

DESIGNING ARCHITECTURAL EXPERIENCES THROUGH A PHENOMENOLOGICAL APPROACH

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I INTRODUCTION

Architects have a big influence on the built environment in urban places. Architectural projects are not only about the buildings itself, they also affect the surrounding spaces and their users. In architecture and spatial design, the atmosphere is the very initial and immediate experience of space¹. Or as architect Peter Zumthor explained²: “I enter a building, see a room, and – in the fraction of a second – have this *feeling about it*”. This shows that the experience of atmosphere is something intuitive and unconscious. Which makes atmosphere, according to theorist Mark Wigley³, “something personal, vague, ephemeral and difficult to capture in text or design, impossible to define or analyse”. Atmosphere exists where architecture and humans, the embodiment of daily use, interact. After all, architecture and buildings are designed and built for human occupancy and use. Therefore, architects must understand how humans experience a space and how this influences their interaction with the built environment to be able to reverse this knowledge into the design of buildings that contribute positively to the life of people.

Phenomenology⁴ is the philosophical study of the structures of experience and consciousness as experienced from the first-person point of view. Christian Norberg-Schulz aimed with his book ‘*Genius Loci, towards a phenomenology of architecture*’ to examine the psychic implications of architecture on humans. He uses the concept of the Genius Loci⁵ to describe the meaning of a place. Places that are meaningful are giving an existential foothold to humans by providing the basis for everyday experiences to occur, which is the task of an architect according to Norberg-Schulz.

Especially heritage related places possess a lot of meaning. This meaning is not solely derived from the physical remainders, but especially from the intangible traces of the past that has befallen in these places. A big part of a human’s identity depends on his belonging to places and throughout history, human beings have inherently been social creatures. These traces connect us experientially with past life and by belonging to that temporal continuum, it gives a safe and enriched feeling⁶. Heritage is about the presence of the past in contemporary life.

The graduation studio of Heritage and Architecture evolves around the revitalisation of the Hembrug area, which is located between Amsterdam and Zaanstad. This former military production site consists of many building ensembles, including 50 monuments, historical green and water structures. The site functioned as military stores, testing site and as the logistic heart of the “Stelling van Amsterdam” and has, as a consequence of these former functions and the functional design approach that has been followed, a closed-off, inwards oriented character. The aim for Hembrug is to transform the site into a vivid part of the developing Amsterdam-Zaanstad metropole. The area should not only provide amenities and diverse qualities to the individual area, but also to the, in the future, surrounding residential neighbourhoods. The challenge for the site will lay in maintaining the historical character while re-adjusting the site to accommodate new functions to give it a new meaning. Which leads to the following research question: “How can a phenomenological approach contribute to a better understanding of the experience of space in order to transform the former, closed-off military site ‘Hembrug’ into a place which is part of everyday life?”.

¹ K. Havik, H. Teerds & G. Tielens, *Building atmosphere in Oase #91* (Rotterdam: nai010 Publishers, 2013), p 3.

² P. Zumthor, *Atmospheres – Architectural environments – Surrounding objects* (Basel: Birkhäuser, 2006), p 13.

³ K. Havik, H. Teerds & G. Tielens, *Building atmosphere in Oase #91* (Rotterdam: nai010 Publishers, 2013), p 3.

⁴ D.W. Smith, *Phenomenology in The Stanford Encyclopedia of Philosophy* (Stanford: Metaphysics Research Lab, Stanford University, 2018) <https://plato.stanford.edu/archives/sum2018/entries/phenomenology/>.

⁵ C. Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (London: Academy editions London, 1980), p.5.

⁶ J. Pallasmaa, *Space, Place and Atmosphere. Emotion and Peripheral perception in architectural experience* (Helsinki: University of Helsinki, 2014), p.231

II RESEARCH-METHODOLOGICAL DISCUSSION

When places are analysed from an architectural perspective, the focus is mainly on the tangible aspects of a space which permits that the atmosphere is excluded in most cases. This may seem strange since “atmosphere seems to be overarching qualities of our environments and spaces” according to professor Pallasmaa⁷. He describes the atmosphere of a place as “an exchange between material or existent properties of a space and the immaterial realm of human perception and association, which will be grasped as a unity before the details are identified”.⁸ This is similar to the definition of atmospheres by philosopher Gernot Böhme as a dynamic interaction between architectural elements (objective) and the subjective perception of the observer⁹. Böhme also agrees that atmospheres are in the first place a total experience, not a sum of individual aspects, based on personal and emotional impressions of space. Within these definitions the complexity of the concept is shown, since the perception of space is largely unconsciously and instinctively derived. This makes it hard to capture and might be one of the explanations for the lack of analysis and theorisation of atmosphere within the architectural profession. This initial perception of space has an important role in the decision of people to reside in a space or decide not to because it makes them feel uncomfortable.

Norberg-Schulz¹⁰ sees in phenomenology “a method well suited to penetrate the world of everyday existence, a new way of seeing”. According to architect Steven Holl¹¹: “Phenomenology concerns the study of essences; architecture has the potential to put essences back into existence. By weaving form, space, and light, architecture can elevate the experience of daily life through the various phenomena that emerges from specific sites, programs, and architectures”. According to the phenomenological study of the perceptual experience of spaces, the atmosphere of a place is immediately grasped as an unity. Although a combination of the five traditional senses and countless factors like gravity, rhythm, scale, materials, relation with other buildings etcetera are all contributing to the atmosphere of a place. Thus, a phenomenological approach while studying architecture leads to a better understanding of the phenomena and through this understanding the experiences can be reverse designed through architectural means. Hereby the critical task of the architect is to create contextually correct experiences for other people instead of projecting his own experiences onto everything.

To make Hembrug part of everyday life, it needs to be transformed from a private, industrial area into a public space: the inwards-oriented atmosphere of the site needs to be changed into an open, inviting atmosphere. Following the finding that the atmosphere is grasped as an unity, it is important to look at the project as a whole and not as a set of individual elements in order to acquire the proper atmosphere on the site and assign a new meaning to Hembrug. To accomplish this, mainly methods based on three dimensions will be used:

- Sketches to examine different variations and design solutions. By making rough sketches by hand, instead of technical drawings, the focus will lay on the experiences and not only on the practicalities of the buildings.
- Soft maps which are hand drawn perspectives consisting out of a combination of sketches and keywords which spring to mind when observing or showing the experiences of different users.
- Models on different scales which will make it possible to investigate the consequences of different design decisions onto the perceptual experience of the entire project and not solely on an isolated element within the project.
- Case studies of transformation projects that faced similar challenges. The aim is to physically visit these projects to get the full experience, since photographs will not evoke the same bodily engagement with a certain place due to the already framed, two dimensional sights.

⁷ J. Pallasmaa, *Space, Place and Atmosphere. Emotion and Peripheral perception in architectural experience* (Helsinki: University of Helsinki, 2014), p 233.

⁸ *Ibid.*, p 232.

⁹ G. Böhme, *The Aesthetics of Atmospheres*. Edited by Jean-Paul Thibaud. (London: Routledge, 2017), p 6.

¹⁰ *Ibid.*, p 8.

¹¹ S. Holl, *Intertwining* (New York: Princeton Architectural Press, 1996), p 11.

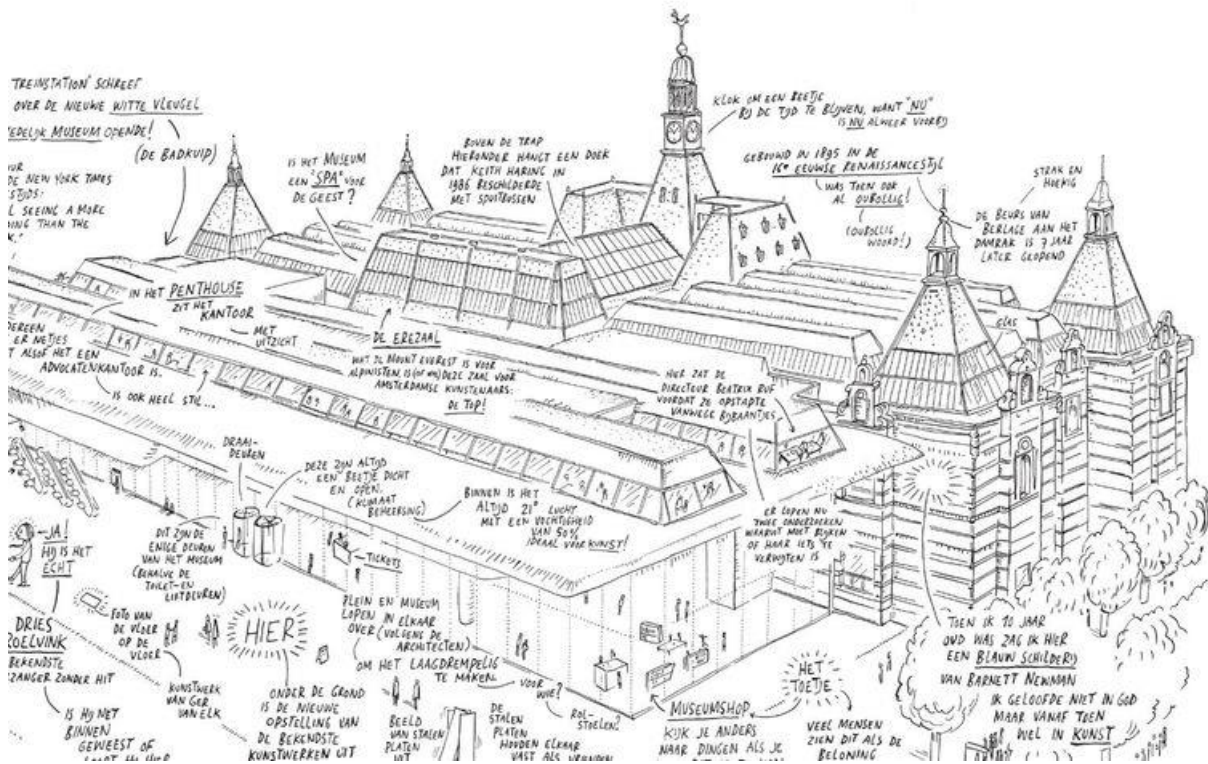


Figure 1: Soft map of Stedelijk Museum in Amsterdam by Jan Rothuizen. Source: De Volkskrant

III RESEARCH-METHODOLOGICAL REFLECTION

Herzog & de Meuron use the term phenomenological to describe the design approach of their office; their starting point is the intuitive and unconditional experience of phenomena as they present themselves: “Our approach is phenomenological! All that we have ever designed comes from observation and description. All that we have ever done has been found on the street! All of our projects are products of our perceptions projected onto objects! This is also the reason why our buildings always look so different from each other. Since we turn our heads in different directions, the buildings arise from other perceptions. We work by observing phenomena!”¹² They study the phenomena and their perception through models, test samples, full-scale mock-ups of bits of building. Which reflects on their view of ‘ontological state of matter’, herewith they mean that the physical presence of objects does not mean anything. According to Herzog and de Meuron objects need their natural or artificial context to let them be seen in a specific way so that they can become objects of our perception, so that they can be named, so that they are “being”. This is being envisioned in the models and full-scale mock ups which provide a context to the elements. Thereby the models are not only used to sell their design to the client, but are part of the design research. All these study items which are made through the past decades are now stored in an archive building and it functions as a research tool in itself: a place where employees and others can learn how past projects were put together.

The Tate Modern is one of the transformation projects done by Herzog & de Meuron: the conversion of an old power station in London on Bankside into a new gallery of modern art. This project contained a similar challenge as the Hembrug site currently faces: the conversion of a former industrial building which was closed to the public, into a public function. In this case the public function is a museum, that daily attracts thousands of visitors. At first sight people called the plans of Herzog & de Meuron “architectural conservation gone mad”¹³, since of all the entrants in the competition Herzog and De

¹² Herzog & de Meuron, Poesis-Production in *Anyway*, Symp. Proceedings Barcelona, Spain (New York, Anyone Corporation / Rizzoli International, 1994), Vol. No. 3. pp 84.

¹³ Herzog & de Meuron, 263 The Tate Modern Project (2016), <https://www.herzogdeuron.com/index/projects/complete-works/251-275/263-the-tate-modern-project.html>

Meuron proposed to do the least. In their drawings of the art gallery the power station was still heavily present. Their strategy was based on the acceptance of the massive brick building and to even enhance it rather than trying to diminish it: *“The greatest inspiration is the existing world in all its ugliness and normality. Everything is interesting if you are ready and able to look at it. There should be no safety rails in your architectural perception.”*¹⁴ Their intension was to create a contemporary public space without diminishing the building's historical presence. The biggest apparent intervention in the exterior is the minimal light beam of translucent glass on the roof which provides a horizontal contrast towards the vertical chimney.

In the interior of the building a distinctive design approach has been used compared to most approaches that have been applied on heritage buildings: the new and existing elements cannot be distinguished from each other, since everything has been re-invented and reconceived in such a way that the two layers of elements are attuned to each other. *“One has the impression that the exhibitions spaces have always been there, like the brick facades, the chimney or the turbine hall. This impression is, of course, deceptive.”*¹⁵ Which leads to a more exciting experience than the pure preservation of the existing structure could have given but might be disputable considering the impossibility of tracing the history of the building through its elements.

The Tate Modern has successfully been transformed into a public site through multiple architectural interventions. The outside space is transformed in a natural landscape and provides access from all four directions. The entrances of the building are indicated by punctures in the façade at ground level. The exterior landscape leads the public to the different entrances, inviting them to gather or just pass through the big turbine hall, which is intended as a public plaza. By maintaining the character of the power station by minimal exterior interventions, the building remains an experiential and visual piece.



Figure 2: Exterior of Tate Modern. Source: Inhabitat



Figure 3: Turbine Hall inside Tate Modern. Source: ArchDaily

IV POSITIONING

Dealing with heritage asks for a significantly different design approach than new buildings. Heritage related places already contain a certain character derived from the combination of the physical remainders and the intangible traces of the past. The Hembrug site can be seen as an already painted canvas with the different spatial elements embedded on it; the trees, the ditches, the functional open spaces, the different buildings, the gates and so on. The history is an important layer which is visible all over the site: the old train tracks connecting different buildings show the traces of the old production lines, the pipelines show the supply of water and electricity into the buildings, the different roof shapes reveal the kind of activities which took place in the buildings, the cracks in the walls of the buildings show the passing of time. All these physical remainders are traces of the past shape of human usage of the site and thereby contribute to the character of the site and its surroundings.

¹⁴ Herzog & de Meuron, 263 The Tate Modern Project (2016), <https://www.herzogdemeuron.com/index/projects/complete-works/251-275/263-the-tate-modern-project.html>

¹⁵ Ibid.

To make the Hembrug area a part of everyday life the atmosphere must be transformed so the visitors of the site will experience it as an inviting area where they want to reside and bring the heritage site back to life through their presence. Since heritage is about the presence of the past in contemporary life, in my opinion the existing characteristics and spatial organisations should function as a guideline throughout the transformation process. In the book *Designing from Heritage* the following statement is made: "To grant a heritage related building a new lease of life, its adaptative reuse must be sustainable and economically viable."¹⁶ I do not totally agree with this, since maintaining heritage also contributes to the historic continuity and identity of a place which cannot be expressed in financial means. This point of view also becomes clear in the statement of Jane Jacobs, with whom I strongly agree: "The economic value of new buildings is replaceable in cities. It is replaceable by the spending of more construction money. But the economic value of old buildings is irreplaceable at will. It is created by time. This economic requisite for diversity is a requisite that vital city neighbourhoods can only inherit, and then sustain over the years."¹⁷ Although I do understand that in practice financial means are necessary to complete projects.

In my personal believe, the best way to secure the future of Hembrug is to give the place a new purpose and put it back in operation. Since the former function is no longer needed, a new programme has to be appointed which suit the architectural, historical and cultural values present on the site. Although most of the buildings have a high degree of flexibility through their large dimensions and open floorplans deriving from their former industrial functions, spatial changes will need to occur to meet current technical, spatial and comfort demands. Which does not mean that none of the historical elements could be altered or removed: there should be a balance between maintaining the historical character and the architectural interventions which are needed to adjust the site to its new purpose. In this transformation process the phenomenological approach will be applied to understand the consequences of the interventions on the atmosphere of the site. The aim is to work towards a lively environment with a clear historical identity, where the old and new will fuse, resulting from the interaction between conservation and renovation. And therewith reassure the role of the Hembrug area within the future of the Amsterdam-Zaanstad metropole.

¹⁶ M. Kuipers & W. de Jonge, *Designing from heritage* (Delft: TU Delft, 2017),p 127.

¹⁷ J. Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961), p 199.