

Graduation Plan

Personal information	
Name	Christoforos- Christos Roungeris
Student number	5367751

Studio	
Name / Theme	Advanced Housing Design
Main mentor	Olv Klijn Anne Kockelkorn Architecture mentor Research mentor
Second mentor	Fenny Adema Drs. D.J. Dubbeling Building Engineering mentor External P2 examiner
Argumentation of choice of the studio	My goals are to gain knowledge in Dutch housing design and provide creative solutions to societal and economical issues that the housing sector in the Netherland is facing

Graduation project	
Title of the graduation project	"Designing livable architecture in an ever densifying urban Rotterdam."
Goal	
Location:	Blijdorp, Rotterdam, the Netherlands
The posed problem,	<ul style="list-style-type: none"> • Gentrification • Lack of quality housing
research questions and	<p>Main RQ:</p> <ul style="list-style-type: none"> • How do we design affordable, high quality co-operative housing units in an ever densifying urban Rotterdam? <p>Sub questions:</p> <ul style="list-style-type: none"> • What should the minimum "architectural standard" for a functional private space be? How does this theoretical standard compare to the European legislation on minimal room requirements? • How does the in-between space affect quality of life within a collective living model?
design assignment in which these result.	Intergenerational cooperative housing
<p>The current issues of gentrification and bad quality, confined housing, lead to a multitude of issues, such as the dissolution of the social fabric, community conflict, loneliness and others. Rotterdam is suffering from dramatically increasing rent prices. The integration of the new and highly marketed standard of tiny living in the design norm bears dangers for normalizing gentrification; Two social groups that suffer the consequences of the price rise and its consequences are higher education students and the elderly. A possible solution, that gives an answer to the problem of gentrification, while at the same time brings the two very different age groups together, is intergenerational co-operative housing; A housing solution backed by governmental regulation, protecting housing prices from unreasonable spikes, while at the same time allowing architects to design and experiment, creating resilient, environmentally friendly buildings, while always keeping the dwellers' well-being their utmost priority.</p> <p>Taking into account the driving trend of Rotterdam's -and the worlds'- rapidly densifying urban fabric, I believe it is vital to find a balance between profit maximization and high quality of life within a collective living context. What we define as "minimum" space for a room to be functional is of course highly subjective and debatable. And especially when economics are put into play, balancing between profit margins and square meter allocation per capita is tricky. Even though my design interests aren't geared towards tiny living, it is vital that architects hold a critical view towards this pan</p>	

European deregulation in minimums of functional private space that force people to a confined, capsularised life.

My main goal through this research is to design resilient, high quality intergenerational co-operative housing within a dense urban context such as the Blijdorp area. "Verticalizing" the Dutch row typology has been a key aspect to my design since the early days of spatial exploration. The key element that piqued my interest in this typology, is the almost borderless transition from "public" (sidewalk) to "private" (house) to "garden" (semi-permeable, private outside space). Walking on a sidewalk in a Dutch neighborhood, I clearly know that I'm in a public place, but at the same time I can peek inside the row houses -architectural curiosity seems to almost always beat good manners- and see the living room and garden at the back. It is this permeability that intrigues me. By placing this traditional typology of living within a dense high rise building context, I intend to create a diverse design, both in plan and facade.

By examining a selected pool of case studies, I gathered useful information on a multitude of focus points and understood the thought process behind each design. How each architect envisioned his idea of communal housing. Every design interpretation differs, but all have a common goal; Creating a diverse, lively community within an innovative urban fabric. A community formed and characterized by its inclusive character, and not by the dwellers' wallets size.

With this theoretical background acting essentially as a guide to designing resilient housing, I began experimenting, to give my own interpretation and solution to the problems stated above.

Upon selecting a plot to develop our individual designs, the Emmahuis (an existing building on our site) proved to be the best candidate for the proposal of an intergenerational cooperative. It already has an elderly housing corporation under its roof. By keeping the existing user groups in the area, we retain the areas identity. The building itself is fairly recent and therefore is a great candidate for Repurposing and expansion. Its supportive structure (concrete envelope) is very flexible and is proven to be a great option for spatial experimentation while implementing a repurposing design. It's placement on our newly designed plot gives the opportunity of creating a highly public plinth on the ground floors, giving the building a diverse character, ranging from fully public to fully private. The gallery apartment access setup Of the existing building is a wonderful base In which spatial exploration can begin, with the end goal being a revisited, diverse form of Dutch row, both in plan and façade.

Process

Method description

My research, along with my graduation design has two main goals;

- The densification of housing and a revisit to the classic Dutch row typology, Placing it within a dense high rise volume.
- Designing an inclusive collective housing model, built for and used by students and elders.

I believe that my research will prove to be paramount to me reaching my goal, providing me with the much needed theoretical foundation to start my design discourse and experimentation. A re imagined collective Dutch row housing typology, incorporated within a high rise context. To take the first step, based on pragmatical data provided by the EU concerning existing housing regulations and critical studies done on today's co-operative housing models in books such as "Architecture and feminisms- Ecologies, economies, technologies" by Helene Frichot, Catharina Gabrielsson and Helen Runting, I start with analyzing and developing the theoretical background of my research questions. I then continue with an examination of case studies; studying the buildings and the thought process behind them, in order to draw certain qualities to incorporate into my final graduation design, such as apartment size, existence and sizing of communal spaces etc. This analysis is based around three main axis of interest; User groups and intergenerational dwelling, accessibility and circulation and apartment layout. I also gather data from qualitative interviews with dwellers and administration members of a selected case study. The end result of the research is the accumulation of knowledge, comprised by a series of guidelines that will lead to an intergenerational co-operative housing design proposal that can serve as an example for similar future developments.

Literature and general practical preference

A selection of literatures used for the research are listed below:

Books

- Tunstall, R. (2020). The Fall and Rise of Social Housing: 100 Years on 20 Estates (1st ed.). Bristol University Press.
- Hertzberger, H. (2013). Space and the Architect: Lessons for Students in Architecture 2 (2nd Revised ed.). nai010 publishers.
- Karakusevic, P., & Batchelor, A. (2017). Social housing: Definitions & design exemplars. RIBA Publishing.
- Grosz, E. (2001). Architecture from the Outside / Essays on Virtual and Real space.
- Massey, D. (1994). A Global Sense of Place (from Space, Place, and Gender). Minneapolis: University of Minnesota Press.
- Frichot, H., Gabriellsson, C., & Runting, H. (2017). Architecture and Feminisms: Ecologies, Economies, Technologies (Critiques) (1st ed.). Routledge. Pp. 143

Online articles

- Cheng, L. (2019, April 2). How money shapes architecture: Oliver Wainwright. Architecture Now. Retrieved November 3, 2021, from <https://architecturenow.co.nz/articles/how-money-shapes-architecture-oliver-wainwright/>
- Jones, E. L. (2020, July 22). How housing co-operatives built a city. Architectural Review. <https://www.architectural-review.com/archive/how-housing-co-operatives-built-a-city>
- Urist, J. (2018, May 8). The Health Risks of Small Apartments. The Atlantic. <https://www.theatlantic.com/health/archive/2013/12/the-health-risks-of-small-apartments/282150/>
- E. Zolyomi (2019), Peer review on "Strategies for supporting social inclusion at older age", DG Employment, social affairs and Inclusion. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ad=rja&uact=8&ved=2ahUKEwjQlaKGo571AhX0hP0HHYzICEEQFnoECAYQAQ&url=https%3A%2F%2Fec.europa.eu%2Fsocial%2FblobServlet%3FdocId%3D21810%26langId%3Den&usg=AOvVaw28_KMtZgx4_Tkfgsw6BSd

Videos/ Documentaries

- X.M. (2015, October 24). Der Traum vom Baumhaus/Dreaming of a treehouse- Frei Otto`s ecological building project in Berlin [Video]. Vimeo. <https://vimeo.com/ondemand/freiotto>

Reflection

The studio begins with a heavy focus on research, and not by chance; The research done leading to P2 helped me realize what interventions the study area needs and why, it helped me build a coherent storyline in my mind; starting from a problem, leading to a possible solution. But more importantly, it helped me recognize what I want to focus on and learn through the graduation project.

As stated above, Rotterdam (and the world) is facing an unprecedented housing crisis, which bears multiple socioeconomic repercussions. Through the advanced housing graduation studio, I seek to find a viable solution to this crisis. A possible solution that was proposed within the wings of the studio was co-operative housing; In a collective housing scheme, housing prices are guaranteed to not uncontrollably increase, which is backed up by the state and law makers. This lack of housing price speculation means that dwelling units do not obey the commodification tendencies of the housing market. This in turn allows architectural experimentation, detached from capital restraints, that forces profit- making oriented design decisions. Architectural discourse within a collective housing scheme is allowed to go from research and theory, organically into practice. Cooperative housing therefore proves to be a viable solution to the problem. Through innovative and creative housing design decisions, such as the implementation of intergenerational cooperatives, I try and provide my vision towards a dense yet healthy urban fabric, which benefits dwellers of every socioeconomic background.

From P2 onwards, the main challenges I expect to face are:

- Housing typologies; figuring out what is best for the dweller, the environment and the building context, as a large part of my design deals with the repurposing of the Emmahuis, an already existing structure.
- The in-between spaces; what is the right balance between private and communal areas in an intergenerational cooperative housing context? How can these in-between spaces be designed in order to maximize their efficacy?
- Emmahuis; All the diverse challenges concerning the repurposing of the existing structure (degree of structural interference, working around structural limitations etc.)