: De Werven in Almere-Haven, built in the 1980s. In this residential area we are looking at 'potential' heritage in which the values of the district have yet to be discovered. Considering the fact that there are a lot of similar residential areas in the Netherlands, makes it very interesting to see what this built environment can mean for the future. A future in which we will have to densify in order to be able to accommodate everyone, but also a future in which we will have to take our planet into account and adapt our current buildings for this sake. The assignment offers the opportunity to test what is possible with these buildings.

That is why this project is aimed at greenifying the existing residential area in order to increase biodiversity and make the environment future-proof. To this end, the ambition has been set to create harmony between people and nature. With the idea that if the existing residents are included in the concept, this will increase the feasibility of the project. This has led to the following research question:

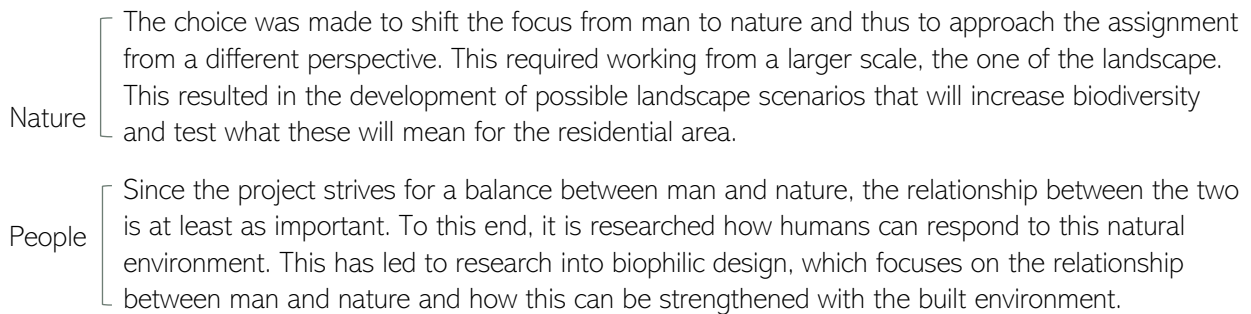
*How to obtain synergy between people and nature within the existing built environment? *So that people embrace living in a more natural environment?*

Uniting the living environment of man with the natural environment requires give and take. Doing this in an existing residential area means that both the current residents and characteristics of the area must be considered, as well as the opportunities that the area can offer for the greater purpose of strengthening the biodiversity.

This unconventional 'heritage' task may also demand an unconventional approach. In this study, the project is carried out from the perspective of nature and animals instead of from the perspective of people. In this way the boundaries but also the possibilities that the neighbourhood can offer have been explored. The rearrangement of the role of heritage within the project is set through by rearranging the process by putting animals first.

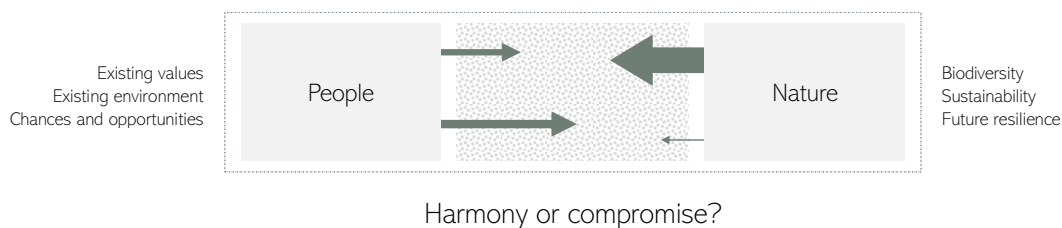
Aspect 1 - the relationship between research and design.

The fascination to greenify the neighbourhood did not come out of nowhere. In a residential area where the values still had to be discovered, the pre-investigation provided information about the problems and opportunities that lie in the neighbourhood. This can be seen as an exploration of the possibilities that the residential area offers. Initial observations of the neighbourhood gave a closed, sober and above all paved impression. Contrastingly enough, research revealed that the design of the neighbourhood is based on the garden city concept and therefore offers many open spaces. This was followed by a survey of residents, who expressed their appreciation for greenery and nature. These data offered the opportunity to experiment with what it would mean if this area was given a more natural angle. The challenge was to work with an existing neighbourhood with existing residents and values. Because of the different perspective needed to confine the concept, a two sided research was needed focusing on nature and people.



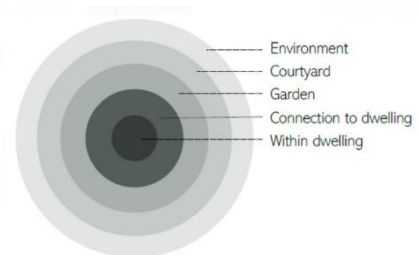
And with this information I tried to reach for the *extreme* scenario's to get the most out of the research. Returning to the needs and wishes of the residents every time a bigger implication had to be made by *tuning down*. The problem with this approach is that the decision making is more difficult since there are two different interests, leaving one of the two sometimes a bit behind. For this reason the research jumped around in many directions.

Both researches created the starting points for the concept formation, in which the choice was based on a consideration between the positive/negative impact on humans and the impact on nature. The 'human/nature' evaluation turned out to be the consideration that had to be made throughout the entire project.



After all, it is difficult to determine the right balance and to decide whether it works or not. It is always a consideration between the impact of the intervention and the gain. The initial problem was that the gain is hard to quantify.

I was advised to move on from the bigger scale towards a smaller one and finishing up this bigger scale by clarifying the potential gains from the scenario of the landscape. This made it easier to think about the effects this had on a more detailed level and how I can acquire these profits I would like the concept to have. In this way, the choices concerning the landscape have a direct influence on the scales below, so that the perspective of nature can be extended to the smallest level.



Important moments of choice can therefore be found in the connections and interactions between the different scales; with the idea to make a large and abstract idea more and more specific.

In order to get a better grip on it, new research had been started, on the one hand on the experiential value of the new landscape and on the other hand on the existing dwellings and how they can connect to the new landscape. The complex element is the combination of these two worlds in which they come to live harmoniously together.

Therefore we have to consider the opportunities in the area and if they are in line with the values that play a role in the neighbourhood. How can we respond to this without disrespecting the history, the residents and the functionality? This is where the concept of the neighbourhood, conceived by the architect, offered the opportunity to respond to his ideas. The ambition of the architect to create versatility and diversity by means of a toolkit of elements and structures offers the opportunity to either expand or adapt where necessary. This has created the possibility to make adjustments to the neighbourhood and the dwellings while retaining the original character as much as possible by rearranging the original zoning and adjusting the facades.

Rethinking the way we handle and live with our direct (natural) environment ensures that the concept does not only say something about the outside world but also about the house. This is why the concept has been drawn into the house. By giving the house the possibility to respond to the seasons, a relationship was created between nature and people, which was the ultimate goal of the concept.

By working from extremes and then evaluating them in order to form compromises (attenuate), a new concept could be devised. This research has therefore been more of an experiment about how it can be done. It might not be an ideal or perfect answer but a different, and perhaps even a necessary, perspective in the future.

Aspect 2 - the relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master program (MSc AUBS).

This studio has provided the opportunity to investigate the opportunities and potential of the less regarded built environment. After all, in a rapidly changing world, it is precisely these buildings that are of great importance because they are the ones that can be changed to anticipate to the future. The advantage of working with existing buildings is the fact that fewer new materials need to be used and it prevents a lot of demolition. By researching these buildings, opportunities, values can be discovered that on the other hand might disappear. Especially now that the awareness of the danger of mankind in relation to the environment is increasing, it is relevant to look at what we already have and what we can achieve with it.

Values that are playing a role now can change over time. The best thing would be if the built environment would grow with the times by reusing or strengthening existing qualities.

Transformations, renovations or redevelopments are an important theme within the built environment. However, within the architecture master track only a few studios are given that reflect on the preservation of the existing. This while dealing with the existing environment can be one of our biggest assignments in the future.

The Heritage studio: Adapting 20C Heritage, investigates the values of neighbourhoods where the appreciation is not immediately obvious in order to examine how this built environment can offer possible potential for new themes. In my case, the theme of biodiversity in the Netherlands.

From a heritage point of view, I tried to study the zeitgeist and thought processes of the architect in order to identify potentials, which in turn strengthen the feasibility of my project. Using the current qualities and opportunities of the neighbourhood. And broadening the scope of these qualities through the further development of a system with which the transition from an abiotic/natural atmosphere to a more biotic/natural atmosphere can be achieved.

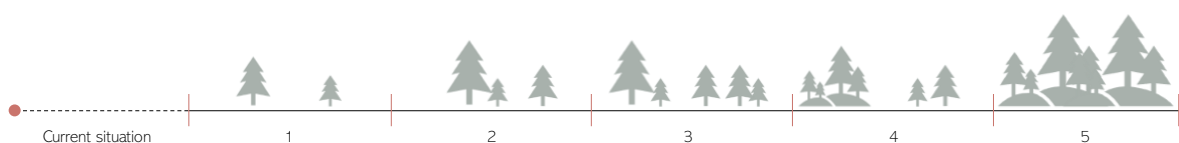
Aspect 3 - Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

Currently we are aware of the fact that the world has to cope with a lot of negative influences made by humans. It is therefore important to take the impact of our implications into account when we design and build new projects. But what about our existing environment? In this case we don't only have to handle the new wishes but also have to be aware of the existing ones and search for the values that could play a role for other species as well. From that perspective, some values can also be found in the things we initially don't see, like the ecosystem around us. Extensive research resulted into the values, wishes and opportunities of the area. But in a neighbourhood where these values are not immediately visible, this requires research into the spirit of time and interviews with the residents.

When addressing a greater goal, in this case creating more biodiversity for the environmental sake, two intentions have to be put together in one design. In this research, values not only derive from man but also from nature. This research looked at what the existing environment can offer for the purpose of strengthening biodiversity and how this environment can adapt to one in which man and nature are more in harmony. In this case, the design of the neighbourhood, garden city concept, has been recognised as a valuable quality that can provide space for (new) greenery and water.

The method used in this project implies searching for the extremes of the biodiversity goal. But since we're talking about nature, this scenario can only be reached over many years. Therefore this creates the opportunity of the neighbourhood slowly adjusting towards a more biodiverse environment. With the preservation of the values that are actually most important to the residents and new added values that are important for the biodiversity. Ending with a neighbourhood that can future resilient in order to form sustainable heritage.

Visualising this into a diagram this means that step five would be the ideal situation in terms of biodiversity and step one the beginning design of the new landscape. Keeping in mind that people might not want to give up certain values it could mean that the eventual transformation stops at step three or four which will then be the optimal harmony in this specific neighbourhood.



The research provided will thus elaborate what it means for an existing neighbourhood to transform into a more biodiverse landscape and how this can be achieved.

Aspect 4 - Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

My graduation research and design provides a societal relevance (individual and communal) based on insights in how people live and how it can be more in line with our natural environment, which can be related to the climate issues. This is done by testing and setting up guiding principles to find the right balance for this specific neighbourhood and can therefore be seen as an experiment for these types of neighbourhoods. For this it is worthwhile to see what kind of impact it has and which research methods have been used.

The research shows what opportunities can be found in an existing residential area and what these can mean for the natural environment. Starting points and preconditions, with regard to existing values and qualities, have been formed that say something about housing that can respond to a new landscape. For example, the concept in which the dwelling responds to the seasons and the possibilities to form gardens without hard demarcations that obstruct the functioning of nature.

By taking 'realism' into account, a design has been created in which the possibility remains that not all households will participate in the concept. This could mean that, for example, homeowners could make the investment but housing corporations would not. This will not necessarily detract from the harmony of the architecture. Although this has been successful on the scale of the home, it does not apply to every scale.

A point of nuisance here is that one of the conditions is that the backyards of the houses need a more open character in order for the nature concept to function (no fences but green demarcations and as little paving as possible). This means that if not everyone is open to this, the feasibility of the concept will be jeopardised, but the exact balance will have to be indicated in further research.

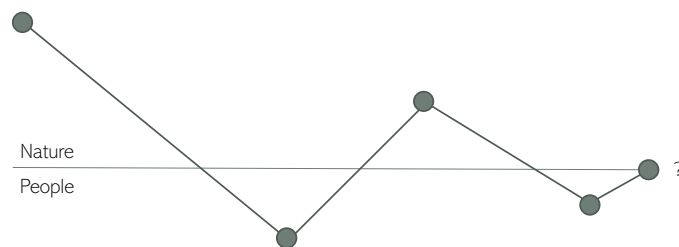
Next to that my work gives an idea about a method for creating synergy between people and nature and how this could be implemented in an existing environment, creating a professional framework for people to implement this on their projects.

Aspect 5 - Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

Research shows that the valuation by the residents also note the importance of the relation and proximity of the greenery; which addresses the relevance of this concept in this specific neighbourhood.

This means that we should not talk about harming any values but maybe even about supporting them. Especially in this case, appreciation and valuation are not static but change over time. It's about the priority of the values and the creation of new values that fit within our future. In this case it is inevitable that sustainability will play a bigger role in our society. This new value should be embraced in a way that it creates opportunities. A future design should therefore be a balance between existing and new values.

This balance can be achieved by the right mitigations to keep the most important values alive. But here the question arises of what the right balance is. Adaptation/densification of the existing neighbourhood offers the potential to create a new way of living with the natural environment. At the same time this is a dilemma in terms of sustainability and even biodiversity.



When is the right balance achieved?

The interventions to be made to the current homes have a larger purpose and will have a positive effect on the biodiversity and on the connection between people and their natural environment, that is for sure. But when has the right balance been found between the impact of the intervention and the result achieved? Since every alteration implies the use of (new) materials, embodied energy and the loss of materials. How far should we go, achieving this greater goal in a neighbourhood that is already functioning?

In my design process I spent a lot of time trying to find the right answer, thinking about the reuse of materials, the aesthetic qualities (mainly from a heritage point of view), the energetic advantage, the modularity of the concept, etc. However, I think that the best balance could only be achieved when the least is required to achieve the highest possible result. This balance can be tested by weighing the different interests next to each other.

In this case, for the neighbourhood of De Werven, I feel that a lot is needed to make this specific residential area suitable for the idea, so this balance could be called into question. To make the neighbourhood suitable for the concept, a lot needs to be done, which will both cost money and have a major impact on the residents. This is somewhat mitigated in the concept by the fact that it is divided into a phased plan for the future, but this does not make it less impactful. Does the intervention outweigh the impact?

Is it worth it?