

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

The graduation plan consists of at least the following data/segments:

| Personal information | |
|-----------------------------|-------------------------|
| Name | Shuning Yang |
| Student number | 4314352 |
| Telephone number | 0640057392 |
| Private e-mail address | yangshuningning@163.com |

| Studio | |
|---------------------------------------|---|
| Name / Theme | AR3AD130 Dwelling Graduation Studio |
| Teachers / tutors | Birgit Jurgenhake , Theo Kupers |
| Argumentation of choice of the studio | As we are in the post-internet times, the borders between different things are becoming more and more indistinct. And people's lifestyles also change a lot because of the new product like Iphone and social media. So how could dwelling respond to these changes is a big issue. |

| Graduation project | |
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| Title of the graduation project | Indistinct border- Rentable living room for single business starters |
| Goal | |
| Location: | Oostenburg Island, Amsterdam |
| The posed problem, | The target groups for dwelling are more diverse than before. Among these people, single urban dweller is one branch of these groups, which is a new group. Even in this specific target group, different people have different demands. For example, elderly people like living in a community with more collective space while young pros need more privacy. Though they live alone by choice or destiny, however, there are not enough dwellings for them to choose on the market. Because most of the dwellings are designed for family and they are more spacious, expensive and less private for these single dwellers. |
| research questions and | What elements and factors in Architecture for urban single person households respond to the lifestyles that the single urban dwellers currently possess? |
| design assignment in which these result. | In our theme research, we define 5 |

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|---------------------------|---|
| | <p>profiles of single urban dwellers, which are students, young pros, expats, divorced people and elderly people. Through putting different profiles into case study projects, we make some conclusions of their dwelling demands in the terms of architecture elements and factors.</p> <p>Since December 2014, Dutch government started to issue one new type of VISA for foreign innovative business starters to startup in Netherlands. Amsterdam would be their first choice because of its various initial advantages. My design project target group will be these foreign business starters, which are expats and young pros defined in our theme research.</p> <p>However, living and office costs in Amsterdam, especially in the inner city, are not so affordable for these starters. My design would provide both affordable dwelling and office to them, with nice collective space and flexibility.</p> <p>In this case, I try to combine living and office into one dwelling unit, which is flexible in privacy and collectivity. Using the conclusions from our theme research, I mix the borders between living space, office space and collective space by private doors and sliding doors. The starters could use their living room as their own office to start up or rent it out to the other starters and office seekers. The borders between different space not only provide enough privacy for single dwellers but also reduce the living and office costs.</p> |
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| Process | |
| Method description | |
| Surveys | |

International students who are studying in Netherlands now would be the future target group of my project. Therefore, the most straightforward way is to talk with them, to get their dwelling demands. After that, I conclude these demands into making the profiles of students, young pros and expats in our theme research.

Case study

We collect the projects with collective space for single dwellers and analyze them in the terms of architecture elements and factors. We do the test case, in which we put another profile into the project, to find out the spatial demands of different profiles. After that, we collect all the conclusions from the test case and conclude their demands. In the end, we draw the final conclusion about single dwelling's orientation, size, collective space and shared facilities.

Besides learning from architecture projects, I study the rentable space cases to understand the new business mode, like Airbnb and others.

Literature and general practical preference

Literature:

Bernard Leupen (2006) *Frame and generic space*, Rotterdam: 010 Publishers. Haan, D. (2015). Interactieve kaarten van Amsterdam. [online] Maps.amsterdam.nl.

Herman van Bergeijk (1997) Herman Hertzberger, Basel: Birkhäuser Verlag.

Herman Hertzberger (1991) *Lessons for students in architecture*, Rotterdam: Uitgeverij 010 Publishers.

Herman Hertzberger (2000) *Space and the architect: lessons in architecture 2*, Rotterdam: 010 Publishers.

Herman Hertzberger (1995) Herman Hertzberger, *Projekte 1990-1995: das Unerwartete Überdacht*, Rotterdam: Verlag 010 Publishers.

Reijndorp, A., Kompier, V., de Haas, L. (Eds)(1997). *Leefstijlen. Wonen in de 21 eeuw*. Rotterdam: Nai Uitgevers.

Lucy Bullivant (2003) *Home Front: New Developments in Housing (Architectural Design)*, : Academy Press.

Hans Cornelissen (2005) *Dwelling as a Figure of Thought*, : SUN.

Garcia Hansen, Veronica and Edmonds, Ian and Hyde, Richard (2001) *The use of*

light pipes for deep plan office buildings : a case study of Ken Yeang's bioclimatic skyscraper proposal for KLCC, Malaysia. In: ANZAsCA 2001, 2001, Wellington, New Zealand.

Garcia Hansen, Veronica and Edmonds, Ian (2003) *Natural illumination of deepplan office buildings : light pipe strategies.* In: ISES Solar World Congress 2003, 14-19 June 2003, Göteborg, Sweden.

He Kaiyan, Zheng Hongfei, Li Zhengliang, Taotao, Dai Jing (2009) '*Design and investigation of a novel concentrator used in solar fiber lamp*', Solar Energy, 83(2086-2091),.

A. Rosemann, M. Mossman, L.Whitehead (2008) '*development of a cost-effective solar illumination system to bring natural light into the building core*', Solar Energy, 82(302-310), .

C. Baroncini, O.Boccia, F. Chella, P. Zazzini (2010) '*experimental analysis on a 1:2 scale model of the double light pipe, an innovative technological device for daylight transmission*', Solar Energy, 84(296-307),.

Interactive maps, Available at: <http://maps.amsterdam.nl/> (Accessed: 5 Apr. 2015).

New 'start-up visa' has come into effect, Available at: <http://www.iamsterdam.com/en/expatcenter/latest-news/new-start-up-visa> (Accessed: 5 Apr. 2015).

Statistics Netherlands (2015) *Consumer confidence, economic climate and willingness to buy*, Available at: <http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLEN&PA=7388eng&LA=EN> (Accessed: 10 June. 2015).

Youthfulcities research team (2015) *2015 – Most Youthful City*, Available at: <http://www.youthfulcities.com/> (Accessed: 10 June. 2015).

(2015) *How to apply for the Dutch Startup Visa*, Available at: <http://startupjuncture.com/2015/05/12/how-to-dutch-startup-visa/> (Accessed: 10 June. 2015).

The concept of "Oku" in Japanese and Chinese traditional paintings, gardens and architecture: a comparative and architecture. Li Dan.

Practical projects reference:

SUITCASE HOUSE, Beijing China, Gary Chang,
Tietgen dormitory, Copenhagen Denmark, Lundgaard & Tranberg,
Nagakin Capsule Tower, Tokyo Japan, Kisho Kurokawa,
Project For Internationale Gartenbau Ausstellung, Stuttgart Germany, Mecanoo,

OCMW Seniors Campus, Nevele Belgium, 51N4E,
Pieter Vlamingstraat, Amsterdam Netherlands, Liesbeth Van Der Pol

Reflection

Relevance

Providing affordable dwelling and office will attract more innovative business starters to Amsterdam and makes Amsterdam more competitive than other European cities. This will make a benefit circle for all parties that involved.

For the business starters, they could have their single dwellings with enough privacy in the inner city of Amsterdam, which would make their staying in Netherlands impressive and also with quality. The rent will be lower than the average single dwelling rent in Amsterdam because of this unique business mode. They could rent out their living room as office during the daytime to have extra income. They also could use their own dwelling as their office to startup, which saves a lot money in renting an office. Both affordable price for dwelling and office would a big advantage for the starters in their money flow, which is the big issue for all the starters.

For the office seekers, who rent the living rooms as office, They would have more flexible schedule for their office. Small group or short project would benefit from this. They could get an cozy office with affordable price and flexible schedule like people booking their hotels rooms. These affordable offices would also encourage people to do more creative jobs or start their own business, which is good for the economic growth in Amsterdam.

For the municipality of Amsterdam, they would have more job opportunities created by these small companies. Good development of these companies will contribute more taxes income to the city. And Amsterdam would be much more competitive than other European cities. The nice environment for business starters would also make Amsterdam's economy more diverse rather than mainly depending on tourism.

This dwelling unit and building would provide a new typology for the new times dwelling architecture, which makes the border between different functions indistinct. The design would show a new relation between working and living, and lead a new way of living. For example, Airbnb makes the border between hotel and dwelling indistinct, so does Uber for taxi and private car. The border would be more invisible and more indistinct for the further development.

This project is providing a new opinion about dwelling as one new product in the post-internet era. Maybe in the future, different people leading different lives would have their specific dwellings design customized according to their demands.

Time planning

Academic Year 2014-2015: Spring semester

Week 3.1 site excursion, workshop and read studio information,
Week 3.2 workshop,
Week 3.3 Site selection and research, theme research,
Week 3.4 Site model 1:500 and site research,
Week 3.5 Site model 1:500 and site research,
Week 3.6 Finish Site model and draft site research booklet,
Week 3.7 Theme research and first concept,
Week 3.8 Theme research and concept modification,
Week 3.9 P1 presentation-theme research,
Week 3.10 P1 presentation-individual concept,
Week 4.1 Reflection on the concept, digital model and mass model 1:500,
Week 4.2 Combine mass model with sustainable strategy,
Week 4.3 Circulation and organization of the building 1:200,
Week 4.4 Circulation and organization of the building 1:200, unit size 1:100,
Week 4.5 Plan 1:200, model 1:200 and digital model, combine sustainable strategy within the design,
Week 4.6 Dwelling unit 1:100, detailed sustainable booklet framework,
Week 4.7 Dwelling unit 1:50 and prepare for Pre-P2, finished sustainable booklet, theme research,
Week 4.8 Pre-P2 presentation,
Week 4.9 Reflection and modification based on Pre-P2, prepare for P2
Week 4.10 P2

Academic Year 2015-2016: Autumn semester

Week 1.5 Fit floor plan, including underground parking within the load bearing system. And show the sustainable solutions in floor plan and sections,
Week 1.6 Fix organization of the building with load bearing system,
Week 1.7 1:50 dwelling unit and 1:50 of all the facade segments. Add sustainable solution inside of the 1:50 plan and section of the dwelling unit,
Week 1.8 1:50 dwelling unit and sustainable solutions improvement in dwelling unit,
Week 1.9 1:50 floor plan and section both in the tower and strip(segments). Draw clear sustainable strategy from big scale to small scale(from urban level to dwelling unit level), make 1:50 draft model of different segments of the design.
Week 1.10 P3(date not fixed),
Week 2.1 Modification and reflection on P3 on floor plan, sustainable solutions and other building technology drawings,
Week 2.2 1:20 detail drawings in facade, basement and interior,
Week 2.3 1:5 detail section in all parts. Make model 1:200,
Week 2.4 Supplement drawings about other requirements. Make 1: 50 model for both

segments(one is the dwelling strip of inner street and the other one is the dwelling with collective space in the tower),

Week 2.5 P4(date not fixed)

Week 2.6 Modification and reflection on P4. Make mass model 1:1000 to show the urban context around. And make 1:500 mass model of the island to show the urban design concept, send 1:200 and 1:50 laser cut file to cut the model,

Week 2.7 Make nice image of the rendering and facade. Make the final booklet and posters,

Week 2.8 Make 1:200 and 1:50 model of the different segments (tower and strip) and the 1:20 or 25 dwelling unit mode with human scale.

Week 2.9 P5 (date not fixed)