

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



HUMANATURE

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Heritage & Architecture: Adapting 20C Heritage

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Personal information

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Studio

Name / Theme:
Adapting 20C Heritage

Main mentor:
Lidwine Spoomans *Heritage and Architecture*

Second mentor:
Wido Quist *Heritage and Architecture*
Nicholas Clarke *Values mentor*

Argumentation of choice of the studio

The choice for the studio Heritage and Architecture is mainly related to my personal interest: The current status the Dutch housing stock, and then in particular; 20C architecture. This part of the built environment is not immediately interesting because of its age, which is unusual for 'Heritage'. But I think this is precisely the problem and therefore the challenge. Is this modern/young/new heritage? And how should we treat this big part of the housing stock?

My interest was triggered when this studio announced the focus on 1970s architecture, which is often criticized for its lack of visual and structural qualities. Where does this criticism come from and what should we do with this large amount of the housing stock? The challenge is to seek for the potential of these existing neighbourhoods and what their qualities are. This will answer the question how they can be improved or changed without affecting their qualities. The eventual goal is to achieve a wealthier and cleaner Holland.

In a world where we have to deal very carefully with the depletion of materials and what already used, in the form of embodied energy, demolition is not an option. Transformation and renovation can unleash the full potential of the existing stock. Recognizing and exploring the associated potential can offer solutions. In this case, combining heritage projects with the national plan to build one million homes throughout the Netherlands.

The challenge is to look for value in areas, and buildings, where it is not necessarily clear where the value lies. This in order to solve the densification problem with respect for the past.

What sparked my interest in this studio has to do with a different way of valuing. Not necessarily because of the age of the buildings, but to create an appreciation for what is already there.

HUMAN NATURE

SYNERGY BETWEEN PEOPLE AND NATURE IN A
DENSIFICATION QUESTION



Location: De Werven, Almere-Haven, Netherlands

The posed problem

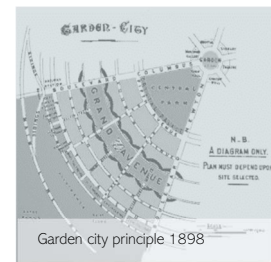
A typical Dutch residential typology, called Woonerf, is struggling with a bad reputation. In specific cauliflower neighbourhoods, most of which were built in the 70's. The buildings offer little diversity in housing, which creates an undesirable unanimity of the living environments. In addition, the presence of cars in these neighbourhoods has been given a prominent role, which does not benefit the surrounding area (Martijn Ubink 2011).

The inspiration for the cauliflower districts, on the other hand, came from the garden city typology which wanted to create a harmony between people and the natural environment. This principle, invented by Ebenezer Howard, involves offering a lot of public green space to the residents (image 1). So, maybe the problem around the cauliflower neighbourhoods is more of a missed opportunity that could be taken up.

The cauliflower district 'De Werven' designed by architect Jooop van Stigt continues to work with the principle of the garden city. In his vision, the greenery and the complexity of the design play an important role (image 2).

However, a lot of van Stigt's ideas were cut back during the construction phase which mostly effected the public and collective areas; planting, height differences, paving. This was at the expense of the living environment (imgae 3). The focus was on the dwelling and the inhabitant. Was the value of these public and collective areas perhaps underestimated?

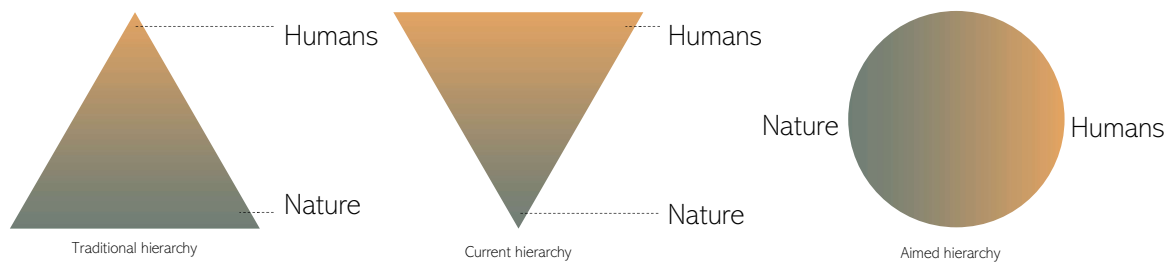
De Werven is not the only example of a cauliflower district that had to cope with cutbacks due to economic stagnation. Many of the designs, which where wide-ranged, dealt with cut backs and where reduced with poor qualities as result. This led to the reputation of civility and mediocrity, which cauliflower districts still have to cope with to this day. The prevalent introverted lifestyles of the residents in these neighbourhoods is not only due to the lack of money, but also to the strong disconnection towards their living environments (Dick van Gameren 2010). The only greenery that residents come into contact with, is the very well delineated and structured grass beds (image 4). Perhaps a new connection can be created between the residents and the living environment. This could increase the liveability of the area. Looking back at the intended inspiration, garden cities, the neighbourhood offers potential. Could nature, being plants and animals, work as a binding factor (image 5)¹?



¹ Image derived from project: From Burden To Benefit, by Personal Architecture

Biodiversity

The opportunity of the 'The Werven' lie in it's origin being inspired by the Garden City principle. This on the other hand can perhaps be linked to another major theme. Namely the climate problems that have a negative impact on biodiversity in the world and therefore also in the Netherlands (PBL Netherlands Environmental Assessment, 2013). Next to human problems like water problems, heat island and air pollution. These climate problems cause shortages and dangers for the surroundings and health, but could already be reduced by other living styles, namely those that are more in harmony with nature.



At the moment, nature is often adapted to the wishes of mankind. We humans basically decide where and how much nature there is in our living environment. This has a lot of influence on ecosystems. When looking at the average living environment, the hierarchy between man and nature is not what traditional hierarchies often look like. In that case, man is above nature, but there would be more nature than people (left triangle). In the current situation it is often the other way around; there are a lot of people and there is little nature (middle triangle). What would it be like if this balance was straightened out and we see nature as an ally (right circle)? But this only works if both parties, man and nature, benefit both, which urges the need for synergy. This is important because the plan can only succeed if the inhabitants are willing to cooperate. People should feel their own advantage of being more connected to nature and not be obliged.



Dust to dust: redesigning urban life in healthy soils – 2019

A project about soil health in the urban environment offers innovative redesigns of public space. This example shows how a new balance can be created between the natural environment and people.

Project by, amongst others, Fransje Hooijmeijer and Wouter ter Heijden (TU Delft).

Research question and sub-questions

Finding a new balance between man and nature can offer a special opportunity in the existing residential area (as shown by image 5 and the project *Dust to Dust*). What could this new balance mean in De Werven and how can residents make use of it?

The main goal is to achieve more biodiversity in the built environment of the Werven. The ambition with this goal might be just as important: Connecting people with nature. This aim of adding nature could create the benefits, such as the improvement in air quality, the better infiltration of land by water and the decreasing of heat islands. Taking away these, mostly human, disturbances creates a more biodiverse and liveable environment of the residents and its surroundings.

With the consideration to provide a way of living that benefits the surrounding nature, in a way that it is easy and enriching for the inhabitants. The following research question comes up:

HOW TO PROVIDE/OBTAIN SYNERGY BETWEEN PEOPLE AND NATURE WITHIN THE EXISTING BUILT ENVIRONMENT?

*SO THAT PEOPLE EMBRACE LIVING IN A MORE NATURAL ENVIRONMENT

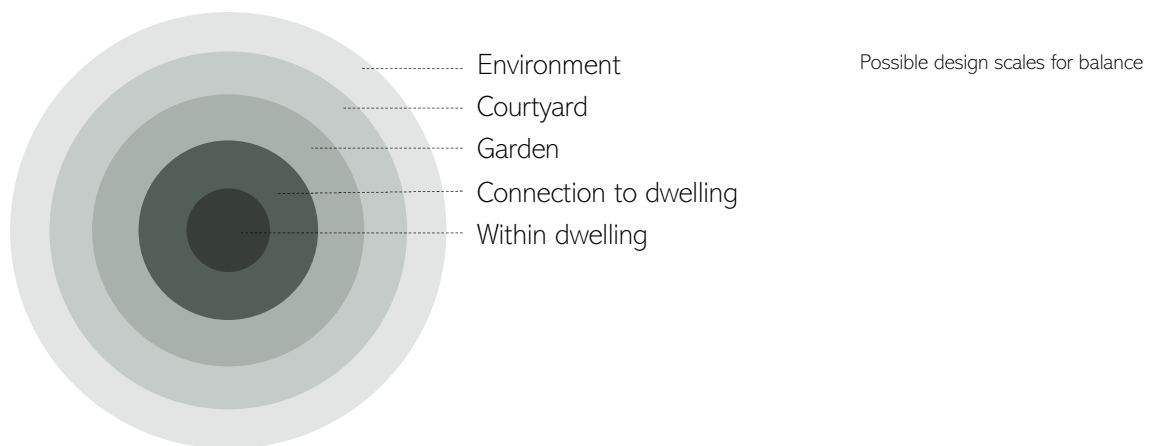
Synergy being meant as a harmony between people and the natural environment in such a way that is beneficial for both. A research in the possibilities of making a sustainable living style suitable for everyone and not only for the rich (expensive solarpanels, heating systems, storage facilities, etc.). Aiming for more biodiversity by bringing people closer to nature in a passive way.

Possible sub-questions in regard to the main question would be; (1) what is biodiversity and how can it be enriched in the built environment? (2) In what ways can nature be added to an existing neighbourhood (research by scenario's), (3) how to design in such a way that people are more involved with nature (= biophilic design and research on how to implement this in and/or around existing buildings), (4) how can this synergy become feasible (apart from technical feasibility): (5) What is the impact on the existing environment? (6) To what extend can you change the existing environment without affecting important values of the already built neighbourhood?

Design assignment

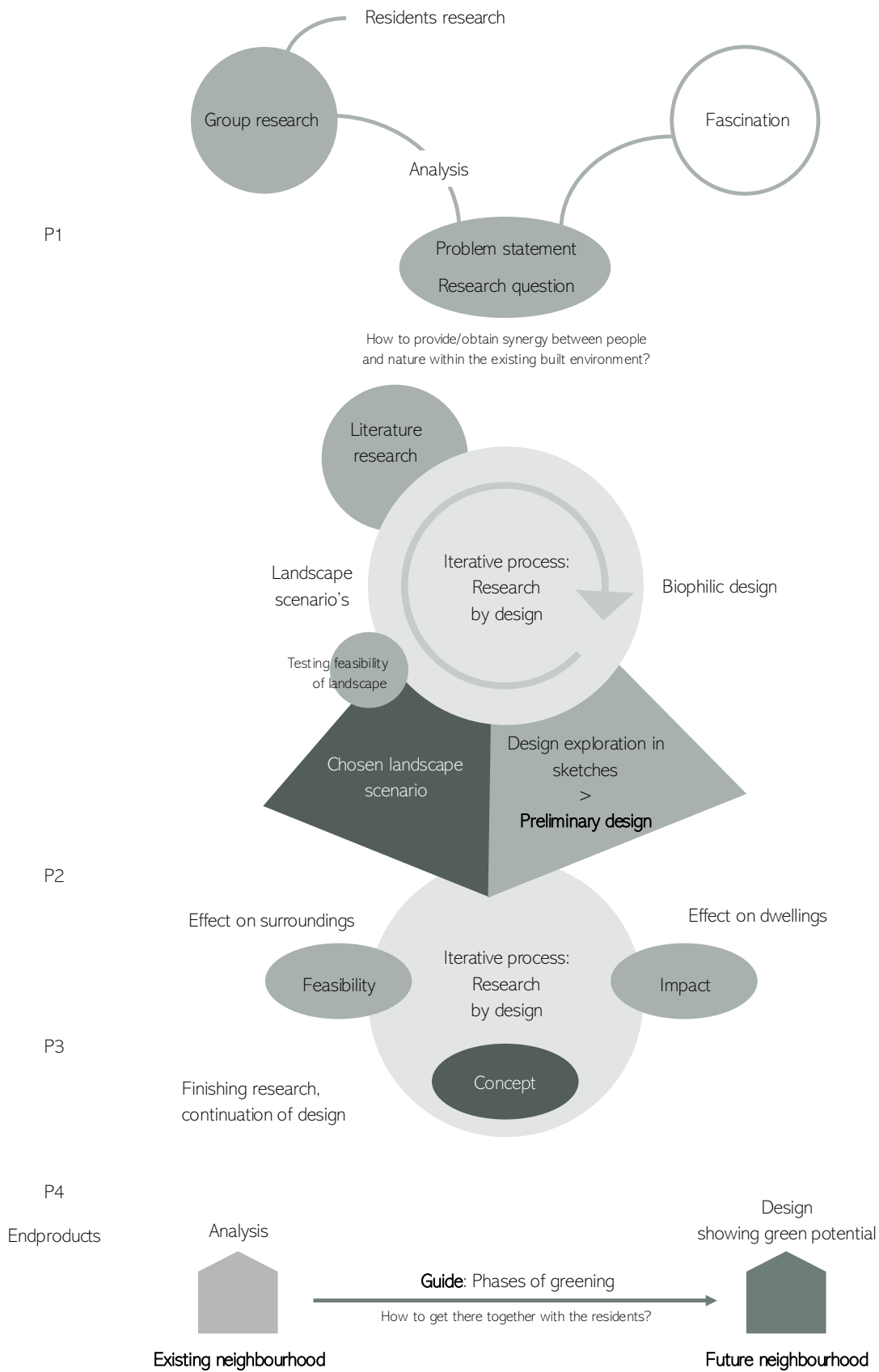
The design assignment should provide a wide exploration of possible solutions. This is where the research and the main assignment come together. Creating a Synergy between people and nature in a densification question. The design should explore how densification could be used as a tool to uplift the neighbourhood to a future resilient environment.

Since this neighbourhood is up and running, the challenge is to improve without harming the existing buildings. This could be by presenting another way of living to the current inhabitants, of which people are willing or even triggered to join. Some inhabitant are content with changing the environmental scale while others have the need to change more.



The design challenge lies within the search for the right balance. The aim of creating a more biodiverse area has a direct impact on the environment but not necessarily on the residents. Up till what scale should this balance be created? Is it necessary to change the inside of the existing dwellings to connect people with nature or could this also be achieved on a different scale. What reaches the right balance?

Method description



Literature and general practical preference

Literature about biodiversity;
Literature about people living closer with nature = biophilica;
Consultancy from other expertise's → Landscape architecture (at this moment Nico Tilly);
Residents research;
Visits and literature about reference projects (of people living more in harmony with nature).

Reflection

What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

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.

What is the relevance of your graduation work in the larger social, professional and scientific framework.

My graduation research and design hopefully provide 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. Next to that my work should give 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.

Sources

Dick van Gameren, Annenies Kraaij, Gerda ten Cate, Michèle Hendricks. *Het woonerf leeft = The woonerf today*. Rotterdam: NAI Uitgevers, 2010.

Martijn Ubink, Thijs van der Steeg, Raimond Wouda, Marieke van Giersbergen. *Bloemkoolwijken : analyse en perspectief*. Amsterdam: SUN, 2011.