

De Hardsteen: Re-interpreting Maastricht's natural stone tectonic culture

Reflection (draft)

In anticipation of the final phase of my graduation project, *De Hardsteen: Re-interpreting Maastricht's natural stone tectonic culture*, I would like to reflect upon it. To do this I've decided to describe the main decisions made during both the research and the design process and to evaluate their reasoning. This description and reflection is divided into three paragraphs. The first examines the theme and methodological line of the Graduation studio itself and the research topic and methods that were chosen in reaction to this framework. The second paragraph describes the relationship between research and design and reflects upon how the findings from the research are incorporated in the design. The final paragraph contains a reflection on how the project positions itself in the wider social context.

The studio and me

The brief for this project was to propose a design for a new Centre for Ceramics in the historical centre of Maastricht. Because this building as an urban institution has the responsibility to relate to the city and because of its craft related purpose the studio has framed this project with a specific theme that is rooted in archeology and anthropology: *material culture*. Moreover, the studio interprets this theme rather literal, focusing on a specific material that has played an important role in the construction of the city: natural stone. Thus, we were asked to study how the stone is used in the urban fabric and what meaning it has for the citizens and visitors of the city. Our final objective would be to reinterpret these findings in a contemporary design as a way to embed the craft institution in the city.

As mentioned in my graduation plan my reaction to this framework was the introduction of a main research topic which I in my opinion can be related to material culture: *tectonics*. The choice for this topic was based on my previous education, my fascination for traditional building techniques and on my interest in phenomenology. Moreover, this 19th century topic was reintroduced in the architectural debate by Kenneth Frampton. Though, instead of approaching *tectonics* as a global tradition, like Frampton does in his book '*Studies in Tectonic Culture*', I've used it to study the local tradition of Maastricht of building with natural stone.

As described in my graduation plan the method chosen to study this natural stone tectonic culture of Maastricht was an analysis of a series of 18th century buildings in the city which have a similar type of facade, namely one that is completely covered in Belgian limestone. Important here is that these facades share the same tectonic language which is visible in how the stones are actually placed on the facade and in the proportional, relief and tone differences between them. By analyzing this language with the theory presented by Frampton I tried to unfold a series of notions regarding the experience of natural stone in Maastricht.

Now that I am in the final phase of my project I think I can conclude that the introduction of this topic proved to be very fruitful. First of all because of the fact it connects strongly to my personal interests and to the previous education I had during my Master. I could easily apply the theoretical knowledge I gained during previous studios on this project and because of my own passion for it I became very devoted in applying it while at the same time keeping a great amount of joy in doing so. Second I think Kenneth Frampton's framework also proved to be very applicable as a means to study the *material culture* of a specific city especially because it was projected on this urban fabric. In combination with my choice to project this framework on a series of building from Maastricht I was able to unfold a series of interesting notions about the experience of natural stone in Maastricht which could have meaning for the people. A counterargument to this might be that because I've studied 'experience' there remains a great amount of subjectivity in the results. Though I must say that because of the theoretical support of the research I think the results can definitively be seen as meaningful. Further more, an advantage of the results was the amount of abstraction that was involved. Because the end results were in terms of 'experience' they offered great input for the design enabling me to use it on different scale levels. I could use the facade analysis not just as an input for the facades of my own design but also for my urban, spatial and structural considerations. Finally I think this abstraction has also offered a great amount of freedom for the translation into a design. Because I'm interested in the experience I don't necessarily have to mimic the exact materials or forms but I can just incorporate those means that give the certain experience that I want to achieve. The research has definitely offered relevant points of departure for the reinterpretation of Maastricht's material culture in a contemporary design.

The research and the design

The graduation project was divided into two main phases. The first phase was described above and consisted of analyzing the natural stone tectonic culture in Maastricht. This phase was done in the first quarter of the graduation year. The second phase, which lasted until the end of the year, was the design phase. Though this phase could actually be seen as a research on its own and thus can be described as 'research by designing'. In this phase my main occupation was translating the findings from the initial research into the design while taking into consideration the criteria for this specific building. As described before and in my graduation plan my aim was to use these findings not just as input to design the facades but also for its urban, spatial, structural and material characteristics. Furthermore the main design methods I intended were based on my phenomenological framework: models, collages, 3d models and hand sketches. In the end this set of methods was complemented by a series of methods which enabled me to not just evaluate the experiential qualities of the building but also the practical and technological criteria: plans, sections and elevations.

During this reinterpretation of the natural stone culture of Maastricht I faced a couple of obstacles. Regarding my urban massing and spatial distribution I found out it was quite hard to base it on the analysis while at the same time getting to a simple and useful scheme. During this process I searched for different typologies that could be added to my ideas about the experiential qualities. The problem of this approach was that the schemes often became very complex and/or didn't lead to a shape which I found applicable for this type of building. I learned that I should not look for a different narrative or typology to add to these ideas but rather look for one that corresponds to it. So in the end I found a typology which answered my analysis while at the same time offering a very simple and durable scheme that had a urban composition and spatial distribution which I found suitable: the typology of a church.

Regarding the design of the facade my main obstacle was the translation of the analysis of the old buildings into a building which has a contemporary appearance. This obstacle was mainly caused by my desire to design facades which do not just have the abstracted experiential quality of my references but could clearly be perceived as an answer to them, sharing a comparable tectonic language. Furthermore I decided my building should not have a facade that, like the references, is completely covered in natural stone. This because of the larger scale of the building and because of the material aspects of the surrounding architecture. I decided to translate the tectonic language of these buildings into another material (brick). While doing this though I became too occupied with mimicking the language instead of reinterpreting it. In the end I found an answer by looking at contemporary references and by really thinking how my facade could be built up with contemporary means.

My final obstacle was the design of a structure which I again intended to relate to the analysis. My main criterium here was the atmosphere the structure would create in relation to its tectonic appearance. Because of this criterium I was fully occupied with the material and proportional aspects of the structure. Instead of thinking how the structure could be built in a contemporary building climate. Due to this I realized, in a very late phase, that the structure I designed was not that logical. I was forced in the last week before my presentation to reconsider it while actually this time should've rather been spent on other aspects. Also the structure change of the structure had quite an effect on all the other aspects which had to change along.

Regarding the process of research and design I think I can conclude that my main focus on the experiential qualities of the building got a bit in the way. The amount of ideas about it suppressed me to think about my building in a simple and logical way. I think, instead of attaching myself too much to these ideas I should've started thinking about my design in a rational way way earlier in the process. Thus, this will be something I definitely want to take along in any future project.

The project and the wider social context

Regarding the wider social context of the project there are a couple of important notions. First of all this project has proven how the idea of 'material culture' could be very fruitful in terms of understanding the culture of a city. The research done by my fellow students and me has unfolded many aspects of the culture of Maastricht. Furthermore, because many of these aspects are related to physical objects it definitely makes sense to use them to design objects like this for the city. Thus material culture can be a great starting point for architecture. Furthermore I also think the introduction of architectural themes related to phenomenology, like 'tectonics', in studying and reinterpreting material

culture has great potential. An expression of these ideas in architecture, especially when they are not taken too much out of their context, doesn't just embed a building in its place but it can also give the residents and visitors of this place fresh insight in understanding it. In this way 'tectonics' can be more than a fascination for the architect but can actually have meaning for the people. I must say that the purpose of the building, being a craft institution, which is actually focussed on physical objects, makes this approach extra applicable. Nevertheless it could definitely also make sense for other types of public or even private buildings, which I think have the obligation to relate to their place too. Finally I think architects should take care when applying a method like this. It might make sense in the European culture due to the value it attaches to physical objects. Yet I can imagine that, for instance in an Asian context, these things do not have that much meaning. Although architecture is about more than phenomenology or 'tectonics' and culture is not just about material I think my project shows how these notions could actually contribute to meaningful architecture.

Daan Groeneveld | student nr. 4050010
TU Delft | Faculty of Architecture
Interiors Buildings Cities
Msc3/4 Graduation Studio | Maastricht, City of Stone
Tutors | Eireen Schreurs, Jurjen Zeinstra