REFLECTION

CONTENT

RELATION RESEARCH AND DESIGN

The relationship between research and design.

The goal of the studio Heritage and Architecture is about designing with existing architecture. You are not starting with a blank sheet of paper, but already with an building. It is important to find the time layer behind the buildings and the site, and to find the design approach of the project. This will already give you values and starting points for your (re-) design.

To find those values and starting points, specific research and analysis have to be done. Thereby you can find the design approach behind the project, which was in our case a military pragmatic approach on Hembrug. We were able to find the reasoning why specific choices are made in the past and thereby the historical story of the site.

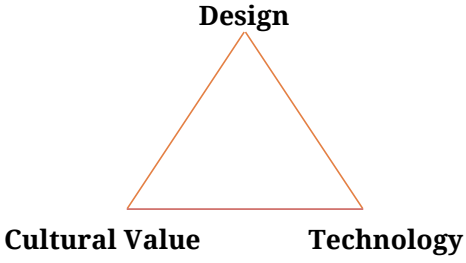
In the first semester of our graduation studio, we did the research and analysis to Hembrug with answering the following research questions;

'How did practical military design yield unintended qualities of a forest-village in Plofbos?

And to answer this question, we have separated our analysis in three chapters; Hembrug (the terrain itself), Plofbos (our ensemble) and the Buildings (on our site). Each chapter had their own question, and we have analysed the subjects on the same structure as a zoom-in. With the method of working from the bigger site to the smaller details, I was also able to zoom in on my design ass well; from the Masterplan of Hembrug, to the programming of our area Plofbos, till the details of the buildings for my (re-) design.

By designing with heritage it is about the balance between new and old and your position in the field of Heritage. For demolishing, big or smaller interventions or by making renovations, it can be very useful to remember the three themes of the heritage triangle; architectural design, technology and cultural value. If you are going to integrate these three themes into every research or design decision, you can make worthy steps and make well-considered decisions that can contribute on your design.

Looking back afterwards, the research has not stopped after finding the design approach and the planning of Hembrug, including the analysis of all the buildings. With making a (re-) design and specially when you are designing the technical aspects of the building, more research has to be done. If you are starting with a blank sheet of paper, which I mentioned before, then you are allowed to use all most every system or method for anything you want to design. And it is probably a more natural way of designing, if you have not done Heritage (re-) designs before. But, starting with an existing building, you all ready have a basic standing and that bring a lot of different chooses with it. You need to know exactly how things are build and you need to research to specific building technology systems of that time period. Thereby, designing on existing buildings brings other (technical) chooses with it and more research on specific (technical) systems or methods that can be used in Heritage designs. For example, window frames for the existing windows, how are they placed and how to use them.



Figure; Heritage triangle

RELATION PROJECT, STUDIO & MASTER

The relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).

In the studio of Heritage and Architecture at the TU Delft faculty, it is about transforming existing sites and buildings into a new (re-) design for the space. The transformation of cities and buildings can be seen as a main theme in architecture nowadays and is a more sustainable way of dealing with existing architecture. The master track architecture at the TU Delft faculty is to encourages to develop creative and innovative building projects on a sustainable way.

The fundamental interest in Heritage and Architecture is about finding the right balance between old and new in contemporary architecture. Dealing with the technical, social and spatial designs in the build environment is the challenge for the (re-) design.

In this graduation project Hembrug, is about making a (re-) design for the abandoned site Hembrug, which was back in the days a military terrain and used for the production and storage of ammunition and weapons. This side has a high valued history and buildings that preserved an important time period. The scale of Hembrug is a new city on it selves and the project Plofbos will be part of this new city and thereby a new neighbourhood, with specific buildings to encourage the function. With this (re-) design and part of this existing site, which has been designed by different generations through time, this project will be the fifth generation of architects and thereby part of a longer period of designs. It can be seen as a new time period, but still not the end of this project or site.

source: https://www.tudelft.nl/onderwijs/opleidingen/.../master-tracks/architecture/
source: https://www.tudelft.nl/onderwijs/opleidingen/.../master-tracks/architecture/programme/studios/heritage-architecture/
source: Programme MSc 3/4 fall semester 2018 - Hembrug

RESEARCH METHODOLOGIES

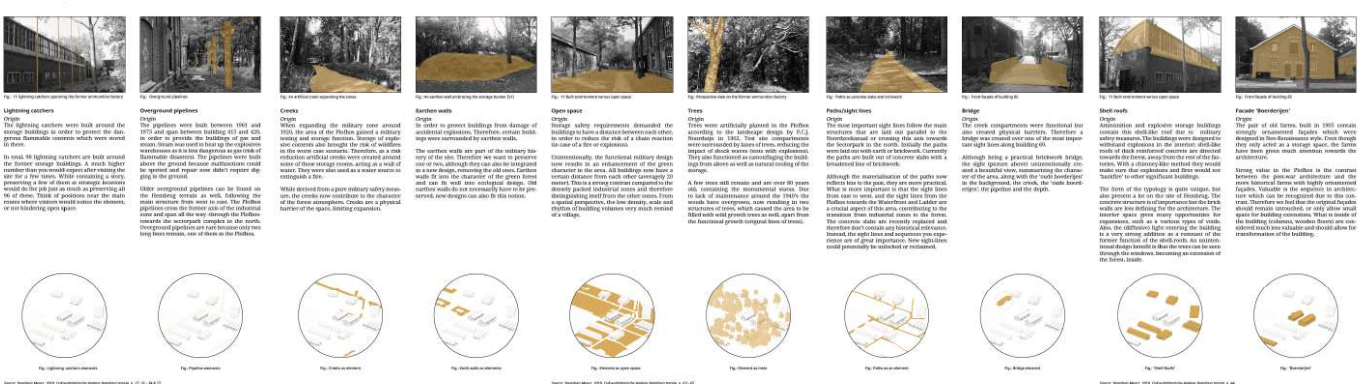
Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

There are several methods in the field of Heritage and Architecture that are well known for doing research. Like the ‘traffic light method’ of Suzanne Fischer, ABCD research matrix applied by Zijlstra or the six layers framework of Steward Brand are examples.

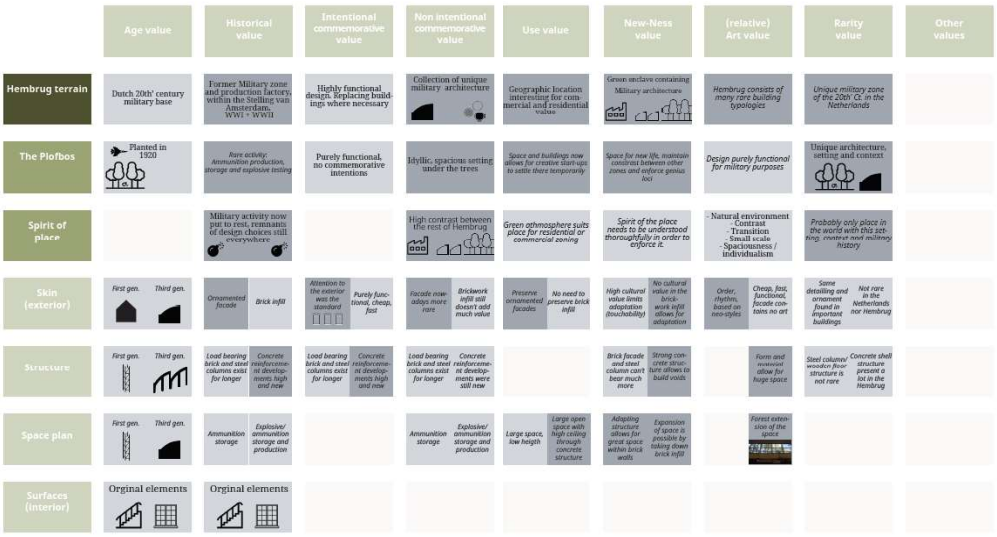
For our analysis we have made a list of elements and coloured the values of each element. With this way of mapping it was very clear what the values of elements were and afterwards we could read the reasoning why we valued particular things and if they were still relevant in the re-design of your project.

We have also used the ‘Heritage Value Matrix’, a graphic mapping and evaluation tool. With this way of mapping values and position critical points, the organization of the map has to be very clear. In our case we could have in one box more then three items, that were the opposite from each other or against each other.

Not only diagrams and keywords are enough for this scheme. You need the argumentation of choices that are made in the valuing. Afterwards, people can make their own interpretation out of the scheme and that will be less scientific.



Figure; Valuing elements of Plofbos



Figure; Heritage Value Matrix of the Hembrug analysis

RELATION PROJECT & WIDER CONTEXT

Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

In the studio of Heritage and Architecture the goal is to (re-) design existing buildings and sites, which is nowadays a good solution on dealing with the raising question for living and working space. We have a lot of sites and places that are left or without an useful function, while the cities and population are growing. By (re-) designing exciting places, a new life can be given to a left-over area and it can be a sustainable solution to first use what is already there.

In our case, Hembrug was abandoned and the nature took over the place in the last couple of years. But now we have re-found the area, we can (re-) design a new area between the two growing cities Amsterdam and Zaandam. Back in the days it was chosen very carefully by the Stelling van Amsterdam because of several qualities and now we can (re-) use those qualities with (re-) designing it the area, like the waterside of the North Sea Canal, close to Amsterdam, forest area and so on.

Mentioned before, Hembrug is located between the Amsterdam and Zaandam, but can be seen as a new city on its own. This mains that a new social place can be created, which gives space for new developments and/or new ideas.

An other theme is that Hembrug has always been a secret area for the environment and therefore it has had no connection with its environments. A lot of industrial areas are isolated from his surroundings and by (re-) designing the terrain it is good to deal with this context and how to react.

Last reflection point on Hembrug is the pragmatic and military design approach behind the planning from Hembrug, which is found in the analysis. By (re-) designing it to an other function, you have to deal with the particular kind of atmosphere and turning it to a living environment for the use of people every day.

ETHICAL ISSUES AND DILEMMAS

Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

By doing the research in the field of Heritage and Architecture a lot of historical documents are needed to find the design approach behind the planning of the site and buildings. This will lead you to critical values and starting points, so this research have to be done very carefully; your hole project is based on those outcomes.

Sharing information can be very relevant between groups, on this way you can split analysis and found more information on different themes. By doing research in groups it is good to have an open map of sharing. Also discussions with people can help to find new point of views and outcomes of the researches.

It will also help to know your research methodology and the outcomes and/or results of particular methods, in your studio. In my case, to known more about dealing with existing buildings in the field of Heritage and Architecture. This will lead to a more natural awareness of the research results and can benefit your project time-wise.

Elaborating the design issues are dealing with an other way of designing. It is not a blank sheet op paper to start with, but with already existing buildings with their own values and qualities. Also the technical aspect of the buildings need to be known exactly, before starting (re-) designing.

The technical analysis of our buildings was not clear enough in our analysis phase. The guiding lines were analysed and drowned by the bigger picture, but smaller and particular parts were not seen before. The process of finding new information after the analysis is going on through the hole project and needs more research on every layer for designing.

By (re-) designing buildings with existing buildings, the connection between old and new is very important. Therefore you need to know exactly how the existing building has build and how you want to make the composition between old and new. A good way of taking a position and to have a better way of understanding is to visit, draw and look at reference projects were that has done before. To go on excursions were the references of new and old are coming together and to see the differences can help in the process.

Reflecting on Plofbos, there were more smaller and separated buildings in our ensemble, with each their own function in the masterplan. They were more on themselves and different design projects. Thereby you had to deal with different exercises and not one integrated design. To find the right balance on each design and the elaboration of each design was an issue. In stead of making one big renovation or (re-) designs, Plofbos was more an Masterplan of different plots. Bigger interventions or big demolitions were not a theme on our site.

Potential issues in the application of the results in practice are also in dealing with existing buildings. The approach and potentials are smaller when you want to keep a part or a hole existing building and making an intervention. You need to be aware of the material choice and how to make the connection between new and old. What are qualities of materials, dimensions, weight and how are (re-) designs made?