N(AC)ULTURE
Space under the scope of a contemporary Notion of Nature

Student
Alexander Scho (4915003)
Delta Urbanism, “Transitional Territories”
Thesis “N(AC)ULTURE”

INTRODUCTION

The relevance of research-methodological awareness in relation to the architectural profession is a crucial part in understanding and leading your own work. To see the value in your own project, assess it and critique it by yourself, its important to know your methods and how they fit within the applied approach.

Also with heuristic techniques one has to be able to judge the value of the application. Simplifying and accelerating the work process can be necessary and important for obvious reasons, but unconsciously applied heuristic techniques can't lead to the desired design goal, specially when the underlying methodology in the beginning was an uncertain choice. Following Lakatos methodology of research programs these, in architecture purely positive, heuristics define as much as hypotheses the direction of the research but are up for debate while the Hard Core of the research has to be irrefutable.[1]

As an architect you carry around a theory about your ideals, ideas, maxims, values et cetera. But due to us being human and thereby complex creatures, this theory I just proposed might not always match what the architect is doing in his/her work. This discrepancy of one's sets of embodied theories within the mind and the production is a crucial argument to a consciousness while methodological research. That means if you are certain about your goals and consciously choose your methods to approach them the above mentioned discrepancy might not result in an accidental incoherent design but rather a planned one.[2] [3]

The just mentioned relations weren't completely new to me as observations, but being forced to think about them in more detail actually clarified their values for me as a designer and researcher. In the beginning of my personal research, after the group research on the territorial scale of the North Sea, I actually started with simple negative heuristics and formulated what I don't want to do in order to narrow down a topic, which by the way opposes the interpretation that for architectural research only positive heuristics come into play.[4]

My thesis topic is Space under the Scope of a contemporary Notion of Nature which is found on the philosophical ideas of Koert van Mensvoort and the collective NextNature.[5] The center of it is the understanding of a shift in natural and cultural classifications which in its core is an ecological modernist idea[6]. As a researcher I am interested in how this can affect the physical space. As a designer I am interested in the chances of this shifting point on the larger and smaller scale and how we can benefit from it with tackling the biggest urgency of our time, becoming actually sustainable. So there are basically two research questions one on the territorial scale and one on the architectural scale.

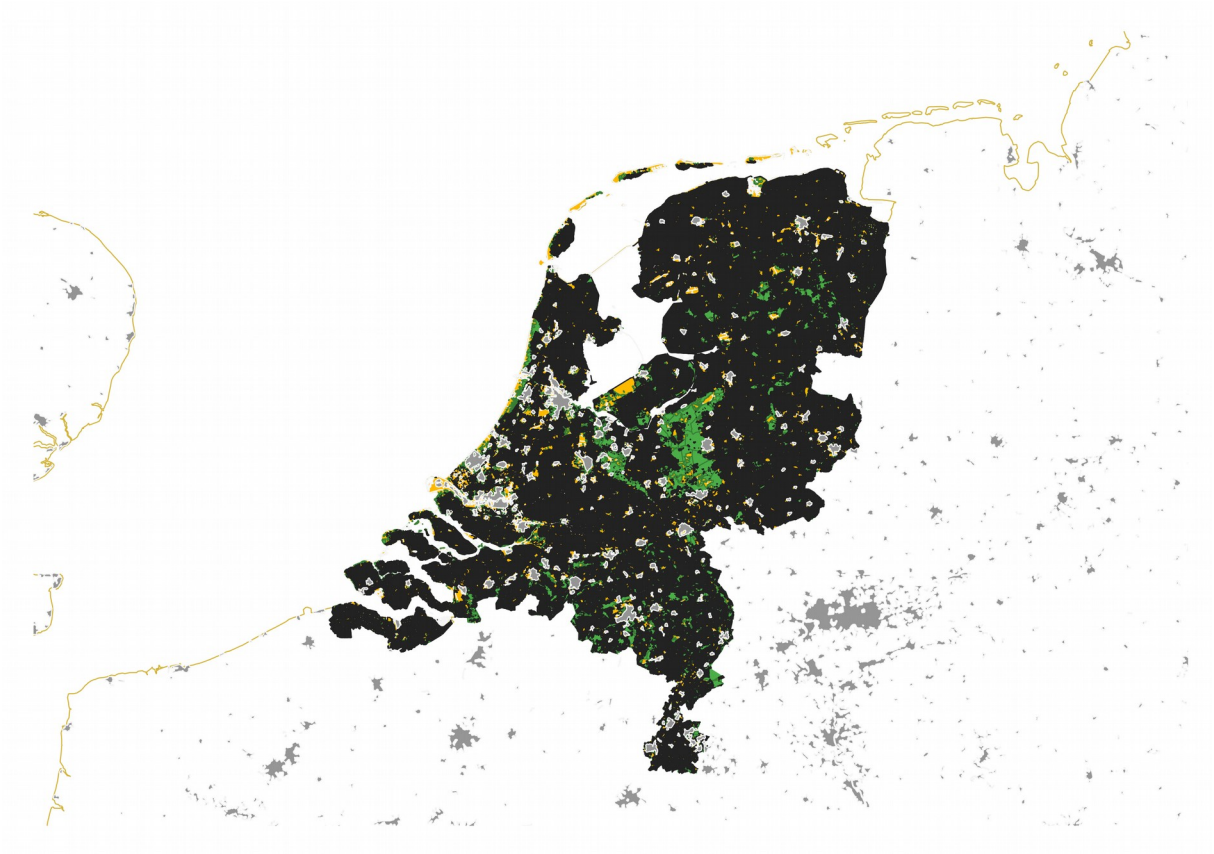
How will future technologies of food production transform the agricultural space and how can this shifted space be beneficial with tackling the urgencies displayed in the planetary boundaries diagram?

How does the architecture of these future technologies look like and how can it contribute to its acceptance in society?

IN BETWEEN SCALES

My approach to these questions starts on the territorial scale of the North Sea region. It is theory-led with its base on the urgencies displayed in the Planetary Boundaries diagram by Johan Rockström[7]. The hard core of the research is based on the philosophy of Koert von Mensvoort and the NextNature group, which basically claims that our perception of nature and culture has to shift from born (natural) and made (cultural) to controlled and uncontrolled.[8] This shift in perception leaves an entirely different understanding of our land use behind which clearly displays that there is no such thing as uncontrolled (natural) space anymore without any controlled framework.

Since the collective research about the North Sea I followed an etic, positivist and quantitative epistemology with the use of different methods. Etic mapping with the goal to display objective data about capital and its flows in the territory is one of them (Fig. 1). Often those maps where qualified with analytical diagrams. These diagrams explained for example how a specific technology works in the territory and its effects on it, like the effects of seabed dredging on the environment and how a dredger performs. We used these diverse methods because the mapped data displayed a wicked problem which is almost untangle able. I also used these methods in my personal research with mapping etic, objective data about the territory in order to from hypotheses although I rather follow a constructivist approach which is perspective dependent.[9] Due to its transdisciplinary nature working from territorial scale to rather architectural later I have to implement another layer of qualitative typological research of related factories since study objects of the mentioned future food technologies are not really existing jet.



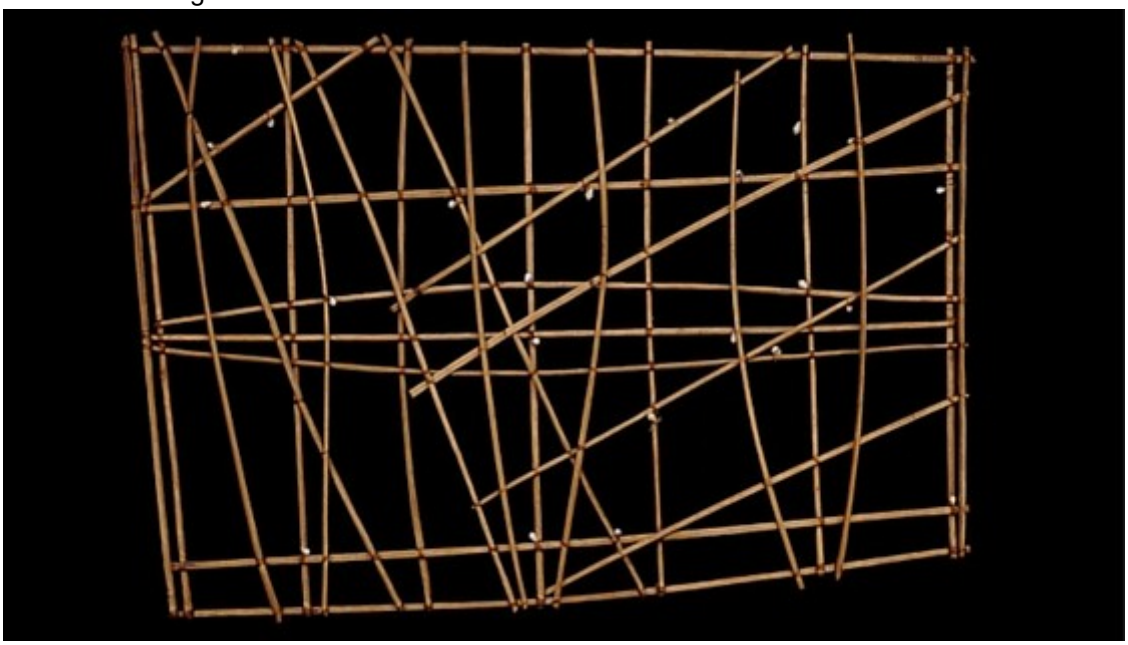
(Figure 1. Agricultural space Netherlands – Agriculture in black – Own Image)

Future food production means basically technology like clean / lab meat production and vertical farming. Both are on a verge to change our food production drastically. To examine the possibilities I use a dialectic methodology to discuss all that comes along with it regarding territorial space, may it be positive or negative regarding the values and goals of my research. This choice has to do with the society acceptance which I touched earlier on. Recent political discussions and protests like the farmers protest in the Netherlands and the rapid thoughtlessly political actions which came before and afterwards, show that there is a lot of friction which could led to prohibition. This displays an urgency of a dialectic discussion and eventually the architectural question of how architecture can contribute to the acceptance of such promising technologies.[10]

“Architecture is, by it’s nature a complex, multifaceted field of study, meaning that no single approach can tell you everything that you need to know”[11] Like Lucas states I am unable to frame my research in one approach specially since our studio is transdisciplinary. Architecturally as touched above I will use typological analysis of especially breweries and how they brand themselves to research about neolocalism as a branding strategy for clean meat production.

THE RISE OF OPEN SOURCE

If one looks back to the origins of mapping there are several methods to map the sea from haptic nautical maps like the Micronesian stick charts[12] (Fig. 2) to contemporary nautical online maps[13] both serving the purpose of navigation, but could not be more different. Navigational mapping as the mentioned instance proves changed a lot lately and could be differentiated into hand made mapping, printed mapping and digital mapping. Geo Information Systems lately completely changed the mapping process specially its possibilities for the design practice and research.[14] Now a days one doesn't have to draw maps themselves, there created from personal data like strava[15] or open steet maps or they are created from governmental statistical institutes and provided as open source data. The process of producing maps from historical to contemporary is similar though by measuring points and collecting the data which then is either converted into contouring lines to a map or it simply just stays a collection of points.[16] Both methods have their validation and should be chosen depending on the communication goal.



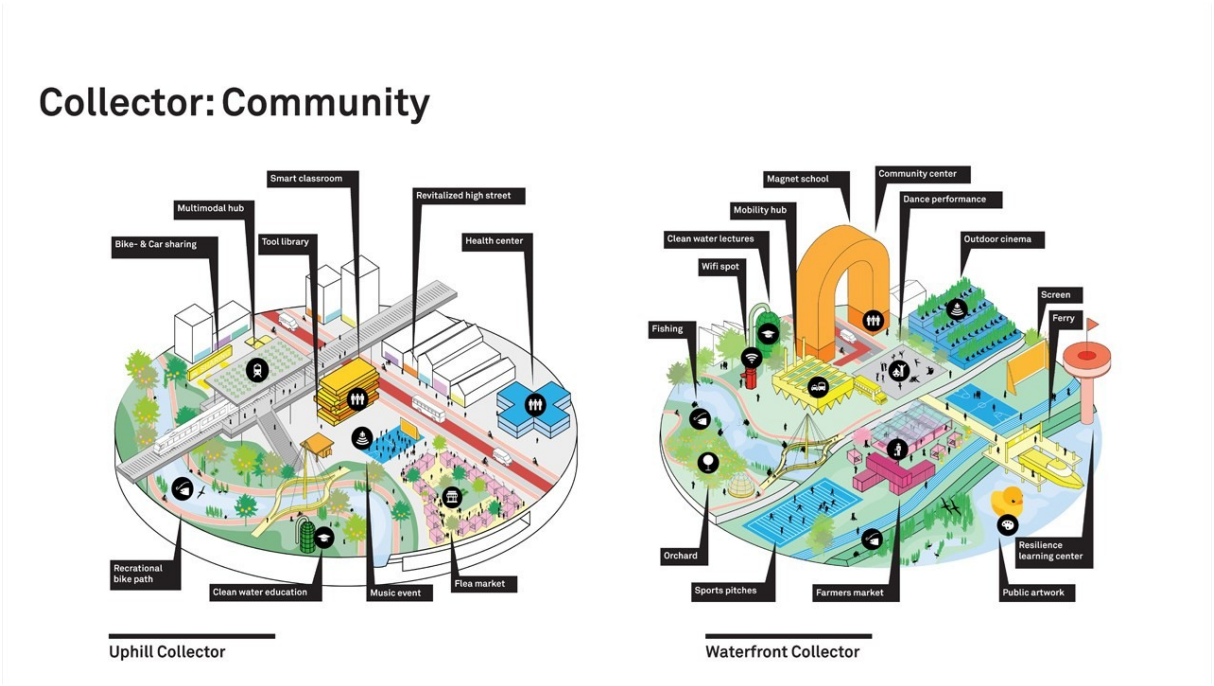
(Figure 2. Micronesian stick chart)

Even though the process is similar to the historic mapping the contemporary method of mapping, due to open source data etc. has changed so drastically that in the further I will concentrate on the recent history to be relevant.

The kind of mapping we used during our research in order to make wicked problems rather tangible involved a lot of analytical drawings to deepen the understanding of the displayed phenomenons and also it adds an other layer of subjectivity. Kevin Lynch used a specific kind of mapping in his research about cities in 1960. By introducing the subjective emic technique of creating maps from memory, he introduced a whole new understanding of the urban space.[17] Obviously this approach has its core in subjectivity which involves that different people will draw different maps. One could argue though that regardless of which kind of method, every researcher sets a focus which is influenced and found on his own paradigm, which eventually makes it subjective anyhow.[18] Lynch walked through the city and then afterwards drew maps from memory in order to understand the basic elements of the city. [19]He classified into paths, districts, edges, nodes and landmarks.[20] But the whole idea of Landmarks being the points of navigating through a city becomes more and more obsolete now a days since most people use navigation systems to navigate themselves through space and are independent from focal points in the distance to show where they have to go.[21]

To come to a rather contemporary approach of mapping which clearly embraces the digital era one has to mention MVRDV. MVRDV used a method, similar to ours during our group research in their Shenzhen Super Window master plan project in China in 2006. Their approach is positivist, etic and emancipatory. By the mapping of spatial contextual phenomenons of the territory of Shenzen, they

developed a balanced master plan of 50% percent recreational space and 50% built urban space. Obviously the outcome of the method has MVRDV's underlying paradigm of their idea of a better Future.[22] The kind of mapping uses state of the art tools like open source probably governmental data about population, land use, previous plans and satellite images of the territory.[23] It is interesting to see though that due to the rapid changes and further availability with these technological tools the applied mapping from a few years earlier already looks dated. If one compares MVRDV's 2006 project Shenzen Super Window with for instance their Resilient by Design project in San Francisco, a project from a collaborated team of design practices which aims to a rather resilient strategy for San Francisco's bay area, from 2018 one really sees a massive difference in quality with the satellite images and digital renders.[24] (Fig. 3)



(Figure 3. MVRDV 3D contemporary mapping)

PERSPECTIVE IS KEY

I believe that architecture is an ambivalent discipline. Its somewhere in between many disciplines since it touches not just art and engineering but also social sciences. Architects should be fond about this but I do think there are limitations to the subject, specially when it comes to the aspect of social sciences. The argument that we should “design for the actual user rather then the imagines ones”[25] is such a case. First off this is a highly pretentious view of an architect which assumes to understand what humans need better then everybody else before. Second I understand this position comes from an emic praxeological perspective which questions for instance the suitability for diverse human beings to snug and uniform designed social housing, but it misses the point. Which is that, as proposed in the lecture, talking to all users to find out what they want and tailor a building misses the main goal of social housing which is affordability. This approach might have something to offer in combination with methods which target the goal, but in the described example the method missed it. Havik introduced us to an emancipatory approach[26] in one of her examples which can add a lot of social integrative value to a project, even though there might has been no initial budget for a specific minority and their interests from the dominant drivers of the project. Still here as well the method has to be justifiable in relation to the goal especially if the client doesn't care to much about the targeted group.

I have been seeing things constructivist for a long time now which basically means there are several realities depending on subject, perspective, perception etc..[27] While researching I first adopted this epistemology as a valid one for architecture and research consciously. I saw science as absolute realist truth seeking in the way natural sciences are doing. Now I understand that a multifaceted discipline like architecture also has multifaceted answers to the same questions depending on the approach or perspective you’re taking. I guess this is not a new finding for me in a way since in a design call 20 students come up with 20 diverse designs but the awareness somehow changed in regard to the scientific research.

Sustainability is currently relevant in every discipline also Architecture, Urbanism and Landscape. The discussion on how to approach it could need some constructivist understanding from every participating parties but mostly deniers and activists. We as designers and researchers have to position ourselves on how to approach the sustainability debate, are we in a modernist manner Ecomodernists or rather in favor of Post-growth scenarios, but over everything here to me stands the urge to change. This means that regarding on the perspective of the subject the realities might change, but the main goal should be the same.

My architectural position is somewhere between Zumthor and Koolhaas. Both are fascinating for diverse and then somehow the same reasons. Atmospheric and conceptual but both completely uncompromising. I guess that’s also what makes both so fascinating to me the courage to actively search for fundamental friction, in completely diverse ways though. Where Koolhaas seeks actual friction, Zumthor aims for this experience of friction where things become blurry and almost sacral. As an architect I am searching for the expression of the ambivalence places, scenarios, perspectives, subjects or objects have to offer. I believe important things are not achievable without sacrifice, commitment and bravery. Still, the reality of this friction is to be constructed. Like the assonance and dissonance I just proposed about Zumthor and Koolhaas. There is none of this the meaning of their relation am I.[28] Which brings me to my research. The phenomenological approach in architecture like Zumthor designs his atmospheres has a big value for me since I see a high importance in the atmosphere an object creates in the context. On the other hand the theory-led radical approach of Koolhaas which he describes as a result from his own personal boredom interests me because of his will to provoke. Not provocation for the sake of provocation, but from the urge to show the audience a diverse reality.

1 Royston Landau, “Notes on the concept of an architectural position”, *AA Files*, No.1 (Winter 1981-1982), pp. 111-114
2 Landau, “Notes”, pp. 111-114
3 Stanford Anderson, *Architecture in the Age of Empire*, (Weimar: Universitätsverlag, 2011), pp. 163-165
4 Anderson, A*rchitecture in the Age of Empire,* 164
5 Koert von Mensvoort, Hendrik-Jan Grievink, *Next Nature: Nature Changes Alonge with Us*, (Barcelona:Actar, 2011)
6 “An Ecomodernist Manifesto”, Ecomodernism, accessed December 9, 2019, http://www.ecomodernism.org/deutsch
7 “Planetary boundaries research,” Stockholm Resilience Centre, accessed December 6, 2019, https://www.stockholmresilience.org/research/planetary-boundaries.html
8 Mensvoort, Grievink, *Next Nature*
9 Linda Groat, David Wang, *Architectural Research Methods*, (Weinheim:Wiley, 2013), p. 76 f.
10 Ray Lucas, *Research Methods for Architecture*, (Berlin:Laurence King Publishing, 2015), p. 41 f.
11 Lucas, *Research Methods for Architecture*
12 Ben Finnley, “Nautical Cartography and Traditional Navigation in Oceania,” in *The History of Cartography*. (eds.) Woodward, David; Lewis, G. Malcolm, (Chicago:University Press, 1988), p. 480f.
13 Open Sea Map, accessed December 8, 2019, https://map.openseamap.org/
14 Steffen nijhuis, Sisi Zlatanova, Eduardo Dias, Frank van der Hoeven, Stefan van der Spek, (eds.), *Geo-Design: Advances in bridging geo-information technology, urban planning and landscape architecture*, (Delft: University Press, 2016) p. 45 f.
15 Strava, accessed December 9, 2019, https://www.strava.com/?hl=de
16 Jill Desimini, Charles Waldheim, *Cartographic Grounds: Projecting the Landscape Imaginary,* (Ebook Collection, TU Delft, 2018), p. 31-71
17 Kevin Lynch, *The Image of the City,* (Massachusetts:MIT Press, 1960)
18 Thomas Kuhn, *The Structure of Scientific Revolutions,* (Chicago:University Press, 1962), p. 43-51
19 Lynch, *The Image of the City,* p. 18-19
20 Lynch, *The Image of the City,* p. 46-90
21 Gordon Cullen, *The Concise Townscape*, (Architectural Press, 1961), p, 26
22 MVRDV, about, accessed December 10, 2019, https://www.mvrdv.nl/about
23 MVRDV, Shenzhen Super Window
24 MVRDV, Resilience by Design
25 Marieke Berkers, 2nd Lecture
26 Groat, Wang, *Architectural Research Methods,* p. 92
27 Youtube, “Wie wirklich ist die Wirklichkeit? - Paul Watzlawick”, accessed December 10, 2019, https://www.youtube.com/watch?v=At63lkqhXVM
28 Ernst von Glasersfeld, “Reflections on John Fowels’s “The Magnus” and the Construction of Reality”, *The Georgia Review*, Vol. 33, No. 2 (Summer 1979), pp. 444-448

Bibliography

1. Royston Landau, “Notes on the concept of an architectural position”, *AA Files*, No.1 (Winter 1981-1982)
2. Stanford Anderson, *Architecture in the Age of Empire*, Weimar:Universitätsverlag, 2011
3. Koert von Mensvoort, Hendrik-Jan Grievink, *Next Nature: Nature Changes Alonge with Us*, Barcelona:Actar, 2011
4. Linda Groat, David Wang, *Architectural Research Methods*, Weinheim:Wiley, 2013
5. Ray Lucas, *Research Methods for Architecture*, Berlin:Laurence King Publishing, 2015
6. Ben Finnley, “Nautical Cartography and Traditional Navigation in Oceania,” in *The History of Cartography*. (eds.) Woodward, David; Lewis, G. Malcolm, Chicago:University Press, 1988
7. Steffen nijhuis, Sisi Zlatanova, Eduardo Dias, Frank van der Hoeven, Stefan van der Spek, (eds.), *Geo-Design: Advances in bridging geo-information technology, urban planning and landscape architecture*, Delft: University Press, 2016
8. Jill Desimini, Charles Waldheim, *Cartographic Grounds: Projecting the Landscape Imaginary,* (Ebook Collection, TU Delft, 2018)
9. Kevin Lynch, *The Image of the City,* Massachusetts:MIT Press, 1960
10. Thomas Kuhn, *The Structure of Scientific Revolutions,* Chicago:University Press, 1962
11. Gordon Cullen, *The Concise Townscape*, Architectural Press, 1961
12. Ernst von Glasersfeld, “Reflections on John Fowels’s “The Magnus” and the Construction of Reality”, *The Georgia Review*, Vol. 33, No. 2 (Summer 1979)

Website

1. Ecomodernism, “An Ecomodernist Manifesto”, accessed December 9, 2019, http://www.ecomodernism.org/deutsch
2. Stockholm Resilience Centre, “Planetary boundaries research,” accessed December 6, 2019, https://www.stockholmresilience.org/research/planetary-boundaries.html
3. Open Sea Map, accessed December 8, 2019, https://map.openseamap.org/
4. Strava, accessed December 9, 2019, https://www.strava.com/?hl=de
5. MVRDV, about, accessed December 10, 2019, https://www.mvrdv.nl/about
6. “Wie wirklich ist die Wirklichkeit? - Paul Watzlawick”, Youtube, accessed December 10, 2019, https://www.youtube.com/watch?v=At63lkqhXVM

Images

Figure 1 Own Image

Figure 2 WuWei-Institute, “Micronesian stick chart”, accessed December 12, 2019, https://wuwei-inst.org/words-micronesian-stick-charts/

Figure 3 MVRDV, “Collector:Community), accessed December 12, 2019, https://www.mvrdv.nl/projects/328/resilient-by-design?photo=16356