

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examcommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

| Personal information | |
|------------------------|----------------------|
| Name | MARZENA JULIA STASIK |
| Student number | 4775252 |
| Telephone number | |
| Private e-mail address | |

| Studio | | |
|---------------------------------------|---|---------------------|
| Name / Theme | Urban Architecture/ Spolia | |
| Main mentor | Vermeulen, Prof. ir.P.E.L.J.C | Architecture |
| Second mentor | Jennen, ir. P.H.M. | Building Technology |
| Argumentation of choice of the studio | Studio, where a context and spolia are important aspects of design. | |

| Graduation project | |
|---------------------------------|---|
| Title of the graduation project | Liminality of space: reconnecting materiality and embodiment in the design of the swimming pool. |
| Goal | |
| Location: | Anderlecht, Belgium |
| The posed problem, | <p>Kenneth Frampton, in a book: "Studies in Tectonic Culture" argues that tectonic and tactility in a modernistic turn was omitted. The author formulated the idea that emphasised the importance of tectonics, together with topos (the site) and typos (the meaning). In a modern discourse of architecture, not only was tectonic to be ignored, the importance of embodiment as an essential factor in designing was equally overlooked. The focus put on the form and function was so strong that architects seem to forget about the articulation of the senses and a human body in architecture as the base of experience of being in the world, and interaction with that world. Moreover, ignoring the fact that people varies considerably: has a different memories, experiences, bodies, needs and imaginary world, they were designing unified spaces, where everyone is the same and lives the same way.</p> <p>Moreover, ignoring the fact that people vary considerably: have different memories, experiences, bodies, needs, and imaginary world, they were designing unified spaces, where everyone is the same and lives the same way. The project stays in the opposition to that approach bringing back the importance of tectonic, topos, and typos emphasises how one experiences space.</p> |

| | |
|---|---|
| <p>research questions and</p> | <p>What is a technique of building from Blue Belgian Limestone? What's are the properties of Belgian Blue Limestone (prevailing material on site)? How the materiality is shaped by the aspects of our bodies? How embodiment influences the perception of materiality of the space? How one experiences space?</p> |
| <p>design assignment in which these result.</p> | <p>The director Andrei Tarkovsky once said, "<i>The image is not a certain meaning, expressed by director, but an entire world reflected in a drop of water</i>". Different memories, experience, and imaginary world influence perception. Therefore interpretations of a drop of water can differ significantly. The project is a finite work, which left the space for its interpretation; experiencing liminality in various individual ways due to one's movement through the building and the site.</p> <p>The Public Baths would be a place where time is emphasised with its agentship, and people are exposed to a variety of experiences in this space. The place, where his or her sense of subjectivity is strengthened. Space acts on the subject, and the subject interprets it with all his existential experiences, memories, and the world of imagination. Actor of water emphasises a passing time, reflects the space, atmospheres, thoughts; on the other hand tectonics empowers the experiencing reconnecting materiality and embodiment.</p> <p>Against modernistic unification, an important part of the project was the consideration of all groups of people that coexist together in Anderlecht. Thinking about Muslim culture, present in the area, the gender-specific hours has to be provided to enable Muslim women to use the facility. Researching the old culture of the Turkish bath, an interesting rite's order caught my attention. A sequence of cold (frigidarium), warm (tepidarium) and hot rooms (caldarium) is accompanied by activities of clearing and relaxation. Therefore, it is a temperature differentiation that measures time, catharsis, and the meaning of space. In a public bath, the corridors next to semi-open rooms and hammam enable guests to experience changing temperatures during the transition; experience the liminality. In the swimming pool the focus was put on how users experience the space; how they experience the passage from an inside aisle through a swimming pool to an outside garden; how they experience the sequence of gradually lighten and darken rooms, how he or she experiences the transition through different temperature: are they Roman or Turkish in a taste?</p> |

| |
|---|
| <p>Process</p> |
| <p>Method description</p> |
| <p>Deep analysis of the prevailing material, Belgian Blue Limestone, on the base of a material biography will be conducted. Both, Marxism and phenomenology positions on material culture will be incorporated, simultaneously limiting the structuralist and semiotic perspective. The aim is to understand the surveyed material fully, and answer a research question: what has the potential to be a spolia? Therefore, the research is carried out on the two levels that the findings can interact with each other, hence allowing a deeper analysis. Both parts gather the data that could help to understand the material properties, tectonic, weight, sound, haptic qualities, the relationship between the body and material, psycho-psychical impact, and historical and social values it has. Nevertheless, when the first part puts focus on the material origin, sedimentation, and extraction, the second surveys the processing, and the construction technique.</p> |

SEDIMENTATION | EXTRACTION

In the first part, I was collecting the data on sedimentation, and extraction of local material, the Belgian Blue Limestone. To experience the situated craftsman practice, I visited the quarry (Carrieres du Hainaut) and the Documentation Centre of Blue Limestone (Le centre de documentation de la pierre bleue Durée) in Soignies. Not only did I buy precious samples from that trip but also, using a comparison, I was able to recognise a particular fossil animal type inside the surface of a limestone sample.

DETAILS | CONSTRUCTION

In the second part, analyses through case study — elements made from the Blue Belgian Limestone — were conducted by analytic writing. Photographing and phenomenological evaluation was to help the investigation of details and construction technique. Gathering all those data helped in understanding a characteristic of limestone building tradition. Rotor — actor available in the surveyed site — would always take limestone elements during their inspection because it's a precious material. Therefore, it has a high potential to be re-used as a spolia. Taking that into consideration, and thinking about the building as a repository of spolia, I decided that making a bricolage of elevations (plinths, portals) as a plaster cast (model making) would be a great tool. That could help to answer the research question: "What has a potential to be used as a spolia?", and to emphasise limestone as a spolia in-se and in-re. Even though the surveyed building may not be intended for demolition, similar can be found all around the country, and be saved for that purpose. Plaster casting would help to find out the construction technology logic, so that knowledge could be used even in a different material (Stoffwechsel idea). It also helps to understand the proportion and sizes, in a very haptic way, what could influence the design as well (thinking by making). In that part of the research, I also visited a professional stonemason from Delft, who helped me to prepare additional samples of limestone.

Moreover, in my research, I connect materiality with embodiment; the way the materiality is shaped by the aspects of our bodies, and the way our embodiment influences the perception of materiality of the space. A striking correlation between tectonics and embodiment can be seen, even in the etymology of word tekton signifying craftsmanship, but also the notion-of-making itself, connecting materials to the practises. Richard Sennett, in the book "Craftsmanship", describes the link between characteristic for specific crafts way of thinking and doing things, and tools and developments of required skills. The author emphasised that all skills start from the body's activity, which uses its wisdom that one gained by touch and movement in his or her hand. In the past, the settlements were built only by human agency. That required the direct cooperation of a body's ability to perform, and material capacities. Only the respect of those limitations could bring the desired results. At the same time, previous organisation resulted in a more humanised built environment. Pallasmaa points out that "in earlier modes of life, intimate contact with work, production, materials, climate, and ever-varying phenomena of nature provided ample sensual interactions with the world of physical causalities". He argues that "Embodiment is not a secondary experience; the human existence is fundamentally an embodied condition." In my research paper I investigate those correlation, including human evolution and its connection to acquire skills, body-mind relation, peripheral vision, and memories and imaginary world in the process of cognition and doing things. To do so, a following literature is to be read.

When I transformed my research into the project of the swimming pool with the public bath, I decided to research buildings with a similar function. Photographs and description in books, and in the internet was a great source of information. Nevertheless, floor plans were rarely attached. Therefore, I decided to include visits in chosen places to my research to experience them in real and analysed their organisation, programme, and room sizes according to the size of the cities they are located in.

Literature and general practical preference

1. Frampton, Kenneth. *"Studies in tectonic culture : the poetics of construction in nineteenth and twentieth century architecture"*. Cambridge, Mass : MIT Press, 2001 (1995)
2. Gottfried, Semper and Harry Francis Mallgrave, Michael Robinson , Getty Research Institute. *"Style in the technical and tectonic arts, or, Practical aesthetics"*. Los Angeles : Getty Research Institute, 2004.
3. Groat, Linda and David Wang. *"Architectural research methods"*. Hoboken, Wiley, 2013.
4. Jay, Martin. *"Scopic Regimes of modernity"* in Przechyła, Filozofia i Architektura [Space, Philosophy and Architecture] ed. Rewers E. Poznań; Wydawnictwo Fundacji Humaniora, 1999.

5. Lucas, Ray. *"Research Methods for Architecture"*. London : Laurence King Publishing, 2016.
6. Tilley, Chris and Keane Webb, Kuchler Susanne, Rowlands Michael. *"Handbook of Material Culture"*. London; SAGE Publications, 2006.
7. Merleau-Ponty, Maurice. *"Phenomenology of Perception"*. London ; New York : Routledge, 2002.
8. Norberg-Schulz, Christian. *"Genius loci: towards a phenomenology of architecture"*. New York: Rizzoli, 1996.
9. Pallasmaa, Juhani. *"The eyes of the skin"*. New York: John Wiley & Sons Inc, 2012.
10. Pallasmaa Juhani. *"Myśląca dłoń. Egzystencjalna i ucieleśniona mądrość w architekturze"* [The Thinking Hand. Existential and Embodied Wisdom in Architecture]. Kraków: Instytut Architektury, 2015.
11. Merleau-Ponty, Maurice. *"Phenomenology of Perception"*. London ; New York : Routledge, 2002.
12. Rasmussen, Steen Eiler. *"Experiencing architecture"*. London: Chapman & Hall, 1959.
13. Sennett, Richard. *"Craftsmanship"*. United States; Penguin Books Ltd, 2009.
14. Schreurs, Eireen. *"City of Stone"*, booklet of the Chair of Interiors Building Cities. Impressed, Pijnacker, 2018.
15. Zumthor, Peter. *"Thinking Architecture"*. Besel: Birkhauser, 2010.

Reflection

1. STUDIO RELATION:

The group of Spolia (topic of the studio), I was assigned to at the beginning was exploring terms of spolia in-se (material), and spolia in-re (non-material). Critical evaluation of Anderlecht district has resulted in the organisation of the research according to the following perspectives: materiality, architecture, and bricolage. Then, those topics were organised from a deep analysis of prevailing material, Belgian Blue Limestone, its sedimentation, extraction, stoffwechsel idea, spolia in-re, and spolia in-se, to the introduction of terms to spoliare, and to appropriate. My individual part was the materiality perspective, whereas the last three terms were analysed by other group members. In a time of pending obsolescence, the survey, prepared by the group, aimed to be a starting point for the discussion about potentiality to be used as a spolia. Deep analysis on the base of a material biography helped to understand the surveyed material; its properties, tectonic, weight, haptic qualities, the relationship between the body and material, and historical and social values it has. From that point I developed the topic of my research; "Materiality, time and embodiment".

2. PROFESSIONAL RELATION:

In a time of pending obsolescence and a novelty regime, we need to think about a more sustainable built environment, either by using a new building technique, new materials or re-use of certain objects/materials. Even though, in the past re-use of materials was present, today it is getting more popular and also gained the theoretical background. Not without reason, the topic of Mies van der Rohe prize 2019 was "What's old, what's new". The question, posed by the chair: "what is worth keeping?", and a research question: "what has a potential to be used as a spolia?" refer to the same problem in a current discourse in the field of architecture. It is also very much related to an issue of the lack of identity that haunts modern spaces. I do believe that approaching the topic of spolia as the cultural continuum phenomena results in a deeper understanding of context and its relations thus could be a good remedy in the space with an utter lack of genius loci. Thanks to its implementation to project, architecture could be more contextual and regional. Moreover, the introduction of Semper's idea of Stoffwechsel into my research gave a new interpretation of the spolia topic. It speaks about the possibility of using knowledge and a construction technique of one material even in a different one. By emphasising the cultural continuum in the material culture, it provides proof that nothing is an invention ex novo, and a spolia itself is not as obvious as division into old and new objects. Architectural language and tectonic developed on this base and on an appreciation of human senses create a very strong spatial identity of a place.