

# 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](mailto: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	Zedi Maria Adelaide van Oostrom
Student number	5001390

Studio		
Name / Theme	Advanced Housing Design – Ecologies of Inclusion	
Main mentor	Olv Klijn	Architecture
Second mentor	Ruurd Kuijlenburg and Brook Haileselassie	Building Technology and Research resp.
Argumentation of choice of the studio	The Studio focusses on Sustainability Thinking, Social Inclusion and Affordability. These three topics interest me, because far-reaching effects of the climate and housing crises, which are affecting more and more people, also in my direct environment. I have wondered for a very long time if people and architecture could have positive effect on our ecology and if so, how people could be empowered to do so. From my perspective it seemed like this studio tackles similar issues, yet instead of despair this studio's approach is positive and hopeful. And so, I think this studio had been the right choice to pursue my curiosities.	

Graduation project	
Title of the graduation project	A Catalyst for Circularity
Goal	
Location:	Tanthof West, Delft  Intersection between Santiogopad and Iqbal Mashipad  (North Western corner of the Abtswoudsepark)
The posed problem,	All "solutions" for the climate crisis, also within the field of Architecture and the Built Environment, are very technocentric and the social perspective is lacking, in research as well as in practice. Ex., the Circular Built

	Environment, is well established in building technology, yet the social and local implementation are lacking. And without local knowledge and understanding technology adoption is difficult to achieve
research questions and	<p><b>Which urban and housing factors could contribute to promote or hinder inclusive and circular community living?</b></p> <p>Sub-questions:</p> <ol style="list-style-type: none"> <li>1) How do different existing communities approach circular living?</li> <li>2) What does a typical day look like in a circular community?</li> <li>3) What is the existing community of Tanthof like regarding sustainability and socio-economic inclusion and justice?</li> </ol>
design assignment in which these result.	<p>I do not understand this question. I hope one of these answers will suffice:</p> <ol style="list-style-type: none"> <li>1) The design assignment as described by the studio is a contemporary housing program that responds to current challenges, such as the climate crisis, lack of affordable housing, the division between productive and reproductive tasks at home and the increasing social inequality.</li> <li>2) The assignment I created for myself within this framework and considering my research is to create a housing complex that is a restorative circular machine for its environment. My impenation for its context, Tanthof, is to create a modular, partly self-build, apartment block made from tangible, biobased and/or reused materials. On the plinth of the building there will be a workshop; this is a place where residents of Tanthof can learn how to execute a circular and energy efficient</li> </ol>

	<p>home renovation and partly work out and build this plan themselves at the workshop and at home. In addition to designing the building, I will design some sustainable renovation plans for the surrounding row houses. It is expected that the residents that live at the housing complex have an affinity with sustainable building, for example energy coaches, carpenters, architecture students or building enthusiast. The workshop is run by locals (partly the upstairs residents) that share knowledge, teach and provide tools for people to build properly, together with city officials who will oversee the legal part, such as the zoning plan, <i>welstand</i> and building regulations. It is a proposal to locally adapt for climate change, by enabling the residents of the complex and the surrounding neighbourhood, yet also leaving room for the project to adapt and evolve overtime and creativity from locals.</p>
<p>[This should be formulated in such a way that the graduation project can answer these questions. The definition of the problem has to be significant to a clearly defined area of research and design.]</p>	
<b>Process</b>	
<b>Method description</b>	
<p>Since this project studies the social side of circular architecture, I am conducting a literature review on Technology Adoption (e.g., Rogers' Theory and the Chasm Theory) and on Architectural Anthropology. This knowledge I have used during my fieldwork studying (so far) two eco villages, which I see as <i>early adopters</i> in Rogers' terms, and the city of Delft, the <i>majority</i>. My fieldwork is ethnographic, I volunteered at the eco villages, to follow the residents around for a day and conduct semi-structured interviews with them. In Delft, I am volunteering as an energy coach</p>	

through the energy cooperative 015Duurzaam. I am planning to conduct some interviews with the other energy coaches. I am gaining some insights as to what motivates people to live more sustainable and what barriers they face. Some of these incentives are spatial, which is useful for my design assignment. Additionally, the division between Rogers' *early adopters* and *majority* is also reflected in my design project, with the residents of the building as the former and the residents of roughly the rest of Tanthof as the latter.

Lastly, I have conducted expert interviews with researchers that are studying the energy transition from residents' perspective, explicitly inquiring what spatial intervention could stimulate sustainable living.

## Literature and general practical references

### On Architecture, Economy and Ecology

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### On Architecture, Sociology and Anthropology

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Krutisch, L. N. (author), Qian, Q. (author), Mlecnik, E. (author), & Visscher, H. J. (author). (2023). *Exploring pro-environmental behaviour spilling effects in Dutch homeowner energy efficient renovations*. Rijksdienst voor Ondernemend Nederland (RVO); WorldCat. <http://resolver.tudelft.nl/uuid:4416e32a-3172-4000-a354-fea4d2419048>

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Moore, G. A. (1991). *Crossing the chasm: Marketing and selling technology products to mainstream customers*. HarperBusiness; WorldCat.

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<https://www.vlebooks.com/vleweb/product/openreader?id=none&isbn=9781451602470>

Stender, M., Bech-Danielsen, C., & Hagen, A. L. (Eds.). (2022). *Architectural anthropology: Exploring lived space*. Routledge. <https://doi.org/10.4324/9781003094142>

## Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

My Graduation topic focusses on the challenge that lies ahead for a circular and energy neutral housing sector. This is something that is being researched extensively at the AUBS faculty, but the hope is that this project can contribute with the social and human perspective by tapping into other domains such as Economy, Sociology and Anthropology and putting more emphasis on the experience, needs and local knowledge of residents. As for my chosen track Architecture, I am curious to investigate what Dutch architecture is in our zeitgeist and with a view to the climate. There is a beautiful building history in the Netherlands with a lot of attention to detail, often expressed in brick. I hope to be able to respond to Dutch building culture and history with this design, but with materials that are more ecologically responsible. Finally, the relationship with Advanced Housing Design and the emerging research of Redesigning Deltas; it is a challenge that emphasizes landscape change, action and recovery. This is a large scale, I hope to be able to contribute what these themes mean at the neighbourhood, street and building level. In addition, with the focus on modular and (partly) self-build, I hope to be able to investigate alternatives to the conventional way of building that better suit changing demographics.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

As mentioned above, my approach is multidisciplinary, drawing upon knowledge from the Circular, Community and Doughnut Economy paradigms, within the domain of Economics, yet also exploring the added value of sociological and anthropological knowledge and methods for architectural practice. I believe that the fieldwork I am conducting, though it might be a bit experimental and unstructured, is a novel contribution. Though Architectural Ethnography and Anthropology is become more mainstream, it is not applied yet in the Dutch context of ecovillages. Examining the daily practices of these so-called pioneers could potentially be useful for circular design practice but also for critical inquiry of these housing form. I would argue that examining lived space is so crucial, yet very underexposed, in the Circular Built Environment discourse.

Moreover, my fieldwork in Delft is also experimental and new, as I could only find one paper on the topic of energy coaching. Yet through my experience as an energy coach (now in Delft and for two years in The Hague 2021-23), I argue that the insights that one can gain from talking to people about their own home, their beliefs and reservations when it comes to energy and sustainability are essential in the housing, energy and climate crises. Obviously, energy coaching is not the only method to gain these insights, yet within the AUBS field, it is rarely applied. Which is a shame because professionals within the AUBS do have knowledge to share and gain. Because the home is such an intimate place, I think energy coach can be a valuable tool because as building professionals we have something to offer while we can learn how people live; it is not often that a designer can get such an realistic insight into lived spaces.

