

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	Anna Lugard
Student number	4608119

Studio		
Name / Theme	Advanced Housing, Ecologies of Inclusion	
Main mentor	Olv Klijn	Design
Second mentor	Ruurd Kuijlenburg	Building Technology
Argumentation of choice of the studio	Throughout my studies I've developed an interest in alternative ways of living and thinking about the built environment. This tends to link my architectural approach more to anthropological and social studies rather than an art-design or technical practice. I feel that housing and the way people live together greatly affects motivation and ability to live genuinely sustainable (both environmentally and socially). Furthermore I see a lot of opportunity in collective housing forms. Yet I do understand the idealism in this vision and think a lot about putting a 'dream' to practice: this includes thinking about financial achievability, implementation and connection to location and locals.	

Graduation project	
Title of the graduation project	Architecture to Save the World, <i>A pragmatic approach for building biodiverse landscapes in rural landscapes</i>
Goal	
Location:	Oostgaag, Midden-Delfland, Netherlands
The posed problem	Over the quarter-of-a-century, a lot of fuss has been made about climate change and ecosystem loss. While there is a clear understanding of what needs to be done, global and national climate action is falling short. In the light of recent political trends towards parties that deny climate change or refuse to act on it, all optimism for a top-down solution to the deterioration of our planetary environment can be let go. As this is out of the question, we must be looking for alternative approaches at solving this crisis.

	Elections in the last few years across the globe highlighted prioritization of short-term economic prosperity over long-term environmental goals. While scientific evidence, such as the findings of the IPCC, demonstrates the critical urgency of climate change, large-scale top-down solutions often fail to resonate with the average civilian. In the Netherlands less than 15% of pre-industrial biodiversity levels remain. The rapid loss of ecosystems is foremostly tied to the intensive agricultural practices. In order to save what is left of our biodiversity, we need to come up with a different way to provide refuge for it. Large-scale ecosystem building is a precarious activity. We learn this in the Oostvaardersplassen, a Dutch nature reserve that was drained from the Zuiderzee. Ecologists tried to build an ecosystem in an Noah's Arc way: dropping a mix of species in a blank slate piece of land. As problems kept occurring, there was a need to interfere in species populations time and time again. This will be the future of our now eco-desert farmlands: time and attention is needed to bring back biodiverse landscapes. In the lack of top-down action, collective, bottom-up approaches are essential. Many inspiring examples of community-based action for ecosystem-care are present: Ecovillages, Community land trust farming through organizations like Land van Ons, Lenteland, Heerenboeren and Aardpeer. An opportunity lies in these - now still niche and alternative - concepts. For now they remain mostly unseen by the larger public, waiting to be pulled into the light. We are thus in need of an architectural approach that sets out to bring community-based ecosystem-building into mainstream practice. This is an ambitious idea that deserves a thorough answer. Looking at projects that integrate ecosystems with human communities, I see that every project has typical elements like community spaces and a vegetable garden. It feels like it's essential to us, but why? If you want to make the world a better place, why do you end up with a community space and a vegetable garden? It made me wonder what purpose they serve. In that case I must surely be able to figure out what is the best way to implement these and other design solutions. So first I set out to discover: <i>How can architecture save the world?</i> This question seems so big it must be a joke. And in a way it is. But it draws attention and that serves a purpose too. It does really need to be answered to answer to oversee the why and how of what we do. Only then can we make the right choices about that metaphorical community and vegetable garden.
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research questions	Main question: How can architecture save the world? Sub-questions: - Why: Why are we unable to stop the persisting human-caused deterioration of the earthly climate and ecosystems? – theoretical analysis - Where: Where should we aim to be able to sustain human thriving in the future? - literature analysis and interpretation - How: How do we achieve this way of life? – exploration through varied methods - What: What architecture is needed to achieve this? – design question
design assignment in which these result.	The design assignment is distilled from the research findings and grows alongside the open-ended research development. Design assignment: the outline for a community-based ecosystem-building project in pacific north-west agricultural landscapes. The outline is to be explored, applied and showcased through a site-specific design exercise: a housing project that aims to restore biodiversity in the Midden-Delfland region in the Netherlands. Goals: Sustainability thinking: To express the aim of sustainability, a critical approach to building practice and materials has to be at the base of the design. The same goes for layout and community structure, which should respond to sustainability needs. In practice this includes: - Re-use and biobased building - Building a visibly sustainable architecture - Dwelling concepts that will fit possible future uses - Re-purpose structures that are already present in the landscape (farmhouses from dairy farms) Pragmatic approach: Although the goal is to re-establish deep emotional connections between humans and nature, these are not yet in place. To ensure a broad impact of the project, a wide variety of inhabitants is in fact preferable. To achieve this a pragmatic approach is more effective than an idealist one: - Attractive housing to capture interest of a wide variety of inhabitants - Architecture that looks familiar and inviting to passerby's, avoid the risk of messy re-use projects and undesirable cluttered urban plans Local reception: Gaining local support serves multiple purposes. The engaged community in Midden-Delfland has a powerful movement to interfere

	with projects, but foremostly local support is a great asset to maximizing impact. Together with existing nature-protecting communities, much more can be achieved. Lastly the situated knowledge in the area can be of good use. To achieve local support: - Do not build in greenfields - Do project plans that serve no local purpose - Do engage with local community and direct neighbors - There is a need for elderly-suited housing in the area - Architecture that fits in the landscape according to locals Systemic expandability: In order to make the project impactful, there is a preference for a project that is repeatable in other locations (with a similar context), instead of a standalone development. - Systemizing re-use methods - Organizational structure that allows for repetition that is linked to and empowers other locations Achievability: in order to make the project genuinely realistic (an important aspect of architecture that can save the world), we must be able to embed the project in today's reality. This means it has to be financially viable and be able to receive local support. - Value capturing model - Organization structure that is attractive for varied households types
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Process

Method description

Research method:

This research adopts a speculative ethnographic approach, combining mainstream science with alternative insights from scholars like Bruno Latour, Donna Haraway, Anna Tsing, and Maria Puig de la Bellacasa. The method is intentionally flexible. to navigate the subjective nature of design processes it will be a mix of:

- literature research
- ethnographic fieldwork (spending a day in the daily lives of various locals and people that already practice communal care for ecosystems)
- interviews with experts on various subjects
- personal insights and experiences
- speculative thinking

The research 'report' will respond to the notion that climate-thinking has to become more accessible. That's why I intend to apply the storytelling approach of the scholars I read. The result will take the form of a short, illustrated book, integrating elements of traditional research—such as methods, findings, and conclusions—into a more fluid, accessible format.

The narrative will follow my personal journey in exploring ecosystem recovery and imagining practical design solutions. This will result in a speculative manifesto for future architectural practices to 'save the world': the outline for a community-based ecosystem-building project in pacific north-west agricultural landscapes. This ends in a design exercise: a community land trust+housing project in the Midden-Delfland region in the Netherlands.

Design method:

The overall method could likely best be identified as transdisciplinary design. Ranging from anthropology, sociology, ecology and speculative thinking to circular and modular design methods it formulates a project that will engage people into nature-caring practices.

The transdisciplinary design method will, next to the incorporation of the research outcome include at least:

- whole Systems Integration: Ensuring harmony between the built environment, nature, and human activity
- ethnographic research: finding the needs of possible future inhabitants through area locals and inhabitants of current collective housing projects
- circular design: taking inventory of re-useable structure and materials that are found in agricultural buildings
- circular design: taking inventory of other re-useable building material in the region
- modular design: optimizing and systemizing building with these materials
- network thinking: optimizing and systemizing farmhouse repurposing for housing
- incremental design: conceiving an expandable system and testing possible future uses

As re-use, farmhouse re-purposing and local participation outcomes are very unpredictable, the design too is an open-ended endeavor. This makes that there is no specific order or hierarchy in the methods.

Literature and general practical references

Haraway, D. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Latour, B. (2018). *Down to earth: Politics in the new climatic regime* (C. Porter, Vert.). Polity.

Lengkeek, A., & Kuenzli, P. (2022). *Operatie wooncoöperatie: Uit de wooncrisis door gemeenschappelijk bezit*. Trancity Valiz.

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.

Puig de la Bellacasa, M. (2017). *Matters of care: Speculative ethics in more than human worlds*. University of Minnesota Press.

Tsing, A. L. (2015). *The mushroom at the end of the world: On the possibility of life in capitalist ruins*. Princeton University Press.

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)?

The studio theme Advanced Housing Design, Ecologies of Inclusion quite literally relates to my project. My project attempts to use architecture as a means to include ecosystems in human lives, where this relation is currently lacking. This results in a holistic design approach that takes on interdisciplinary theoretical thinking. With its focus on conceiving sustainable futures and the societal orientation of the Architecture Masters, this project has a clear embedding in the Architecture master programme.

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

While much has been tried to direct the course of humanity towards a sustainable future, no clear eureka has been reached yet. It thus remains important to keep thinking about this problem. In this project I combine contemporary anthropological theory and the practice of ethnography with the creative, imaginative approach of architecture and the technical approach of building technology. This way I intend to challenge current practice in climate-approach (an issue that is highly relevant at TU Delft). Though my findings I embed culture and state-of-the-art anthropological theory a locally-supported and pragmatic solution towards a more sustainable future of Dutch agricultural landscapes.