Explorelab graduation reflection
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The relationship between research and design.

With this project I am trying to come up with a speculative answer to how we could allow processes of nature to happen more closely around us. How we can embed our modern selves in this idea of wild nature. I want to propose a way in which architectural design can help reconnect us to other species that need to thrive in order for us to also thrive. As ecology thrives by posing millions of solutions to potential changes in the environment all at the same time, it is therefore in need of space, of possibility and dynamics, of diversity and of connectedness. Elements that the modern cityscape does not really provide, most of which is planned and bordered. Since it would be impossible for one person to come up with and design an entire diverse ecosystem of plants and animals, I decided to use a place that is already there in the city of Rotterdam which now only contains wild nature and is barely managed: Essenburgpark. I've used the research phase of my project to then try and find a way to understand everything that happens in this place through an ecologist's lens, whilst maintaining the perspective of an architect. Looking at all entities as part of my target group, so that I could design for the park in the most conscious way.

The outcome of this research is an approach to understanding a dynamic place: visiting the place every day in pursuit of really understanding what is of value to whom, so that it becomes possible to make more conscious design choices. To carry out the process, it is necessary to be curious, to wonder, to be present and to dig deep. Two important things I have realised are: firstly that nature itself does not inherently hold value. For something to acquire value, it needs an entity. That could be anything from an individual human to a tree, a dog, or a squirrel. Through seeing/framing/acting value is created. Knowing about the values locked away for all inhabitants/users of an area, allows for a designer to come up with a conscious design for it, through a process where also new values can be created. Secondly, it is important to remain aware that all existence documented is in movement. Even the patterns, the processes or the values carried by entities of the place could change. The succession rate can describe an object's/entity's permanence over a longer period of time, but permanence can also be influenced.

During the design phase it quickly became clear that it was really important to position myself well. I am not a deep ecologist who believes we only need to decrease our needs to lower our ecological footprint, nor do I believe that we should solve all these environmental challenges merely through means of technology. I think we need to choose wisely and see how much we can do to decrease our reliance on all kinds of resources, without these choices impacting our levels of comfort. If it can't be reduced any further, then maybe we could question what these established levels of comfort are based on, what they imply. It is important to me as a designer, to keep questioning why and how things are established and to not rely on guidebooks or standardised numbers. My design really serves two goals. Firstly, to be as kind as I can towards other species on the site and to be mindful of the resources I use in order to build and provide a place of comfort and quality for my target group: primary school children and their parents. Secondly, I believe that growing up in close relation to nature, helps gain an understanding of it and could spark an intrinsic motivation to deeply care for other species. As a consequence of this the school children will hopefully live a more conscious life.

I think my research was vital to be able to come up with conscious design in the way I set out to. This is because it goes hand in hand 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, whereas a squirrel values the oak tree for the nuts it produces. An architect can only make real informed decisions on design for new values (that will

inevitably also diminish some of the present ones) if the architect is as aware as possible of all the values carried by the existing entities that live and use this place. Having all that knowledge about how different parts of the ecosystem are connected and what the importance is of each link to others helped me visualise the ways in which my building, as well as its users, could become a part of that system. It enabled me to see possibilities in every little intervention where I could increase the quality of my design and at the same time provide something for another species. Or the other way around: knowing about the presence of a certain kind of plant or animal and using their presence in my design either in a functional way or as an intimate component of the architecture that enables people to get closer and really see how nature works.

To me it feels as if the research I conducted has become an intrinsic part of all design choices I have made. At the same time it feels like coming up with this design was crucial to really formulate an answer to what I wanted to know at the start of this project. How do you design a building of modern qualities and comfort in a wild and dynamic place? Well, you can't really find out without trying, whilst learning about all the troubles and opportunities that arise from the attempt. Subsequently, it would be irresponsible to try without knowing what this wilderness entails: what is it that happens there, who are its residents, how introducing our presence might influence that and finally how we position ourselves within all this.

The relationship between my project, Explorelab, the masters of architecture and the rest of society

This Explorelab project focuses on the necessary transition us designers must help create, to reshape our relationship with the natural, if we want to ensure a good 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. Being well aware of the influence that the built environment has over our lives and wellbeing, I take it as a huge responsibility to design for others their habitat. Therefore, my personal best wish graduating from the masters of Architecture track at TU Delft is to have acquired the toolkit necessary to make a healthy change in this world and provide a positive take on where the future of our build environment is leading us towards. Subsequently, this project is also about how we can give shape to our ideologies and present them as real architectural design propositions, which is my take on the essence of Explorelab. I believe, as a designer today, it is not only allowed, but crucial to be speculative in our design solutions. As you can also see in nature, it is never sure of all solutions that it is suggesting. As long as nature keeps suggesting them, the right ones will see the light of day. This attitude of posing questions within a hypothetical framework and allowing a gap between desire and reality, enables us the freedom to go beyond what we can substantiate and maybe, hopefully, push the framework of what is perceived to be possible forward.

Method

I came up with a method 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 immediately 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 discoveries through mapping as their stories are more elaborate than just one location on a map. Furthermore, 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.

1:500 Main map

1:200 Fold-out maps

Story maps

Herbarium   *Logbook*   *Book of patterns*
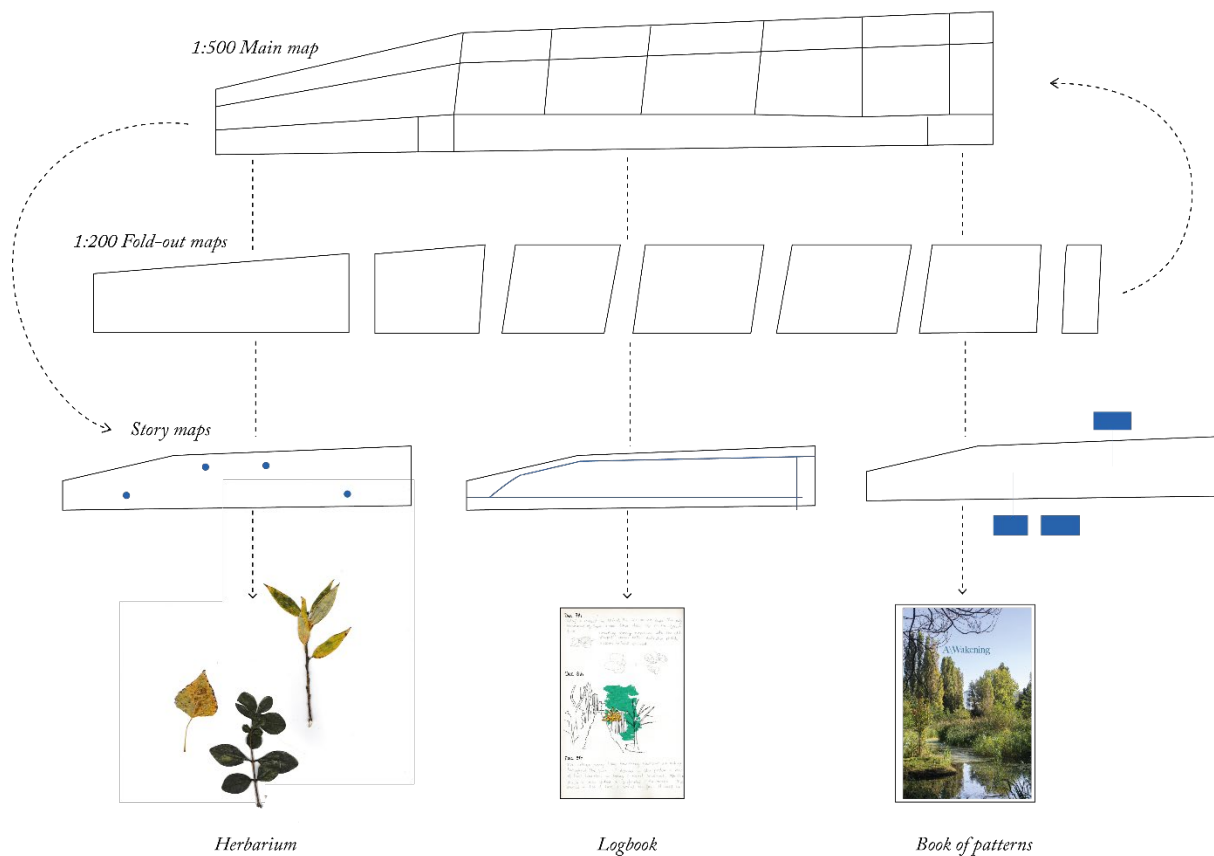
Scientific Relevance

As mentioned earlier, what I am doing is carrying out an experimental approach on how to understand and design for the existence of the modern human and all its accomplished comfort, within a dynamic environment of high diversity. I really hope this project could be an inspiration, or at least informative, to other researchers and designers who are also wondering how to design for or understand our changing environment.

Context

A question I've been asking myself since the beginning of carrying out this method is: how on earth would an architecture firm have time to do all this conscious research before they can even start working on a design? Throughout my graduation process, I came up with a proposition.

How to deal with the matter of time and how to democratise the build environment:

The future architecture firm is member-based. Like the independent journalism platform 'The Correspondent', employees are paid a monthly salary from membership payments. This way they don't have to worry about not being able to work on the things they feel needs their attention the most (like researching how to save ourselves from extinction and create better well-being for citizens and future citizens of planet earth).

With their membership, members will enjoy a democratic voice in how their cities progress. By choosing the firm that stands for their ideals and through open consultation moments or another sort of discussion platform they can participate in.

The future architecture firm is therefore local. It researches and designs for the city it is located in and its citizens.

The future architecture firm is multidisciplinary. Many expertises are available in the pursuit of obtaining the best possible understanding of a place in order to make a conscious design for it.

Whenever a site becomes available in the urban fabric for a new architectural design, it is left empty for a couple of years, enforced by the local government. The multidisciplinary, member-based architectural design and research firm can use this time to conduct the necessary research on the place's ecological value and potential.

Of course, I am aware this is quite an experimental thought. Maybe the system of stakeholders and regulations isn't designed for this kind of approach. But that doesn't mean that one can't wonder what it would be like if things were different and what the desirability of this would be.

Ethical issues and dilemmas

Something I've been conscious of throughout the project: if someone else would've carried out the same research it would have resulted in a different outcome. I myself however, see that as a strength more so than a weakness. Throughout my research, I've made use of the following 'objective' tools: Intuition is used as a tool, 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 until 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 allowed me 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 method inevitably becomes influenced with the subjectivity of the individual that is 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.

Through the method I created, I obtain understanding through observation. This understanding can be different than for example understanding obtained through books and maps, but is it better? In some cases, it turned out it was. The soil samples that I took for example showed detailed information on different soil consistencies in the park. When I later looked at a soil map of the area, the whole park was just part of one big, coloured block with one identification, thus the map was nowhere near as informative as my own empirical research. It is however important to note here that there is a human error involved. What we think is good for nature is not always what actually is and what we think we observe might not actually be what it looks like. For example, on one of the days I spent in the park, I saw a common maple shrub with buds in the middle of winter. I was shocked. I thought climate change had something to do with it. However, it turned out that the common maple always makes buds in winter.

Something I thought a lot about during the conduction of my research is the fact that I was drawing static maps of a dynamic place. It wouldn't be long before everything I was collecting (the locations of things on my map, the pictures I took, the stories I wrote) would become things of the past and therefore (or so I thought) redundant. While this is definitely something to be aware of when using any of the things I've collected for design purposes, later I did come to another realisation. Maps, pictures and words might be static, but a sequence of them is not! A sequence tells you about change, about activity and can therefore help you better understand a place's past, present and future.

An important factor in the method used in this research is time. The understanding of a place requires spending large amounts of time at the location. Things that at first don't seem to make sense, can later be interpreted once patterns start to show themselves. The fact that a place is always changing, means that the documentation of a place can be indefinite. It is very difficult to find the balance between what is important to take note of and what is not and to draw the line on when you've gathered sufficient information to be able to start a design. Perhaps, once the design is built, it is the responsibility of the residents to constantly ask themselves: is this building still serving this place? A design should then allow for residents to easily adapt certain elements once they are not serving the right purpose any longer.

As for the design phase, one of the most pressing moral dilemmas was getting to decide who lives and who dies. Which entities should I consider from an individual perspective and which more from their existence within a system? For example, I can't really justify that it is alright if every year a couple children will not survive, but it does seem alright to say that a couple trees need to be cut down every couple decades to replace the façade. Of course, there are millions of decisions to be made that are in between these two extremes. The position that I've taken is to say that I do what I can to preserve a diverse environment, to not produce waste (dispose old materials back to the park) and to not be cruel. I take from nature if I really need to, I give back when I can.

Another difficult dilemma I came across whilst designing is that designing something very specific and intricate, surrounded by things that I want to preserve is very labour intensive. I decided that this is where I draw the line between wanting my project to be something that could actually exist in the world of today and taking a position on how I feel about how we value materials and labour. I think it shouldn't be that materials are cheap and labour is expensive. It exploits our planet. We are a lot of people with less and less natural resources available to us. Let us turn this around. The way I see this project then carried out in todays world is as a pioneering project. Meaning that it would need to get subsidised as an exemplary project now, while we wait on the economic system to change towards what we should value if environmentalism is the way forward.