DIPLOMA PROGRAM SPRING 2018

Diploma candidate: Une Tangen Rekstad

Institute: Arkitektur

Main supervisor: Marius Nygaard

Second supervisor: Catherine Sunter

External supervisor:

Company cooperation:

Title of project: INFILL
Student Housing in Tøyen
PRE-DIPLOMA
SPRING 2018
UNE TANGEN REKSTAD
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STUDENT HOUSE
STUDENT HOUSING SITUATION IN OSLO

Oslo is the home of 74,000 students. It has the greatest offer of studies in Norway, which is natural for a capital. However, the city’s student accommodation is poor. The beginning of each semester reveals a crisis in the capacity of student housing in Oslo. This results in many new students travelling far to accept their education spot in Oslo, or living with friends or family for some time before accommodation becomes available. There are about 8000 student accommodation units in Oslo. This means that there are approximately 8 students competing for each bed. The different offers of student housing cater towards different needs and budgets. There are larger apartments for families’, small apartments for a single person or couple, and dormitories within collective units where you share the kitchen and bathroom with others.

Studies done by SSB (The bureau of statistics) show that not every student wants to live in student housing, and the current waiting list for student housing in Oslo is only 3000 students. Most students choose to rent privately, and it is hard to pinpoint one reason for this.

Most students rent accommodation, with only 8 percent of students in Norway owning their apartment. This is in comparison to 21 percent of people in the same age group who are not studying. Renting is a reasonable way of living while studying, when the decisions of the future are often blurry and unclear. Do I want to live in Oslo after getting my degree? Will I fall in love with someone from a different place? Will I move back to my hometown? Where and when will I get job offers? The questions are many, and one possible reason why so few students commit 100% to the city in which they study.
New student housing projects in Norway are financed by government grants and loans funded by the Housing Bank. These grants are usually, but not always, given to a Student Welfare Organisation (studentsamskipsnad).

The student housing “market” in Norway is very pressured. The demand is high and the ever-increasing shortage of student residencies has resulted in a regulatory dispensation. It exempted, for example, a greater number of student housing from the accessibility requirements in bathrooms, as well as the sound insulation requirements (TEK 10 and TEK 17). This dispensation came into force in 2012, when the share of student housing needing to be universally designed went from 100% to 20%. This gives student housing as a typology the opportunity to be more exploratory in design and construction than regular residential projects.

The Norwegian Consumer Council recommends that student housing should have its own regulation in the Planning and Building Act, exempting it from regular housing projects. In the future this could give even greater potential for a quicker growth of student housing. However this should be balanced with ensuring that the new housing does not provide a lower standard of living.

On average, a student lives in a student house in Norway for 18 months before moving to another student house or elsewhere. This temporality is a key factor in why one can be freed from the current regulations in the Planning and Building Act.
The site is an infill-site situated in Herslebsgate in Tøyen in Oslo, currently regulated for housing. The surrounding apartment buildings make up a "bygård" with an inner courtyard for all of the residents. The site is located in immediate proximity to the botanical garden, tramlines and the river. Although this is a very central site in Oslo, the context of the buildings in the area are mostly residential.
STUDENT HOUSE
SITE
In this project I wish to address the current lack of student housing in Oslo.

I wish to explore designing a student housing project within an urban infill site using pre fabricated timber elements as an innovative, quick, economic and repeatable construction method.

I also wish to explore how the exemptions from the regulations in the planning and building act can be used to design good homes for students, where they can study in peace as well as have a social life.
Key Info:
Project: Student housing
Architects: Helen & Hard
When: 2015
Where: Haugesund, Norway
Infill

Axo circulation
Placement in environment

Situation
“To preserve the scale of the adjacent buildings, two staircases divide the street elevation in three parts. In addition to providing a social meeting place on each floor, the staircases bring light and activity through the facade into the building.”
STUDENT HOUSE

REFERENCE: STUDENT HOUSING IN SØRHAUGGATA

Plan. Ground level: Public

Typical plan: Private
STUDENT HOUSE
REFERENCE: STUDENT HOUSING IN SØRHAUGGATA

Key numbers:
- Gross Area: 2560 m²
- Residents: 91
- Units: 74
- Apartment size: 16 m²
- Ground floor: Public
- Time, construction: 8 months
STUDENT HOUSE
REFERENCE: STUDENT HOUSING IN SØRHAUGGATA

Personal comment as to why I chose this as a reference

Obviously, this project fulfill the three criteria I wish to work with in my diploma. It is an infill project, it has the same program, and it uses CLT as construction.

I think the infill is smart and well done. The street Sørhauggata has lots of different typologies, still making the street as whole look cohesive. This new project is larger both in plan and in height than the rest of the buildings in the street. The architects solves this with a set of tools I like. First, they split up the elevation into three bodies, making it less massive and more in line with the streets scale.

The height of the project is a factor I never can seem to agree with myself about. At one time I find it to be too tall, stealing the entire street. At other times I agree with the height because of the moves that has been done to justify it; at each end the roof is lowered to meet its neighbors. The elevation of the windows on the street side is also put in a delightful, “thoughtfully random” way, that makes the large facade less dominating.

On the ground floor, there is a public program. I think that the architects will use this as an argument if the height comes into discussion. At the times I agree with the height, I agree with this as an argument also. But at the times I do not agree, this seems like a cheap argument to me.

All in all, I like this project very much. Even though I disagree with the height (sometimes), it sits well in the street facade. I also like the moves that have been done towards the back of the building, lowering it and making a courtyard I think is beautiful.
STUDENT HOUSE
REFERENCE: MOHOLT TIMBER TOWERS

Key Info:
Project: Student housing
Architects: MDH
When: In construction (2015-)
Where: Trondheim, Norway
Cross laminated timber construction
STUDENT HOUSE
REFERENCE: MOHOLT TIMBER TOWERS
STUDENT HOUSE
REFERENCE: MOHOLT TIMBER TOWERS

Plans of building B, The northernmost building of the five towers

Ground floor plan
Shared spaces
The basement and ground floor levels are made in reinforced concrete cast in-situ.

Typical floor plan
Private spaces & shared facilities
From the first floor to the 9th floor the entire structure consists of prefabricated CLT-elements
“The five towers are 9-storey high buildings with a height of 28-metres. The basement and ground floor levels are made in reinforced concrete cast in-situ. From the first floor to the 9th floor the entire structure consists of prefabricated CLT-elements. Elevator shafts and stairwells are also constructed in CLT. Both inner and outer walls are structural.”

Key Numbers:

- Buildings: 5 towers
- Dorms: 632
- Gross Area: ca 20,000 m²
- CLT used: 5600 m³
- Collectives: 40
- Dorms / Kitchen & shared area: 15 (one collective) 13 m² /
- Couples appartements: 4 33-55 m²
- Studio appartements: 24 16 m²
The approach to building with CLT was to take advantage of the finished surface of the CLT elements and expose as much as possible of the CLT element system by developing a robust and honest detailing concept. The joints of the structural elements are revealed as part of the aesthetics of the interior.
STUDENT HOUSE
REFERENCE: MOHOLT TIMBER TOWERS

Personal comment as to why i chose this as a reference

One of the reasons i chose this as a reference, besides the obvious similarity in both program and construction that i wish to explore, is that despite its huge scale, this project is one i could relate to as a home. The exposed timber inside in both ceilings and walls welcomes you. I think the use of timber should have been explored more also in the furniture. Maybe they could have been integrated in the construction.

I think more effort could have been made designing the public ground floor. Maybe it is the grand scale of the project that demands more than a different material to communicate the publicness. My project does not have a public program, but it has one that i wish to share with the immediate neighbors.

I like the details made in the CLT construction in the staircases, with these cut outs. However, the playful move makes it a bit less "home" for me. I realize i will need to study what "home" really means. The floors and the colors in the stairs, makes me think of an institution like a school or hospital.
Key Info:
Project: proposed Urban ecological residential project, Cultural programs
Architects: Eriksen Skajaa Arkitekter
When: 2015
Where: Oslo, Norway
Urban ecological residential project. Emphasis on affordable, urban housing. Part of the “vulkan cultural strip”. Collective living.
STUDENT HOUSE
BYØKOLOGISKE BOLIGER I HAUSKVARTALET

Illustration of life in the block by Esben Titland

Illustration of proposed regulation plan by Gaia Arkitekter
STUDENT HOUSE
BYØKOLOGISKE BOLIGER I HAUSKVARTALET

Basement plan: Collective
Storage, Laundry room, technical room. Bicycle workshop. Practice rooms. **Big shared bath** including saunas, ham ham, dressing room, cold and warm culp, showers.

Groundfloor plan: Collective
Large scale shared kitchen. Dining Area. Store venues. Marked place area
STUDENT HOUSE
BYØKOLOGISKE BOLIGER I HAUSKVARTALET

3rd floor plan: Less collective
Private appartments with 1-2 bedrooms. Shared living rooms

Loft plan: Collective
Shared office/work spaces. Dormitory with 11 beds
STUDENT HOUSE
BYØKOLOGISKE BOLIGER I HAUSKVARTALET

Long section showing the connection between the two bodies

Key numbers Brenneriveien 1

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Key numbers Hausmannsgate 42

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STUDENT HOUSE
BYØKOLOGISKE BOLIGER I HAUSKVARTALET
Personal comment as to why i chose this as a reference

This project is perhaps chosen more for the convincing report Eriksen og Skajaa has written about it, than the drawing material itself. It is a critique of the way the housing market works in Oslo today and gives the municipality this report as a tool to achieve their goal of a varied demographic citizen group also in the city centre.

The shared and public programmes are well justified and drawn out. It describes such a richness in this community, and i long for more illustrations of this. The illustration by Esben Titland is beautiful, but i am missing a more precise image of what living here could mean.

I like the plans of the first floors. It really shows the collectiveness they describe in their report, and also provide private spaces. This make me really believe in this project. On the rest of the plans, and especially the loft, some doubts comes in. For example in the dormitory, why not really embrace the collectiveness of this building. This could be a new space for networking and friendship building, but ends up a rather boring space where communication across inhabitants seems like something one wants to avoid, but not manage completely.

It is something about scale in this, and many other projects with shared programs i see, that i don’t understand or agree with. Shared spaces are often colossal. I understand the desire to fit many in one room at once, but this collides with the desire to keep it “homely”. The big rooms, such as the shared living rooms in this project’s 3rd floor plan, has an institutional feel to it for me. Collectiveness does not necessarily mean putting every inhabitant in the same program at all times. Using this living room as an example (although it definitely is not the worst i have seen) I think it would be advantageous to separate or at least have the opportunity to separate this big space.
The program is student housing
Emphasis will be on pre-fab timber construction, temporary living and shared spaces

A shared first floor with the possibility and encouragement for the whole block to be included in this program

5 private units (ca 12 m²) per floor from 1st floor and up
Each room containing
Bed
Storage
Space to work
Toilet

Each floor (minus private unit = ca 90 m²) containing
Entrance
Living room
Kitchen
Dining area

Shared roof terrace of maximum 162 m²
Urban Situation:
Situation plan
Map
Situation model (urban block) 1:200
In relevant scale (1:200 / 1:500 / 1:1000)

Building
Plans
Sections
Important details
in relevant scale (1:100 / 1:50)

Sketch material:
Process book
Sketch models / photographies
STUDENT HOUSE
SCHEDULE

Januar 2018

1. Semester start
2. Diploma Reviews
3. Diploma Reviews
4. Diploma Reviews
5. Diploma Reviews
6. Diploma Reviews
7. Diploma Reviews
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9. Diploma Reviews
10. Diploma Reviews
11. Diploma Reviews
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31. Diploma Reviews

Februar 2018

1. Phase 1: Explore (site, volumes)
2. Get background material to start building site model
3. Tonsil surgery
4. Some planned sick days
5. Building site model. Start volume studies
6. Collect, arrange and date sketches of the week
7. Review 1: Finished sketch project
8. Phase 2: Sketch project. Sketching of programs in volume
9. Collective / private
10. Neighbourhood / building
11. Entrance, Infrastructure, Aesthetics, Courtyard
12. Collect, arrange and date sketches of the week
13. Collect, arrange and date sketches of the phase
14. Collect, arrange and date sketches of the week
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### March

**Phase 3: Develop project towards preliminary design (forprosjekt)**

- Collect, arrange and date sketches of the week

**Review 2: Finished preliminary design**

**Phase 4: Develop towards detailed design**

### April

**Review 3: Finished detailed design**

- Collect, arrange and date sketches of the phase
- Presentation models
- Collect, arrange and date sketches of the week
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Submit around this date:

- Drawing and graphic layout finishing
- Digital presentation and rehearsals
- Diploma reviews
**Student Housing in Oslo:**
https://studenttorget.no/index.php?show=5665&expand=3797,5665&artikkelid=12612

SSB: Folke- og boligtellingen. Studenters bosted og boforhold, Harald Utne
https://www.ssb.no/bygg-bolig-og-eiendom/artikler-og-publikasjoner/i-et-bitte-lite-rom-paa-loftet

**Student Housing:**
Evaluering av byggtekniske krav til studentboliger, by Implement Consulting Group & Direktoratet for Byggkvalitet 2015

Tracing a Timber Breakthrough— the introduction of CLT to the student housing market in Norway, by O.K. Flindall & M. Nygaard, Wood/Be/Better, Oslo School of Architecture and Design, Oslo, Norway


**Student housing in Sørhauggata:**
http://www.helenhard.no/projects/srhauggata_student_housing

**Moholt timber towers:**
https://mdh.no/project/moholt-student-housing-towers/


**Hauskvartalet**
Byøkologiske boliger i Hauskvartalet, rapport published by Kulturhuset Hausmania, Brukere av Hauskvartalet and Eriksen Skajaa Arkitekter 2015