

PRECEDENT RESEARCH IN ARCHITECTURE

The Open Building concept through time

Student

Sebastiaan Smidt (4756134)

Chair of Architectural Engineering, "One Million Homes"

Thesis "Supportive transition zones"

I INTRODUCTION

My graduation project thrived from multiple personal fascinations and urgent necessities in the spectrum of contemporary housing. My design part arises from the urgent need to revitalize a problematic post-war neighbourhood in Amsterdam-West. Shortly after the Second World War a lot of new houses were needed in Europe and mass housing plans started to sprout all over. This was also the case in Amsterdam, with the General Expansion Plan of Amsterdam. Because of the speed at which it was built, it lacked quality on several levels. Nowadays these shortcomings are more visible than ever. Especially in the Lodewijk van Deyssebuurt, a problematic and deteriorated neighbourhood, where social tension and poor housing qualities are two of them (Gemeente Amsterdam, 2019). There is a lack of places for residents to connect with each other and with their built environment. As Habraken in 1961 said: "mass housing demands unity, and an average design of the architects." People have the urge to claim and in these mass housing projects, they do not have any influence, they are submissive to the building system. This has a negative effect on the connection between the user and his surroundings (Habraken, 1972). The zones between the private and public domain, the transition zones, of the General Expansion Plan aren't enabling or encouraging residents to appropriate, modify or participate in them. New developments within this plan are bringing some variety, but are also creating more segregation (Rottenberg, 2020). Towards the design I want to find out what conditions enable the use of and give quality to the transition zones and will be the starting point for revitalizing a neighbourhood. The design question is:

How could the design of new transitional zones between the private and public domain of the support and tissue level, enable and encourage appropriation, modification and participation in the Lodewijk van Deyssebuurt, in order to improve the solidarity between current and new residents and their attachment with the built environment?

To approach this problem I used my research paper to gain an insight from the perspective of the Open Building concept. The research that I did for my research paper for the studio of Architectural Engineering is about the implementation and use of certain characteristic aspects of former Open Building projects. The search originated from my personal fascination towards the Open Building concept and its characterizable aspects. These aspects include the participation of residents on various levels of the design process and the measures that are integrated to enable residents to change parts of the building to their preferences. Another interesting part that got my interest related to the characteristics of the Open Building concept, was the process of enabling this and processing it up till today. How were the residents involved in the design process and after the completion? Did the residents make use of this possibility to change? And how was this managed? This brought me to the idea of doing a precedent research study on former projects with the Open Building concept. With this research I want to see if and how intentions of a certain architectural movement were adopted by its users over time. The research question is:

How is the Open Building concept over time enabling and encouraging residents to appropriate, modify and participate in the transition zones between the private and public domain of the support and tissue level?

The outcome of the research paper together with a project site analyses will create conditions for the design in the next phase. What was very inspiring in the lecture series of research methods to me, in particular from Robert Alexander Gorny's lecture, was his critique towards typological thinking. What really intrigued me was his vision towards typological analyses. He stated that most of the time this type of analysis is done only by looking at certain elements. This way of approaching misses out on the most important part and that is 'how it actually works'. This will truly give an insight in what elements are relevant, how these are used and how they are related to each other (Gorny, 2019). During my research I used this notion in my approach towards analysing types, as I will explain further in the next chapter.

II RESEARCH-METHODOLOGICAL DISCUSSION

Because the run-up towards the actual research in the Architectural Engineering studio was quite long, I didn't conduct detailed research just yet. Therefore, in this paper I will focus mostly on the actual approach towards the research.

My research is based on a precedent study. This approach seeks to understand the qualities of a piece of architecture, how it came about in terms of its design and commissioning, and how people used it once built (Lucas, 2015). With this approach I want to find out how former Open Building projects expressed the key values of its architectural movement in the transition zones.

I chose various residential projects of the Open Building movement based on criteria such as a location within The Netherlands, various years of completion and various ways of ownership. The precedent research of various projects through time shows whether the original idea worked out and is still relevant up till today and in what way it is optimal. To do this in a structural way, I analysed former projects from a typological perspective. 'Type' is described as a category of people or things having common characteristics. 'Typology' is the study of types, were one attempts to frame a systematic approach to types. The idea is that by beginning with a type you can describe the scope of variation and common ground (Gorny, 2020). I was interested in which actors, such as various ways of ownership, or which factors, such as year of completion, had effect on the specific transition zones. A clear way of analysing the types will bring a distinct insight in the way the transition zones work. It shows how the residents are encouraged and enabled to appropriate, modify and participate in the transition zones. To get a balanced overview towards the many outcomes the concept of the Open Building can have, I will show it in a scheme (figure 1). This scheme visualizes a systematic approach towards finding an answer to the research question.

The precedent research consisted out of two different methods, a literature study and an observation. In order to find out how the process of participation towards the completion of a project went, a literature study was the most suitable. Because it is was already documented quite well in a physical way, this was the best way to find out how the participation went in the past. To see how the process went along and how it was used through time, this was also done by a literature study. Because the oldest projects were already renovated and are part of the Open Building movement, it was documented quite good as well. The newer projects were more documented in a digital way. To find out how the process nowadays is maintained and whether the residents are still enabled to participate, appropriate and modify in the transition zone, an observation of the site was done. The observation was the most up to date way to find out the status quo. Prior to the site visit I searched for photographs of the particular project over time, to use this as a reference point. I re-took these old photographs, which were sometimes quite scarce, and looked in detail what changed through time. Besides the visual analysis, I also spoke to several users about the way they were experiencing the transition zones.

type transition zone	actors		factors				
	project	owner	user	zone year of completion	intervention	current zone	organization
X		who is the owner	who can change and how	how did the zone look like	what was the intervention	how did it changed	how does it work
Y							
Z							

Figure 1, type transition zone scheme (own image)

III RESEARCH-METHODOLOGICAL REFLECTION

Precedent studies are a standard practice within the field of architecture, especially within a study related environment. Most of the time a particular project is subjected to an analysis on its original design and focusses on its most characteristic features. The aspect of change and adaptation through time is usually omitted.

In 1965 the SAR, Stichting Architecten Research, was founded by Habraken and some other Dutch architecture firms. It's aim was to stimulate industrialisation in housing and study issues in the relation between the profession of architecture and the housing industry. They were seeking for new ways of creating houses by architects. The SAR also created a methodology on their own to analyse projects. They published various researches about a method to design residential support without predetermining the houses (SAR 65) and a methodology for the design of the urban tissue (SAR 73) (Kendall & Teicher, 2002).

With the latter method they wanted to raise the housing environment to a level that included autonomous decision making. It introduced a conceptual system and a means of communication that allowed agreements and rules of play to be formulated at the level of the housing environment (Bosma, van Hoogstraten & Vos, 2000).

Prior to the research, I did a little study on this methodology, to see how it worked and what I could use to the extend it is still usable today. As a result I used a few focus points of them, such as the tools to analyse an existing project. One of which was through the zoning and margins. They introduced the zones and margins, which aided in assessing possibilities for variations within a support structure. This zoning refers to the zoning on the tissue level, where functions are determined in certain areas (figure 2). Zones are representing the spatial qualities of a support without an indicated infill. On the other hand, the zoning clarified communication on siting agreements concerning buildings and space. Agreements were represented in a matrix that illustrated each component of a tissue model. The SAR 73 explained how the tissue model functioned as a tool in various ways and how it could serve as a basis for formulating plans (Bosma, van Hoogstraten, & Vos, 2000).

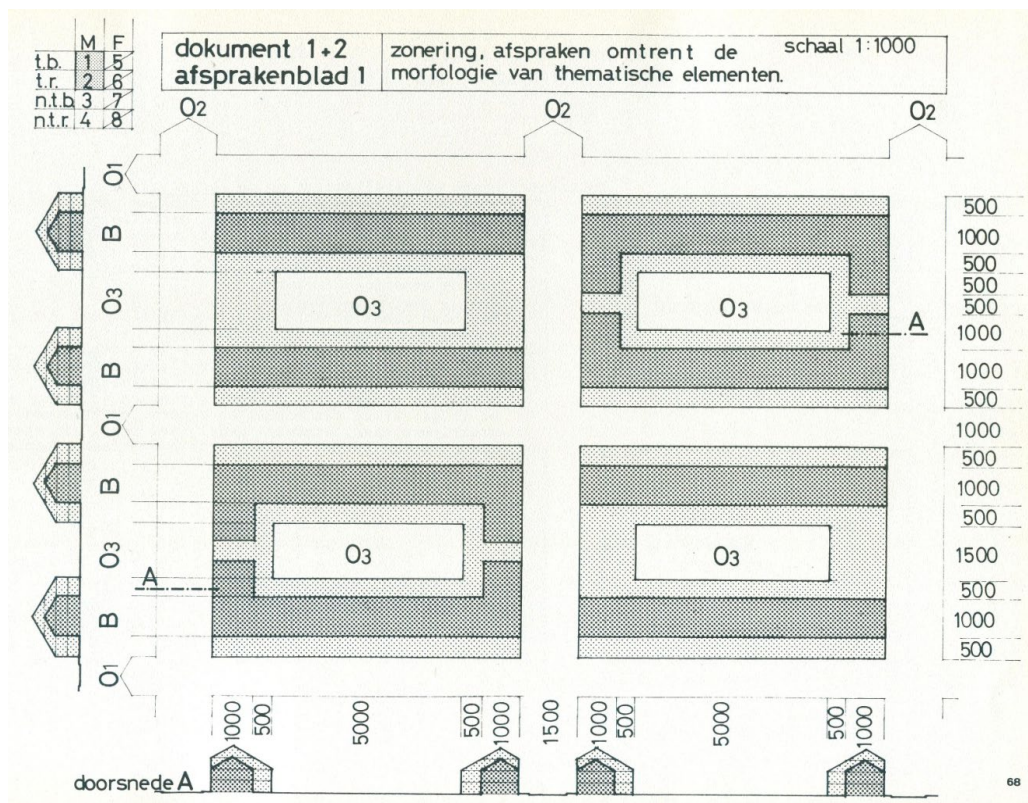


Figure 2, zoning, O = Open, B = Built, OB = margin (Stichting Architecten Research, 1973)

During my research I remembered a documentary from 2012 that really got to my mind. It was a documentary where a renowned architect, Marlies Rohmer, was revisiting her former projects. After 25 years of creating buildings with years of designing, sketching, modelling, discussing, thinking, organizing, focussing etcetera, she remarked that it's a slow job. Rohmer became interested in what happened to her buildings. She wanted to find out how sustainable and flexible her former projects actually were over time. First she observed how the users did use her buildings and if her concept prevailed. Her next step was to talk with residents, users and clients who were involved and asked them what they liked and what not. During her visits she measured and noted things she remarked. The documentary was just a snapshot of her revisiting and analysing scattered over five years. After this, she bundled her conclusions in a book (Hallensleben, 2012). Overall she bravely and critically looked at her own projects. On the other hand, it is also an observation on your own products, which is always up to debate.

Someone who revisited projects of others was Stewart Brand. In his tv-series and book of the same name "How buildings learn", he was finding out how to work with time, rather than against it. Brand states: *"Almost no buildings adapt well. They are designed not to adapt (...) But all buildings (except monuments) adapt anyway, however poorly, because the usages in and around them are changing constantly."* In his book Stewart is approaching the buildings by researching them as a whole, not just whole in space, but whole in time. He is stating that most buildings are designed as a spatial whole and not as a temporal whole. What happens in buildings over time? Further on in his book he is explaining that he did a lot of rephotography for his book. Rephotography is retaking an old photograph from the exact same angle. Brand used this method to observe what has changed over time. It is not just about the buildings itself, but also the relation with its setting which is interesting. Other aspects than buildings, such as people or cars do give an era to the photograph (Brand, 1994).

IV POSITIONING

By clearly defining the research and divide it into types, only the essential matters are extracted. In relation to my research question, multiple precedent studies were subjected to the same indicators, so that a general conclusion can be made on type specific matters. This typology study had many variables which sometimes led to confusion and distraction from the main focus. To get back on track, going back to the initial question and framework helped me get along. The question how and why I do research, is of constant importance and is fluctuating along the way. The information I used affected and altered this many times. This sharpening was part of the search towards a substantial answer on my question.

In the lecture of Marieke Berkers she talked about praxeology, the study of human action and conduct, where the everyday built environment is the stage for everyday practice. By studying the praxis of architecture one can develop an eye for the actual users of building, and not the imagined ones. In my research I am studying the transition zones from the perspective of how it is used and modified over time. I do not grasp the actions of the residents within these zones, but the effect they have on these zones, how do they express themselves through modification. By doing this and knowing who can modify the zones, the degree of freedom can be made clear.

The method of rephotography which was used by Brand (1974), helped me to get the idea how projects changed over time (figure 3 & 4). The negative side of this method is the dependency on the existing photographs. The angle, size, time, availability, amount etcetera, is affecting the study framework. With current technology, factors like position and angle could be related to the photograph as data. In relation to the approach of Rohmer, I think architects should do this more often, to learn about their own way of working and have a critical look at it. Besides this reflection on your own process, it is also an awareness of your own development. This knowledge will strengthen your next project, so you won't make the same mistakes again.



Figure 3, after completion, 1983 (van der Werf, 2017).

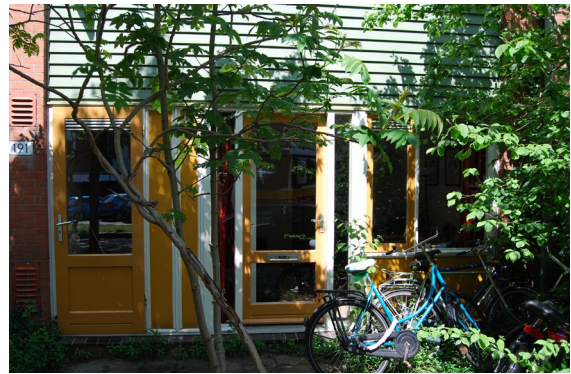


Figure 4, current status, 2020 (own picture)

Within the contemporary trend, also within the discourse of architecture, there is an urge to keep improving the existing and create more and more. The question raises: when does this stop? Change within buildings is inevitable and the main forces behind change are: technology, money and fashion. In terms of technology, new and better products will replace old ones because of increased performance. Money is used to show off and attract more businesses. Besides this, a building is also property, which is subjected to the shifting market value. As for fashion, buildings are treated as not keeping up with the status quo, but always lagging behind (Brand, 1994). Brand (1994) stated: *“homes are the domain of slowly shifting fantasies and rapidly shifting needs.”* These three forces are grasping the core of change, but within the current discourse with the increasing importance of sustainability, the balance between them is slightly changing as well. One always wants more and more. Some people are starting to figure out that we have to live with less. Starting by looking what is already there and how we lived in the past, as studied in precedent studies, will learn us how to live with less.

Berkers is also questioning how to deal with changing circumstances when translating research results in practice. A city is more dynamic than architecture. How to create ‘living behaviours’? (Berkers, 2020). This is really important in terms of a flexible attitude towards the built environment. Trends are changing quicker than we can imagine, so how to accommodate these uncertainties in architecture. My research clarified to me that the Open Building concept is an attempt to respond to this question. It is creating built space for the to be determined program over time. The aspect of time is something architects should be more aware of. As Brand (1974) stated earlier *“most buildings are designed as a spatial whole and not as a temporal whole. What happens in buildings over time?”*. Current trends in sustainability are shifting the focus more towards this. By designing flexible buildings, future changes will be adopted better. Nevertheless, within the flexibility there always has to be a balance between the anonymous and the specific characteristic of a building. In my research I used the factor ‘time’ in my observation approach, were I subjected on the promised adjustable concept of the Open Building cases. Within the Architectural Engineering studio, this precedent study, with a systematic approach, resulted in a clear insight in the transition zones of former Open Building projects.

V BIBLIOGRAPHY

Bosma, K., van Hoogstraten, D., & Vos, M. (2000). *Housing for the millions*. Rotterdam, The Netherlands: NAI Publishers.

Brand, S. (1994). *How Buildings Learn*. New York, USA: Viking.

Gemeente Amsterdam. (2019). *Principenota Geuzenveld-Slotermeer*. Retrieved from <https://www.amsterdam.nl/projecten/slotermeer/verslagen-plannen/>

Gorny, R. A. (2019, March 7). TALK 5: Gorny, Typology [Slides]. Retrieved from <https://brightspace.tudelft.nl/d2l/le/content/192744/viewContent/1643275/View>

Habraken, Prof. Ir. N. J. (1972). *De dragers en de mensen*. Amsterdam, The Netherlands: Scheltema & Holkema N.V.

Hallensleben, I. (presenter). (2012, 23 june). VRW.ZKT.KNST (Documentary). In NTR (producer). *What happened to... The Netherlands*: NTR

Kendall, S., & Teicher, J. (2002). *Residential Open Building*. Retrieved from <https://tudelft.on.worldcat.org/search?queryString=no:840363778#/oclc/840363778>

Lucas, R. (2015). *Research Methods for Architecture*. London, United Kingdom: Laurence King Publishing.

Rottenberg, F. (presenter). (2020, 22&23 january). *Terug naar de Akbarstraat* (Documentary). In M. van Erp, M. Busman (producer). *Terug naar de Akbarstraat*. Amsterdam, The Netherlands: De Familie Film & TV and NTR

Stichting Architecten Research. (1975). *Woonweefsels : een onderzoek naar de weefselkenmerken van 12 woonomgevingen met behulp van de SAR 73*. Eindhoven, The Netherlands: Stichting Architecten Research.

Turner, J. (1968). *The Squatter Settlement: an Architecture that Works*. Retrieved from <http://www.communityplanning.net/JohnFCTurnerArchive/pdfs/ADAug1968SquatterSettlement.pdf>

VI LIST OF FIGURES

Figure 2 Stichting Architecten Research. (1973). *SAR 73 - het methodisch formuleren van afspraken over de directe woonomgeving*. Eindhoven, Nederland: SAR.

Figure 3 van der Werf, F. (2017). *Lunetten for Thematicdesign.org - 21-6-17 main text75*. Geraadpleegd van <https://thematicdesign.org/wp-content/uploads/2017/06/Lunetten%20for%20Thematicdesign.org%20-%2021-6-17%20main%20text75.pdf>