

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	Johannes Christian (Jaap) van den Elshout
Student number	4465601

Studio		
Name / Theme	Heritage & Architecture: Vacant Heritage Department stores	
Main mentor	Lidy Meijers	Design mentor
Second mentor	Frank Koopman	Heritage and Technology
Research mentor	Wido Quist	Research mentor
Argumentation of choice of the studio	<p><i>(as written in my studio motivation in the Research Plan):</i></p> <p>As long as I can remember the retail industry has been involved in my life. During my childhood, I frequently went along with my father to his workplace (De Bijenkorf). During these moments me and my siblings would either play around in the offices, walk around the store or lend a helping hand in some of their activities. One thing I vividly remember was helping in putting up the 17-meter-tall Christmas tree in De Bijenkorf in The Hague, which I did every year that my father worked in that department store. As I grew older, I would tag along to a day at my father's work. I actually ended up working there myself. For the last couple of years, I work in the sales department of De Bijenkorf in Rotterdam. And ever since I started my Architecture degree, I wanted to design something to do with department stores. When I found out that the Heritage chair offered a course in which students could work on a new design for one of the vacant Vroom & Dreesmann department stores, my attention was instantly grabbed. I did not bother to look any further, this was my chance.</p> <p>After deciding on the studio, I had to decide on which research approach I wanted to take. I decided for the Touch and Feel research approach guided by Wido Quist. An approach where the focus is on the materiality and details of a building, rather than the overall ensemble (note that I believe that this should not be disregarded). According to the description of the research method in the studio manual, closely examining the material</p>	

	<p>aspects of a building and how these are perceived by people, allows for a better understanding of the consequences for the adaptive reuse of the building (Quist, 2020). With the primary focus being on the façade of the building, I expect that this research method will offer valuable information for designing a new use where the existing structure and new program join seamlessly. In addition to this, I personally would like to learn more about the technological aspects of heritage architecture. Learning from design practices of the past (how certain elements were designed in the past) I can learn to understand modern techniques better and how the design practice got to our present-day way of designing and constructing.</p> <p>Furthermore, I know from my personal experience from working in a department store, that the design is really focused on the user/visitor experience. Take for example De Bijenkorf Rotterdam, the store I work at. This department store was built after the Second World War and replaced their other building that was nearby. These two stores were designed with a completely different approach and vision from the architect. Both have/had their strengths and weaknesses of course. The current Bijenkorf has a closed character, with most of its façade openings being the shopping windows. Whereas, the former Bijenkorf was considered the glass and stone palace. Only these two differences in the materiality have such an impact on the experience of the architecture. The closed character allows for a better setting for the shopping experience, but in turn causes the staff to lose orientation in the hallways behind the scenes due to the lack of orientation with the outside world.</p> <p>Finally, I feel that by focusing on the materiality of this architecture (both current and past design methods) can offer insights on how physical shopping was and is competing with online retail. For example, how the architecture is used to seduce the customer to visit their store to go shopping. This might also offer some interesting angles to see why the Vroom & Dreesmann department stores ended up failing/not working.</p>
--	--

Graduation project	
Title of the graduation project	[Title of the graduation project]
Goal	
Location:	Maastricht, Limburg, The Netherlands
The posed problem,	<i>(edited version of the problem statement from the Research Plan):</i>

The research tries to find a solution to *the lack of engagement between the building its architecture and its surroundings and the people in it*. To get a better understanding of how this problem arose, the history and cause of the problem need to be introduced first.

In the year 1887 the first Vroom & Dreesmann store was opened in Amsterdam. Up until the 1980's the company kept growing steadily, but faced financial problems in 1991. With a last-minute rescue plan, the company managed to prevent a bankruptcy that year and made changes within the company (Koops, n.d.). Eventually on the 31st of December 2015 the court declared bankruptcy and the stores closed their doors for good in February the following year (Koops, n.d.).

The bankruptcy of the Vroom & Dreesmann department store brand resulted in a significant amount of large vacant buildings throughout the Netherlands. A total of 62 stores were forced to close. These vacant stores at the time accounted for 11.5% of the total vacant retail space in the Netherlands (Raven, 2017) (CLO, 2019). However, in 2016 the Canadian Hudson's Bay Company found themselves interested in expanding their brand to The Netherlands. A year later they opened their first new department stores. The department stores unfortunately had to close permanently on the last day of December in 2019 as the company was declared bankrupt that day (Stil, 2019). Leaving 16 recently renovated department stores vacant.

The main problem that this is addressed in this research is a result of the above-mentioned events. Due to bankruptcy of Vroom & Dreesmann and later also Hudson's Bay, a lot of the former department stores became a cavity in the urban fabric. These buildings that were once flourishing with people doing their shopping, are now left empty without a purpose. These department stores used to not only function as a place where people

	<p>went shopping, but also served a purpose as a place where people could gather and meet up. Before moving to Delft, I lived in Bergen op Zoom for 18 years. A city of decent size with two main shopping streets. At the corner of these two streets, the former Vroom & Dreesmann was situated. This is where I would meet up with friends and/or family. These stores function as an eye catcher that generate traffic within the city, something that is necessary for a balance within the retail environment of a city (Brouwer, 2018). But specifically, that lack of traffic is a problem for a lot of cities. How people move through cities is extraordinary, everyone has their own purpose and their own route to fulfill that purpose, some people come with the purpose of not having a purpose and just wander around. To solve the vacancy problem of these former department stores, a solution needs to be found that addresses the issue of the lack of engagement between the building and its surroundings and everyone in it.</p>
<p>research questions and</p>	<p>“How does the architecture of the former Vroom & Dreesmann department store engage in the relation between the public, semi-public and private space and the people moving within and between these spaces and how can this be applied in the new design?”</p> <p>The research is built around the above-mentioned (main) research question. However, in order to come to an answer to this research question, it is necessary to break it down into multiple sub-questions. These are as following:</p> <p>1: “How does the architecture of the former Vroom & Dreesmann department store fit in with its context?”</p> <p>2: “How is the former department store of Vroom & Dreesmann perceived by the people in the shopping street?”</p> <p>3: “How do the entrance opportunities engage in a relation between the public and private space?”</p>

	<p>4: "How do the visual advertising opportunities engage in the relation between the public and private space?"</p> <p>5: "How do the openings in the façade on elevated levels engage in the relation between the public and private space?"</p>
<p>design assignment in which these result.</p>	<p>The design assignment that results from this research is as follows: As there is a lack of engagement between the architecture of the building and its surroundings, the proposed new design has to allow for an active interaction between the building and its surroundings and the people moving in and between them. The program of the building also has to serve as a place, like in its former function, where people can gather and/or meet-up.</p>

Process

Method description

To find an answer to the above-mentioned research question, the question can be broken down into sub-questions. These help to target both the analysis and the research to the specific topics in order to compose the complete picture. As there are many different methods to conduct scientific research, each research question may require a different approach to finding an answer to the question. In Klaske Havik her lecture on *Methods of Analysis*, she introduces these different approaches of research (Havik, 2020). These approaches are all different in the nature of their method, of which some are more applicable to this research than others. The answer to the main research question is found by studying and analyzing two case study department stores, which classifies as correlational research approach. The former Vroom & Dreesmann in Maastricht is the main project in this research, the former Vroom & Dreesmann in Den Bosch will be used for comparison and further study purposes. These two case studies are then researched on its own using other different research approaches. A historical research approach is for example a good way to understand information about the department stores using material from the archives (Havik, 2020). Each of the paragraphs following the sub-questions will elaborate more on the proposed method(s) to find the answer to the respective question.

Method for sub-question one:

The first sub-question in this research is aimed at creating an initial understanding of the researched projects and their context. Although many city centers in The Netherlands share similar characteristics, each and every city is different. For the research this means that the direct surroundings and context of each of the researched Vroom & Dreesmann department stores is different as well. Even though some of the former department stores have things in common, for example that they were designed by the same architect, designed and built at the same time or share similar architectural characteristics, every department store is unique to its place and time. By conducting a typological research, plan analysis, the foundation of

this research is built and an initial understanding of how the department store fits in its context and operated (Havik, 2020). The research for this sub-question is closely related to the *Spatial Building Typology Research* that is carried out by the research group of Hielkje Zijlstra. In a similar fashion, the case study department stores are analyzed and documented.

Method for sub-question two:

This sub-question tries to discover how the case study buildings are perceived by the people that surround them. As every building is different, their effect on the perception of the building is different. The scale of the façade with its materials, for example, can influence how someone perceives the building (TMD STUDIO LTD, 2017). As the perception of an object is unique and subjective for every human being, a simulation research approach is taken. By simulating the perception of the building from multiple angles and distances, a clearer image can be created of how the perception of the building changes while moving around it. In addition to this, these findings will then be tested against the book *Life between Buildings* by Jan Gehl, which goes in depth about how spaces are lived in and perceived (Gehl & Koch, 2011).

Method for sub-question three:

Department stores are usually accessible through various entrances along the facades of the building, depending on the size of the building. The main entrance is usually found, like in any other building, at the ground floor level on the main façade. However, there are multiple other places through which a building might be accessed. Entrances can also be found on different levels of the building granting access through another building or from an exterior vertical circulation space. To get a better understanding of the relation between the public, semi-public and private space it is important to know how the specific building is accessed. As the relation between these spaces can sometimes be indicated in a problematic way, take for example a semi-public space that is closed off with a gate after opening hours, it is necessary to get a better understanding of the relation between the public, semi-public and private zones.

This sub-question is answered by conducting a material and spatial analysis of the entrances and the way it connects the public and private (and every) space in between of both present and past situations. In his book *Constructie en architectuur van winkelpuien*, G.J. Wattjes conducts a visual descriptive analysis of shop windows (Wattjes, 1926). This method proves to be a good foundation to get a better understanding of the specific entrance elements. In addition to this, the spatial perception of these elements is simulated by illustrating and comparing them in a single scale. In these drawings the material detail is made abstract. Finally, the different material components (both façade elements as surface materials) of the entrances are inventoried. Each of these materials has its own characteristics and qualities, which in turn affect the perception of the space (Soliman, 2013).

Method for sub-question four:

Department stores, like most other businesses, advertise themselves using elements in their façade. Examples of these are the brand logo on the facades, posters or other imagery on the façade and the shop windows. Advertising on the façade is used as a method to seduce the passerby to enter and induce them to make a purchase (Joo-Hyun & Kyu-Hye, 2015). Regardless of the new function of the department store is going to be retail, this phenomenon can be used in the advantage of the new design. In a similar way the new function(s) may use advertising techniques to attract visitors. Therefore, it is important to research the branding of the structure to then be able to enhance the visibility and recognizability of the building in the future.

The search for an answer to this question starts by mapping out the advertisement opportunities in the facades. This is researched by examining archival material (mainly

photographs). These advertising opportunities are then categorized by type (brand logos, posters, shop windows). For each of these the number of opportunities and the available space per type is determined by measuring. Finally, for each of the advertisement opportunities the effectiveness is researched. Using the book *Visual Persuasion: The Role of Images in Advertising* by Paul Messaris in which he describes how visual advertising is used and how people are triggered by this and using the book *Measuring Advertising Effectiveness* by D.B. Lucas and S.H. Britt that provides descriptions and evaluations of the methods of measurement of effectiveness, the effectiveness of each of the advertisement types is determined (Lucas & Britt, 1963; Messaris, 1997). This translates into a set of advertising opportunities sorted by their type, effectiveness and scale.

Method for sub-question five:

The facades of the former Vroom & Dreesmann stores do not only open up to the public on the ground floor level, but also on the elevated levels. Through openings in the facades (windows or balconies) the scale and proportions of the building are defined. These openings also offer an opportunity to provide the interior space with a natural source of light. However, it cannot simply be assumed what the actual function of these openings are. They can serve a functional purpose, but also a purely decorative purpose. Throughout the years their purpose might have changed as well. For the new design of the department store it is important to be aware of the placement of these openings in relation to its surroundings. For each of these openings it is therefore important to determine their relative height to the floor and ceiling, positioning in the façade, materiality, area, distance to facades on the opposite side of the road and their angle towards the sun. Using this information, the previous and potential future use can be determined by simulating sightlines to the public space and by testing them for daylight entry levels. This in turn also works in reverse, the sightlines from the public space towards the façade openings can be simulated. This research will be carried out using the publication by Aydin Ozdemir that examines the effects of window view on the perception of spaciousness and brightness in a building (Ozdemir, 2010).

Note to method:

This research is carefully divided into several components of the building. However, not all the physical elements in the building its skin is researched. One of the elements that is not researched is the roof of the buildings. To limit the scope of this research these are purposely ignored. The roofs are too far away from the public space to be able to properly engage in the relation between public, semi-public and private space.

Literature and general practical preference

- Amerongen, R. I. v., Christiaans, H. H. C. M., & Staats, R. (2004). *Retail & interior design*. Rotterdam: Episode Publishers.
- ANP (Producer). (n.d.). Vroom & Dreesmann Maastricht. [Photograph] Retrieved from <https://www.1limburg.nl/gallery/86499/37416/eNolykEKgCAQRuG7%252FGshoiwKhUx5ERCadm4CPHuGW3f9xIOb%252BLO0FiZJAaeKYhdSIE4KdBxQyc4a8rR9G3dlSsYvsU6EuvdpyfJVth5w2P1TwpX5PBAD1POL8IhIRk%253D>
- Boekema, F., Spierings, B., & Wiel, J. v. d. (2000). *Winkels in de 21ste eeuw*. Nieuwegein: Arko.
- Bolsius, M. (Producer). (n.d.). Pand van de V&D. [Photograph] Retrieved from <https://www.bd.nl/default/hudson-s-bay-opent-in-beide-voormalige-vend-panden-den-bosch~aa48177e/68420022/>
- Brouwer, M. (2018, February 10th). Hoop op terugkeer Bijenkorf in Groningen, Online. *Dagblad van het Noorden*. Retrieved from https://www.dvhn.nl/groningen/Hoop-op-terugkeer-Bijenkorf-in-Groningen-poll-22900013.html?harvest_referrer=https%3A%2F%2Fwww.google.com%2F
- Chandali, R., Droogh, D. J., Dicou, L., & Eijkelkamp, R. (2013). Detailhandel en leefbaarheid *Aanpak detailhandel als strategie in krimp- en anticipeergebieden*. Online: Droogh Trommelen en Partners.
- CLO. (2019). Leegstand van winkels, 2004-2018. online: Compendium voor Leefomgeving.
- Crossick, G., & Jaumain, S. (1999). *Cathedrals of consumption : the European department store, 1850-1939*. Aldershot, Hants, England ;: Ashgate.
- Fledderus, R. H. (1957). *Over winkels*. Amsterdam: Van Holkema & Warendorf.
- Gantvoort, J. T., & Technische Hogeschool . Instituut voor Stedebouwkundig, O. (1966). *De verkeersaantrekkende werking van een groot warenhuis : verslag van een onderzoek in 1963 uitgevoerd bij een vestiging van Vroom & Dreesmann in de binnenstad van Utrecht*. Delft.
- Gehl, J., & Koch, J. (2011). *Life between buildings : using public space*. Washington, DC: Island Press.
- Havik, K. (2020). Methods of Analysis. Lecture: Online.
- Joo-Hyun, S., & Kyu-Hye, L. (2015). Fashion retail store facades and the creation of store image and store attitude. *The Research Journal of the Costume Culture*, 23(3), 400-411.
- Jordans, M., Kraats, B. v. d., Elings, M., Hon, M. d., Blink, P. v. d., Breukel, K., . . . Ettema, M. (2012). *Architectuur door andere ogen*. Wezep: De Kunst.
- Koops, E. (n.d., September 3rd 2020). V&D – Geschiedenis van warenhuis Vroom & Dreesmann. Retrieved from <https://historiek.net/vd-geschiedenis-van-eeen-warenhuis/76257/>
- Lucas, D. B., & Britt, S. H. (1963). *Measuring advertising effectiveness*. New York, NY, US: McGraw-Hill Book Company.
- Messaris, P. (1997). *Visual persuasion : the role of images in advertising*. Thousand Oaks, CA: Sage.
- Mielliet, R. (2001). *Winkelen in weelde : warenhuizen in West-Europa 1860-2000*. Zutphen: Walburg Pers.
- Openstreetmap.org (Cartographer). (2020a). Maastricht. Retrieved from <https://www.openstreetmap.org/#map=17/50.84962/5.69314>
- Openstreetmap.org (Cartographer). (2020b). 's-Hertogenbosch. Retrieved from <https://www.openstreetmap.org/#map=18/51.68840/5.30396>
- Ozdemir, A. (2010). The effect of window views' openness and naturalness on the perception of rooms' spaciousness and brightness: A visual preference study. *Scientific Research and Essays*, 5(16), 2275-2287.
- Quist, W. J. (2020). Touch and Feel - The role of Materiality in adapting Twentieth Century Heritage. In L. W. C. Meijers, W. J. Quist, & H. Zijlstra (Eds.), *Heritage & Architecture | Department Stores | V&D's* (2020.09.06 ed.).
- Raven, G. (2017). Stand van zaken Nederlandse Winkelmarkt (pp. 6): NVM Business.
- Soliman, O. A. (2013). Perception of Building Materials in Architecture. *Journal of Engineering and Applied Science*, 60(6).

Stil, H. (2019, 28 December 2019). Waarom Hudson's Bay Nederland met de staart tussen de poten verlaat. *Het Parool*. Retrieved from <https://www.parool.nl/nieuws/waarom-hudson-s-bay-nederland-met-de-staart-tussen-de-poten-verlaat~be533cff/>

TMD STUDIO LTD. (2017). Spatial Perception and Architecture. Online: Medium.com.

Vernet, D., & Wit, L. d. (2007). *Boutiques and other retail spaces : the architecture of seduction*. London: Routledge.

Wattjes, J. G. (1926). *Constructie en architectuur van winkelpuizen : verzameling van ruim 50 goede voorbeelden van moderne winkelpuizen in Nederland*. Amsterdam: Kosmos.

Reflection

Within the Heritage field there are three different aspects, *Heritage & Design*, *Heritage & Values* and *Heritage & Technology*. These three are in their essence quite different, but are essential to each other in an adaptive re-use project. The adaptive re-use of architecture is becoming a more important objective within the architecture field. Resources are (fairly) limited, space is limited and sustainability is at the top of the agenda. However, we are still able to develop new architecture, it is equally important (if not more important) to examine the existing stock of architecture and see how this can be re-used effectively. A former function, like a department store in this graduation assignment, often had a building tailored to its requirements. This can cause several issues in the re-use of the building, which in the past often resulted in demolition and developing a new building. With this graduation project, I want to discover what it really is like to work on an adaptive re-use assignment. During the first year of my Master program, I worked on a few different assignments that also all relate back to this final graduation assignment. During the Msc1, I participated in the Complex Projects studio. Here I had to re-use the Galeries Modernes building in the heart of Rotterdam. A former department store that is now occupied by multiple retailers and a gym. This assignment was however focused on designing a new type of learning environment, rather than designing with the heritage and its values in mind. Nonetheless, it was my first step towards this graduation studio. In the Msc2, I participated in the MEGA 2020 studio. A design assignment, in a group of eight people, in which a mega structure had to be made that consisted of multiple functions in one. Especially this last aspect of the assignment spoke to me. In almost every bachelor design studio the assignment was focused on a single function building. During the MEGA 2020 studio, I learnt how to actually think efficiently about how to combine several, somewhat contradicting, functions. This is also something the graduation studio focuses on. According to the studio text the assignment also relates to the finding of new programmes and combinations of these. In addition to the MEGA 2020 studio, I wrote my history thesis in the same semester. The research topic of my thesis was the shift in the retail industry in the city of Rotterdam. In this thesis I researched the shift of the retail area in Rotterdam, but I also found out why these movements happened. One of these is of course the rapid growth of e-commerce, leading to a lamentable number of bankruptcies and vacant stores in the city. This again relates back to the graduation assignment, with the power of e-commerce being one of the reasons why Vroom & Dreesmann was not able to catch up with the competition. Finally, as mentioned in the problem statement, there is a lack of engagement between the architecture of the former department store, its surroundings and the people in it. The research and design assignment that I decided on aims to solve this problem. With a building as large as the Vroom & Dreesmann in Maastricht and its difficult location, it is important for the proposed design to efficiently re-use whatever is available in the building. But more importantly it should solve the problem of that lack of engagement. As it is now obsolete in the center of this historic city, its desolate image needs to be tackled and it should once again become an integral part of the daily city life.

The aforementioned things also relate back to the project its significance in respect to the larger social, professional and scientific framework. By first efficiently researching how the heritage architecture was developed and works, it becomes easier for the designer to work on a proposal for the adaptive re-use of the building. As these kinds of assignments still prove to be difficult in practice, this project tries to set an example of how to approach these assignments without taking the easy way out (eg. demolition).