Digital Nomad Hub Amsterdam

Where global travel meets the local level

Reflection Report
Dutch Housing Graduation Studio 2018/2019

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This reflection report is part of the deliverables of my graduation project ‘Digital Nomad Hub Amsterdam’ for the Dutch Housing studio ‘Stronghold Amsterdam’. During this project, that started in February 2018, I tried to answer the question raised by the studio ‘How do we want to live in cities in the future and what kind of buildings do we need to allow for that?’ In order to come to the design of a residential building that embodied my answer to this question, I conducted various types of research ranging from scientific to subjective. The aim of this report is to reflect on those different methods of research by describing them with examples and reflecting on how effective they were and what I could have done different.
INTRODUCTION

My graduation is done as part of education at the Technical University Delft, and needless to say, research is an important aspect of that. When done properly, it allows my final work to become more advanced and can act as a solid foundation that not only explains how the final result came to be but also defends my decisions. In this report I will attempt to describe and reflect on the various types and methods of research that I have used in order to come to the design of a residential building geared towards Digital Nomads.

In the first part, I will write about what I perceive the relationship between research and architectural design to be, to what extent this can be considered scientific and why reflection can be valuable.

In the then following part, I will describe different methods of research I have carried out, and together with some examples I will reflect on them by writing about what made me choose the method, what I wanted to achieve with the research, how I carried out the method or which tools I used, what my findings were and how or if I implement those in my design. I’ll also attempt to describe what I think I could improve or do differently in the future.

Part three will then be a conclusion of my findings in the previous part and also include a look back at a slightly similar paper that I wrote at the end of my bachelor studies. Hopefully this shows some growth in my progress and allows this reflection to also span a little further than 13 months.

The report will end with the answering of four other questions that are also part of the graduation process. They involve looking at how my graduation projects and research approach fits in the bigger picture of my education, wider framework and transferability of the project and possible ethical issues or dilemmas I have encountered.
I have chosen to write this report not necessarily in chronological order of my research and design process, but rather approach it by looking at the different research methods separately. By presenting it this way I hope it allows me to better describe and reflect on particular research methods themselves and not fall into the trap of using my design process as a guiding theme. As is often the case, this process wasn’t a linear one from question/idea/concept to final design, but at some points also required me to look backwards, re-do certain steps and sometimes apply a certain way of doing research multiple times. At different moments during my process research was therefore similar but conducted from a different angle or with different intentions in mind. By going over the methods separately it hopefully allows me to also look at and compare these differences.
As I mentioned in the introduction, research is obviously an important part of a university and obtaining a master’s degree. It gets undertaken in a lot of different forms and on many different scales. However, sometimes there might be concerns about the level of scientificity of the research.

The Faculty of Architecture is part of the Technical University Delft. As clearly stated in the name, this university describes itself as a technical one. While I believe architecture as a study can rightfully be considered as technical, in the years that I have been a student here I often heard and noticed a distinction being made. Sometimes people were (unintentionally) considering education and research at the faculties of Architecture and Industrial Design less scientific compared to that at the majority of other faculties, like for example Physics or Aerospace Engineering. Reasons for this might lay in the more creative natures of Architecture and Industrial Design as studies and their different approach to research and end goal, together with a student population that mostly consists of males and the strong club/group-oriented culture present in Delft.

The focus on research, more precisely on scientific research, might also have to do with an attempt to explain how we, as aspiring architects, are indeed meeting the requirements for our work to be called scientific. If so, we are rightfully entitled to receive a Master of Science title instead of a Master of Arts title as is customary for many other architectural educations around the world.

But perhaps this inclination towards having to justify the scientificity of architecture also has to do with scale and responsibility. Most of the projects that architects deal with are of such a scale that they require serious investments of resources and energy. There has to be some kind of logical reasoning backing it up in order to minimize chances of resulting in a waste of time and energy.
Scientific research deals fundamentally with finding the truth, i.e. rules, explanations, principles that make up our universe. If two scientists were to end up with different results, it would mean that one or both are in the wrong, or that there has to be a logical explanation. Two architects will almost certainly end up with different designs after starting from the same brief. This is because personal intuition also plays an important role in design, and makes it personal.

“Intuitive thinking and rational thinking are not opponents: they are the twin poles between which the artist structures reality.”

(Foqué, 2010)

Van der Voordt defines scientific research as the methodical, checkable, objective, valid en trustworthy collecting, editing, and analysing of data to better understand and explain reality and as a result, make it more manageable.

If we consider this definition, especially the words checkable and trustworthy, I don’t believe this is always applicable to architecture. Parts of the research on which we base our designs does deserve to be labelled scientific, but certainly not architecture as a whole. To me this is part of the beauty of architecture, while incorporating scientific parts it will inevitably also contain personal opinions and convictions that can differ even if the same facts or knowledge is present. For example in the first chapters of the book Hertzberger’s Amsterdam, Herman Hertzberger talks about experiences in his youth; the generous street profiles of Amsterdam Zuid or the (lack of) spatial divisions in Duikers openluchtschool (Behm, 2007). He describes how those experiences later consciously and subconsciously came back in his designs.
Scientific research departs from how things are, and through observation and facts (while meeting the requirements of being called scientific work) ends at a new explanation of reality. Artistic production, on the other hand, departs from how the artist sees how things are. Through a much more subjective process, that partially can still include facts and observations that are considered scientific, it also takes visions, beliefs, reflection interpretation and expression into account. It does not result in a new understanding or explanation of reality, but with questioning reality. (Foque, 2010).

Talking about questioning reality and reflecting upon this, always makes me think of the famous writings by Marcus Aurelius, Roman emperor in the second century. His writings ‘Ta eis heauton’ (Things to one’s self) are a collection of personal notes and ideas to himself in which he reflects on a wide range of experiences and concepts. Experts believe that he wrote this work as a source for his own guidance, self-improvement and mental stimulation (Iain King, 2014). After many centuries and through various translations, it might have become the most famous example of reflective writings.

Someone might mistake reflection to be primarily concerned about the past, but I believe that successfully reflecting just as equally deals with the present and future. As Marcus Aurelius showed with his writings, in order to better understand the present I must remain aware of my current and previous actions. Through such a better understanding of the past and present, I can then have a much clearer sense of how far I am with reaching goals and my effectiveness of working towards them.

In relation to research and thus my work as a future architect, a process of reflection can help me improve in my efforts and results. By taking a moment of time to see how effective my approaches and their results have been so far, and if they were in line with what I wanted to find out or improve upon, I can make further decisions according to that.
At the start of the graduation studio, from the first week, reading was the main method of doing research. While it might have sounded easy to come up with an interesting topic to look into and later start a design around, I also felt some pressure. A poorly considered topic would mean I would be stuck with it for (then still assuming 12) months and could cause me to lose interest and motivation. While a few students already had a particular focus in mind, others, including me, needed to first browse around. My method in doing so wasn’t necessarily very structured. I already had a habit of starting my day by reading various news websites, including some of which are oriented towards architecture specific.

At the same time, I was working for the platform ‘Stichting Kennis Gebiedsontwikkeling’ (SKG), which is part of the Management in the Built Environment department of my faculty. One of the goals of this platform is to report and cover news about urban development (and everything slightly related to it) on their own website. Since I had started there roughly 18 months earlier, part of my responsibilities were to post these (on average 75/month) news and research articles on the website. This meant I had already seen a lot of different topics related to anything urban pass my eyes and subconsciously developed interests. By looking at my own interests and trying to identify a topic that somehow had stuck with me subconsciously I think I managed...
to select something that truly interested me, am still convinced of its relevance today. Had I, for example checked, what the headlines were that week, or maybe approached an expert to hear his opinion on the biggest challenge of Dutch housing this might not have been the case.

After picking a topic of globalization and changing local identities, I went on with my research by finding and reading literature about it in order to learn what others had already written scientifically. By studying literature I was able to obtain a better theoretical foundation to start my design from. However, findings from this research that I presented at the P2, answered my initial research question but also created new questions to be answered. If I wanted to partly focus on a Dutch/Amsterdam identity in my building, then how should this then manifest itself in dwellings? While I continued with trying to use literature to answer these questions, this turned out less fruitful and into frustration. Luckily after a few weeks of feeling stuck with this, I switch to other research methods like interviews and location visits that proved more useful.

In the process of literature research I believe I could have improved my method in two ways:

The first one was that I could have implemented moments of summation and reflection after reading a certain number of new items. Instead, I was trying to collect as much information as possible and not fully digesting them. I would read items and confirm they were relevant and move on.

The second way in which I could have improved my literature research was by making short summaries or more comprehensive notes of read articles. Now I often had to reread some parts and was left with the feeling of this massive pile of relevant information that I had, but no good overview of how to make it come together in one coherent story.

The reflection on this actually already started during the summer holiday break after the P2 and handing in my research report, especially
since I had noticed I had encountered similar problems during the writing of my thesis, a year prior. As a result, the literature I read for my research after the P2 was processed in a more structured way, as I had begun to make different lists of findings. The literature research I did, especially before the P2 is perhaps a close example of scientific research I did. I think that if someone else were to also look into approaches or criteria of addressing globalization in design, he/she would come up with (at least partly) similar results.

Other literature that I read the past months could perhaps also be seen as less structured research, yet valuable to my project. I especially enjoyed ‘Steen. Nederlandse architecten over hun drijfveren, denkbeelden en werkwijze’ by Ton Idsinga. This is perhaps a great example of serendipity; an unplanned, fortunate discovery. I stumbled upon the book in the library and figured it could help me in gaining a better understanding of how motivations and ways of working shaped the designs of well-known architects.

I believe reading these interviews turned out helpful to my project, not so much in providing design solutions, but in allowing me insight in how they, as successful architects, sometimes also had their serious doubt about their own work, struggled with decisions or were able to identify and use strong concepts.

Besides allowing me to learn become more confident in my role as architect it also proved a rich source of interesting projects to look into that I had otherwise probably not known about. Reading about Willem Jan Neutelings made me for example look into his work and learn more about the ways in which his office uses ornaments in their designs and ultimately implement something similar in my own design. Had I not had a chance to read about the motivation behind such design elements in the interview, I probably would not have considered this option seriously.
Precedents are not mere copies but instead offer inspiration. The research into them is used widely in architecture and can aid the design process from concept to final design. Through the use of coherent drawing techniques they can, for example, be used to analyze existing buildings, while also enriching a designer’s design vocabulary or lend authority to a design by associating the proposal to something else. (Clark, 2012)

I used this type of research first while writing my research report. I wanted to better understand how compact private spaces could be arranged inside a residence where the majority of the services are shared between (unrelated) residents. I could have researched this alternatively by making some design options on my own, but that would have been extremely time-consuming. Instead, I could profit and learn from the experiences and designs that built projects offered.

The three projects that I ended up analyzing, were selected based on three main criteria. First of all, they obviously had to contain compact private spaces and shared services between the residents. Secondly, I preferred them to be located in Asia since that region has more experience in dealing with this kind of arrangement. And thirdly I made sure that enough documentation was available to base my research on. I was for example unable, even after emailing the architect, to obtain useful documentation on a project located in Indonesia, even though it sounded and looked very relevant to my question in a description and on pictures.

After drawing the three selected projects in a coherent axonometric view, I analyzed them on elements that seemed to be present in all of them like the size of the rooms, the percentage of collective space or presence of shared space. With my findings, I could later implement and defend these findings directly in my own design.

I believe this research came close to being scientific as in that if someone else would have had the same question and criteria, the only difference in outcome might have been the drawing style.
In the period between the P2 and P4 I also looked frequently at other dwelling architecture but in a less structured way. Sometimes I had a specific research question in mind and would browse copies of various books on residential architecture like Floor Plan Manual Housing, Het Woongebouw and Het Nederlandse Woonhuis. For example, I was specifically trying to see how bathrooms were situated, find the presence of typical Dutch cultural elements or look at drawing techniques. Other times they were just used to browse and study while hoping for serendipity.

Figure 3. Browsing precedents in DASH

Another method that I believe is related to studying precedents, is through the use of letting artificial intelligence (A.I.) suggest images to me that are related to the input I provided it. Online services like Pinterest and Instagram provide this feature, and I used both in a less structured search, especially after the P2. What I like about this method is the objectivity of the suggestive feature, the ease of organising ideas/accessibility and improved suggestions after it learns preference.

Because of the way A.I. works, it is completely objective in the suggested pictures after a search. The A.I. just shows you everything it thinks matches the search query. While a human might be slightly biased in his search/selection. This also means that sometimes it ends
up suggesting something completely different and you suddenly find car tail lights in your search for facade cladding. While not generating completely reproducible results, the A.I never stops learning or changing its algorithm, I believe it can still offer a very valuable source of input.

Next to the endless stream of new material it can offer, it makes it really easy to save ideas and look at them back later or show them to someone else. You often notice something different or feel about them in a different way when looking at a later moment. It also acts as an interesting overview of what kind of pictures you were looking at different stages of design.

Lastly, the A.I. helps with narrowing down a search by basing new results on previously saved ones. At one point in my research, I had saved a number of facades that I felt like could express what I had in mind for my project but wasn’t perse able to clearly describe it with words. Instead, Pinterest could just offer new suggestions based on the one that I had previously saved.

This way of doing research is different compared to precedent research in that you apply less of a structured approach in selecting pictures, often remain from further analysing the selected work and use more input projects.
Model making is by far my favourite type of research. Not only because it reminds me of the countless hours I spent as a kid with Lego, but also because as a research method it can provide different kinds of useful feedback and act as a great communication tool.

With model making there is a distinction between models used for research or models made for representation. Sometimes they can be both, but that often means that an opportunity was lost to first make a model to research something.

Even before having narrowed down my specific building site I had started on making an urban 1:500 model of the location. This way I could easily test different building sites or building masses. To do so I had made the choice early to construct this model out of foam because it allowed to coherently display the many different types of slanted roof that are characteristic for the surroundings. I even purchased my own foam cutter in order not to have to rely on beaten up ones at the faculty. It was also an investment that allowed me later progress to more easily and quickly create other foam models.

Figure 5. Urban foam model 1:500
By building a model like this, done by hand, you really get a good idea of the surrounding buildings and their characteristics like height and shape. Had I done it by laser-cutting a model I might have saved some time, but would probably generalized some shapes and would have been restricted in shapes.

In order to research different variations in building mass I also made some quick studies with foam. Having 15 different shapes directly in front of me allowed to easily check what features I deemed interesting and helped me in discussing a selecting of them with my teachers. Foam also allows one to be more creative by not being restricted by limitations of computer software. You can easily grab a piece that was excess material from a previous experiment and see what happens when you add it to a current option.

![Figure 6. Selection of building masses experimentation 1:500](image)

After the P2 I repeated this process on bigger scales: after creating the surroundings of my plot, I tried placing different variations of my design in it to see how my design fit in it and how it looked itself.

This time however, I had been tempted to make the surrounding model out of handcrafted wood. Again because it allows to be made by hand and generate a good feeling for the building shapes, while also being a pleasant material that allows for small adjustments.
On the other hand, I wanted to achieve slightly more detail in the blocks in order to depict the characteristics by also showing dormers and reduced facades. In the end, I decided not to use wood because creating the different slanted roofs with dormers posed too much of a challenge and glueing a thin, lasercut facade on the blocks would result in a having a distracting darkened edge. Instead, after a quick test model, I decided on buildings made out of thin cardboard and precisely cut by laser. By modelling (most of) them out of one single piece with folding lines, I believe I achieved a more precise representation while also still having made every model by hand and getting a chance to learn about distinctive features.

For the sake of speed and adjustability, I continued to model my own design out of foam. At one point my tutor rightfully pointed out to me that because of the way I was constructing these models out of separate vertical pieces of foam, while it correctly depicted my design spatially, it also gave the model an unjust representation of vertical lines looking at it from the outside. Instead he suggested I chose my foam pieces differently in order to avoid this. The two models I made after that, to research the spatial setting of the inner ‘street’, didn’t have this unjust representation and allowed me to better focus on what I was trying to research and compare.

Figure 7. Compareable 1:200 models
During a different research study, that of the spatial qualities, relation between and ratios the inner ‘street’ and collective space beneath it, I made another mistake in execution. After having made a 1:50 section model of this part of my design, I wanted to research a variation on this the next day. In an attempt to save some time I made this next model on a 1:100 scale and from a different kind of foam. The result was that the mismatch of different scales and used materials made it slightly harder to objectively compare these two models next to each other, like I had been able to with my 1:200 models.
DIGITAL MODELS

With the invention of SKETCHPAD in 1960, architects gained an incredibly useful research and digital design and tool. It allowed the computer to aid the architect in the design process by offering very precise drawing while at the same time being able to process and display complex 3D spatial representations.

I also used this way of researching spatial arrangements extensively for my design. It proved especially useful when I wanted to understand the possible arrangements for my different dwelling types. While I could have sketched this or have drawn in 2D, I needed to consider the three-dimensional consequences that my decisions would have. Making a physical model wasn’t an option at this stage because I first needed to test a wide variety of different arrangements. After testing many basic models in Sketchup, while also keeping a feasible way of access and effects of shadows in mind, I would select an option to be drawn more precise in Revit.

The downside with this method is that even though you can work on multiple models in the same file, it can be difficult to compare different options side by side. That’s why in the end, I also made 1:200 models out of foam to have in front of me and talk about during tutoring moments.
Another downside of working much in a digital environment is that I sometimes found myself zooming in on elements too much. While precision can be useful when you need to know dimensions for stairs, but it can also become easy to lose an overview of priorities and as a result you start working on small design elements.

Overall I believe this method of research is closer to designing but can still be useful if you use it in regards to its advantages of quickly testing many spatial arrangements while avoiding working on too much detail and limiting yourself to the programs modeling limitations.
A little over six years ago, when I started my bachelor Bouwkunde, I remember a professor telling us in one of the first lectures: “from now one, you’ll never look at the world around you in the same way again.” And he was right. Since architecture and buildings are impossible to avoid as we move through the world, studying it makes you look differently at the built environment. And generalized, there are two types of looking: being open to whatever you may encounter/notice on your path and secondly by actively seeking out elements to study.

What research while actually being in ‘the field’ (of architecture) makes so interesting, is that it’s the realm where everything comes together. It allows you to discover a lot of things at once and notice details you wouldn’t see while studying a plan. For instance, it might be quicker to study the circulation of a building by creating an analytical drawing from plans, but actually being at the building and experiencing it yourself can lead to richer discoveries. You might find for example, that people often don’t use the main access system and instead prefer taking the fire escape because it proofs to be faster and better lit.

Figure 12. Jacob & Wilhelm Grimm Library by Max Dudler in Berlin
An example of actively looking at architecture in the world around me, is when I visited Berlin in the summer of 2018. One of the projects that I visited there was the Jacob & Wilhelm Grimm Library. Here I discovered how they had attempted (and succeeded in my eyes) to turn the public reading/working space into a prominent feature of the interior of the building. What I further found interesting was how the terraced layout of this space allows for different levels of sitting in this space. Choosing a table situated higher up allowed to be less ‘in the spotlight’ for people who don’t want to have a feeling of people looking over their shoulder while working. For people that wanted to have even more seclusion, there were singular working spaces adjacent to the atrium, separated by a glass layer. This division made me realize how I should also attempt to offer different levels of seclusion and privacy when it comes to working space, instead of simply creating one general space.

Back in The Netherlands, and after making progress with my design, I wanted to get a better feeling for the inner ‘street’ I was designing. Especially in regards to the width and possible colour. I could have made models and digital perspectives, but chose to visit the project Blok 23 b1 by Dick van Gameren because, as I stated on the previous page, it might lead to unexpected discoveries.

Figure 13. Blok 23 b1 by Dick van Gameren in Amsterdam
Before visiting the project, I was hesitant of designing an enclosed space with such focus on a singular, relatively bright, colour. But while walking through the project I like how it actually helped in avoiding the space to feel like a dark in-between space.

By looking at the world around me, without having a specific question about my project in my, I also often found inspiration. I wouldn’t call this research, but it could still act as new input for aspects of the design that I hadn’t realized yet.

When flying to Hamburg for a studio excursion, I noticed the view on the characteristic Dutch polder landscape and realized how this would also be the first view of The Netherlands my target group would have before visiting my design. Or how on Schiphol characterizing Dutch elements were often represented graphically and by cutouts.

Reflecting on this research I think it might be valuable to also try and gain additional insight and possible validation of impressions, by asking some actual users what their experiences of a space are. A visit is of course only a snapshot of a situation in time.
I believe it is important for an architect to actually visit a future building site before drawing a line. Because in similar ways to project visits, it allows to discover a lot of information that you otherwise couldn’t easily have noticed from maps or images. Interactions, sounds, smells and atmosphere, especially in relation to each other, are vital to what makes up the genius loci of a place.

Before my actual first visit to the site, I learned about it through a mental map made by another student. She had grown up around the location and had made a drawing of which elements had had the most impact on her memory. What stood out to her, were the greenery and busy traffic situation. With this first information in mind, I could visit the place and see if the same characteristics struck me or if I noticed things differently.

While walking at and around the location, I made sure to collect a large amount of picture and videos to be able to also look back at once at home again. My personal findings from this visit were also that the location was characterized by the greenery on one hand, and chaotic traffic situation on the other. A few months later I visited the site again, partly to refresh my memory and see if there was anything that I might have missed the first time, but also to better look at the surroundings. While I had seen it many times before, this time I noticed many of the stairs that houses had in front of them.

My research on the location done at home was of a more objective nature and served as a further extension to my initial findings. By creating analytical maps I could focus on a specific aspect while ignoring others. For example the map I made of all the traffic connections.
showed the importance of these routes in relation to the rest of the city. The busy and chaotic vibe that they created might have been seen only as negative if I merely focused on my findings from visiting the location.

Another example of objective and complementary research to my location visit, were my discoveries that were done by looking through historic archives. They led me to further understanding that the location hadn’t always been characterized by the busy roundabout and how it had almost always had a green character.

Figure 14. Studying change of the location throughout history
Research doesn’t always have to be done alone, especially in a field like architecture. During various points in my research process, it helped me a lot to talk about my project to other people. Most obvious perhaps were the regularly scheduled tutoring moments. While they were called/described tutoring moments, during this graduation studio I really felt like as a graduate student I was seen more as an equal by the tutors instead of a student that had to be taught things. Of course for the goal of education there were tasks to be completed and deadlines to be met, but when working towards them there was also room to discuss questions, ideas and findings about the project in a slightly less formal way.

Talking about the project or aspect can really help to move it forward. For me, it often was a lot easier to talk about the story I was coming up with instead of writing it down. Written words can feel so firm and not match a 100% what you’re trying to express. While more casually talking about it can be done more nuanced, with direct feedback if something you say doesn’t make sense or give you a moment to re-formulate/describe something. The downside with this is of course that it becomes harder to track or look back at how your research is going.

Peter Zumthor talks about how he thinks an artist works best if he has his own space, possibly far away from other architects and critics because it requires you to do your own personal thing (Louisiana Channel, 2015). Having people around you during the design process interferes with it and inevitably results in talk about what you are doing wrong. I don’t necessarily agree with this point of view. While working like a hermit might keep you from distractions it might also lead to blind spots and a less checkable and objective approach. However, you do have to be aware of how other people their comments or opinions are influencing your work and have to maintain a somewhat sceptical position. In that way you can make sure you actually agree with the feedback before incorporating it and avoiding your project to become a collection of other people their views. I don’t believe I had much trouble with this, as some tutors on multiple occasions pointed out my sceptical attitude that could probably be scaled down a bit.
I count myself very lucky in that I have a few very helpful friends and family members, of which is interestingly enough only 1 slightly involved with design, who were truly interested in hearing my story and providing helpful comments and questions. A direct example of this is how on a Friday evening one of them, a friend with a gift for essays and Saint Nicholas poems, helped me come up with a project title and slogan. After previous design projects, I had noticed how I was often too late in my design process with coming up with a fitting project title, while I’m strongly convinced this can benefit a project a lot. Both in communicating to the audience to understand what the project is about, but also by helping the designer not to lose track of the essence.

What also proved useful was talking about research (methods) itself. One of the first questions of a friend who is currently doing a PhD in Quantum Computing, after asking what I was doing, was IF and after hearing yes, was how we did research in architecture. His field of study revolves a lot around scientific research. New publications by other scientists are closely read in order to use their new findings or gain more insight into other possible approaches. While the way of doing research in the field of Quantum Computing was perhaps too unrelated to what I was doing with architecture, it did help me with talking about my approach in conducting research and explaining why and how we, for example, use precedents.

A field that offered more useful inspiration in doing research was that of Industrial Design. As I stated earlier in this report, this is perhaps closer related to architecture, then for example Mathematics. While I was graduating in Architecture, a friend was simultaneously graduating in Design for Interaction (Dfi). This Master’s programme focuses on the ways in which people and products interact and it came as little surprise that in his education there was a strong focus on user research. During my education I sometimes had already noticed that I felt like the actual people we design for and their wishes, get too little attention. While it might be nice to receive praise from fellow architects
for designing a well-thought-out space, in the end we aim to design for people, future users. I understand that every new project doesn’t need direct involvement of potential users or inhabitants, since a lot can already be accomplished with available information in theory, but I thought it might be valuable to attempt to gain input from actual Digital Nomads. Especially since this group of people hasn’t been around for long.

Because I didn’t know anyone personally who could be considered a Digital Nomad, I posted on an online forum focused towards them. Out of the 320.000 registered user that follow this online community, 28 responded to my general description of the project, several questions and request for any kind of comment.

I asked questions like “What are functions or facilities that are often overlooked but could improve the quality of your stay?” and “How do you feel about the Co-living movement that companies like We-Live are pushing? Do you think co-living or at least a mix of it, is something that would appeal to Digital Nomads?”. Because I conducted this research rather late in my process and had already found several answers to these questions through Digital Nomad surveys and an extensive research project by IKEA on co-living preferences, the post and responses served more as a way of validating these findings. Instead, I was more interested in hearing their general thought on my proposal, especially on the thought of imagining this building to be part of a larger worldwide network of locations.

In the end I received a mix of on one hand some really nice and encouraging replies that confirmed most of my earlier findings and gave a nice motivation boost, but also, on the other hand, some comments by people who were mainly concerned about profitability, pricing and visas. Perhaps I could have tried to make even more clear that financial or policy viewpoints were not my concern here. But I guess this can be part of the downside when looking from feedback from people who aren’t used to a more imaginative mindset like architecture requires.
Reflecting on this I can say that I could have done this approach earlier in my process and with more direct questions. I could perhaps have tried to propose them several options for arranging different dwellings or different dwelling layouts. But with such a small sample size it is questionable how valuable findings then might have been beside as a way of validation.
Better timed were my attempts in trying to better understand particularities in Dutch housing design through informal talks/interviews with some fellow (international) architecture students. As stated in the part about literature research, after the P2 I found myself stuck with literature research on trying to identify elements of the Dutch/Amsterdam identity that I could apply in my design.

Even though books like “The Undutchables, leven in Holland”, “Amsterdam in Detail” and “Het Nederlandse Woonhuis” were somewhat useful, they offered me limited information by either being too general (only displaying different floorplans with a brief description) or being limited to social/cultural behavior (sitting in circles at a birthday or our apparent lack of proper queuing). Having had a foreign girlfriend and thus having spent time around expats and international people, I was already aware of most of these.

On an architectural level it can be difficult to be aware of specifics of your own culture when you’re so used to living in it. I remember being more aware of our Dutch culture after I had spent a couple of months travelling through South East Asia. When having experienced difference, particularities become easier to point out.

This is why I turned to some people currently or more recently experiencing this difference: international exchange students at the Faculty of Architecture. I figured since they were newly experiencing Dutch culture and also were used to having an architectural point of view, they could perhaps provide me with some insights. While my sample size was relatively small, they were indeed able to help me with providing some insight with elements like having a separate toilet, our steep stairs and the experience of sleeping in a bed-closet. I was keeping a list of these elements and would also check with them if they agreed with what was on it in order to validate.

If I had to do this kind of research again, I would probably attempt to also try to find some people with a more professional background in the subject. That way I would be able to ask more in depth questions to hopefully also get some more indepth and trustworthy answers.
RETROSPECT

At the end of writing this reflection, I also took the time to look back upon what I had written three years earlier in a similar report about my research and design process of my final bachelor project. While it might be unfair to compare a project that only lasted 10 weeks with a whole graduation year, what struck me the most was the lack of certain research methods. For example, back then I clearly didn’t understand the benefits of physical models as a way of researching yet. While I liked the process of making them, I only really did as a way of (poor) representation. Furthermore, the few reference projects I referred to were just that, references. I lacked a more in depth study of precedents and completely missed an opportunity of gaining an understanding about how similar, actually realised buildings, were designed.

Luckily, looking back upon the research I have undertaken during this graduation project, I can say that I have improved and extended my skill of doing research greatly. I no longer see research as an annoying part of designing that just has to done in order to receive a mark. Perhaps the research I did at the beginning of my project, by reading literature and better understanding my topic, can be labelled closest to scientific and objective. I actually really enjoyed trying to understand, use and discuss theoretical papers, but had quite some struggles with managing my findings during and at the end of this research. Since I’m still convinced that such research can improve the quality of design enormously, I will continue trying to improve upon this in the future.

What I found interesting to learn about other objective research that I used, researching my design location through analytical/historical drawings, was how this could really act as complementary to my actual visits to the location. It allowed me to further study elements like the traffic situation I described, and gain new conclusions. I call it complementary, because I do believe that studying pictures or maps cannot replace an actual visit to a site.
I’m also really satisfied with how rewarding the investment in my own foam cutter turned out. Even though physical model making has its disadvantages like being slightly slower and less accurate compared to digital models, it did prove to be a great research tool when I wanted to discover, compare and understand different design possibilities from 1:1000 to 1:50.

And lastly, I’m satisfied with the result of reaching out to actual members of my target group, the Digital Nomads. Even though contacting them could have been more beneficial had I done it at an earlier moment in my process, it still proved a nice way of receiving some validation to the points I was trying to make. Especially since it was the first time for me in attempting to directly interact with a target group. But given the nature of the job as an architect, having to deal with all kinds of different people, I’ll probably encounter more of such opportunities.

It might seem a bit odd to reflect on things that didn’t happen, but during the writing of this report I realised there are a few research methods I didn’t have a chance to (properly) incorporate in my design. And maybe had some good reasons for not doing so. It may be closer to a design tool, but I feel like sketching more could have benefited me in quickly testing how parts might have looked in perspective or as a way of graphically organizing information. Secondly, it could have been interesting to instead of relying on information about Digital Nomads, I could have tried the lifestyle myself while remotely working on parts of the project. But this might perhaps have been risky or useless. And finally, I think it could have been nice to have had some more time to research tectonics and materialization by attempting to obtain actual sample materials and make 1:5 or 1:1 mockup. For example, of the tile/icon elements I designed in my facade.
REFLECTION ON OTHER ASPECTS

Aspect 2 - The relationship between your graduation project, the studio topic, your master track, and your master program.

The topic of my graduation is a combination of the approach of the studio and my own fascination. While the studio pointed me towards looking for a relevant topic for a way of living in cities of the future, I made sure to select a topic that met this requirement, but in a way that interested me the most. The education chair of Dwelling considers the design of a single dwelling to be strongly connected as it is seen as part of an assemblage, building, neighbourhood and even city as a whole. I deliberately tried to choose a topic that can be considered currently relevant and innovative in the way people will live in the future. In that way, I believe it fits with studying at a faculty and university, who are constantly looking for new knowledge and innovative ideas.

Aspect 3 - Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of your work.

At times the graduation studio was quite structured in its approach by requiring certain products to be delivered at a deadline. This leaves for less freedom within the choice of an approach, but has, on one hand, the benefit that it can help students to avoid making mistakes that were experienced with students who graduated prior. On the other hand, it also makes education and grading of the work easier and more understandable. While I didn’t have any negative experiences with this approach and understand that a graduation studio is a unique experience, at times I felt like previous (dwelling) MSc projects had focused more on design skills, and only a little conducting and incorporating research. In that way, the approach of the graduation studio was a (welcome) learning experience.
Aspect 4 - Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

Through the reflection in this report I hope it is clear that my project is a result of a wide range of research. By becoming available in the public repository of the TU Delft, some of the findings of this could be transferable in other projects/concepts, like for example the (theoretical) information I found out about globalization or Digital Nomads. Considering my design, it could certainly serve as an inspiration to be applied to a different design. Especially the inner spatial arrangement and dwelling access organisation. More interesting perhaps, would be to attempt to come up with a more methodological description of my research. When applied to a different city than Amsterdam, it could then offer guidance and result in a series of cohesive designs.

Aspect 5 - Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research (ii) elaborating the design and (iii) potential applications of the results in practice.

With consideration to the current talks and discussions about the (future) housing situation in The Netherlands, I have always had the understanding that the subject of my design and target group I’m designing for, might not be of the highest priority. Arguably, the housing shortage of suitable dwelling for (young) families and starters should be focused on first. However, since this challenge seems to receive quite the attention from professionals and fellow students and I’m confident that it will be dealt with successfully. Instead, I deemed it my duty as a future architect to look beyond this ‘most popular’ challenge and prevent subjects like the one I focused on to be neglected. Already during the project, I was confident that they were promising future applications of my concept. I see the work that companies like WeWork/Live, Common or ROAM are doing, as evidence that the topic is currently relevant. As their business continues I believe my concept of creating a worldwide network of Digital Nomad Hubs to be inevitable.
REFERENCES


