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:

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<tr>
<th>Personal information</th>
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<tr>
<td>Name</td>
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<td>Student number</td>
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<td>Telephone number</td>
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<td>Private e-mail address</td>
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<th>Studio</th>
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<td>Name / Theme</td>
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<td>Teachers / tutors</td>
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<td>Argumentation of choice of the studio</td>
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<th>Graduation project</th>
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<td>Goal</td>
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production being highly out of touch with the urban fabric and uneven spatial developments. The famous Garden City Movement addressed this and incorporated the relationship between personal fulfilment – living, working and industry close to each other – and communal fulfilment – the opportunities for a city to be more self-sustainable with short distances and high local production. However, these garden city developments usually failed due to the too far distances between living and working distances and rather became garden suburbs, again detaching production from the rest of the city. At the same time, industry as we know is changing, with technologies such as additive manufacturing (3d printing) becoming more and more sophisticated, being able to print larger and more precise goods. In fields such as synthetic biology it is predicted that we will be able to recreate biological tissues and even organs, all with the help of additive manufacturing. These tendencies go hand in hand with industry becoming more individualized; industries with only one employee and orders preferring high customization rather than mass production that defined modernity so much is on the rise.

Can production be brought back to the city as a part of everyday life through additive manufacturing? Can this create a more local production within the city and thus contribute to a more circular economy within Amsterdam? Additionally, as additive manufacturing blurs the boundaries between ecology, technology and culture – how can architecture accommodate a reflection of this widely discussed topic within architecture theory, and in the wider sense – what it really means to be a human in 2050?
The building – or series of buildings – facilitate spaces for production accommodating the technology and industry of additive manufacturing, with the aim to become an innovative production hub within the local area of Havenstad and the larger context of Amsterdam. The project incorporates the garden and the courtyard as spatial typologies on an architectural level, providing public spaces for amenities and meeting spaces between the different types of production facilities, while dealing with the surrounding neighbourhood on an urban scale incorporating the Garden City typological principles in addressing a close relationship between living, working, industry and amenities.

Lastly, these typologies - the production space, the garden, and the courtyard – also aim to offer a wider reflection within the architectural field but also an age-old question; what is human’s position within nature in a time when additive manufacturing becomes so refined that it can print anything and thus blurs the boundaries between ecology, technology and nature. All of these constitute the Garden of Anthropos – the human garden.

**Process**

**Method description**

Graduation studio methodology
AMS Mid-City Studio is paralleled by and interconnected with City Innovation Seminar into a singular graduation assignment. The Seminar focuses on the theoretical background and research, which is then applied to the design process in studio. There will be both individual and group work, focusing on different research topics tested on the same site. Individual studio group consists of 9 or so students, and deals with assigned part of Amsterdam. Each of given sights is 2.1 by 2.1 kilometres large and divided in 9 tiles, so theoretically each student can be dealing with one tile. Every studio group together needs to develop a vision, design scenario for the site, rendered by the individual project interventions. Individual design scenarios and
Personal research methodology
Next to data collection and literature studies, the use of the collage stands strong as a way of communicating and extracting data both within the project and the chair of Complex Projects as a whole. The research methodology for the thesis topic is rooted in grounded theory. Grounded theory is generally defined as a qualitative research method, meaning it has an interpretive and naturalistic approach to the matter of study by involving the meanings and phenomena it brings to people. Thus, it depends on the researcher’s interpretation of collected data, and is primarily an inductive research methodology working in a holistic manner. For example, the use of collage or other visual architectural techniques through research can be utilised and create new understandings of phenomena due to its narrative-based character. Additionally, the collage has several potentials to be used as a form of inquiry and has thus become an attractive tool in qualitative research studies due to its way of working in a non-linear and intuitive way. In light of the current fourth industrial revolution that is on its outset now and addressed in the research question, the changes that occur in our urban realities are in even greater flux in, say, 2050 than they are now. The world is becoming more interconnected and the it could be argued that speculative futures generated through speculative approaches towards research in design is a powerful way to assemble spatial narratives in terms of the conscious act of production. The ecological essence of production – the conscious human act of merging (and not merging) nature, culture and technology – generate a bona fide architectural tool, the ability to craft from the crafted. A space of production visualised by a tool of production – such as the collage – is therefore valued through both the epistemological and ontological processes and the emerging grounded theory.

City of Innovations seminar
The studio is accompanied with a seminar, ‘City of Innovations’. In the seminar multiple data will be collected from different sources (books, archives, archives but also interviews or photographs) As a support to studio, in seminar, exploration and collection of data about specific locations, resulting from a long process of mutations and evolutions will be undertaken, in addition to collect the original source of the city maps, buildings, streets profiles, details and furniture, of the studio site; the collected data will be put in a source book.

Literature and general practical preference

LITERATURE:

Cohen, Colebrook, & Hillis Miller, *Twilight of the Anthropocene Idols* (Open Humanities Press, 2016)


Deleuze & Guattari: *A Thousand Plateaus*

Dolphinsn, Rick & van der Tuin, Iris: *New Materialism: Interviews & Cartographies*, Open Humanities Press


van Eyck, Aldo: (1959) ‘Het Verhaal van een Andere Gedachte’. In: *Forum 7/1959, Amsterdam and Hilversum*


Felinto, Erick: “Mediascape, anthropotechnics, culture of presence, and the flight from God” in *Digital Humanities and Digital Media: Conversations on Politics, Culture, Aesthetics and Literacy* (London: Open Humanities Press 2016)


Hester Aardse and Jouke van der Werf, “Towards a 21st Century way of City Planning”, Plan Amsterdam, City of Amsterdam, 02 2015

Howard, Ebenezer (1902), *Garden Cities of To-morrow* (2nd ed.), London: S. Sonnenschein & Co


Reflection

Relevance

Production:
The project explores possibilities of accommodating a type of industry that is currently changing not only how we view production, but also sharing economy. Additive manufacturing provides the user high customization in producing their own goods and blurs the boundaries between supplier and consumer, accommodating more organic market structures and businesses. The production of more precise biological tissue may change how we currently view the medical field, giving opportunities to shorter waiting times and saving more lives.

Circularity and sustainability:
Additive manufacturing provides on-demand, highly customizable production available to the public. This could eventually eliminate the need for packaging and transportation of goods, which increase cost and harm the environment. The project’s close relationship with the rest of the city offers potential for self-sufficiency and hyperlocal production, reducing packaging and transport emissions even further.
**Time planning**

**MSc 3**

**PHASE 1:**
- Week 1 (Sep 4-8): AMS Mid-City Introduction, CP workshop, Chair opening
- Week 2 (Sep 11-15): AMS Kick-off, site visits w/S.Janusz, building models, mapping sites
- Week 3 (Sep 18-22): Seminar lecture on Mobility w/M.Triggianese & S.Calvert, on-site visit w/S.Janusz, finalizing model, developing site atlas
- Week 4 (Sep 25-29): Lecture on Amsterdam by E.Gramsbergen, R.Cavallo, site impressions
- Week 5 (Oct 2-6): Seminar submission, P0.5 presentation, AMS Studio and Seminar Pin-up

**PHASE 2:**
- Week 6 (Oct 9-13): Lecture on Energy by P.Palensky, field trip preparation session, choose area of interest
- Week 7 (Oct 16-20): Field trip to Paris
- Week 8 (Oct 22-27): AMS session w/on-site visits, further site research, search for research topic, future site developments research
- Week 9 (Oct 30-Nov 3): Developing thesis topic and research question, modelling future developments
- Week 10 (Nov 6-10): Official P1 in Delft, submission for both seminar and studio

**PHASE 3:**
- Week 11 (Nov 13-17): AMS studio and Seminar pin-up, lecture ARCAM, choice of site typology; analyze, draw, map the building
- Week 12 (Nov 20-24): On site visits w/S.Janusz, develop program, determine program/usage/purpose of the project
- Week 13 (Nov 27-Dec 1): Research program, functional aspects, spatial requirements, library of the typologies to make a model of one reference and implement it in the site model
- Week 14 (Dec 4-8): Analyze site in depth, determine urban rules and work on the preliminary massing
- Week 15 (Dec 11-15): Official P1.5 in Delft
- Week 16 (Dec 19): Official P1.5 AMS Mid-City studio group presentations in Delft

**PHASE 4:**
- Week 16 (Dec 18-22): Christmas break, no studio
- Week 17 (Dec 25-29): Christmas break, no studio
- Week 18 (Jan 1-5): Analyze chosen building in detail, develop spatial aspects in the ambition further
- Week 19 (Jan 8-12): Develop design brief with the ambition further
- Week 20 (Jan 15-19): Finalize first part of the thesis and develop P2 presentation
- Week 21 (Jan 22-26): **Jan 23: Official P2**
MSc 4
PHASE 5:
Week 1: Kick off meeting, MSc3 reflection, discussing first ideas
Week 2: Investigation of the concepts and other spatial ideas
Week 3: Development of concept in relation to program and research
Week 4: Development of concept in relation to massing and urban group strategy
Week 5: P2.5 informal presentation – concept design

PHASE 6:
Week 6: Developing program, circulation and functional aspects
Week 7: Developing plans and sections
Week 8: Developing façade and material usage
Week 9: Developing site and relation to other projects on the site
Week 10: P3 formal presentation – preliminary design

PHASE 7:
Week 11: Developing structural aspects of the project
Week 12: Developing materials and details
Week 13: Developing design and drawings
Week 14: Final revisions before P4
Week 15: P4 formal presentation go/no go

PHASE 8:
Week 16: Making decision and strategy for making physical model
Week 17: Developing model(s)
Week 18: Focusing on visualisations and graphics
Week 19: Focusing on presentation
Week 20: P5 final presentation
Week 21: Complex Projects EXPO