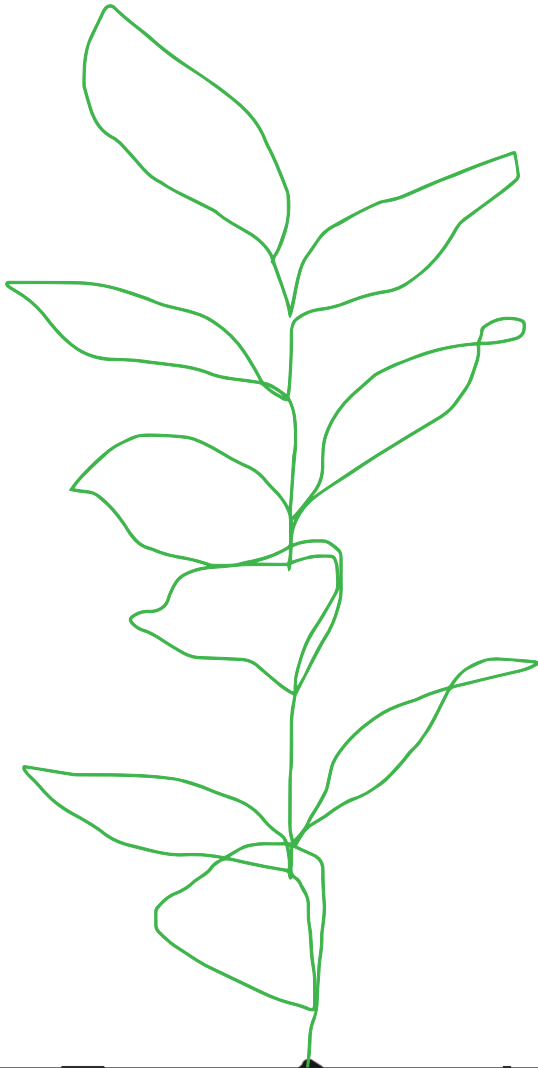


Research plan

Reshaping our relationship with the natural

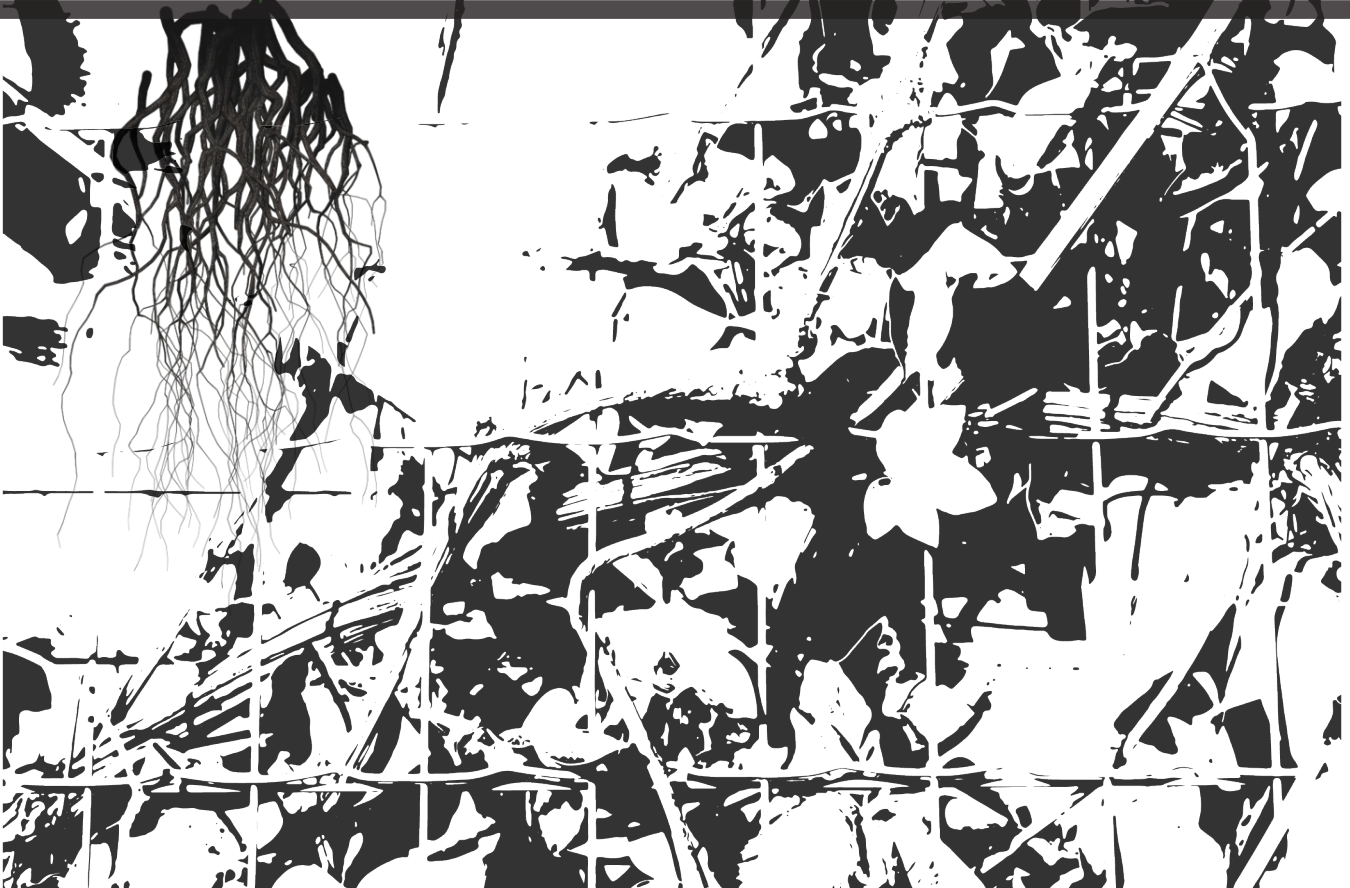
Contents

- Problem statement
- Research questions
- Diagram of the research structure
- Methodology
- List of theoretical, historical, and practical references
- Relevance of the graduation project.
- Reflection, self-assessment, lectures



01/11/2020

Femke Lokhorst



1 Problem statement

- Transition : What needs to happen and why
- The trouble with the concept of 'nature'
- Perspectives on design and our relationship with nature
- The concept of Human Ecology
- The call for a new perspective

2 Research question(s)

- What I want to know
 - Our relationship with nature in conflict : we make static design interventions on our environment - nature is growing / dynamic
 - how to approach this conflict : technically, visually and poetically
- How I think I could get those answers : the specific
- Research question(s)

3 Research structure

- Synergetic modes of research
 - 1: Case study projects that help me find answers
 - 2: Making the conflict applicable
 - Contextualizing - a search for justification, applicability and poetic value

4 Methodology

- Modes of research
 - Part 1: Case studies + interviews + reading
 - Part 2: Mapping + drawing + photographing + writing

5 References

- a list of relevant theoretical references
- a list of relevant practical (architectural projects or practices) references

6 Relevance

- Perspective & Joy
- What is in our nature
- Becoming and being part of

7 Reflection

- Self-assessment
 - Reflection on methodology
 - Development of the methodology
 - Is my research methodology successful in informing my design
- Lectures

1 Problem statement

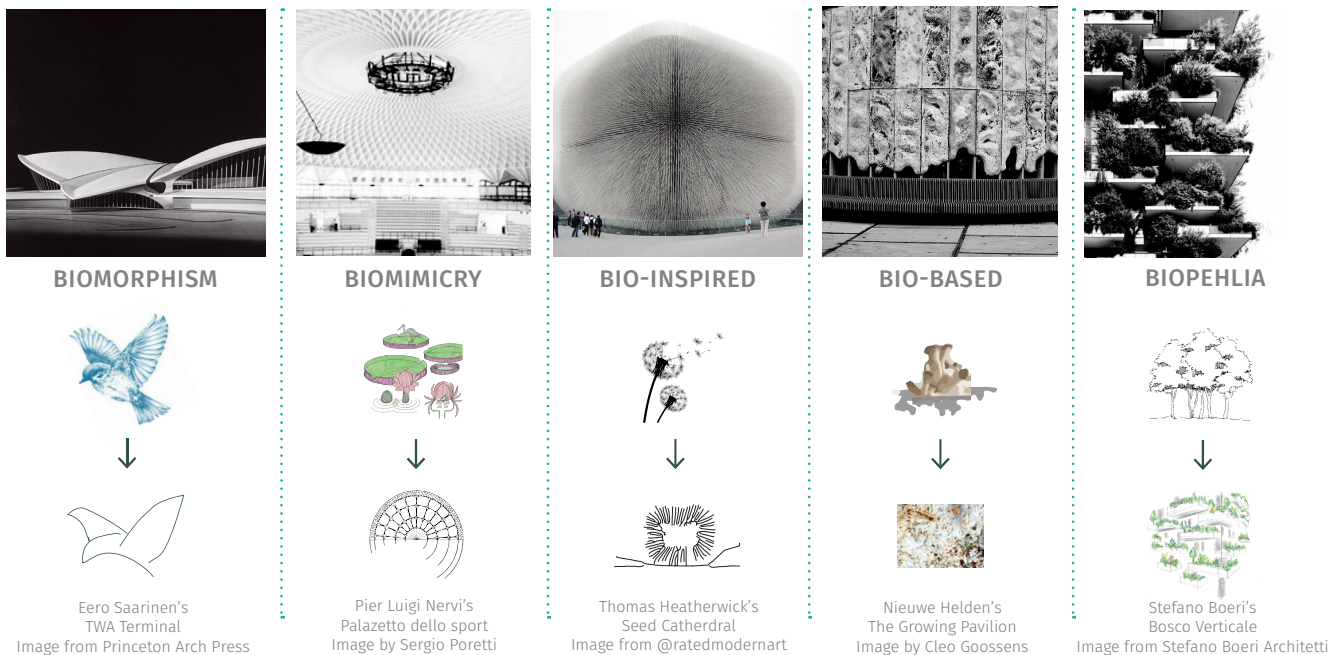
This Explorelab project is about the necessary transition us designers have to help create, to reshape our relationship with the natural, if we want to ensure a quality of life for humankind on this planet. A concept that long needed to be proven by scientists and whose pressing nature is explained again and again by designers who took on this point of view. However, I believe we no longer need to waste our time establishing this as a truth. Only believing it were a possible truth is enough to be frightened for the future of our offspring and the land we all share and appreciate, or to feel negatively about what our behaviour is potentially leading towards. Subsequently, this project is also about how we can give shape to our ideologies and present them as real architectural design propositions. I believe, as a designer today, it is not only allowed, but really crucial to be speculative in our design solutions. The notion of speculation is then focussed on the gap between what is desirable and what is possible. This attitude of posing questions within a hypothetical framework and allowing the existence of a gap between desire and reality, enables us the freedom to go beyond what we can substantiate.

To be clear on what this project is really about, it is needed to look closer at what is meant by the words 'reshaping our relationship with the natural'. This sentence touches upon a couple of essential statements. First of all, there is the word 'natural', derived from the word 'nature'. It is important to distinguish what is meant by that word. Secondly, the word 'our' needs to be clarified. What is 'ours' and who are we? In addition, the word 'relationship' suggests that there is a link at place between the two concepts. What does that link entail? Lastly, the word 'reshape' pushes forward a notion that there is a problem in how the link between these concepts is now. It needs to be clarified to what extent that link is seen as deficient.

It can be problematic to speak of a relationship with 'nature' as this suggests that we are not that. The intention of this project is to not make that distinction. We are inherently a product of nature and subsequently is all our behaviour, our modes of organising ourselves and the constructs we create. This makes it challenging to distinguish what it is that we need to focus on, as a relationship with nature is also a relationship with ourselves. You could describe that what we have a relationship towards as other natural existencies, or other natural processes. However, in this dualistic way, you would neglect the role that we ourselves play in the matter. How I see it, is that our existence and that of everything that surrounds us, is characterized by dynamic processes. Us humans, have an ability to respond to those, Haraway calls "our response-ability" (Haraway, 2016). Singer also writes that our exceptional position within nature is created by our ability to reason. It is this very ability that makes it possible for us to care for more than the survival of our genes. (Singer, 2011). Then how is it so hard for us to really care for other existencies and processes in a way that we can stop the harming and even can help them thrive? Humans are inclined to think rationally about fix-it solutions of our problems. This mentality is beautifully captured by Buckminster Fuller's words "You can never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete" (Michael Pawlyn, 2014). It is not strange that this mentality got us to a state of advanced civilisation. As for most of our problems: we simply wouldn't live a long enough life time to see any of the solutions we brought into life, fall short and become replaced with something new. However, we have reached a limit where the resources, to keep replacing our deficient designs with new ones, are depleting. Naturally, our surroundings constantly bring about new conditions. A fix-it solution can never withstand this process of continuous change. Now with climate change on the rise, it becomes eminent that our designs are being built into a climate of fast paced change. We no longer have the time or the resources to wait for our designs to become redundant and replaced. Our designs need to be a part of the process of adaptation. What I call 'the natural', is that what can be called a natural process of dynamic movement, constantly mitigating within its conditions. Large parts of the behaviour of our kind can be seen as a part of that. However, there is a conflict between the natural ever expanding, dynamic mode of becoming and our more linear rational minds. It is in this conflict that the distinction between the natural and us can be made and where a relationship emerges. This relationship humans have towards the process of the natural is often from a fix-it, single intervention,

static, performance based perspective and exactly that is where I see, we fall short and what needs to be reshaped. It also means there is a lot of possibility for improvement. Luckily, it is not like nobody has ever thought of these concepts or troubles before me. There are already in architecture and in other design practises, various currents of thought on design and nature. The next diagram illustrates the main idea of these principles. Respectively: Biomorphism: the use of shapes seen in nature; Biomimicry: the use of functional principles seen in nature; Bio-inspired design: to use anything seen in nature; Bio-based design: the use of natural processes and materials; Biophilia: the use of nature to improve our well-being and expedite healing (Michael Pawlyn, 2014, Ryan, C.O., Clancy, J.O. ,2014).

Design and nature



To be clear: I believe non of these principles are bad or unusefull, I believe they too limited to formulate an answer to the issue I described before. This is because all of them validate nature through a human centered perspective, 'how can it be usefull for us?', and non of them make any statement about how we can be of mutual beneficence to nature. This leads to ideas where nature (excluding ourselves) is put into the context of our society, instead of placing ourselves into the context of the dynamic ecology of natural existencies that still is present in our environment. These principles inherit a distinction between human and nature. Two paradoxical categories that both contain nature, because humans are products of nature and so is our thinking. If we extrapolate human and nature into: human (by human thinking or manufacturing) and nature (not by human doing) a more clear distinction comes to the surface. A distinction that fits into the definition of all principles named in the diagram, but is deficient in the sense that it lacks a notion of humans as a part of nature.

To position a new perspective amongst existing theories, I have looked at the concept of 'Human ecology'. Human ecology approaches the human-environment problem seeing the individual as an entity between society and the environment (Steiner, 2002). Society and the environment I see as two proccesial things. Two organic behaviors, derived from nature. Therefore the distinction here is not to be made between the human and the non-human, but between the rational (the individual entity or the designer) and the natural (society and the environment). Seeing society and environment in a single category can help us look both ways into the relationship between the human and the non-human. To not only create nature inclusive cities, but also think human inclusive in a context of nature and hereby find our new challenge in seeing design as a process of rational in a non-rational world.

2 Research question(s)

As explained in the problem statement, the conflict of our relationship with nature is explored here through the statement that we make static design interventions on our environment, while nature is growing/dynamic. In my project, I want to approach this conflict: technically (How can we physically design with/for natural processes?), visually (What does or doesn't that look like?) and poetically (What new values or sensitivities does that bring about?).

After writing my thesis on the human process of giving value, in search for what could instigate change towards a more sustainable culture, I concluded that it is too complicated to appoint a real instigator for change in our morality. To understand what we care about, we need to work from an individual's perspective. It is impossible to conclude what society cares for through looking at its behavior (money?), but I know what I care about and what those who I care about, care about and if I open myself up and be humble towards my environment, I can learn what the living entities in it care about. I therefore believe that I will find the answers to my questions by looking at something specific as opposed to a generalistic view.

In light of a specific case, I will ask myself the following questions:

Research question : Through what process can I understand a place of nature that is alive and dynamic well enough that I can come up with a balanced design for it, which acknowledges a synergetic cohabitation between people, plants and animals?

Further questions :

- What products could visualize the life in a complex site with a multitude of existencies and processes?
- What can I do to create balance between seeing how a place really is, without using my antropocentric opinions, and seeing what architectural potential it carries?
- How do I express values carried by this place?
- How would I categorize or create hierarchy between my observations?
- When do I understand this place well enough to design for it?

3 Research structure

I will conduct my research through three synergetic modes of research.

1: Case study projects that help me find answers

This will be a collection of projects that inspire answers to my questions through how they came up with rational ways of working with and designing for natural processes. The aim here is to discover what ideas are already in place within the realm I am researching and to help me create the requirements for my own specific intention, find direction and provide me with more questions to ask, as well as some answers to questions that will come up doing my research and design about how to approach the conflict between the rational and the natural.

2: Making the conflict applicable to something specific.

The aim here is to discover the intention for my design, asking myself about my specific case: what is specifically there? + what does that specifically do? + what does that specifically effect? This will slowly put together a protagonist that fits my unfolding narrative. For this I've allocated a site that is bewildering to me, because it seems like humans are using this area in balanced co-existence with the inhabitants of the place. When I first found this place, I wrote the following piece:

"In the city center of Rotterdam there is a forgotten piece of land. It lies next to the traintracks. Here, cityscape has made way for an abundance of life. The only reminder of the city is a distant view of a highrise building peeking through the trees, the ultimate opposite of a flower in a steel frame. No urban planning seems to be at place. Life lives and shapes itself here, using all the space and resources they are given ... Although. There is a clear boundary of where this wilderness begins and ends. If you visit the place often enough, you will most definitely come across people with some gardener shears, cutting away prickly plants that would make the area impassable. If you look even closer, you can discover whole arrays of wooden logs laid down in sandy paths to prevent them from becoming too muddy to walk on when there is rainy weather. This area is not forgotten at all, neither is it inhabitable, yet on first sight it gives the impression of true wilderniss. Perhaps wilderniss is not something inhabitable that we can't be part of. Perhaps we can re-introduce ourselves to living as a part of this interconnected web of life. A life in balanced co-existence with other natural existencies, that we largely seem to have distantiated ourselves from."

3: A process of contextualizing : a search for justification, applicability and poetic value.

This exist out of reading, writing and conducting thematic studies (drawings, photographs, poetry) to explore ideas that came up during my research. This is not an integral part of the research, but more something to keep track of what happens in the background of my mind.

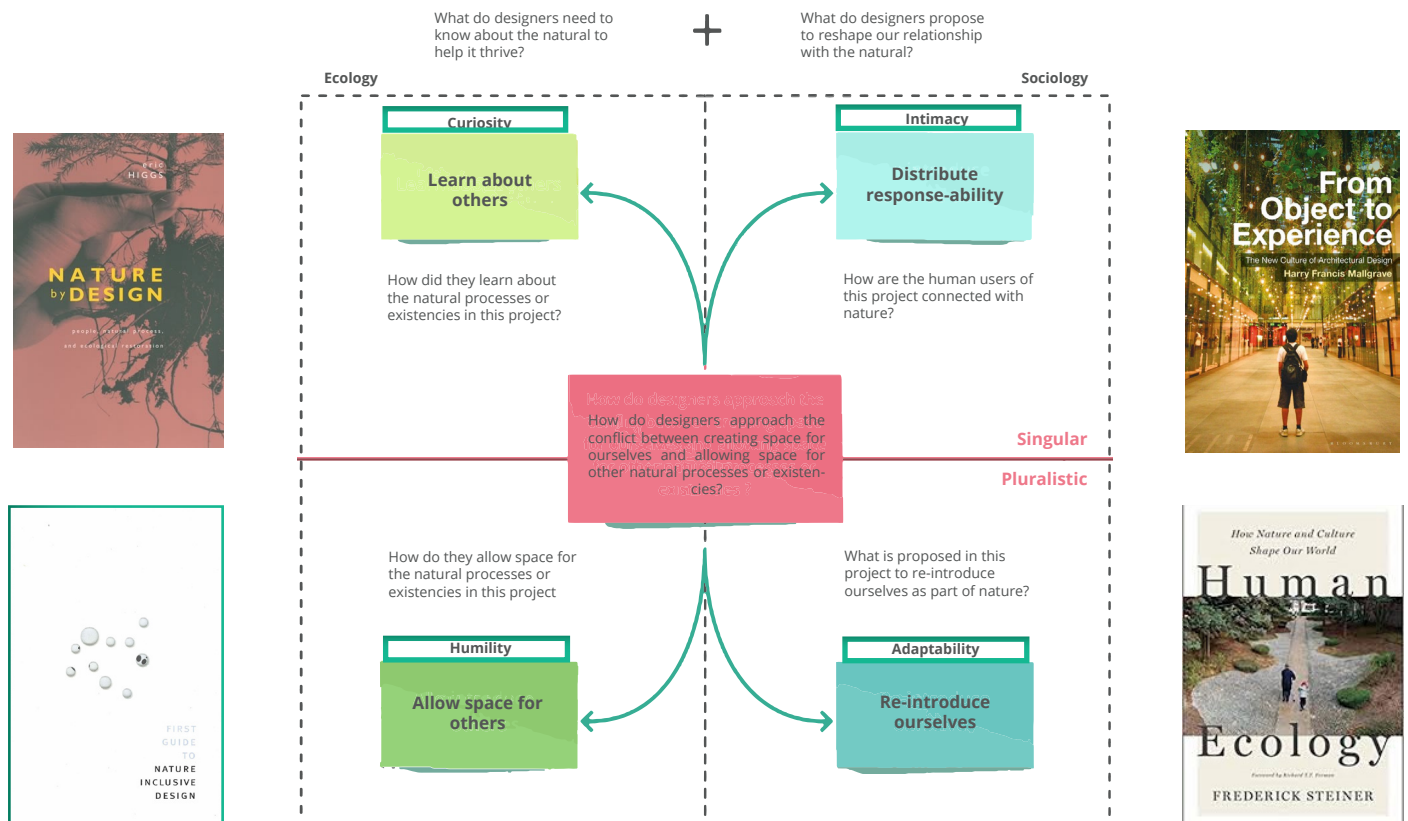
As a product of this research, I aim to create a magazine called "A\Wakening" of which the first issue will be devoted to my case study : Essenburgpark. It will contain a detailed exploration of how to map/capture a wild place like Essenburg as well as my wondering thoughts about the conflict between the rational and the natural. All this will serve as a background to understand which entities I am designing for and what my intention are for the design.

A\Wakening attempts to awaken the process of creating a living environment for ourselves in a way that allows for other species, that we need to also thrive, to coexist with us.

4Methodology

Part 1 : Case studies + Interviewing + reading

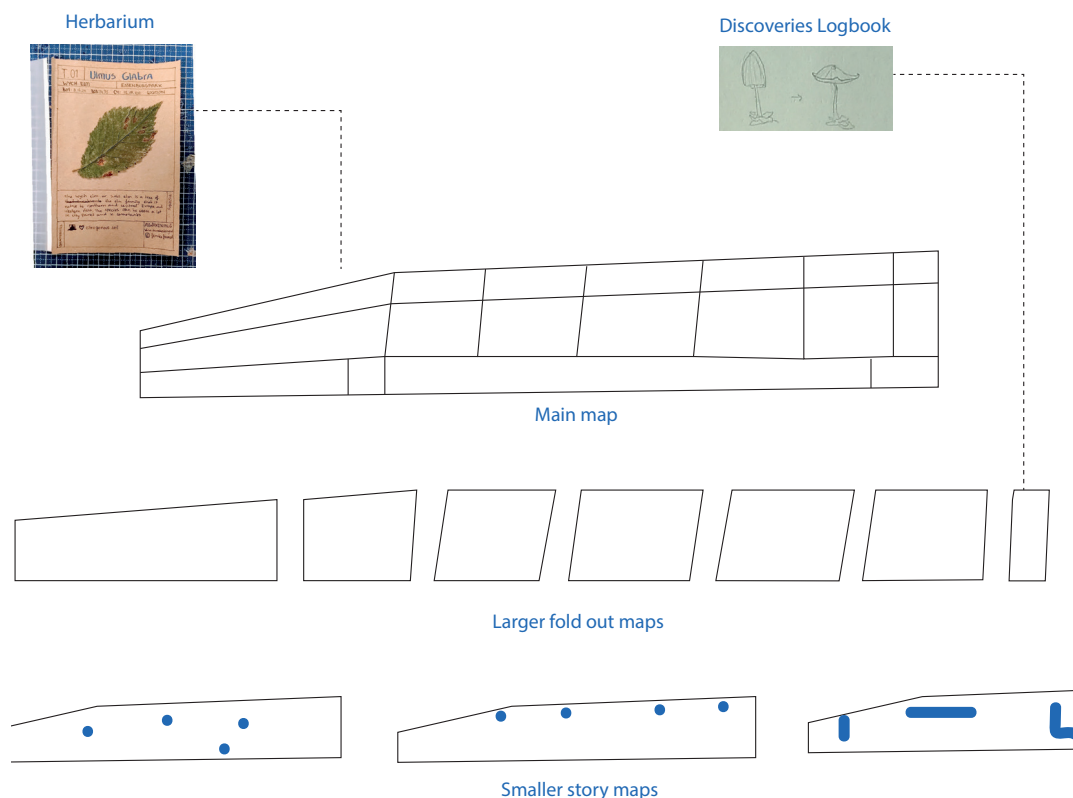
To be able to understand different scopes of different projects, I've made a diagram in which I acknowledge the two processes in the conflict: society and the environment or sociology and ecology, which can be explored from a singular (as an individual entity) or a pluralistic (in context of the other) perspective. This leads to four categories of projects in which I ask questions inspired by related literature.



Part 2 : Mapping + drawing, photographing, filming, recording, writing

The methodology for this part of the research knows three key inspirations. Firstly: the book A Pattern Language (C. Alexander & M. Silverstein,1977). In my MSC2 project in Global Housing, we studied a complex area in Bangladesh. Because we knew that we, the researchers, would never be able to fully understand the culture and religions of this place, thus we came up with a book of patterns. Not acting as informed researchers that pose known and proven theories, but as amateurs, as field researchers doing mere, judgement-free, observations and drawing those as the patterns of the place that could inform our designs. Understanding a complex ecology could perhaps be performed in the same manner, as I feel a similar sense of ignorance towards the place. The second inspiration is a Singapore based research and design studio : atelier Hoko. They produce little booklets in the same fashion of pattern language about simple objects like doors or pipes. Drawing little sketches of what these things are or could be and why or how that came to be. Their observations are super ignorant and childlike, but exactly because of that, things become apparant that nobody would easily notice or create an understanding of, precicely because they are seen as common sense. The third inspiration is the documentary film 'My Octopus Teacher' in which a man goes to the extreme of visiting an octopus in it's habitat every single day for an entire year. His motivation is mere fascination (or obsession) for the creature, but despite that, what he discoveres is miraculous. Just by searching for clues and traces on plants and shells he manages to put together the entire ecosystem of the place, understanding the importance of the tiniest little entities in it. Not only does he become a mindfull human being in doing so, but what I found most remarkable in the film is his recognition that he as well is allowed to be a part of that place, while his instincts were telling him not to influence anything in wild nature.

With these three inspirations merged together, I came up with the methodology to visit Essenburpark every day. To write, draw, film, photograph, record sounds and to do inventories of inhabitants. To bring life to this place from within! I don't think that it is possible to fully understand this place, but I will use all the time I have at hand to try doing so. As I know I need to stay aware I am an architect and not a biologist, I will connect all my observations to mapping. On the one hand I will be creating a huge 1:500 map of the entire area that will, over time, become more and more detailed as I collect more data from the site. To collect this data for the main map, I work with 1:200 fold-out maps per section of the park, to take with me. In these maps I can draw the locations of my observations immediatly in the right spot and work on an accurate placement of paths, plants and waterbodies. On the other hand, I will be creating more zoomed out 1:2500 maps, to tell the stories of my dicoveries through mapping as their stories are more elaborated then just one location on a map. Futhermore, I do an inventory of inhabitants like architects would do when they design for several target groups, only my inventory will contain plants, animals ánd humans. To do the inventory of plants I will make a herbarium that I can connect to my map through a system of numbering. Each herbarium page will have a list of the inhabitants needs and what it can provide. A logbook will go along with these maps, describing the journey of visiting a place every day.



5References

Relevant theoretical references

- Meadows, Donella H. *The Limits To Growth*. Universe Books, 1972.
- Haraway, Donna Jeanne. *Staying With The Trouble*. Duke University Press, 2016
- Hardin, Garrett. "The Tragedy of the Commons." *Science*, vol. 162, no. 3859, 1968, pp. 1243–1248. JSOR, www.jstor.org/stable/1724745. Accessed 14 Apr. 2020.
- Ostrom, Elinor. *Governing The Commons*. 1st ed., Cambridge University Press, 2015.
- Massumi, Brian. *99 Theses On The Revaluation Of Value: A Postcapitalist Manifesto*. University Of Minnesota Press, 2018.
- Bregman, Rutger. *De Meeste Mensen Deugen*. *De Correspondent*, 2020.
- Singer, Peter. *The Expanding Circle*. Princeton Univ. Press, 2011.
- Zylinksa, Joanna. *Minimal ethics for the anthropocene*. Ann Arbor: Open Humanities Press. 2014.
- Barad, Karen Michelle. *Meeting The Universe Halfway*. Duke University Press, 2007.
- Pawlyn, Michael. *Biomimicry In Architecture*, 2Nd Edition. RIBA Publishing, 2019.
- Browning, W.D., Ryan, C.O., Clancy, J.O. *14 Patterns of Biophilic Design*. New York: Terrapin Bright Green, LLC, 2014.
- Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Shlomo, A. *A pattern language: Towns, buildings, construction*, 1977.
- Atelier Hoko. *Habit@At*. Math Paper Press, 2014.
- My Octopus Teacher*. Directed by Pippa Ehrlich, James Reed, performance by Craig Foster. Netflix, 2020.
- A Life on Our Planet*. Directed by Alastair Fothergill, Jonathan Hughes , performance by David Attenborough. Netflix, 2020.
- Steiner, Dieter, and Markus Nauser. *Human Ecology: Fragments Of Anti-Fragmentary Views Of The World*. Routledge, 1993.
- van Stiphout, Maaïke. *First Guide To Nature Inclusive Design*. Nextcity, 2019.
- Mallgrave, Harry F. *From Object to Experience: The New Culture of Architectural Design*. , 2018.
- Lokhorst, Femke. *How to transition into a 'fair trade' architectural culture*. TU Delft, 2020.
- Harari, Yuval Noah. *Sapiens*. Sapiens Press, 1983.

Relevant practical references

Zaadbank van verloren kleuren - Claudy Jongstra
Project habitate - Yuning Chan
RETREAT - Xandra van Eijk
The symbioscene forest - Bioart laboratories
The exploded view - The Embassy of Circular & Biobased Building
Viral Nature - Martina Taranto
Ecokathedraal - Louis Le Roy
De nieuwe tuin - Frank Bruggeman
Baubotanik - Ferdinand Ludwig
Pinetum- Enzo Valerio
Maison, Cap ferret & Ecole normale supérieure de Cachan - Lacaton and vassal
Op oostenburg & NPD strook Utrecht - Flux
Wild Amsterdam - nature optimist
wild cube - Lois Weinberger
Shower Power - Studio Positif
Loop of life - Bob Hendrikx
Living Light Park - Nova Innova
Steenbreek
The pollinators
Levend archief
Guerrilla gardeners
Duizend geveltuinen
Struikroven
Grachten van Smaragd
Wormenhotel
de Warren
Het hof van cartesius
De groene mient

6 Relevance

One could ask themselves, why the need for balanced co-existence with other natural existencies? If our way of life is unbalanced, we will eventually die out, as is a consequence of processes of nature. So to be clear, it is not the planet I am concerned for, it is our own quality of life, which is decreasing, caused by the process of our own extinction. One reason to do something about it would be that if you're not in it for the planet or for nature, it could merely be a wonderful perspective for ourselves to live in a balanced ecological city. Something we can all work for and carry a responsibility for, together. There is joy and empowerment in being part of positive change and as Rutger Bregman argues for, people need purpose, it makes us better people to feel important. Secondly, it is in our nature to care. As I've argued in the thesis I wrote before this graduation, what is problematic for our relationship with nature is the fact that it is hard to care for things that we are not in direct causal relationship with. Our 'moral community' is incapable to care for all existencies, so there is a limit to our altruistic capabilities. This is why it is important to work local and value the individuals perspective over the systematic one. To value becoming and being part of and to value well-being over welfare are things that are easy to understand to be true if you ask an individual, but not if you look in a generalistic way into societies behaviour. Lastly, as Ostrom argues, we shouldn't believe that mankind can't govern the commons. This is only true if the governing community fails in preserving the boundary conditions necessary to be able to do so : self-governance, effective social control and a local context. This means there is hope in becoming succesfull at this if we change up our strategies. This graduation project might just be a perfect pilot to test out these ideas. Does the balanced ecological perspective provide people with joy and empowerment? Can we come to care for other natural existencies when we tie our own existence to them in a local context? Are we able to govern the commons as a decentralized, autonomous community?. If the answers were yes and we could come to learn to care and take care of the natural existencies around us, this could very well help mankind thrive better and longer. As is said by David Attenborough "For mankind to thrive, the species around it need to also thrive".

7 Reflection

In scientific research, it is often important for the researchers to be objective and impartial. However, when performing a social science like Architecture, how could I? My methodology thrives on subjectivity. This very research carried out by someone else would have resulted into something entirely different. I myself however, see that as a strength more so then a weakness. Throughout my methodology, I've made use of the following 'objective' tools: *Intuition* is used as a tool in the sense that as a researcher, I do not know what I will find before I have found it, thus the exact observations that will be discussed, used and interpreted are unknown untill they happen. This makes it possible to stay open for new types of answers to the research questions that I initially might not have thought to become important; *Allowing questions to lead to new questions* is an important part of the open-mindedness that is necessary if you want to understand a place without looking at it only as to how it could benefit your ulterior motives. It allows to speculate on the things that I as a researcher can't be sure of and therefore shows where it will be necessary to take an informed position, acknowledging the fact that this is a subjective one; *The process of framing* is another important tool to be aware of while using. Certainly combined with the positioning mentioned above. Things might be true in the light of a certain framing and untrue in light of another; Lastly *the autonomy of the researcher* is a tool here. As this methodology inevitably becomes influenced with the subjectivity of the individual that it conducting it. It is ultimately the intuition of the researcher that gives direction, the questions they ask that informs the answers found and their framing that allows for those to be interpreted. This makes the researcher a tool specific to the research outcome. Taking good notes of argumentation for these steps is therefore crucial for the potency of the arguments made by the research's conclusions and speculations.

Caused by the intuitive nature of my approach, I did find myself changing course quite some times. Sometimes I would do a finding that would make some of the work done earlier obsolete. At first, I thought my entire magazine would be interviews on approaches to design for this balanced

co-existence idea. As I did more reading on the topic and spoke to several people, I quickly realised that the only way to become able to design consciously with and for all of nature, I would need a lot of knowledge on the specific natural existencies and natural processes that I would be working with. When I made that realisation, I saw that Essenburgpark had already drawn my attention so much, as I felt there was something really valuable there for my project. This is when I decided to just focus completely on the analysis of the park. It was getting me far more answers to observe and learn there and to unfold my narrative there than it was to stay behind my computer emailing and preparing interviews. On the one hand, my methodology allowed me to easily jump towards this new obsession, where with a more strict and clear methodology, it might have not become more than a side-track. In that sense I am grateful for the method I chose. On the other hand, I would have liked to make the realisation that the park was where I needed to spend all my time much sooner so that I could have been even more ambitious and thorough in my analysis. That does make me realise that with a method like mine, you don't have complete control over the progress you make and are a bit dependent on the process of your thoughts evolving into something tangible. In this case, time can become a huge constraint.

I do think the way in which my research is conducted in the end, it could be very successful in informing my design. This is because it goes along with the philosophy that a designer is a creator and a manipulator of value and that value is an action that needs to be carried out by an actor. So I value an oak tree for its beauty or shade, where a squirrel values the oak tree for the nuts it produces and so on. An architect can only make real informed decisions on design for new values (that will inevitably also diminish present ones) if the architect is as much aware as possible of all the values carried by the existing entities that live and use this place. I have to be careful though, that the awareness of all living things will not blind me in seeing architectural potencies of the place. It might be wise to treat these as independent analysis of the place and look into the places in which these might contradict each other. It is exactly there, between what is desired and what is real, that I can position myself as an architect and make decisions on what, in my humble, increasingly informed opinion, values most and to foresee the consequences of those decisions.

Looking back at the lecture series that we followed, what I've learned most from it is the fact that research does not have to be all 'plan and conduct'. Being aware that methodology is fluid and can be just as well a process you design as a process you conduct and evaluate upon, empowers a researcher to not be bound by their own chosen research methods. A method can be designed according to the purpose that it needs to serve. The lecture that came across for me most was the one by Klaske Havik where she first showed a list of neatly organized research methods, but then showed examples of actual research where methods are often combined. I really liked the example of a former Explorelab project that put together a thorough analysis of something really hard to grasp (the European Culture). It made me realise that really complex things can be studied as long as you are clear in how you frame the matter and what it is you really want to know within that framing. Or as Stavros said "What is abstract can be very concrete".