

The Armamentarium as a museum for the Caldic collection; a promise to love it.

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Reflection



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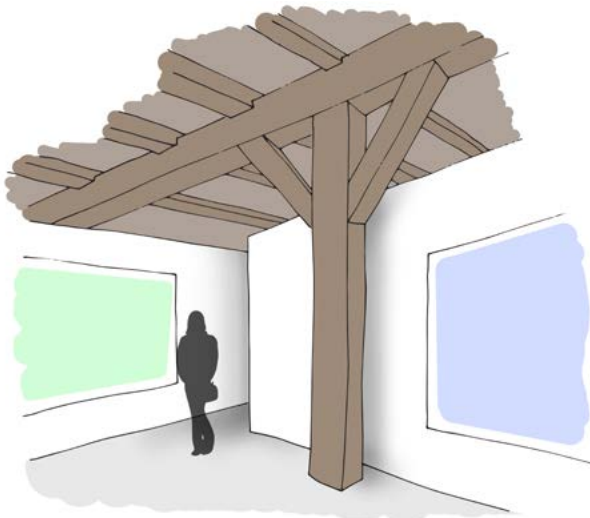
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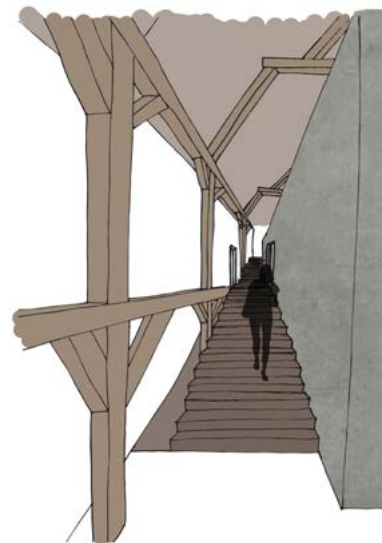
Temporary art collection in the 1692 building



Permanent art collection in the 1602 building



The route through the 1692 building



The 'bunker' in the VOC warehouse

Fig. 1 Impressions of the redesign (own illustrations)

- 1 - 1602 building
- 2 - Inbetween building
- 3 - Entrance building of Iris Thewessen
- 4 - Guardhouses
- 5 - 1692 building
- 6 - East-Indian warehouse
- 7 - Boiler house
- 8 - Entrance building of Koen van Velsen

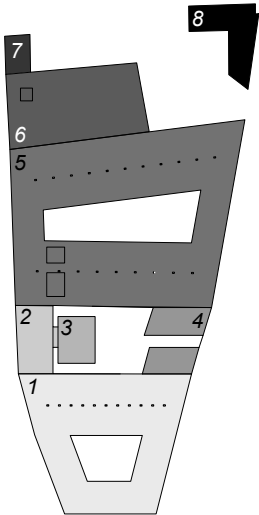


Fig. 2 The different buildings of the whole complex (own illustration)

Introduction

The graduation project is almost finished; therefore it is time to reflect upon it. I will reflect on the research and the design process to find which steps were good and which weren't.

First I will compare my design method with the approach known by Rmit. After which I will put the method in a wider social context. An extensive explanation of my design method will follow. Then I will explain the research questions with the associated answers, followed by crucial design decisions and references which were leading for the redesign. I will end with the things I would like to develop further, advise to coming Rmit students and the position paper. These discussed topics will help me improve my design and research method.

Figure 2 shows the different buildings of the Armamentarium. These 'building names' will be used in the text. Figure 1 shows some impressions of the redesign.

Rmit

The redesign I made was within the studio Research & Education, modification, intervention and transformation or Rmit in short. It has as guidance; "The primary objective is no longer to build the new but rather to add to the existing structures" (Coenen, 2006, p. 9). In this studio students learn how to transform existing buildings on different scales. The assignment for this graduation design was described as a restoration project. I would describe restoration as 'bringing back the old building'. This is not how I have interpreted the assignment, the result was therefore a totally different building while it respects the original building. I would describe the new design as an intervention and transformation of the Armamentarium. Interventions were needed to transform the old army museum into a museum for modern and contemporary art.

The analysis done at Rmit differs from that at other studios because you also have to analyse the existing building. Analysing will help you understand the building, the architectural as well as the technical side. The conclusions of these analyses will result in a value assessment. This value assessment can be done in text, diagrams, drawings, photos, etc. It has to be an objective document, something I found difficult to do.

For this design project I made a value assessment based on the conclusions of different analyses. We started the analyses by making a basic analysis with the group. After this, everybody chose a subject to make a more specific analysis. The conclusions of these analyses resulted in a value assessment, which contains good starting points for the redesign of the building.



Fig. 3 Photo of a sketchmodel (own illustration)

Wider social context

The reuse of buildings is something that is important now, but also in the future. Constructing and demolishing buildings cause a lot of environmental pollution. This in combination with a lot of empty buildings in the Netherlands, results in reuse. There is also a group of buildings, which shouldn't be demolished because they are too valuable. Monuments and historical important buildings belong to this group. Unfortunately, these buildings are not always kept.

My graduation project has a relation with a wider social context because it shows how you can deal with the reuse of these kinds of buildings. A lot of monuments in the Netherlands lost their original functions and are now empty because there is no other function available which suits the building. In my opinion this is one of the worst things that can happen to a building. A building needs maintenance and quickly gets neglected if it is empty. It can lose its value and people will lose their interest in the building. In the redesign for the Armamentarium I tried to make a balance between the old building and a new function. I only kept the most valuable things and within these things I added the new function. This is a way you can deal with empty monuments to give it a new life. In the longer term it will be better preserved than leaving it empty.

For the architectural analysis, I made a timeline, which gives an overview of the changing thoughts on how to deal with monuments and other important buildings (see figure 4). In this timeline you can see which events helped change the approaches and what has changed. Around the sixties it was normal to show the old building tracks and people started realizing how monuments can vitalize the environments. It attracts people, but also makes people proud on where they live. In the eighties there are a lot of discussions on how to deal with monuments. There is a group, which thinks it is the best to bring back all the original elements and on the other hand there is a group that thinks it is better to make an obvious difference between old and new. This discussion period is clearly visible in the transformation of the Armamentarium into an army museum by Jan Walraad and Koen van Velsen. Walraad brought back a lot of the original elements and added new elements, but in the original style. Van Velsen added new elements made of metal plating that differs a lot from the original materials and elements. Walraad made the complex ready to get a new function, van Velsen made an army museum of it. better preserved than leaving it empty.

Heritage preservation law, this law establish the responsibilities of the government, monuments and protected town of village faces

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Charter of Venice - It is a product of the post-war history, preserving is more important than renewing. But reconstruction in the same old style as the building doesn't occur much

There was a method called '**building tracks restoration**', old present seams and connections were explicitly brought to view

In this years it is likely to restore buildings as simple as possible of the existing building, it is also economically attractive. Valuable changes in a monument are respected

Monumentenwacht is set up, an independent advisory committee that the state of monuments keep an eye on

European monuments year, the start of a thinking in which the monuments are really important in the living environment, they are essential for a meaningful existence

'Care for monuments', the safeguarding of cultural heritage values in general

The **note heritage preservation** laid the foundation for decentralization of the monument system

Around this time there is a **discussion** about how a new function can fit a monument. The choice is between demolition and renovation. According to the Charter of Venice, a new function can't change the decorations and layout

New heritage preservation law, execution passes to municipal and provincial governments

A list with monuments from the period 1850-1940 is made

Valletta Convention, will affect the building historical research because they want to know how the building did look like in the past

The Nara document on authenticity, goes deeper into authenticity, not only materials but also concept, context, etc.

Strategic plan heritage preservation '**well-founded**' The backlogs in the preservation should catch up, with additional resources and more money

Around 1996 there are policies at which a monument should be seen from two sides, from his own and from his environment. It is important that the environment must remain liveable

Monuments have more to stand on its own

Nota Belvedere, Give more priority to the cultural and historical quality of spatial developments

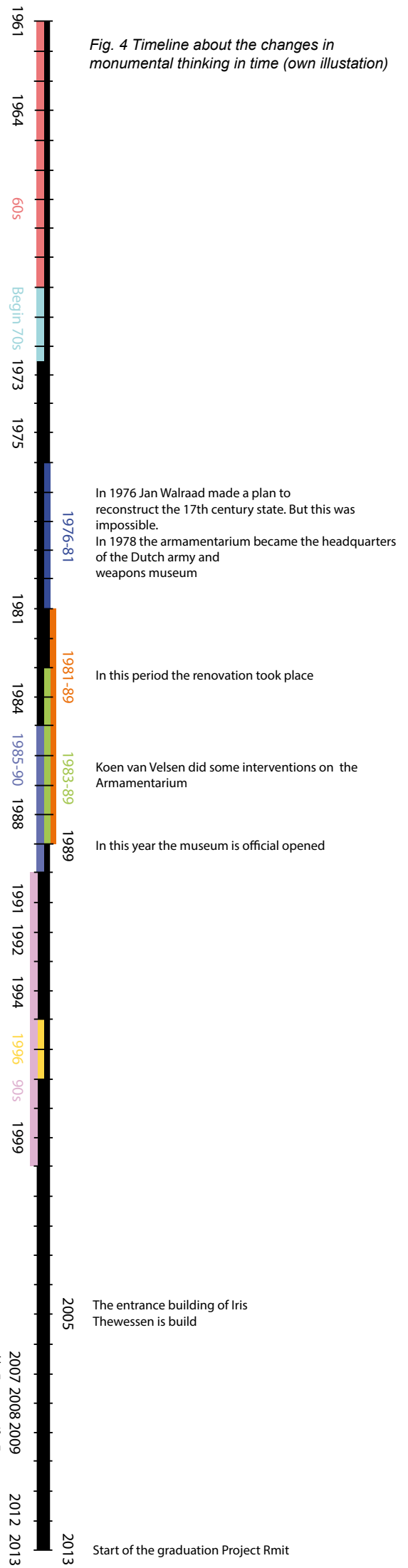
Policy designating protected monuments in 2007, no monuments will be add to the list of buildings build befor 1940. The list of buildings from 1940-1958 will grow in high

Van Balen made a matrix with various aspects and dimensions of authenticity based on the Nara document on Authenticity
Policy designating protected monuments in 2009, buildings from before 1940 can be added to the monument list again

Modernization heritage preservation, less licenses necessary, the municipalities must take the cultural and historical values into account in their zoning plans, the age of 50 years is not permitted anymore to be a national monument

Policy designating protected monuments in 2013, the rules change again, elaborated on the rules out of 2009

Fig. 4 Timeline about the changes in monumental thinking in time (own illustration)



Design process

After almost six years of designing everybody developed a design process of his/her own. I also did and will describe it in steps. The next steps never happen precisely after each other, they usually occur at the same time.

It always starts with analysing, analysing the surrounding, the building (if there is one) and the new function. Analysing helps me understanding why things are as they are, while others will raise questions. These are the ones you need to keep in mind while designing.

Besides these analyses you have to analyse references, reused buildings and buildings with the same function, or both. You can learn from these references, they can give you inspiration and make you understand how to deal with the project. During these previous steps I always make little drawings and write things down I want to use, comparable to making notes.

When I really start my design I make models, a lot of models. I try to find out which volumes need to be placed where in combination with the surrounding of course. When I have the right volumes and shapes I am trying to fit the function within it and then the real design process follows. Making maps, facades, choosing materials, etc. All at the same time depending on each other. Lastly you will make the details, first think about how it has to look and then about how you can make it.

My graduation project went a bit different. Due to some problems with my wrist it wasn't possible for me to build a lot of models, therefore I had to draw a lot. This is not my strong suit. But it was a good way to explore options and I also learned some new techniques. You don't have to be the best illustrator to make good drawings for my purposes. An example is the design of the courtyard in the 1692 building. I made the same impression with different facades and different roofs. Every step was visible immediately and helped me establish rules. With these rules it was possible to make design decisions.

Another thing that was different was the way I made analyses of references. Throughout the whole process I've visited museums in reused buildings. After the visit I tried to explain what inspired me and what didn't. I didn't make objective analyses about the architecture and construction, but made a more subjective one. I took pictures and made drawings to make clear to others why I have this opinion. Next to this I used my own opinion and experience about museums. I often visit museums about modern and contemporary art as a hobby and therefore I know exactly what I like and don't like about museums. For example I love to wander but I hate it if a museum continues indefinitely. These subjective elements are the basis for the redesign.

Something I had never done before was visiting the possible client. I went to Mr Caldenborgh, the owner of the Caldic collection, and asked him a lot about his art collection, his ideal museum, the museum they are already building for the collection, etc. It was very interesting and inspiring to hear his story, he thinks in a more business way.

A thing, which I should do again, is to visit and analyse a lot of reference projects. When you visit a reference project with the analyses in your mind, you find out a lot more than when you just visit them without a real reason. I also want to make more models again. The 3D view clarified a lot and it is a good way to share your ideas with others. Drawings only show ideas from one viewpoint.

A thing I want to improve is to work more structured, I have to write or draw why I make some decisions. When I do, I can explain the design better. I found out it was hard to explain why I did things, while the reasons are somewhere in my mind. Next to this I want to become better in making decisions. I spent lots of time on the same subject making different variants and I found it difficult to make a decision. Working more structured will help me with this because it allows me to better understand why I make decisions.

The last thing I want to change in my design process is to think more about sustainability from the beginning of the project. Sustainability is an important issue for new buildings, but also for redesign. By thinking about it from the start you can integrate it in your design and make a sustainable building. Now it feels like adding sustainability on certain points where the building permits it.

Research questions

To start your research it is good to have a research question. In the graduation plan I raised the following research question:

What is the relation between the functional and monumental/historical value of the Armamentarium?

The Armamentarium was a warehouse, a building to store military goods. It was important to store as many goods as possible in the building, while light, representativeness, etc., weren't very important. When something had to change in the building to store the goods, it had to be done. This gave the building a functional character.

In 1976 Jan Walraad started his renovation of the building, he didn't do this in a functional way. He brought back original elements and introduced new elements, which are meant to look like they are original. He wanted to bring back the historical building with historical looking elements.

In my opinion a more functional approach would have been better, because this continues the history. The new function for the Armamentarium will be a museum for the Caldic collection; a modern and contemporary art collection. The art asks for the visitor's attention and special climate conditions, therefore the building has to change to meet these conditions. There has to be a balance between the functional and monumental value.

To make this balance, I first started to find out what was really important/interesting about the complex. This resulted in the 1602 building, 1692 building and the VOC warehouse. The other buildings are outbuildings and therefore less important, they can make room for new volumes. I did this with different scales on the complex to bring it back to the most interesting parts in combination with the design for the museum. Examples are the big walkabouts in the 1692 building. These are still there and now filled with art, but it's done in a way you still can experience the bigger walkabouts. I tried to strengthen the monument by returning it to the essence.

The main research question can only be answered with the help of sub questions.

What kind of spaces do the art pieces need?

Often art is showed in white large galleries, in which all the attention is reserved for the art. But is this really needed? Are there different ways to show the art? The Caldic collection consists of all different kinds of objects; paintings, photo's, installations, sculptures, etc. They don't need the same kind of spaces, therefore I made cabinets within the bigger walkabouts. Within these cabinets the attentions goes to the art, but outside these cabinets the attention is divided between the art and the building. The exposed art here can cope with the environment of the existing building.

How can you wander through a museum and intuitively find your way?

From my experiences with museums I know there are a lot of different ways to make a routing through the museum. I like it the most when you can just wander through a museum and find your way without really looking for it. I dislike it if I want to see just one thing and I have to follow a route through whole the building. Therefore there is a short route through the redesign of the Armamentarium from which you can wander through the cabinets. The cabinets are arranged in a way such that you can't see what will follow in the next cabinet. But when you are back in the walkabout you know immediately know where you are, you don't get lost. The route isn't materialised but works with sightlines and reference points. Every time you cross the route when you are wandering you know where you are because you recognize it.

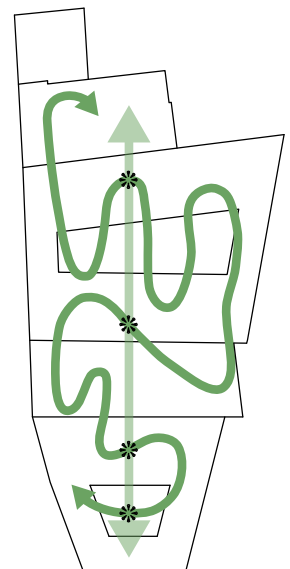


Fig. 5 Wandering and the route (own illustration)

Crucial design decisions

A design process contains a lot of crucial design decisions. These decisions are an influence on the whole design and therefore important.

Determining which function I will place in the building was a crucial decision for the design process. First I thought of a function for children on an isolated island, but it didn't really inspire me. After the program workshop I decided to make a museum for the Caldic collection of it. I really liked this idea and started full of enthusiasm with the analyses of the function. The Caldic collection contains modern and contemporary art, it is important to know what kind of collection this is and which pieces it contains. These things have major influences on the redesign, because they make requirements about the space, light, climate, materials, etc.

Another important decision of my design process was the decision on which parts of the complex were important enough to preserve and which weren't. My position about the heritage development influenced this decision. In my opinion the additions and changes you make to the building have to fit the story of the building. The architectural analysis of the building showed how the Armamentarium has never been treated as a monument. It was a functional building, which had to store military goods. The renovations, which followed, were all very functional, what had to be done was done. In 1976 this approach stopped by Jan Walraad. He didn't make a functional redesign, he added elements which looked original. In my opinion a more functional approach suits the history better. Therefore it was possible to demolish parts of the building. To create space for the new function the outbuildings have been demolished in the redesign. The new function can be placed in the 1602 building, 1692 building, VOC warehouse and the new volumes. It made me realise you don't have to preserve everything, it was a mind switch and influenced the whole design process. A reduction to what is really monumentally important was left and the interventions made this stronger.

Determining the way you can wander through the building without being lost was another crucial design decision because it resulted in bridges and openings in the facades of the courtyard. Other functions also had to be placed beyond this route. The route was a semi fixed element, which you need to take into account when you are designing other parts of the building.

Leading references

Almost everybody uses theories or reference projects, which are leading in his or her design.

An example is the organisation of 'de Pont' in Tilburg, this was leading for my design. In 'de Pont' they made cabinets in an old factory hall through which you could wander, but you could still experience the big factory hall. This way of exhibiting art was leading for the organisation of the temporary exhibition space in the redesign for the Armamentarium.



Fig. 6 De Pont (own photo)

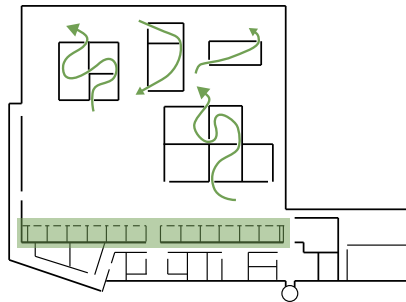


Fig. 7 Organisation de Pont (own illustration)

Jan Schoonhoven his art was a source of inspiration for the new façade parts. His art is important for the Caldic collection because it was the start of the collection and the collection contains 60 artworks of Schoonhoven. Schoonhoven plays with shadow, coherence and differences in his art. Every box looks the same, but isn't. I took his used elements and added transparency to it and designed the first façade. This façade has been developed into the final façade which is totally different, but has the same starting points. The proportions and lines in the glass panels are carefully distilled from the facades of the 1602 and 1692 buildings (fig. 9).



Fig. 8 R-72-73-M-13
by Jan Schoonhoven



Fig. 9 The facades developed from a 'Schoonhoven' to a 'Castelein' (own illustration)

An approach which was leading for my design was the approach of Tadao Ando in his Punta della dogana museum in Venice. He used a respectful approach towards the old building despite adding new elements of concrete and glass. You always experience the old building because you can see the old timber constructions and brickwork. With the new elements he creates 'view through' and closed areas. The use of different materials with a totally different appearance in comparison to the original ones makes it clear what is new and what is old. The old materials have a warm and rough appearance while the new ones are very smooth with a cold appearance. Next to this Tadao Ando designed air ducts, which are visible, but hardly noticeable with a light system in it. This was a good reference for my airduct system.



Fig. 10 Punta della dogana museum by Tadao Ando (www.floornature.com)

Tadao Ando and Peter Zumthor are good examples on how to make simple looking details, without plinths, edges, screws, etc. Only the materials that matter can be seen. Examples are the details of the Kolumba museum in Koln designed by Zumthor. Between the floors and walls you only see a small slot, no plinths or other things. What you can't see is that these slots blow fresh air into the room, therefore there aren't gratings needed. This smart way of detailing was an inspiration for me. It made me see how important it is to first make an architectural detail, what do you want to see and what don't you. After this you can change it into a functional detail.



Fig. 11 Kolumba museum by Peter Zumthor (www.fffound.com)

Further develop points

If I would work further on my design project after graduation there are still plenty of issues to work on. For example the art asks for special climate conditions, I hope the BaOpt system can help to obtain these conditions. More exact calculations can give an image of the foreseeable conditions and will show if the chosen system will do its work. I also didn't have the time to work out the climate system in the 1602 building, VOC building and depot. These are different buildings than the 1692 building and therefore need different canal systems and insulation to get the requested conditions.

Another issue to work on is the depot bunker in the VOC warehouse. How can you make this kind of structure on the inside of an existing building? How is it going to look? How many art objects can be stored? There are enough questions left to answer.

What I also would have liked to work out is the artificial light design for the art. I know what to do with the sunlight, but what happens in the winter? Lightning is an important issue in a museum. What kind of light do you want? How can you attach it in the room in a way you can use it every exhibition again?

Recommendations

After doing this graduation project I can give some advice to coming graduation students from my own experience.

Make sure you love the building you will reuse and try to understand why you like the building so much. Is it the material, the atmosphere, the history, the organisation, etc? Or is it a combination of these factors? If you know this exactly, this could be a good starting point and you can explain it to others.

The best advice to someone who makes a museum for the Caldic collection in an existing building is to go and visit museums for modern and contemporary art, which are settled in reused buildings. And think about what you do like and what you don't? How did they treat the old building and what did they add? What is the relation between these old and new parts? How did you experience the art? Did you enjoy it in this way? Etc.

When you are making a museum for the Caldic collection in the Armamentarium, it is good to have an opinion on how to deal with on the one hand the buildings as a monument and on the other hand the art. Both need and deserve the attention of the visitors. You can let the inside of the building disappear and make it perfect for the art, but you can also make a division between the moments when your attention needs to go to the art and when it is reserved for the building. This opinion can be leading in your design.

The position paper and redesign

The position paper I wrote was a starting point for my design. It made me think about the relation between the functional value and monumental value of buildings in general. I studied different opinions on this subject. Like the Venice Charter of 1964, it claims you are allowed to change the function of a building without changing the layout or decorations of the building. The new function also needs to facilitate a socially useful purpose (ICOMOS, 1965). The Armamentarium has a closed and isolated non-public character. It will be very difficult to give it a new social function within the rules of the Venice Charter. Therefore I don't think my way of designing will suit the Venice Charter.

Koen van Velsen is a more rational architect; he thinks hard fact overcome emotional values (Stellingwerff et al., 1994, p. 112). The new function is in his opinion the most important thing in the design, therefore the building has to change. This way of designing suits my opinion more, but not entirely.

Steward Brand explains a way of designing which suit me very well. He tells about the organic life of a building. The building will change with every new function and owner, the function will melt the form (Brand, 1994, pp. 157-158). Every change will be a part of the story of the building, also the new ones. It is a very functional way of designing and it will suit the Armamentarium, because this is a functional building. In its history all the changes were very functional, until Walraad restored the building.

Next to this I made a case study of buildings comparable with the Armamentarium like the Scheepsvaartmuseum in Amsterdam, the Kunstfort in Vijfhuizen and the Oostereiland in Hoorn. They showed me how to deal with old and new and helped me get an opinion on the subject. The Kunstfort is preserved and renovated on a way that suits me the most. You can read the story of it because all the damages like cracks are still visible. They also added art (paintings) on it, this is a new layer which is added to the story.

The overall conclusion is that it depends on the history of a building which value is the most important one. You need to go after the original spirit of the building, in the case of the Armamentarium the functional value would be the highest and the historical/monumental value could add an extra layer to the design. My opinion changed a little bit while designing, I already explained this above.

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