

Reflection paper

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“Exposing
Campus South”

Introduction

This paper shall reflect on the outcomes of my graduation project until the stage of P4. The paper is composed of the following chapters/scale levels:

- Heritage & Architecture;
- The design project;
- The professional field of architecture;
- Society.

This graduation project has been executed in the studio of Heritage & Architecture at the TU Delft. The context of the project is that of the Hembrug terrain, a former military production site in between the cities of Amsterdam and Zaandam. The overhauling title of the graduation project is 'Revitalizing Heritage', aiming at giving the Hembrug area a second lease of life.

The Hembrug terrain is situated at the intersection of the North Sea Canal and its branch Zijkanaal G. This location was chosen strategically, it namely lies in the center of the Stelling van Amsterdam, a fortification of the country's most important city. The former military site was divided into 3 main production areas, the weapon-, cartridge- and ammunition production. Beside these production areas, the terrain contained a more forest-like testing area and offices. This diversity in former functions and activities result in a dynamic building landscape that is accompanied by historical greenery. So, although the site fulfilled an industrial role, the typologies of buildings present on the site today are playfully varying. After the Dutch Ministry of Defense left the terrain, the site was temporarily run by the company Eurometaal. When the latter too left the site, Hembrug became desolated. In 2010, however, plans were introduced to revitalize this gem, to open it up to the public for the first time in its existence.

This project aims and revitalizing and redeveloping (a part of) the Hembrug terrain. For this project, the site was split up in numerous ensembles, my choice ended up being Campus South. The main reason for this was the sensation the ensemble gave me during my first visit, Campus South was dynamic and

open, also the shadows of the big roof trusses on the weathered interior walls gave the area a great industrial sensation full of potential.

This part of the Hembrug terrain is located in the most southwestern corner of the terrain, close to the North Sea Canal. The ensemble counts a total of 6 buildings, among which 4 of them are monuments. The project will aim at revitalizing the area, which implies (among other things) that it will be suited to host a new program and that it will be sustainable for usage in the future. This needs to be done while also maintaining the existing characteristics and atmosphere. Within the field of heritage, some factors are of great importance. Three important ones are Cultural Value, Design, and Technology. As a student, you have to be able to find a balance between these notions.

Heritage & Architecture

The relationship between research and design is mainly based on the executed analysis with which the graduation studio 'Revitalizing Heritage' commenced. The first semester of the studio was mostly focused on this analysis in which the students researched and dissected the former military site of Hembrug. This research took place on different scale levels, to get a better understanding

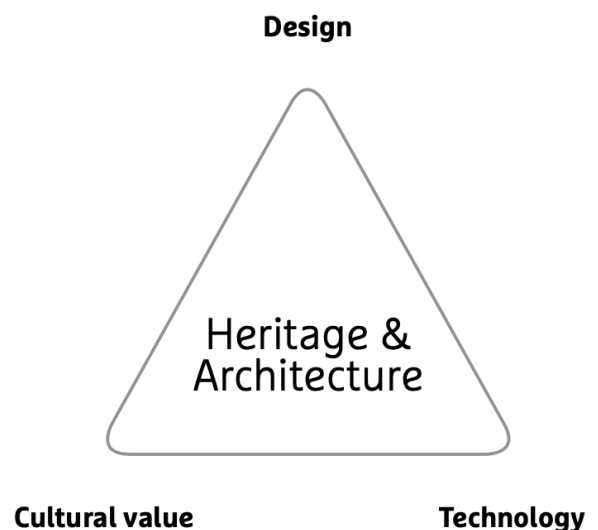


fig. Heritage & Architecture studio elements

of the terrain regarding the following aspects:

- The functional structure;
- The logistical structure;
- The historical context;
- The cultural-historical significance of buildings or elements within the Hembrug terrain.

Having done a bachelor in building technology, my background can be seen as quite functional. I enrolled in the Architecture master track via a bridging semester course. In the first year and a half at the TU Delft, I started learning how to formulate the starting points of my concept by analyzing the context. However, the Heritage & Architecture course was diving in even deeper. Deep cultural-historical research led me into archives, museums, and government buildings. The Heritage & Architecture studio addresses an important topic, especially nowadays the reuse and redevelopment of the existing building stock is as relevant as it gets. The Hembrug site, a vast industrial terrain with lots of greenery located in the metropolitan area of Amsterdam, has great potential. The challenge the student faces is to find a balance in seeking to preserve what he or she deems is of cultural-historical importance and adding a new element of design to suit the new program. First, I had to analyze these values, before I could make a statement regarding my design. The studio of Heritage & Architecture opened doors for me to gain experience in this way of working.

Analyzing the history of the terrain gave a good insight into how the area functioned, functionally and logistically. It also showed that the site was very layered, with the open fields being the result of the former demolishment of buildings, and the visible traces of building expansions in the brickwork. During the research, a few important discoveries were principle to the design that followed later. It appeared that the Campus South area acted as the heart of Hembrug. The Ketelcentrale, a former boiler plant, used to provide energy and steam for a big part of the former

military site. Close to the boiler plant, the Expedition Building is located. This building served as a train station and temporary warehouse for raw materials, these materials were then transported to different factories on the terrain. Whereas these elements were essential for the production process throughout the whole area, one can state that the Campus South ensemble functioned as the logistic epicenter of Hembrug and is, therefore, a prominent part of its heritage. The Campus South area can thus be seen as the former beating heart of the Hembrug area.

Researching the former function of the area gave insight into the possible future role of Campus South within the Hembrug terrain. Also, by analyzing the buildings it was possible to determine the cultural values of them. Because Campus South has buildings dating from different periods, and because of the variety in functions, each building has different qualities. An important asset to two of the buildings is that they are composed out of different layers of expansion, or different building volumes. These two buildings are the Harderij (building no. 155) and the Ketelcentrale (building no. 218). These visible differences of expansion are deemed a valuable asset of the terrain.

In 1973, the company Eurometaal took over the Hembrug terrain. This resulted in the demolishment of a lot of factory- and warehouse buildings. At Campus South, it meant a dramatic decrease in its built surface, resulting in open fields. These open fields gave the ensemble the name of Campus South. This name was created by Palmbout, an urban planning office. Who described the composition of the ensemble as "building plots on a 'carpet' of grass and trees", in which the open grass fields would hold a future communal function. A place where people could gather, just like on an actual campus.

The three topics of heritage as mentioned before, have to be taken into account by the student throughout the graduation process. Next to the research, several workshops helped me to understand

and evaluate certain notions that are involved with the redesign of heritage. The cultural value workshop, for instance, introduced me to the theoretical framework formulated by Stewart Brand. This framework aims at making one analyze and understand the internal coherence of the artifacts of the site, buildings and everything in between. After the analysis and workshops, literary research commenced to get a grip on the way to approach the future design of Campus South and its functions. With all this together, the analysis, the workshops, but also my first experience of the site I came to the following position for working with heritage: preserve as much of the present-day character as possible, only make permanent interventions to ensure that the buildings will be able to host the necessary communal functions for the terrain in the future.

The project

Nowadays some buildings on the ensemble are vacant, and other buildings are hosting entrepreneurs. The fact that the buildings are already there, and that they have their own unique atmosphere, is something wonderful about heritage. The Hembrug terrain has been bought by an investor, who is planning to revitalize this former secluded area and to open it to the public. The plans to do the latter have already commenced with the project of OMA (among others), who are redesigning the bullet factory into a museum and hotel. Mainly focused on the terrain's visitors it seems, but the

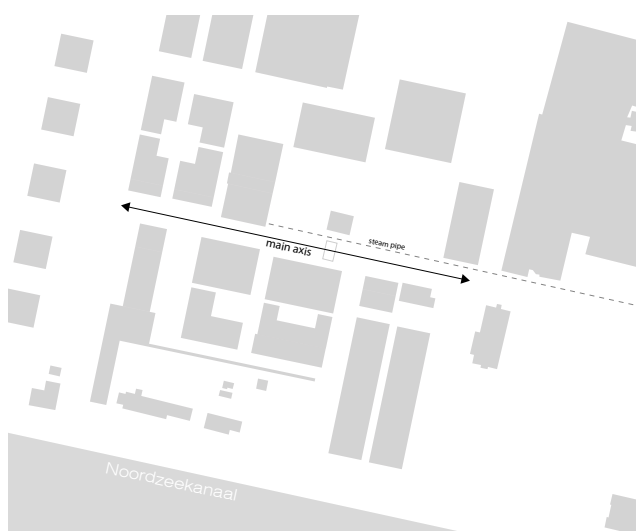


fig. extending the Middenweg (main axis)

investor also intends to give way to a thousand dwellings to be built. With the OMA project in the east and Campus South on the western side of the terrain, the latter should focus on facilitating this new 'Hembrugian community'. Creating communal facilities for the future inhabitants of Hembrug. The campuses are a natural gathering space for people and will function as such in the future, where the former distributing factory buildings in Campus South will get a second life by hosting communal facilities for the people of Hembrug:

- A modern concept of a library with working spaces and offices in the Ketelcentrale;
- A food market and a bar in the Harderij.

Campus South will be a space where people can come together, work, study or recreate. A place that works as a center of the new Hembrugian community.

For me at the beginning of the design phase, I valued everything greatly. Resulting in the fact that I was wary to make interventions to the existing built fabric. After some feedback, I was brought back to the main essence of my ensemble, a vivid communal area for the people of Hembrug. I started observing the area from an urban perspective and made the necessary interventions to the logistical layout and the composition of buildings versus open spaces in the ensemble. Some of these interventions had an impact on all of the three factors mentioned earlier but were necessary to revitalize the Campus South ensemble for future needs according to my design. For example, to make these facilities easily reachable, an axis will be created by extending the present Middenweg to where it will intersect with the lost railway track. Also, this new road running through the area will make sure that the area can easily be reached from both the western and eastern side of the terrain, and it will help to connect the eastern side with the entrances of Hembrug. The design strategy for the existing buildings on Campus South was as follows: the approach for heritage is to preserve traces and character of the past, while trying to

find fitting architectural and technical solutions for the new functions which respond upon the past in a respectful yet playful way.

After organizing the urban layout, I choose to approach the buildings from this urban layout as well. Where do the entrances need to be, and what interventions are needed to make this work as a communal and accessible area? I opened up both the Harderij and the Ketelcentrale towards the new main axis and create flexible structures within the buildings so that they will be able to adapt to future needs and/or changes of the community.

The professional field of architecture

Within the professional field of architecture, one can see a broad scope of different approaches on heritage. Hereby I will reflect on my own approach and how it can serve as a guide for future interventions within the field of heritage. With redesigning the buildings, I tried to insert a new layer in the area. A recognizable layer which at the same time blends in with the existing. I demolished a building part of the Ketelcentrale while also adding a new volume, to make space while simultaneously adding a new time layer. After a while, I noticed that I was slowly leaping away from the values that I put up for the area and that the design wasn't following the experience that I wanted to create. I wanted the industrial roughness and textures of the structures to come forward, the things that I so much appreciated during my first visit. The gestures I made were too big and neglecting the existing character of the site. It was important to take a step back and ask myself the design question: "Until which lengths are the existing characteristics and atmosphere leading in the design, and what do we maintain, renew or restore to create an ideal and future-proof environment that suits the new use?" This led me to go back to the values that I put up, and why I did so.

And at the first stage of the design, I was under the impression of the fact that the things that were in this new layer of time should be in contrast to the existing,

indicating a new era of use for the Campus South ensemble. But transforming or redesigning heritage is not just about mere contrast, it is about what the building needs, and sometimes your addition needs to speak the language of the building. I began to do research the Ketelcentrale, understanding its essence in construction and architecture.

Now, with the present-day design, the result is a series of permanent and temporary interventions. All of them seeking to respect the existing in choice of materials, color, and finishing. The new volume that once dominated the design is now replaced. Not with something new, but by stripping a part of the Ketelcentrale, making the impressive roof trusses move from inside to outside through a curtain wall. This intervention is permanent but focuses on making the building suitable to host a communal function in the created urban layout, and in that way giving it a new lease of life.

With the studio 'Revitalizing Heritage', and in the Heritage track, in general, it is important to sometimes take a step back in order to move forward. Even this step back is moving forward in itself, and during the time I dealt with the transformation of the heritage in my ensemble the latter slowly became clear to me.

Does this mean that architects should be wary to make interventions? No, but keeping in mind what it was that intrigued you as a designer to work with existing structures is of great importance. As an architect, you influence the public space, a public space with structures that have their own history and values. It does not mean that there is no room for change, but as an architect, you are a by-passer in the ongoing timeline of a landscape. Especially nowadays, where we have to watch and perhaps even temper our untamable lust for production and consumption, the architect can play an important role within the field of heritage. In the plan of interventions for Campus South, I wanted them to be as adaptable as possible, demountable structures that make the space within they stand suitable for a new program in the future. Together with the permanent interventions like

the curtain wall in the Ketelcentrale and the portals in the Harderij, I tried to find a balance between preserving the character and making it suitable for future purposes. And this balance is one that every architect has to find, for he or she is solely a by-passer in the timeline of the public space.

Society

The former military production site is now part of the vast plans for the urban redevelopment of the metropolitan region of Amsterdam and will in some time likely be a part of the urban fabric of the ever-expanding metropolitan area of the Dutch capital. And can, therefore, be an important connection piece between Zaandam and Amsterdam. The latter is underlined with the new development plan for the site that is proposed by the investor ABC Planontwikkeling, namely a program of 1000 dwellings including required (social) services.

In the plans that I saw for the future site of Hembrug, I mainly noticed that the larger architectural firms like OMA were aiming at attracting visitors to the terrain. So, therefore, I focused on making facilities for those who were going to live on the site. But what is the target group for the housing in Campus South? For the groups of society finding difficulties with getting a house in Amsterdam region: foremost students and starters. So, Campus South will be a village for these groups of people. To facilitate these new dwellings

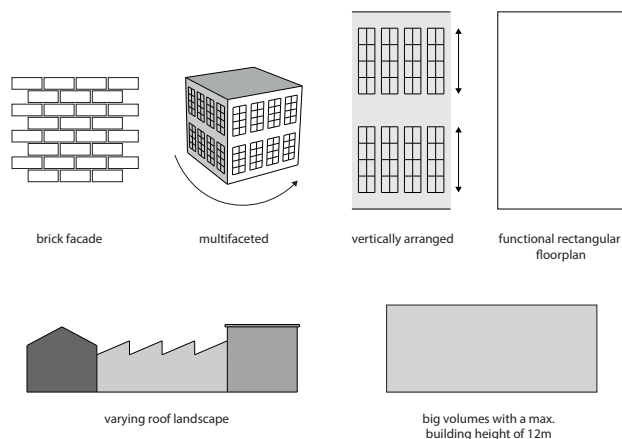


fig. rules for new buildings

and the facilities for the inhabitants, the existing built fabric will not be sufficient. New structures need to be built, but one also wants to keep the present-day open spaces that characterize the ensemble and provide places for the users to gather and recreate. The first step I took was concentrating all the scattered open fields, herewith ensuring the communal space while also giving space for new structures to arise. Concerning the new structures, the following rules are set up to preserve the character of the site. To enhance the dynamic difference in typologies different architects will be selected for the design of the new dwellings, where they design according to the given set of rules.

But the buildings of focus for this project are the Harderij and the Ketelcentrale, which will host a food hall, bar, and a library. I started analyzing what these specific functions meant and needed in the year 2020. For example, the Ketelcentrale, which was the former center of the Hembrug terrain with its production of steam, would be the new library for the future inhabitants of Hembrug. Not distributing steam, but distributing knowledge and culture, as libraries have always done. But the function of a library changes, as do many functions of buildings in general, since the arrival of the internet. The internet makes all information easily accessible, and even books can be accessed from the internet. To understand how this changed the ways libraries worked in the present-day environment, I went on the research and visit reference projects like School 7 in Den Helder, the LocHal in Tilburg, and the library of Deventer. It seemed that the function of the library shifted from a 'center of knowledge' to a 'portal of knowledge'. All these places mentioned before are more than libraries because they could adapt to the changes in our society. Therefore, the Ketelcentrale will also be more than a library, it will be a place for:

- Education
- Art & Culture
- Reading & Literature
- Meeting and Debate

Sustainability is a topic that is intertwined within architecture nowadays. It is of great importance to design sustainable areas and buildings. Therefore, are the Harderij and Ketelcentrale going to be heated with a heat exchange system, where the two buildings will collaborate on producing and storing heat. Both the Ketelcentrale and the Harderij will have PVT panels installed on the roof, whilst at the same time, the heat from the kitchens in the food market of the Harderij will be extracted and stored. Both buildings will have their cavity, floor, and roof insulated as well. The decision to insulate the cavity was made to preserve the existing textures on both the inside and outside of the buildings. Furthermore, the steel window frames with a single sheet of glass will be maintained on the outside, while on the inside a new steel double glazed window will be installed. In all these interventions for sustainability, trying to preserve the existing character was always leading in making choices. Sometimes new interventions are contributing to the industrial feel of the buildings, like the visibility of the ventilation ducts which are left in sight on purpose.

Finalizing, my first experience, values, and position within heritage were the starting points of redesigning Campus South. With these values described and reacted upon, this project can offer insight for future (urban) redevelopments of industrial complexes. Also, the flexibility of most interventions can contribute to the overall notion of sustainability. Namely that sustainability is not only energy efficiency but also future-minded flexibility and adaptability. Which makes the vast interior spaces of industrial buildings very suited for such an approach.

It also needs to be said that parts of the ensemble are worked until a certain level of development and that there still is room for further development on certain scales. For example, the composition of the campuses which are still left as plain grass fields can be elaborated upon further in the future.