

Graduation Plan

Master of Science Architecture, Urbanism & Building

Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-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	Tom Jaring
Student number	4532074

Studio		
Name / Theme	Explore Lab	
Main mentor	Elise van Dooren	Architecture
Second mentor	Peter Koorstra	Architecture
Third mentor	Matthijs Klooster	Building technology
Argumentation of choice of the studio	Since BK2AC2 I developed a fascination for multi sensory design after writing a thesis on this unique topic. This cannot be explored in any of the 'regular' thesis labs.	

Graduation project	
Title of the graduation project	The emotional power of architecture.
Goal	
Location:	Étretat, France

<p>The posed problem,</p>	<p>Today's architects have access to a wider range of materials when designing architecture. The designer must consider various design parameters when selecting materials from such a vast array. Basic challenges in material selection include the examination of aspects linked to ecological, economic, and technological properties. They know how essential materials are in that process, not only for purely technical or practical reasons, but also for the influence these materials can have on the end user and how an architectural structure may be experienced. In my opinion we deserve architecture made for all the senses and should be more focused on the elements we experience rather than what we see.</p>
<p>research questions and</p>	<p>Every material selection method, in general, seeks to meet a straightforward demand by identifying the optimum material for a certain application. It's crucial to understand what factors come into play when designers choose materials in order to determine what the "best" material is for a specific purpose. The main aim of this paper is to explore what the connection is between architecture and the material and immaterial worlds through the human senses?</p>

<p>design assignment in which these result.</p>	<p>Material perception is the exploration of how we perceive the materials that objects are made of. When we see a nice wool sweater, for example, we may think it is soft and comfortable, yet a brick weighs more and feels harder. In material perception, information collected through various sensory modalities appears to be intimately connected, as in these examples cited above. Immaterial perception deals with the atmosphere created by an ensemble. The context and feeling that is transferred to the visitor. The appearance and sensory properties of the material are linked together.</p> <p>Introducing a memorial in Étretat, France where the Second World War can be relived through the power of materiality of architecture via our senses.</p>
Process	
Method description	
<p>To answer the posed questions specific method has been chosen. The opinion of potential users will be demanded on specifications of materials, exteriors and interiors. A structured interview with several people will be performed. The responses will be labelled and deeper analyzed, in order to achieve an overview on the potential materials that could be used for the design.</p>	

Literature and general practical preference

If we want to design for material experiences, we need understand sensory modalities. The following literature will be further investigated to analyse how the human body perceive architecture.

Ashby, M. F. & Johnson, K., (2002). Materials and design: the art and science of material selection in product design. Butterworth-Heinemann, Oxford

Coleman, N., (2020). Materials and meaning in Architecture. Essays on the bodily experience of buildings. Bloomsberry Visual Arts. London, Great Britain.

Culvahouse, T., (1989). Architecture of Surface. Tulane Architecture.

Fernandez, J., (2006). Material architecture: emergent materials for innovative buildings and ecological construction. Architectural Press, Amsterdam.

Gibson, J., (1979). "The ecological approach to visual perception". Boston : Houghton Mifflin.

Houben, F., (2017). "About Mecanoo." accessed October 1st, 2020, (<https://www.mecanoo.nl/Office/Mecanoo>).

Hutmacher, F. (2019). Why is there so much more research on vision than on any other sensory modality? *Frontiers in Psychology*, 10, 2246.

Markowsky, G., (2017). "Information Theory | Mathematics". (Encyclopedia Britannica, <https://www.britannica.com/science/information-theory>.)

Neumann, K. (2013). Synesthetische architectuur. Licht Ontdekken. Reportage Rainer Diersche.

Pallasmaa, J., (2005) "The eyes of the skin: architecture and the senses." Chichester: Wiley.

Wessell, L. P. (1972). Alexander Baumgarten's Contribution to the Development of Aesthetics. *The Journal of Aesthetics and Art Criticism*, 30(3), 333–342.

Reflection

The design of architecture has always been dominated by the eye. This has been happening since ancient Greece. Because we, humans, are visually dominant beings. Sight is seen as dominant over the other senses. As an example, from the Bachelors to the present day, during a design process I was asked by professors and fellow students "what will a design look like?" and never what perception will this design choice occur for the ultimate consumer.

However, the look of a space is only one aspect of it. The five senses work together to play an important part in people's everyday lives. Every instant of the day, our senses receive many stimuli. The user's experience may be greatly influenced by textures, scents, and sounds. As a result, architecture and the senses in mind has the potential to alter people's interactions with the built environment into something even more profound.