Appendix 3 – Reflection P3 and P4 (all tracks)

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At the P3 the student has to hand in the draft reflection. The main mentor assesses whether the reflection meets the criteria below and contains at least two of the below aspects. At P4 a final reflection must be included as a distinct part of the thesis (a separate chapter) or as a separate document.

In reflection the student uses a short substantiated explanation to account for the preliminary results of the research and design in the graduation phase (product, process, planning). The aim of the reflection is to look back and see if your approach worked, to understand the “how and why”, and subsequently to learn from this. The choice of method (how) and argumentation (why) which preceded the research was a part of your study plan – the reflection must contain an answer to the question of how and why the approach did or did not work, and to what extent.

Finally the student has to look ahead and describes how the second part of the graduation period will be filled in. Depending on the research and design, reflection on a number of the following aspects should be included (you may choose in which order). The reflection should be in the form of a text, with diagrams and sketches for purposes of illustration and clarification.

Aspect 1
· The relationship between research and design

Design-based research is logic between research and design in this case. The research objective is the natural processes (landscape aspect) as a formative power (architectonic aspect) to transform the Houtribdijk into an operative landscape structure is rising up. In this transformation, besides “the space of place”, it pays special attention on “the space of flows” as well. The landscape processes and the interactions between natural and human elements are the formative power to shape “the space of flows”. To figure out how to transform a single-purpose infrastructure to a multi-function and dynamic “flowscape”, the Houtribdijk design assignment is regarded as a case study in the whole research process.

Aspect 2
· The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)

The theme of the graduation lab is “Flowscape”. “Flowscape” as a landscape infrastructure is not only a technical structure but also a carrier of natural and urban processes. It is proposed to solve the environmental problems and adapt to the surroundings as well as providing the appropriate environmental conditions for the long-term dynamic natural and urban development. (Nijhuis, S and Jauslin, D., 2015).

Transforming the Houtribdijk into an operative landscape structure as the subject is under the guiding of “Flowscape” concept. The Houtribdijk is located between two different eco-system-Ijsselmeer and Markermeer as well as two different urban tissues-Enkhuizen and Lelystad. There are highly dynamic nature processes and urban development happening in this area. However, the Houtribdijk was designed to make the southwestern polder. Since that polder plan was canceled, the Houtribdijk, this fixed infrastructure has not fit in the environment any more. Nowadays, the Houtribdijk becomes a barrier between two lake eco-system and a linear traffic line between Enkhuizen and Lelystad. As a result, the transformation design of the Houtribdijk into an operative landscape infrastructure, which provides a coherence landscape condition for nature and urban development while considering ecologic, technical, architectural and social aspects, is proposed within the “Flowscape” framework.

Aspect 3
· The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

Design-related research is to take use of design as a powerful vehicle to visualize the spatial, materialized and dynamic characters of the research objective. Moreover, during the process of designing, the problems, potentials and solutions of the research questions are generalized. Design research is the phase that analyses previous and existing situations and designs in order to understand the site and first design principles. In this case, mapping in 4D and case study are the main research tool used in this step. On the other hand, research by design is the phase to discover the innovative design principles and apply them into the project in order to formulate the new designs. Here, the experimental design and modeling methods are utilized to develop the transformation design (Nijhuis, S., Bobbink, I. and Jauslin, D., 2011).

Aspect 4
· The relationship between the project and the wider social context

The public has low identity of the Houtribdijk because the dike acts as a monofunctional and high-speed traffic line instead of a place people can stay and meet. Recently, there are many stakeholders, such as government, sports organizations (surfing, sailing, etc), ecologists, tourism companies, archaeologists as well as local people, involved in this project in order to develop the potentials in this area (reference is from the meeting “Versterking Houtribdijk” organized by Rijkswaterstaat 7-4-2016). The intervention of the Houtribdijk is highly demanded to provide a coherent landscape condition and to achieve the accessibility to the recreational facilities. During the meeting “inspiration IJsselmeer gebied ” on 1-4-2016, it is said that most people like people (crowed urban area), but most people would also like a contrary environment with open horizon and peaceful landscape. As a result, the landscape transformation design plays a significant role to develop the spatial quality which make people appreciate and experience the environment.
Aspect 1. The relationship between research and design

In general, the research is designed to start from a generic problem field, “Flowscape”, narrowing down to the research objective, then to a specific landscape design project. At the end, it generalises the study into the next level which is the lessons learning within the problem field (see figure 1). The Houtribdijk transformation design project under the specific context is regarded as a case study for the entire “Flowscape” design-related research. So the outcome of the Houtribdijk transformation design is not the end of the research. Instead, the lessons learnt and the principles elaborated from the design is the end results of the research process.

Design-related research is to take use of design as a powerful vehicle to visualize the spatial, materialized and dynamic character of the research objective. Moreover, during the process of designing, the problems, potentials and solutions of the research questions are elaborated.

For instance, the research objective is the natural processes (landscape aspect) as a formative power (architectonic aspect) to transform the Houtribdijk into an operative landscape structure. During the design process, the design tools, such as drawings, mapping, modeling and experiments, are applied to figure out how to transform a single-purpose infrastructure to a multi-functional and dynamic landscape and add the spatial quality on the site. From this case study, the transforming principles are elaborated and have the potential to be applied into other projects.

Aspect 2. The relationship between the theme of the graduation lab and the subject/case study chosen by the student with-in this framework (location/object)

The theme of the landscape architecture graduation lab is “Flowscape”. It states the landscape infrastructure is not only a technical structure but also a carrier of natural and urban processes. It is proposed to solve the environmental problems and adapt to the surroundings as well as providing the appropriate environmental conditions for the long-term dynamic natural and urban development. (Nijhuis, S and Jauslin, D., 2015). Transforming the Houtribdijk into an operative landscape structure as the subject is under the guiding of “Flowscape” concept. The Houtribdijk is located between two different eco-system-Ijsselmeer and Markermeer as well as two different urban tissues-Enkhuizen and Lelystad. There are highly dynamic nature processes and urban development happening in this area. However, the Houtribdijk was designed to make the southwestern polder. Since that polder plan was canceled, the Houtribdijk, this fixed infrastructure has not fit into the environment any more. For example, the Houtribdijk blocks two lakes (the Ijsselmeer and the Markermeer) which results in an unbalanced eco-system. Moreover, it only carries a high-speed linear traffic line between Enkhuizen and Lelystad without a place for people to stay and enjoy the open horizon. So I choose this location to apply the “Flowscape” theme in order to transform the Houtribdijk into an operative landscape infrastructure, which provides a coherence landscape condition for nature and urban development while considering ecologic, technical, architectural and social aspects.

Aspect 3. The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

Design research is the phase that analyses previous and existing situations and designs in order to understand the site and first design principles. In this case, mapping in 4D and case study are the main research tool used in this step. On the other hand, research by design is the phase to discover the innovative design principles and apply them into the project in order to formulate the new designs. Here, the experimental design and modeling methods are utilized to develop the transformation design. By mapping in layers and time, we know there were and are highly dynamic processes happening in the Ijsselmeer area. The space of flows and the interactions between different natural and social system are highlighted in the design process. These dynamic flows reclaim the space of place, which results in an integrated landscape system in potential forms. This landscape system provides the environmental conditions for the natural and urban development. Furthermore, the drawing methods are using the power of lines and different perspective view as well as bird eye view to research the spatial quality of the project. (Reference is from “seeing-drawing-flying” “Drawing the ground”, Frits Palmboom)

Through case study, it is found that the existing principles and working methods applied to reshape the Houtribdijk are rarely based on the natural processes. They consider more about the development of the spatial and recreational value in the Markermeer area. So there is a blank research field about the landscape processes as a formative power needs to be explored. At the end, the physical and digital experimental modeling methods are applied to test the design in three dimensions. In that mean I am finding the possibilities of the design proposals and address them into the site. On the basis of the physical model, it provides a real sense of three dimensions of the objective and stimulates the tactile impression for the material. To some
extent, the physical model is more realistic compared with the digital model. Also, it gives a close sense for the scale and the space. Whereas, the digital modeling in Rhino is to get the accurate data and offer the reference for physical modeling. The combination of these two modeling methods is highly required and it can be very powerful to convince people with the design. (Model guide from Peter Koostra and the Camlab, BK City)

Aspect 4. The relationship between the project and the wider social context

The public has low identity of the Houtribdijk because the dike acts as a monofunctional and high-speed traffic line instead of a place people can stay and meet. Recently, there are many stakeholders, such as government, sports organizations (surfing, sailing, etc), ecologists, tourism companies, archaeologists as well as local people, involved in this project in order to develop the potentials in this area (reference is from the meeting “Versterking Houtribdijk” organized by Rijkswaterstaat 7-4-2016). The intervention of the Houtribdijk is highly demanded to provide a coherent landscape condition and to achieve the accessibility to the recreational facilities. During the meeting “inspiration Ijsselmeergebied” on 1-4-2016, it is said that most people like people (crowed urban area), but most people would also like a contrary environment with open horizon and peaceful landscape. As a result, the landscape transformation design plays a significant role to develop the spatial quality which make people appreciate and experience the environment.

Appendix: Research model

![Research Model Diagram]

**Research Question 1**
Understanding the site (description)
What are the nature system and urban system related with the Houtribdijk?

**Research Question 2**
Principles elaboration
What are the existing principles applied to shape Houtribdijk based on landscape layers?
Which principles I can use in landscape architecture design under the formative power from natural process?

**Research Question 3**
Principle Application
How to apply the landscape design based approaches to transform the Houtribdijk?

**Research Question 4**
Reflection
What lessons are learned from the research process and the transforming design of the Houtribdijk project?
Reflection to the research objective

In general, the research is designed to start from a generic problem field, "Flowscape", narrowing down to the research objective, then to a specific landscape design project. At the end, it generalizes the study into the next level, which is the lessons learned within the problem field (see figure 5). The Houtribdijk transformation design project under the specific context is regarded as a case study for the entire "Flowscape" design-related research. So, the outcome of the Houtribdijk transformation design is not the end of the research. Instead, the lessons learned and elaborated on from the design case study are the end results of the research process.

When the single-purpose infrastructure is transformed into a dynamic landscape system, the scope of the research and design is expanded into spatial, ecological, and societal aspects instead of a pure engineering function (Thompson, 1974). According to Nijhuis, E., Bobrink, L., and Jastull, D. (2011), landscape architecture is composed of natural, urban, cultural, and architectural elements. They are considered a part of the social, spatial, functional, economic, and technical perspectives, which result in an interdisciplinary framework (see figure 5). Within this scope, it neither simply combines different knowledge nor goes very deep into one professional aspect. As landscape designers, we are developing the balance and integration among different disciplines. Going one step further, we also aim to add landscape values on the research and design objects. The landscape value here means the dynamic context and the synergy between nature and urban development.

In the research design model (see fig. 5), it is shown the structure of the problem field, research objective, four main research questions and the synthesis conclusions within the "Flowscape" framework.
Lessons learnt: Working through scales and made by hand
Lessons learnt: The Power of the lines

Mark Rothko said “the fact that one usually begins with drawing is already academic.”

He started with color.

I started with line.

Design research is the phase that analyses previous and existing situations and designs in order to understand the site and first design principles. In this case, mapping an A2 and case study are the main research tools used in this step. On the other hand, research by design is the phase to discover the innovative design principles and apply them into the project in order to formulate the new designs. Here, the experiential design and modeling methods are utilized to develop the transformation design. By mapping in layers and time, we see where we were and where dynamic processes are happening in the landscape area. The space of flows and the interactions between different natural and social systems are highlighted in the design process. These dynamic flows reclaim the space of place, which results in an integrated landscape system in potential forms. This landscape system provides the environmental conditions for the natural and urban development. Furthermore, the drawing methods are using the power of lines and different perspective views as well as bird’s eye view to research the spatial quality of the project.

(Reference is from “seeing-drawing-doing” “Drawing the ground”, Fritz Pahl-Wurtz)
Lessons learnt: Innovative representation call for people’s evoke

“No picture we view can be understood unless its appearance evokes our approval” - Franz Dahlem
To reflect on the research objective: The Houtribdijk as an operative landscape structure, I achieved the transforming design around the Trintelhaven which not only aims to solve a problem, but also provide the comfortable landscape condition for the further development.

The intervention of two landscape architectures are not regarded as a isolated object. They are part of the landscape and only a media to carry the space and change your movements. The experience of the space has the interaction to the surroundings. They works together to form the spatial quality. This is the intention of my design.

The Flowscape as a genetic framework are highly applicable and valid. The Houtribdijk is regarded as a landscape zone which is operative in the environment.