

REFLECTION:
It is time for
new vernacular
buildings.

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This reflection is part of the graduation project:
It Is Time For New Vernacular Buildings

Project: Master Graduation

Studio: Second Life

Specialization: Architectural Engineering

Master: Architecture, Urbanism and Building Sciences

University: Delft University of Technology

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Date | November 2020

Graduation Reflection

**Architectural
Engineering**

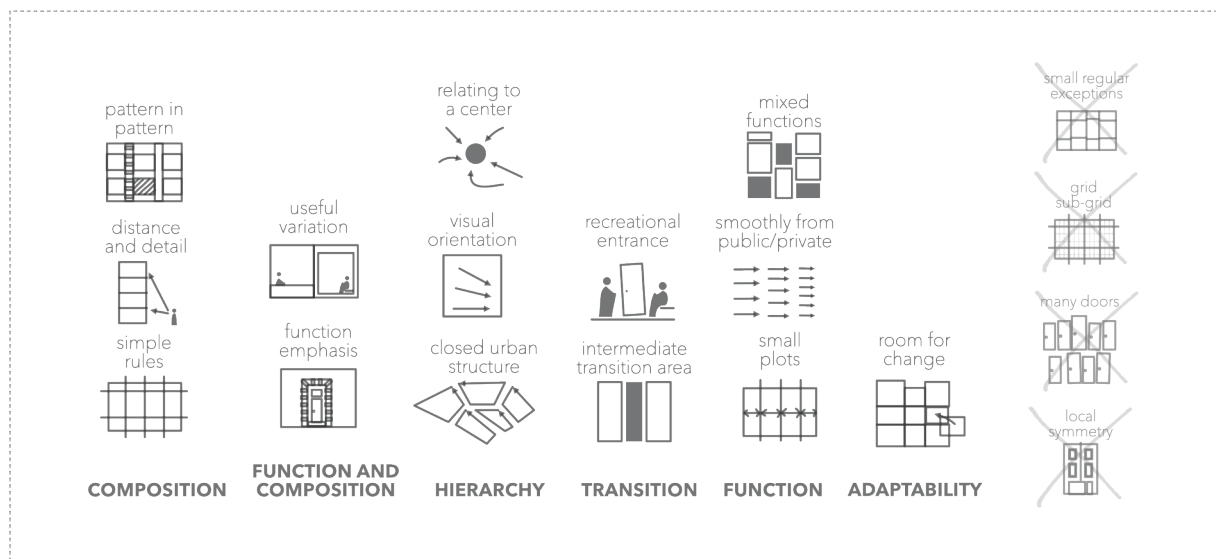


Image 1: Research conclusion: design parameters

PROJECT TOPIC

I do have a fascination for old vernacular buildings, they are magical for me and they have a certain deep nurturing and a seemingly intangible beauty, I rarely see in contemporary buildings. It does not seem like that I am the only one. As we look at historical old centers and buildings all over the world, they are the number one tourist attraction and a desirable place to live. These buildings proof that **emotional durability** is something that we should take seriously.

RESEARCH TO DESIGN

The research question: *How can we learn from the aesthetic qualities of historic vernacular facades for office building redevelopment?*

The conclusion of the research is that we learn from the aesthetic qualities by comparing the qualities of the facade regarding the affordances of liveliness and the expression of liveliness and translating them into abstract concepts and parameters that can be used in the design process. (We need this abstract interpretation to prevent us from copying a certain image.)

I did the research in a way that the conclusions could directly be used in the design. The resulting parameters, are visible in image 1. There were four design parameters that I couldn't really use in my design because they were too specific or too general.

RESEARCH METHOD

Initially I wanted to make aesthetically pleasing facades using waste through parametric design. I wanted to do research through making a parametric design tool. However, during the process of formulating the aesthetic parameters I discovered that the formulation of these parameters was a research on itself.

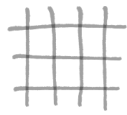
With architectural research we should not forget what the purpose of the research is. With my research I wanted to find tools to make people aware of certain qualities, not to 'proof' what quality is. We could say that design education is comparable to what an architectural research study can be for designers. Elise van Dooren says that with design education the educational framework need to be generic to the extent that they are always part of the design process regardless of the personality, complexity, open-endedness and creativity of any process. At the same time, with this paper I want to contribute to a designer's design-process by creating a **'quality framework'** for aesthetics. This framework is not about knowing *what* to design, but **knowing how to design**. It is about certain perspectives that can be used to enhance the overall quality of the design.

Quality is both countable (property/character) and uncountable (degree of excellence) and comes from the word qualis "of what kind". Within my research paper I was looking for qualities(characters) that can improve the overall design quality(excellence). The focus thereby was on the question ***What enhances quality and how to use this for office redesign?*** And not on *What is quality?*

Beauty in architecture is a subject with a great amount of literature. So I had to make the research topic more specific. In the end the research was a qualitative research by a facade comparison that was interpreted through logical argumentation, theory literature and historical literature. I think this approach worked out well and managed to add knowledge on how to use observed aesthetic quality into the design process without copying the image.

modern

monotonous aesthetics



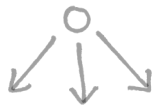
- repetitive
- dead

dead plinth



- repetitive
- mono-functional
- inactive

dominating nature



- a lot of waste
- use of toxic material
- change is a hazard

aesthetics

function

technique

nurturing aesthetics



- natural variation
- lively

liveliness



- natural variation
- multi-functional
- lively

in harmony with nature



- no waste
- non toxic materials
- change according to needs

vernacular

Image 2: Differences vernacular and modern building approach

LARGER PROFESSIONAL FRAMEWORK

During my studies I noticed that the subject of beauty is somehow a taboo. It seems like a secondary topic in the architectural argument. However, in the quest for sustainability we can no longer ignore the aspect of *emotional durability*. We take care of what we love, so we should make buildings that we love.

The topic does not only seem to be taboo, it also seems there is a lack of understanding of the creation of beauty and a missing vocabulary to communicate. This makes the subject mystical and intangible. In my research I did an effort to make beauty more understandable and more applicable.

The relevance of my project in the larger professional framework is the focus on sustainability through vernacular aesthetics, that are again inextricably linked with the flexibility in function and the techniques of material use.

The professional field of Architecture is becoming more and more conscious about their responsibility in the sustainability discussion. Not only can we improve the energy and material use within the building, with the aesthetics we can make a statement and this will have an impact on the way people think. We can communicate with the city through the facade of a building.

RELATION RESEARCH-DESIGN

The research did a lot to sharpen my architectural goals. At the beginning of the project my aims and goals were a bit vague. I had this feeling of 'old architecture is more beautiful'. But why? I didn't have the words or knowledge to describe this. Through my research I learned to understand how these aesthetics differ between vernacular and modern buildings. ***I discovered how much of the aesthetics is direct consequence of the functional and technical aspect of the building, we cannot see them as separated from each other.***

Technique

In my project the MAKE aspect is so important. The way the facade is made, will be visible in the aesthetics.

Function

The aesthetics of vernacular architecture go beyond the cute variation of gables and bricks. There is an intangible layer of liveliness that is connected to a lost way of living, where we were more connected to the elements and to our environment. The variation in the facades was a result of the different lives being lived. And the users had the possibility to change the building according to their needs and wishes.

My design started to take form when I was finishing my research, because the research changed my way of thinking about the modern approach to architecture. The research gave me such an overwhelming insight that I felt I had to formulate my architectural principles under the umbrella of a new style: *New Vernacular Architecture*.

RELATION TO STUDY

MSc Architecture, Urbanism and Building Sciences

The master programme is about creating a strong connection between aesthetic, sustainable and technical challenges through well constructed concepts. With my new vernacular approach I tackle all three within one concept.

Architecture track

Facade design is an important part of (urban) architecture. It is where inside and outside meet and a relation is established with the rest of the city. The concept of redevelopment is very important in the context of sustainability, but also for the identity of the city.



Image 3: Old version facade design & new more local facade design

Relation to Architectural Engineering

Architectural Engineering is all about the the systems, scalability, and the technical approach. At first my aesthetic ideas do not seem to relate very much. However, I was happy to do this subject within this chair because overall it made my project stronger. To combine this 'soft' subject with the more down to earth engineering approach, is exactly the interesting and hard part of what being an architect means. Having to communicate between the alpha and beta world, speaking both languages to create good architecture.

Relation to the studio topic

The studio Second Life is about the redevelopment of office buildings. In the context of office redevelopment the interventions that we can employ are limited. In building redevelopment we speak of a 'zero-point' of the building. This is the point up to which the building can be "peeled-off" such that it can be reused instead of being demolished. In practice, this means stripping the façade down to the structure. Because the building volume and the building lines are fixed, redeveloping office buildings often comes down to a façade design. That is why the subject of façade design is very relevant in this studio.

THE PROCESS

In the beginning I was focused on the use of waste. However, there were too many subjects that I tried to include, which made my concept sloppy. My mentors told me to narrow it down.

On the other hand I become more and more convinced that the whole waste reuse approach, was damaging on the larger scale. I learned that we should focus on biodegradable materials because they can become part of the ecosystem again when we no longer need them. We should not focus on waste reuse, because this only worsens our unbalanced relationship with material use. Also, we should not focus on reusable elements because they will result in higher standardization which can lead to more monotonous architecture.

In the beginning I was convinced that we should include more handmade and artistic elements in the facade to make it more lively and vernacular. But, through the project I learned that we should embrace the possibilities and strengths of our own time. We should not become dogmatic in our idealism but really look for the best solution for a specific intended quality, without preconceived ideas about how this quality comes about.

The overall process of the project was not very smooth. Because I was doing qualitative research it was hard to predict and plan. This is one of the characteristics of qualitative research. Clearly this is a very important aspect of creativity. The moment we know what to expect we are not open to discover something new.

FEEDBACK FROM THE MENTORS

My main mentor until P3 was Annebrechtje Snijders. She was very much focused on the story and the argumentation of the design choices, especially the method and big scale implementation. This made my story more professional, however I didn't feel I received enough relevant feedback on the topic of aesthetics.

When my main mentor changed into Martijn Stellingwerff, I received useful feedback about the aesthetics. Because he was also my research mentor he knew my project from the beginning. During my P3 he already asked me to reflect on the question if my facade aesthetics were actually local, vernacular. This made me change the composition of the facade radically (see image 3).

When I looked into local architecture of Amsterdam, I decided to use the local style of Amsterdam School as a starting point. From the research I had learned how important it is to translate the observations into abstract concepts to prevent from copying and to focus on the quality instead of the image. This resulted in the principles visible in image 4.



Image 4: Abstract interpretation of the style Amsterdam School

On the side I did a job as student research assistant at the TU Delft with Alejandro Prieto Hoces, Senior Researcher in the Department of Architectural Engineering + Technology at the architecture faculty in the TU Delft. We did a small research project together called PrettyFace.

The goal was to explore the aesthetics in facade design. We ended up with doing 30 interviews with experienced Dutch architects. Finally two papers will be published in October 2020.

Alejandro told me how at the TU Delft, aesthetics are not a strong point and that this was one of the reasons this research received funding. Also in practice here is a big gap between the aesthetic preferences of the architect and the sustainable facade products available. This makes the implementation of sustainable elements in design more difficult, even though the technique is there. Proving again how aesthetics are an important part of the sustainable aspects of the design.

The cooperation with Alejandro, made me realize that there is a bigger problem within the faculty with the topic of aesthetics being underexposed. This motivated me to keep on mentioning it in the tutoring and to keep on developing my own knowledge regarding the aesthetics.

I am really happy with the method I developed to be able to reintroduce local aesthetics in a contemporary way. I hope this project and my research paper will motivate and help people to use these principles in their designs as well.

My second mentor for Building Technology was Paddy Tomesen. He was enthusiastic about the concept but kept on asking me to show technical consequences. He motivated me to emphasize different scenarios to demonstrate more clearly my 'flexibility concept'. I used his feedback to proof my vernacular concept on a MAKE-level. In this way I can explain better why the concept is feasible.

ETHICAL ISSUES AND DILEMMAS

When we change the architecture of an existing building, we have the risk of erasing history. Even though the existing building in my redesign is not on the modern heritage list, it does not mean that changes are something we can do lightly. We have to be conscious about *what* we are changing and *why*.

I studied the architect Abbe Bonnema and his ideas. He seemed to be very pragmatic in his stylistic approach. As a functionalist, he was interested in *what works*. This made me feel free to redesign the facade in a way I do think is needed in this time. Even though it might look different, this does not mean it is disapproving the initial design.

Another ethical dilemma is reintroducing aesthetics, in a time where it seems the world is on fire because of the environmental, social and climate problems. It seems odd to talk about this when there are other things that seems to be more urgent. However, the reason I want to emphasis it in my project, is because I think the general approach towards architecture is out of balance. Emotional durability plays an underestimated role in the whole sustainability subject. That is why I want to clarify the connection between technique, function and aesthetics.

