

Heritage & Architecture Hembrug Design Studio

Het Plofbos

“The Beauty of Dealing With Explosives”

Reflection

May 2019

Marijn Luijmes
4622278

Introduction

During the Heritage and Architecture design studio I conducted contextual research on the Hembrug Terrein in Zaandam. This is the site of my graduation project *Plofbos*, for which I aim to complete a design proposal as part of my master thesis by the end of this semester (July 2019).

The thesis comprises the following parts and products. Those in **bold** are (semi) finished, but may be readressed or altered during the remainder of the course.

- **P1 – Contextual analysis of the site: *Plofbos* – “The beauty of dealing with explosives”.**
- **P2 – Speculative masterplan for Hembrug, concept for *Plofbos* and design guidelines/starting points.**
- **P3 – Design proposal for buildings 69+85 and 416.**
- P4 – Technical elaboration
- Appendices: Process journal, Research Methods paper and this reflective paper.

Through these parts a storyline (narrative) has been established in which I tell the story of Hembrug, in which the final design proposal is the 'lead role', connecting past, present and future.

In this paper I reflect upon that story, the questions it yielded and if they still validate in the *status quo*. This way the storyline may yet be altered, amplified or confirmed. This is done so by adressing and evaluating both the *research* and *design* questions.

In my Research Methods paper (AR3A160) a similar research was conducted. I chose two research methods that best represent my approach during the P1 and P2 stage, namely *Logical Argumentation* and *Experiment* (see appendix). The first representing a *research* method and the latter representing a *design research* method, I investigated both the advantages and problems with these particular methods whilst simultaneously researching the relationship between research and design. This paper is in the appendix.

Thesis theme and research question

The studio thesis revolves around the site 'Plofbos' which is part of the Hembrug Terrein in Zaandam. It is a former ammunition factory of the Royal Dutch Army that is now largely obsolete, awaiting transformation.

On our first visit to the site, the first impression was reminiscent of that of a village. It was the small scale of things, the scenic diversity, the small workshops and the abundance of greenery that triggered these associations. This notion of a village in the Plofbos zone seemed to defy the military pragmatism of the Hembrug Terrein as a whole. This unexpected dichotomy sparked our curiosity in the area and led to the thesis question: How did practical military design unintentionally yield the qualities of a forest-village in Plofbos?

The relationship between the Plofbos transformation, the master track ARCHITECTURE, and my master programme.

I have a personal intrigue for historical sites and buildings. Where you can literally sense the events that took place. 'Time' has already been a recurring theme in my latest projects, in which layered architecture acts as mediator between past, present and future. Particularly the relation between new and old. Is the intervention a continuation, does it contrast the existing, is it congruent, or a dialogue? Therefore, I decided that 'Heritage and Architecture' would be the right studio to further explore this theme.

Research method and the relationship between research and design

The preliminary site analysis of Hembrug in P1 focussed on the historical context of the Hembrug area. Some findings in particular formed a basis on which certain 'design rules' were established. We started this research with a fascination for the surprising presence of 'nature', better said a complete forest, on a *military terrain*. As the research later showed, many elements that we marked as valuable (spatial layout, trees, canals, earthen walls and more) turned out to be safety measures for testing and storing explosives, which was the former purpose of the site *Plofbos*.

These key findings were translated to starting points for the masterplan layout. The relation between *research* and *design* is clear here. The preliminary research – as the word already suggests – simply serves as a foundation on which the design process thrives. To schematize:

Conclusions Research → Starting Points + Guiding Theme → Design Process

Reflecting on this model, it is clear to me that the big advantage is to have a clear starting point and a guiding theme, which gives grip during the design process. However, sometimes it can hold the design back too. Because certain design rules and a guiding theme were formulated in a logical manner, it is hard to simply try something outside of this self-imposed frame. That way, other perhaps possible discoveries and outcomes in the design are neglected and knocked out before even testing them. In the case of my project, the 'starting points and guiding theme' were defined as follows, divided up in three main elements.

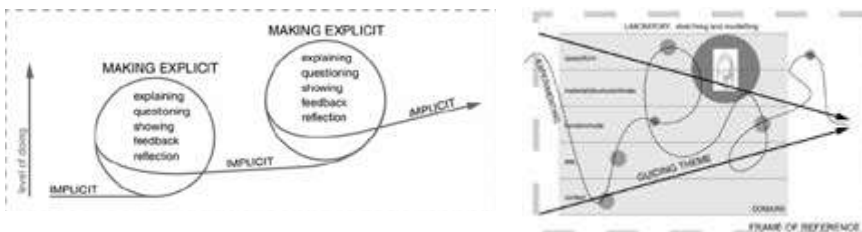
Urban: Maintaining the open space, by which is meant the consistent 20 meter buffer zone between buildings.

Nature: Preservation of trees, earthen walls, canals as much as possible and the seasonal experience.

Architecture: Continuation of 'simple' rectangular volumes, materialization, distinct roof shapes, rhythm and composition.

As a result of the analysis, initially a somewhat careful attitude emerged in me, carefully trying not to lose the qualities mentioned earlier. But simultaneously I challenged myself to still add as much program and square meters as possible, to satisfy economic needs of a hypothetical developer – “How far can we go until the original genius loci is lost?”. The result of this was presented in the P2 presentation: a proposal that featured a new generation of houses, with its own distinct architectural language but loyally following the existing proportions and rhythm. Somewhere in this plan a large residential tower was absorbed to concede the demand for housing. In its basement a parking lot was designed to make sure the actual Plofbos itself could remain primarily pedestrian, as one would expect of a forest.

But what I see now is that, what this plan failed to recognize, is that the question “How far can we go..?” is not a linear one. As though there exists some black-and-white threshold after which qualities suddenly would disappear. The proposed plan therefore became a large chunk of concessions, that just came off not only bland and boring, but also not as respectful and humble as it strived to be. At the start of the P3 stage I responded to this conclusion by sacrificing plans for the tower and a series of houses that were placed in open space, which I for that reason had called 'Rebel Houses'. Those square meters could be placed elsewhere in the masterplan of Hembrug, which morphologically made more sense. Through testing, I reinvented the program and their subsequent designs. The “*Conclusions Research → Starting Points + Guiding Theme → Design Process*” model as I elaborated on earlier changed. With the *Research Methods* paper (see appendix) I discovered that much of my design process diverted from the original linear method, and actually became an iterative one. It continuously questioned the outcomes and adjusted the research questions accordingly.



(Fig. 3.3) Left: Iterative process. Right: Experimenting and generic elements (E. van Dooren, *Making Explicit In Design Education*, 2013, p.3-5)

Thus the relation between research and design in my own design process much depended on experiment. I have experimented with designs, volumes, light, materiality, density and so on. By trying out different scenarios the results are quickly analysed, almost unconsciously. The relation between research and design is very direct: the research *IS* design and vice versa, and its results and conclusions are directly implemented into the design.

Ethical issues and transferability approach

My design proposal for the buildings in the Plofbos are admittedly rather explorative, even radical to some extent. No surprise that within a *heritage* studio that is by nature preservation-inclined, my proposal raised ethical questions regarding its rigorous position towards heritage.

Particularly the transformation of the two so-called 'Farms' (buildings 69 and 85, dated approx. 1900), which enjoy a municipal monumental status was conducted with a questionable approach – as I previously stated, rather explorative. I proposed an intervention of removing most of the wooden interior construction, making a sort of 'ruin' that represents the decomposing body of a former military structure. Subsequently I diverted from the original form and layout with new volumes being placed in- and over the remaining facades. The goal with this design was to reinterpret the simple rectangular plans and transform them into a surprising, more complex layout that leads the visitor to a playful, ambiguous sequence of inside-outside spaces. What used to be outside, became inside and vice versa.

Of course I acknowledge that from a financial and feasibility perspective, the building could harbor the same function without such an approach. Although they do take technical aspects into consideration and improve its energy housekeeping, from a financial perspective it is not the most feasible or logical approach. The proposed interventions are not cheap, while they don't add considerable amounts of square meters. However, this approach would be validated better if the existing building in question was *already* stripped of a roof and interior. In that case, the reinterpretation of the existing walls would be more realistic and logical. Therefore, this design approach would be applicable in practice, but more likely to succeed in a different context: a building that is already a ruin.

Additional reflection

Problem: no design problem

When working on the masterplan of Plofbos on both urban and meso scale, several buildings and interventions of different scales and degrees of 'care' were tested. Repeatedly the question to their right of existence arose. Why make a new building if there are already buildings which can absorb the functions I propose? (Artist village of workshops, galleries, exhibition spaces, a cultural centre and a music institution supported by a cafe and housing). But as there is no given quantity of square meters we have to come up with that ourselves, disregarding the fact that that is a research in itself. They could theoretically already be housed in the current buildings to some extent, making up roughly 5000 square meters. Because 5000 or 10000, the program would still work right? Do we *need* new buildings/more square meters. Is it necessary to spend loads of money on some new architectural theme, if we simply can reuse the existing. And here I came to realize, what I am lacking is a problem. My problem is *not having a problem*.

Whereas typically a site suffers 'problems', the Plofbos already had a list of qualities. The site has no real problems. It could use a new function, but that is not a problem. The climate performance of the buildings can be improved – also no problem. But a quality *transformation* in my opinion can and should be more than an act of refurbishment.

In the developers practice, economical pressure could impose a problem on a site. Namely, a strict or large design brief would have to be juggled whilst battling to maintain the existing qualities. Often these problems lead to beautiful solutions. But in the case of Plofbos, *there is no strict design brief given*. No brief at all, that was up to the student. This is confusing, because the discussion of what a site *needs* from a architectural or heritage perspective becomes mixed with the economical discussion whether or not, for example, a music institution is necessary. Or if there really need to be built extra houses. And the discussion often seems to end in the somewhat conservative question: *Do we need to change this building/site? Why?* It implies that all *change* needs to have a convincing argumentation, whereas keeping it exactly as-found hardly needs any justification – "...the qualities are already there right?"

In my opinion, this question outscores any bold gesture. It forces me, the architect, to employ a more subtle approach towards the existing. I think that from a studio perspective, it is a limiting way of thinking. Yes, existing buildings may already have some qualities, but in the end they have become obsolete for a reason. And the project being *hypothetical student work*, the student should actually be encouraged - not constrained, to question, study and reinterpret the existing. For example in the case of Plofbos, the buildings from the 1950's hold no monument status. The qualities associated with them rather lie in their context and mutual relationship. The design of these type of buildings does not necessarily need any satin-glove approach. Perhaps the question with these type of buildings the question for each intervention should be not only be "why?" but sometimes a simple "why not"?

Continuation, (de)amplification or intervention

During the assembly of the masterplan the initial established 'rules' initially seemed to be helpful. But in the same sense also constraining. These rules dictate that added entities act the same as those that were already found. But if they do not add something new, *additional value*, then are they needed in the first place? Is it even an *intervention* if the newly added buildings/elements do the exact same thing as their predecessors?

This question intrigues me. It seems to me that *intervention* and *continuation* are in fact two opposing things. They both suggest that a certain process takes place, with a certain course. A *continuation* of this course would indeed justify the 'design rules' that I mentioned before. Preservation would then make sense. But only in the scenario that a certain building or function is needed, on which then these rules may be imposed. Because if there is no need for square meters, then there certainly is not any architectural reason to add new entities that do the same thing. A row of houses is remains a row of houses, no matter if it is 3, 5 or 10 houses long.

But an *intervention* however implies change in the course of the genius loci. Intervening suggests that the designer is not happy with the current process and decides to divert from the genius loci and bring in, change or erase certain characteristics.

So what stance in regards to the existing do I take? Well, this reflection shows that my stance has gradually changed over time, which can be seen in the process.