



from warehouse to wellness

transformation of the Armamentarium in Delft to a wellness centre

reflection paper

RMIT graduation studio 'Mixed projects - Armamentarium Delft'

student: Thijs Pannekoek
student number: 4184432
address: Warmoezierstraat 5
2613 VG Delft
The Netherlands
telephone number: 0031 (0)6 46066642

first mentor: Wouter Willers
second mentor: Frank Koopman
external examiner: Peter de Jong

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The central aim of the chair of RMIT is to transform existing structures to match new needs, instead of producing completely new structures. During my graduation, I have developed a transformation design for the Armamentarium, which I transform into a wellness centre.

The Armamentarium is a historical and well known building in Delft. During its history it has been an important building, as a central weapon warehouse for the States of Holland and West Friesland. The last user - the army museum - has left the complex last year, leaving it currently vacant.

After an intensive year of analysing, researching, writing and designing, I am nearing the completion of the transformation design and thereby the end of my graduation project. In the last weeks, the different parts of the design did come together and all previous analysis prove their worth. It is exciting to see the design becoming a whole and resulting in a well thought-out and appealing design.

This reflection paper will explain the used method and will reflect on both the end-result and process to get there.

Method

[1] In the studio of RMIT, the design always starts with an existing structure, not only on the urban level, but also on the level of the building. Thereby an extensive research on the urban, architectural and technological level has been done. With the result of these researches, important values have been defined in a value assessment. The research and value assessment are presented in my P1 report and formed the starting point for the design process.

[2] In the beginning of the design process, program related research has been done. My design related knowledge and frame of references regarding wellness centres was little. Several wellness projects, varying in size, concept and architectonic importance, have been analysed on the functional and morphological level. From these analysis, general principles have been deduced, which afterwards are induced in the design. The results and general principles of the research will be presented in a separate research document.

Apart from these on-paper analysis, I have visited several wellness centres, have done literature research and looked at precedents for design ideas and use of materials.

[3] Furthermore, several precedents of transformation designs have been given a look, to be able to form my ideas about transforming the Armamentarium. Since this is the first transformation project in my TU career, my frame of references regarding transformation design was quite small. My position paper dealt with ways to transform existing buildings, which gave me the opportunity to do more intensive research into this subject. This helped me to define my restoration vision.

The restoration vision of David Chipperfield in the reconstruction of the Neues Museum in Berlin was the leading subject of my position paper and a inspiration while defining my restoration vision. My restoration vision can be found at the end of this document.

[4] During the design process, extensive research by design is done. I design on a quite rational way. Often, I find out which factors are at stake while I am designing. For that reason I often begin designing with my initial thoughts, subsequently I analyse these to find out which parameters are at stake. Apart from the conditions and functional demands the design has to fulfil, I define the architectonic or atmospheric goals it has to meet. When I have defined the important aspects and determine my starting points, I abstractly test different options with variant sketches. I will then test the most appropriate or appealing option in more detail.

An example of this design method is the design process of the dressing rooms. Privacy, functionality, atmosphere, scale and a hygiene/logical routing were the aspects I had to deal with. At first I tried several options, which dealt with the privacy (no sight from foyer into dressing room or wellness area), hygiene (zones with and without shoes), scale (not one large room, but divided into smaller segments) and functional demands (enough lockers, place to sit, etc.). This resulted into a general lay-out principle. Next, I tried to incorporate the atmosphere and conceptual idea, by making separate boxes of the dressing rooms (cocoon in which people are embraced), arranged on a line to form a barrier between foyer and wellness.

This method is not always as easy and straightforward as it seems, it can be a very difficult puzzle. The process to get to a satisfying general lay-out (spot-plan) was very difficult. The chosen program in this building, gave several design issues:

- privacy (stacking of program & location in inner-city)
- technical problems (humidity vs. timber & groundwater vs. baths)
- accessibility (stacking of program)

I have spend quite some time testing several options, determining if all the requirements have been achieved and choosing the right lay-out. It can be a great dilemma, choosing between what is technical feasible and architectonically desirable.

[5] Lastly, literature research into the technical demands of a wellness centre has been done. This dealt for example with the structure of sauna's and pools, or the specific installations involved.

These five different parts of the research have been used or implemented into the design. They made it for me possible to make well informed decisions.

Reflection

The approach of RMIT appeals to me. I think it is very interesting to develop an existing structure and to give a building a new life. The development of a building over the years gives it an historic stratification, not present in newly built projects. Furthermore, re-using of existing building stock will gain in importance, a necessity with social, economical and cultural relevance.

The chosen program forced me to cope with several RMIT related issues, like the architectonic implementation of a new program in an existing building, finding solutions for the technical challenges and developing a restoration vision. Most of these issues were defined in my graduation plan as research questions. To my opinion, I have found satisfying answers to the research questions in my design proposal. The questions with short answers are given at the end of this document.

The chosen program was quite challenging, for several reasons (technical, privacy, accessibility). During the design process, I became more and more aware of the complexities. I have tackled the challenges in my final design, delivering an architectural interesting and technical feasible transformation design for the Armamentarium.

The process of getting to the final result was not always easy. Sometimes I had to rethink my ideas, to get to satisfying answer to the design question. With extensive research to all the design questions, trying to work systematically and organised, I eventually succeed.

In the beginning of the design process, I started analysing, researching and designing a lot of different things at the same time, architectonic and technological. This resulted in a lack focus. For a next design project, I should be very aware to keep focus on one thing at the time and try to delimit myself. This should prevent losing grip to the project and doing too much things at same time. To recapture myself, I made a detailed planning for the period from my P3 till my P5. In this planning, I set myself deadlines, which forced me to focus and finish different design parts.

Since I was the first RMIT project I have done, I have learned quite a lot transformation related issues. At first, it is to my opinion very important to be aware of what you find valuable of the building. In this way, you know what you can and cannot do with it. Furthermore, I think you should have a clear idea about the way you want the new to connect with the old. Contrast is popular, but not always appropriate method. Lastly, I think you should try to find a program that suits the characteristics of a building. In this way you don't have to alter building hugely to match the new program, but can use or even exploit the characteristics of the building.

To my opinion, the result of my graduation project is very satisfying. The chosen program was quite challenging, but I am happy with the outcome. The produced drawings, models and renders represent a year of research and design, delivering a glance to the architectural ideas.

Research questions

Central research question

How can a wellness centre be implemented in the historic complex of the Armamentarium, with preservation or even revelation of the existing character?

As much of the original building is being retained. Freestanding elements are placed inside the buildings, to make the new function possible. Floors are as little as possible divided by walls, by which the size and scale of the building would be lost. New elements are designed in dialog with the existing building and its character.

Sub questions

How to subdivide program on the big open floors, without losing its spatial character?

The current spaces are very big and open. The integration of a new program in the building will very possibly imply a subdivision of these spaces. The question argues how this can be done, without losing its current, open character.

Space is not created by placing dividing walls, but by placing boxes and room-dividing elements in the space. The boxes do not touch the walls and ceilings of the existing building, whereby the size of the existing space can still be read.

How to create internal connections, without losing its character of isolated spaces?

Internal connections are currently very poor and possibly will need increasing. The isolated character of the space has been valued to be important.

The main internal connection is one, closed element, which pierces through all the floors. People enter from floor A through this element, which is an atmospheric space on its own, go up or down, and leave the circulation element to floor B. From the different floors, there is no direct visual connection to each other.

How to deal with the privacy and visibility of a wellness centre in the inner city of Delft?

A wellness centre demands a seclusion of everyday life and deals with intimacy. The situation in the inner city of Delft causes that the visibility and privacy of the wellness should be investigated.

The enclosed nature of the building is exploited, with all the wellness program facing inwards to the courtyard. The outer-facade stays very closed. The small windows facing the street are fitted with translucent glass. To enclose the outdoor space, a new volume is placed to create an extra courtyard. To make the wellness centre visible from the outside, this new volume is fitted with a small opening piercing through the perimeter of the wall. The new bridge and the new foyer make the entrance to the complex clear.

How to deal with technical aspects of the Armamentarium in the transformation to a wellness centre?

A wellness centre demands a warm and relatively humid indoor climate. An historic building as the Armamentarium, with its uncovered timber structure, is not resistant to this indoor climate. Furthermore the existing structure is not sufficient for the extra weights of the baths.

Humid spaces are clustered, where the vulnerable surfaces are covered and protected. A sophisticated ventilation scheme prevents humid air to enter the dry and unprotected spaces. Baths are slightly raised above ground floor level, to be able to be constructed above groundwater level.

Restoration vision

Transforming historical buildings like the Armamentarium is a sensitive job. Collective and personal memories are materialised by the physical remainders of these buildings. This makes the place meaningful and thereby architectonically and culturally valued higher than more common buildings. The current state of the complex is emerged from many events that took place in its history. The changes to the complex over time, influenced by its context, give it its current appearance.

The restoration vision of David Chipperfield in the reconstruction of the Neues Museum in Berlin was the leading subject of my position paper. The way in which he tries to reinstate the original volumes of the building, by retaining the damaged fabric as it was being found, reinforce it, but not restore it, appeals to me. Chipperfield did not tried to get back to a perfect original image, but rather give the history a chance to express itself, by showing traces of World War II. The 'spirit of the ruin' is being retained, as architecture critic Rowan Moore (2009) calls it. By showing the history and the imperfections of the building in the restoration - instead of recreating a crisp original - the building is more interesting and historically layered.

Parts of the building that had been completely destroyed or parts that could not be saved, have been rebuilt. These part are complementary to the historic structures and must not be seen separate. They are included with the old to form a whole again. The new parts are designed in dialog with the existing: original proportions and the nature of material are generally respected. However, these part are apparent as addition to the history of building, since the finishing of the material differs and ornamentation is omitted.

The transformation of the Armamentarium in Delft is different situation from the Neues Museum in Berlin. First, in the transformation of the Armamentarium is a change of program involved. Furthermore the building is not ruined. However, the sensitive approach by David Chipperfield, with awareness of the existing character, can be retranslated.

To my opinion, a transformation of the Armamentarium should try to demolish as little as possible of the existing. Alterations done in the history, may be visual, showing the historical stratification of the building. Intervention (e.g. new openings) may be clearly shown as a alteration of the building. New element must be clearly readable as new elements, but must be done with awareness to the existing character and in dialog with the existing. The new elements should not try to contrast with the existing, but rather tries to complement to it.