

PRE-DIPLOMA
ANNE RINGSTAD
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Casa Con Piscina [bilde] 2005.

SUPERVISOR
ERIK FENSTAD LANGDALEN
THE OSLO SCHOOL OF ARCHITECTURE AND DESIGN

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INTRODUCTION

“Tabula plena is a term used to connote urban cities full of existing buildings from different time periods, a space where a density of previous markings and systems remains. It can be described as a table after a dinner party, a complex arrangement of plates, glasses, and silverware positioned by a series of social negotiations. The condition of the found objects offers an invitation to rearrange”¹

- Bryony Roberts

Changing the use of buildings is often spurred by political, religious or economic changes in society. Greek and Roman temples were converted into Christian churches due to new religious practices. English monasteries were recycled as country houses and Russian places became post-revolution museums of the people. More currently, American mills and railway stations have been changed into shopping malls and hotels.

In today's post-industrial society, industrial buildings from the 1850s-1960s are reused for new purposes. Change in production has led to industry being closed down and factory buildings left empty, often in attractive areas and beautiful surroundings in the centre of cities. Today, reuse, transformation and preservation of built heritage have become a central task for architects, both in Norway and internationally.

Vision

My initial interest is to explore different ways to reuse the built heritage in general and industrial buildings in particular, as well as investigating which factors are involved in this process. Is it possible to introduce a new program to an old building and regain its qualities in a new, but recognizable way? Will the new functions fit into an existing building, and do we allow for adaptation? Will the new program benefit from the

¹ Roberts (2016)

flexibility that lies within the existing structure? How does the program inform the building, and how does it affect the nearby surroundings?

In my diploma project I want to challenge a chosen historic, industrial structure with a new program and to challenge the program with the restraints and potentials of the existing structure, and hopefully achieve an architectonic result that benefits both.

I've chosen an untraditional way to work, by introducing the program before doing a feasibility study of the chosen site. I think this could be an interesting architectural exercise, that gives me the opportunity to spend more time to link these two elements together in a satisfactory and successful way. When choosing a program, I wanted to make sure that the program could withstand the pressure of the given existing structure and vice versa.

Program

I believe that a student housing program is well suited for this type of experiment because of its variation of different spaces. There will be private zones/public zones, small/large rooms, rooms that need daylight and rooms that needs different acoustics, all in all - rooms that require different qualities depending on the type of activity, and allows for a flexible distribution.

Furthermore, fresh numbers from Norsk Studentorganisasjon (NSO, Norwegian Student Organization) show that we only have the capacity to house 14,5% of the students, and we need approximately 14.000 new apartments to reach the national target of 20% student housing coverage².

² Rønnevig Andersen (2017)

Site

I have chosen Seiersborg Tekstilfabrikk in Fredrikstad (Teglverksveien 3) as my case. A medium sized, iconic industrial brick building, with a convenient location in the city centre and near Høgskolen i Østfold.

CHANGING THE USE OF THE EXISTING

WHY TRANSFORMATION?

“At first glance, nostalgia is a longing for a place, but actually it is a yearning for a different time - the time of our childhood, the slower rhythms of our dreams. In a broader sense, nostalgia is a rebellion against the modern idea of time, the time of history and progress”³.

-Svetlana Boym

Strategies for responding to tabula plena conditions are becoming increasingly urgent. The accumulation of existing building stock and the importance of sustainability have intensified the need of reuse and preservation projects⁴.

An important part of our cultural heritage consists of older buildings that still are in use. But very often the original function ceases, and it is appropriate to redeploy the building for new purposes⁵.

Both architects and users have gradually seen the value of using existing structures and developing the qualities of these buildings for new usage. The industrial buildings are often made of durable and solid material, and with their functional and time-honoring expressions, they often hold historical references to industrial society. Furthermore, industrial buildings often have flexible structures, due to big production halls and evenly change in production. Their central location and massive constructions have made it economically interesting to use them for new purposes.

³ Boym (2001)

⁴ Roberts (2016, p.12)

⁵ Grytli (2002, p.1)

RE-THINKING

Reuse, transformation, recycling. There are many different terms that apply to this topic, but they all try to describe the same thing: When an area is vacated or a building is no longer in use, how can we give the area or the building a new value? All built structures have an imbedded value, someone has invested in materials, infrastructure and labour to solve a function. If the function no longer is needed due to change, the structure itself will still be functional. Adaptation to new usage can be an extensive task, or it could be a rather simple adjustment, what we call transformation or reuse.

Furthermore, it could be interesting to look at these building's lifespan. Many industrial buildings have been standing for more than 150 years, unlike today's building stock which have an expected lifetime around 30 years. This proves the utility of the building, as well as the economic and environmental perspective⁶.

“Obsolescence: The influence of fashion, change of habit, competition, development of new territory and shifting of the centres of population and business.”⁷

The structure and format of industrial buildings provides large, open volumes and solid building physics, unlike today's buildings. It gives me a great advantage creating architecture within the framework of an existing building with personality, age value, authentic character and valuable resources such as materials. Reuse of buildings is a sustainable strategy and transfer their values on to the next generation.

⁶ Vignæs (2018)

⁷ Pelham Bolton (1911, p.75)

PROGRAM

WHY HOUSING FOR STUDENTS?

Flexible structure

The character and structure of an industrial building is very different from that of a traditional housing complex. The large flexibility due to the big and open structure invites to experimental ways of thinking, and maybe it could result in a form of open living?

Besides the renovation of existing residential buildings, buildings with other functions are nowadays reused and adapted for housing. This “trend” started in the 1970s with the transformation of industrial buildings, such as warehouses or plants, into artist’s studios, galleries and spacious apartments or “lofts”⁸.

The type of housing has also deviated from the initial loft concept, and has become more diverse, moving the focus from traditional apartments towards student housing, housing for elderly or more recently, various types of collective housing⁹. The typical characteristics of these lofts - one large open space instead of separate rooms, large windows, raw materials such as exposed red brick, iron, and polished wooden floors - soon also became fashionable with the elites of society¹⁰.

Economical aspect

For most students, paying the rent is the highest expense of the month. Student housing programs is an important political instrument to help ensure equal access to higher education. Furthermore, the housing programs could

⁸ Plevoets, Van Cleempoel. (2019, p. 64)

⁹ Plevoets, Van Cleempoel. (2019, p. 64)

¹⁰ Plevoets, Van Cleempoel. (2019, p. 64)

be instrumental in helping students who otherwise would be at the mercy at the private rental market, especially in the city centre close to universities.

Student housing is currently a shared expense between the state and Studentsamskipnaden. NSO believes that at least 3000 student housing should be built annually until the target of 20% national coverage is reached¹¹. Numbers from the government's website show us that more people are interested in higher education, and from 2017 to 2018 we see an increase of 3% in the number of applicants. There is also an increase of approximately 1000 more study seats in that period of time¹². This means that the need of student housing is an urgent issue.

Sociological aspect

Over 50.000 students have replied to the students health- and satisfaction survey performed by Folkehelseinstituttet (Institute of Public Health), where physical and mental health, quality of life and study achievements are mapped. Among other things, the responses show that 29 %, close to one out of three of the students, experience loneliness "often" or "very often", in one or several forms¹³.

To become a student is a transition in itself, and moving to a new location without any family or friends might be challenging. SIO (the Norwegian Student Organisation) plays an important role by providing health care and social events, but the government also have a responsibility by facilitating functional environments for students outside school. Student housing could be one of them.

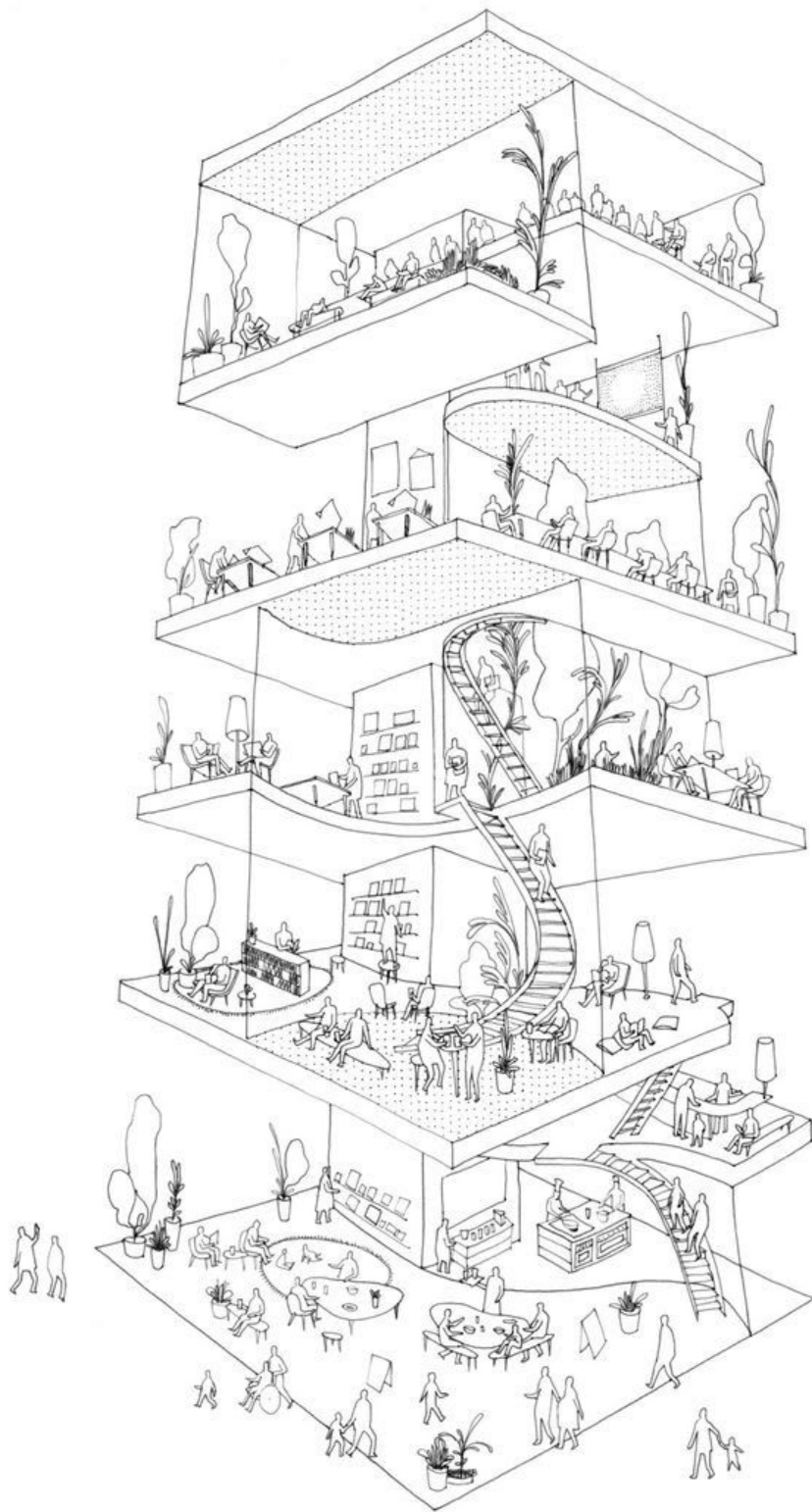
In my project I want to create a space where you easily can interact and socialize with other students, but also have the possibility to withdraw.

¹¹ Rønnevig Andersen (2017)

¹² Regjeringen (2017)

¹³ NRK (2018)

There should be a clear distinction between the individual, the community and the outside world, each given appropriate, well thought through qualities.



Shibaura House [bilde] 201

VISION

My goal is to create architecture adapted to students living situation, that provide space to meet, live, work and socialize. I want to achieve this within the structure of an existing building. I aim to create flexible solutions which invites singles, couples and small families and meet their basic needs.

My aim is to offer students good living conditions in a safe and stable environment, as well as creating architecture that encourages students to take advantage of the whole building and the different atmospheres it offers. Student accommodations are often quite small, and it is important that the shared spaces and public facilities, such as kitchen, garden, living room and laundry room are inviting. It should be a safe arena where students with different backgrounds can meet and socialize after school, with focus on student's physical and mental health.

QUALITY

Quality is used to describe an object's condition and valuable properties, but quality is also the ability to satisfy the users requirements and expectations¹⁴. In my diploma semester, I want to question both the physical and non-physical quality of the original building, and take in consideration the student's requirements and expectations to student housing. Adding these up will give me an idea of how I should develop my project.

Physical and mental health

“Sundhedsloven” was founded in 1860, and was a result of the public health reforms that followed the industrial revolution and the transformation of Europe. The poor public health was partly due to cramped quarters, poor housing, lack of fresh and clean air, incorrect cleaning and lack of outdoor spaces. It emphasizes the importance of light and fresh air in apartments and housing.¹⁵

I believe that there are many factors that would give people the feeling of living in “cramped” quarters, this could for instance be ceiling height, access to natural light, wrong materials or colours. For instance, according to “The Influence of Ceiling Height”, people have become in average 10 cm taller since the foundation of Sundhedsloven¹⁶. With this in mind I find it imperative to increase the ceiling height accordingly when I deliver my proposition.

Preserving qualities

When studying my case, I would look for qualities to be preserved and accentuated, for instance: high-quality materials, characteristic shape,

¹⁴ Gundersen

¹⁵ Schjønsby

¹⁶ Meyers-Levy (2007)

historical identity, rugged appearance. When the industrial activity has been shut down, it leaves a lot of open space that give a generous environment, for those who will live there.

PROVIDING QUALITIES IN MANY LEVELS

Architecture is the physical framework for the complex interaction between the individual, the group, and the society. People have different preferences depending on their life situation and expectations, but I believe that good physical surroundings can improve quality of life.

Organization

Student housing is a composition of several elements, the student as an individual, the students as a community and students in the public. The different groups have different needs and desires. To organize this, I will need to take into consideration the different needs of the different groups. As an example, the individual needs a good work environment with sufficient light, space for their own personal items and belongings and a place to rest and sleep. The community needs a well-functioning, organized kitchen where you can cook and enjoy a meal, a place to discuss and read together as a colloquy, and they would also enjoy a outside space, a park, where they can interact with the outside world - the public.

Improving co-living

A recent study by Norsk Institutt for studier av Innovasjon, Forskning og Utdanning (NIFU) shows that students living in student housing are less satisfied with the housing situation than other students. Distance to the university and city centre, and poor housing standard are some of the reasons¹⁷. There are many different variables that can improve environment for students living together, as mentioned earlier, I've pointed out the importance of access to natural light and the feeling of spaciousness. Other important elements to create a good living atmosphere can be good acoustics, a thorough sun analysis, attractive outdoor spaces, nice views and a good indoor climate.

¹⁷ Omvik (2011)

I aim to create architecture that is specifically adapted to the student living situation, with surroundings that are well thought through in different scenarios.

APPROACH

“To choose an object is to take it, to appropriate it, to touch it, not only physically but also mentally; it is to alter its physical and conceptual appearance; it is to modify its form and meaning.”¹⁸”

A wider understanding of the building as a mediation of different desires, functions, and politics introduces an important methodological issue. An analysis of this “object” includes, as well as its physical materiality and spatial configuration, media and representation from different contexts construct the meaning of the object - users, authors, economic and cultural values, and historical interpretation¹⁹.

While studying the object I will write down reflections and thoughts on the spatial qualities that may occur through these studies. These reflections will influence the main project throughout the diploma semester, and result in a complete project. This project will be an amalgamation of the knowledge acquired by the studies completed.

Throughout the semester, I hope to achieve an extensive inventory of studies, developed through drawings, model making, illustrations and writing, to complete the main project. I wish to make my way through the project on an urban level, to a more detailed level, where I explore situations and principles regarding the construction of the building.

¹⁸ Otero-Pailos, Langdalen, Arrhenius. (2016, p. 25)

¹⁹ Roberts. (2016, p. 195)

CASE: SEIERSBORG TEKSTILFABRIKK

Teglverksveien 3, Fredrikstad



Seiersborg Tekstil [bilde]

This factory from 1917 is located in Fredrikstad in Østfold. Fredrikstad was founded in 1567 by king Fredrik II and is considered as Norway's first renaissance city. Fredrikstad has approximately 80.000 inhabitant and is the third biggest city in eastern Norway²⁰. After the Swedes burned down the city in 1567, the king moved the city to Glomma's outlet and founded Gamlebyen. The fortress was built to protect the king and the inhabitants.²¹

In the 1860s, a more liberal economic policy began to yield results. The district was well suited for the industry of the time and flourished for several decades, among other things, producing and exporting planks and bricks, thereof “Plankebyen”. It was during these years that the settlement on the west side of Glomma grew²².

As the First World War approached, competition became so fierce that new ways of life had to be considered. The chemical industry, shipyards and the

²⁰ Arvid Henning (2020)

²¹ Fredrikstad kommune (2020)

²² Fredrikstad kommune (2020)

production of shoes and textiles provided work for many in the district until the 1960s. Because of the international competition, shoe and textile factories were closed down²³.



Seiersborg Tekstil [bilde]

Seiersborg Textile Factory was originally established in 1917 as a weavery owned by a trade company in Hamburg with norwegian owners. They shipped the textiles to Helsingborg for coloring, but in 1957 they got the technology and the right equipment to color in their own factory. From the 1960', "Alt for damene" or "women-clothing" was the main production, with mostly high quality wool²⁴.

The transition to new technology, tough competition, high productivity and quality requirements led to need for competence enhancement on all levels of the company, and since 1987 there has been an intensive effort to establish a formal training for skilled workers in the TEKNO-industry. In 1990, Seiersborg Tekstilfabrikk was sold to Sandvika Veveri²⁵.

²³ Fredrikstad kommune (2020)

²⁴ Arvid Henning (2020)

²⁵ Arvid Henning (2020)

In 1998, “Værste” started the revitalization of the area where most of the earlier industry buildings were left empty. This to make Fredrikstad an even better city to live, work and study in. They focus on education and research, technology, health and culture, and have already localized many national professional services organizations close to Høgskolen i Østfold²⁶.



Fasade og snitt, Seiersborg Tekstil [bilde]

I really fell in love with this iconic brick building which is typical for its time. It is located in the middle of the city center with only a 1 km walk to Høgskolen i Østfold. I think the scale is appropriate for student housing because of its reasonable relation to the human body, but also the great location. You are really close to both school, city centre and other activities, but also very close to fields and nature experiences. Despite its central location, the site felt protected against heavy traffic and noise, and I experienced it as quite peaceful.

²⁶ Just Larsen (2020)

SUBMITTED DIPLOMA MATERIAL

Site analysis

Documentation of transformation object

Concept illustrations

Concept diagrams

Program

Situation plan 1:500/1:1000

Situation model 1:500/1:1000

Situation section 1:500/1:1000

Plans 1:100/1:200

Sections 1:100/1:200

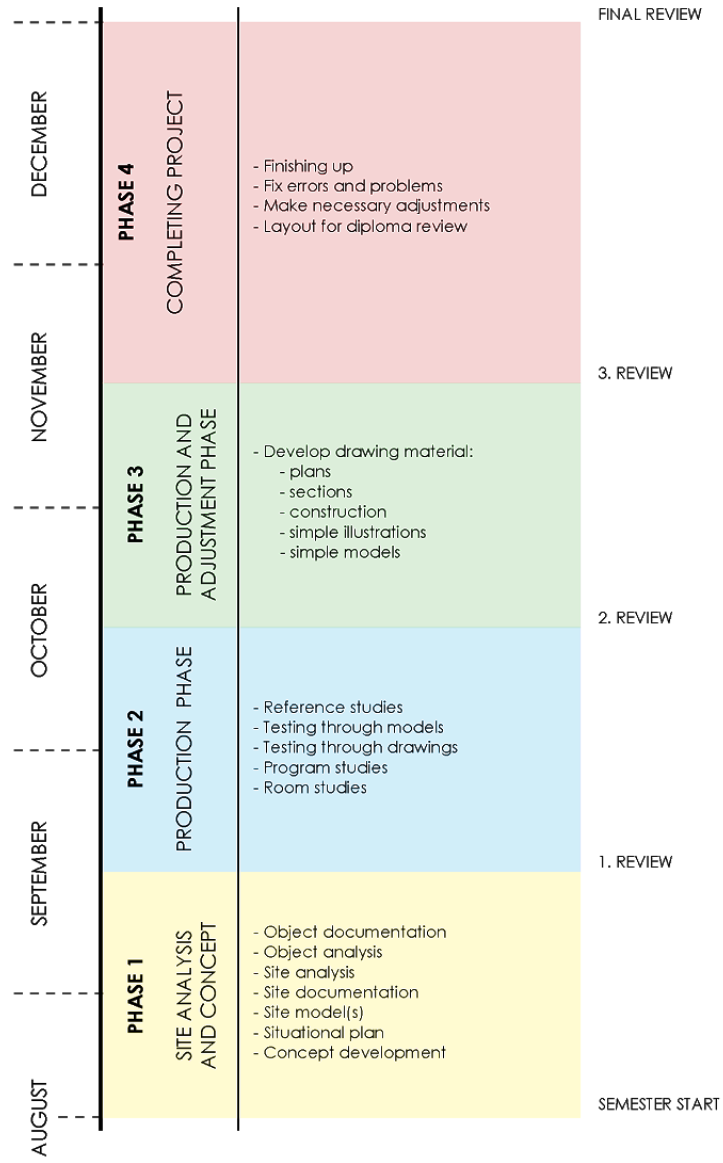
Illustrations

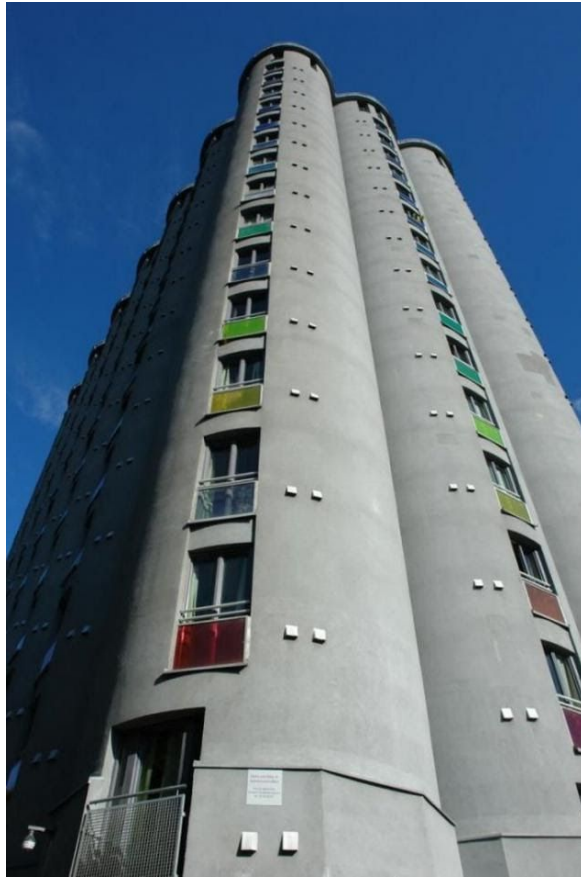
Details and construction principle

Renders

3D model

Physical models in various scale





Grünerløkka Studenthus - HRTB Arkitekter²⁷
Oslo



Moholt Studentby - Herman Krag²⁸
Trondheim

²⁷ Gelis-Doherty 2016

²⁸ Arkitektur N 2020



Teknobyen Studentbolig - Link Arkitekter²⁹

Trondheim



Teknobyen Studentbolig - Link Arkitekter³⁰

Trondheim

²⁹ Per Anda 2014

³⁰ Per Anda 2014

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