

WORK BOOK:

IN COMMON

A Future for Student Housing at Moholt



Architecture Master Thesis Project – Sverre Bjerkholt Aamlid – Tutor: Svein Skibnes – NTNU – Spring 2013

WORK BOOK

This book is a loosely chronologically ordered collection of important steps of the design process. Made as a tool alongside the process and not much edited in retrospect. Every step covered has had influence on the design, though not always equally clear. Often times the thoughts or ideas behind what is presented is as important for the final design as their physical manifestations.

The book is divided into three chapters, representing three phases of the design process. Although it is not always possible to clearly define in which phase any given step belongs, this gives a good representation of many ways of working. The first phase, Widening Up, covers the initial design process up to an open-minded presentation of ideas, possibilities, and a search to understand the fundamental design questions. The next phase, Specifying, starts to narrow down the findings proposing and developing a specific design concept. The final phase, Closing In, goes in depth on the actual design solutions of the main concept defined in the previous stage.

As especially the first phase produces a lot of highly different material this book holds from the initial design phases than the later ones, which are hugely about doing and redoing things until a good solution is reached.

PHASE 1: WIDEN UP

OPENING THOUGHTS

10.01.13

WHAT IS COLLECTIVE / STUDENT DWELLING?

TEMPORARY

FLEXIBILITY.

SOCIAL LIFE - AT HOME ↔ OTHER ARENAS?

PERSONALIZATION

FIRST OWN HOME/PLACE.

THE COLLECTIVE

SIZE?

SPATIAL ORGANIZATION

OWN / PRIVATE ↔ SHARED / COMMON

WHAT IS NEEDED FOR A PRIVATE ROOM TO STAY IN?
TO INVITE PEOPLE IN?

WORK / STUDY?

READ?

WATCH A MOVIE?

} WHAT DO YOU DO IN THE PRIVATE,
WHAT DO YOU DO IN THE COMMONS

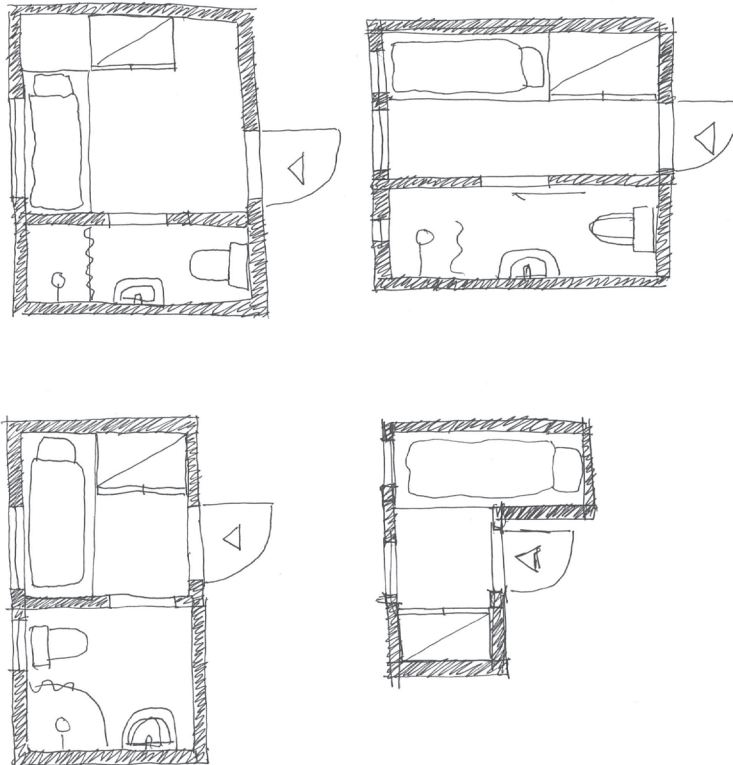


HOW MUCH CAN I, AS AN ARCHITECT DIRECT THE LIVES OF OTHERS, SHOULDN'T MY SOLUTION FIT FOR DIFFERENT PEOPLE?

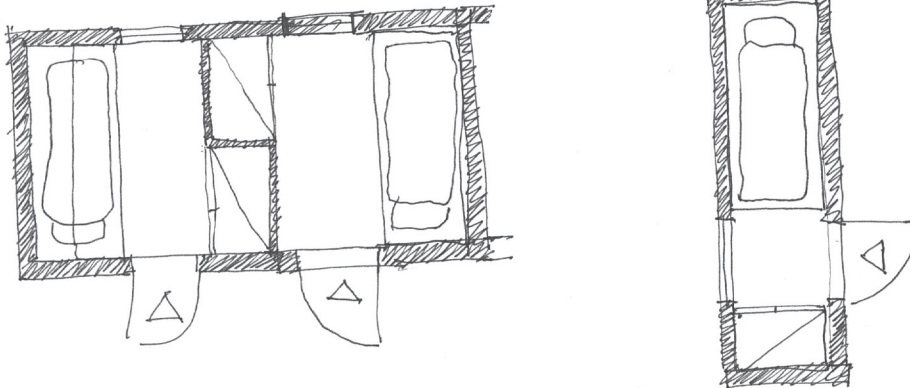
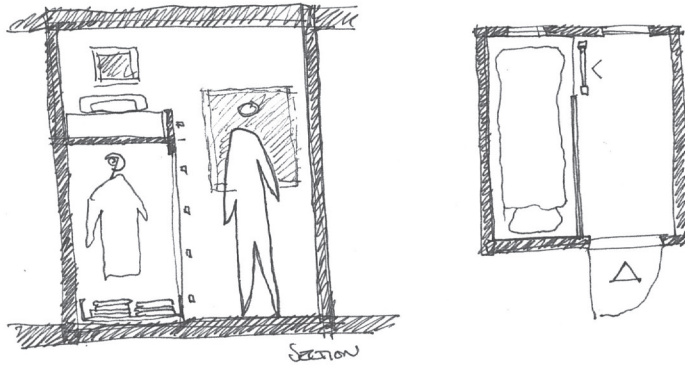
ISN'T COLLECTIVE DWELLING MORE THAN THE UNIT ITSELF?

"MINIMAL" UNITS

11.01.13



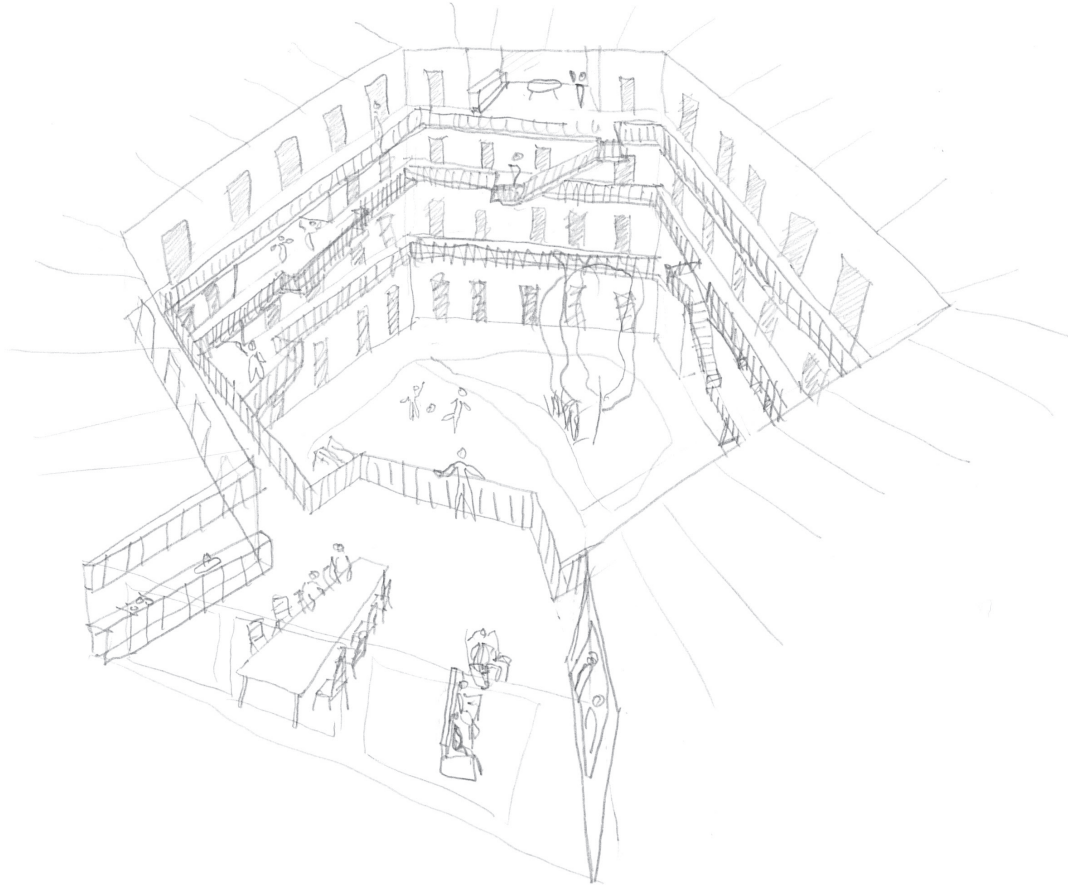
- No VISITORS
- No STAYING - JUST SLEEP/CHANGE
- THE NEED FOR OWN TOILET?
- FLEXIBILITY / PERSONALIZATION?
- DOES IT HAVE TO BE LIMITED TO CONVENTIONAL (FURNITURE/ROOMS/ETC)
- WOULD I LIKE TO LIVE HERE?
↳ FOR HOW LONG?



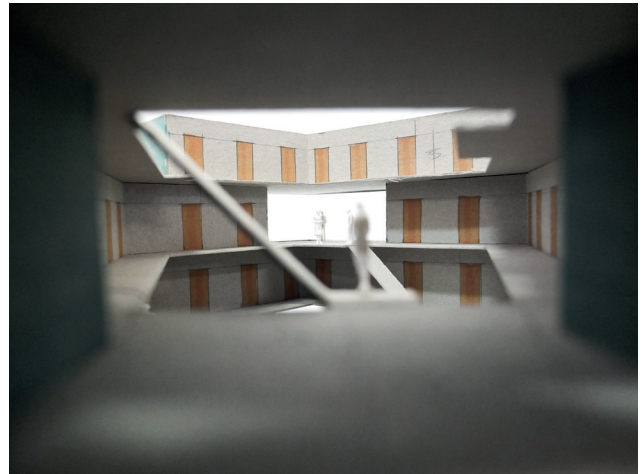
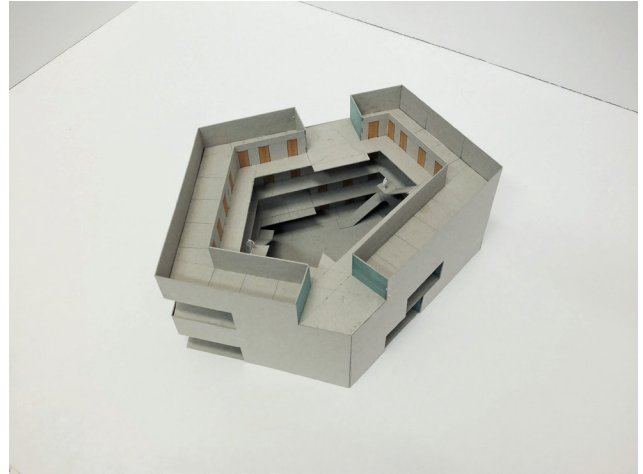
CAL VS HOME?

SPATIAL ORGANIZATION MODEL 1:100:
COURTYARD

14.01.13



The first model in a series investigating the spatial organization of collective dwelling – not primarily form. This is a big student house arranged as a community around a central courtyard, outdoor or climatized. The whole community is facing inwards, much like Tietgenkollegiet. The circulation happens in the yard, from where you have a overview all over the house. Every floor has their own common areas, giving the residents their own smaller group to belong to.

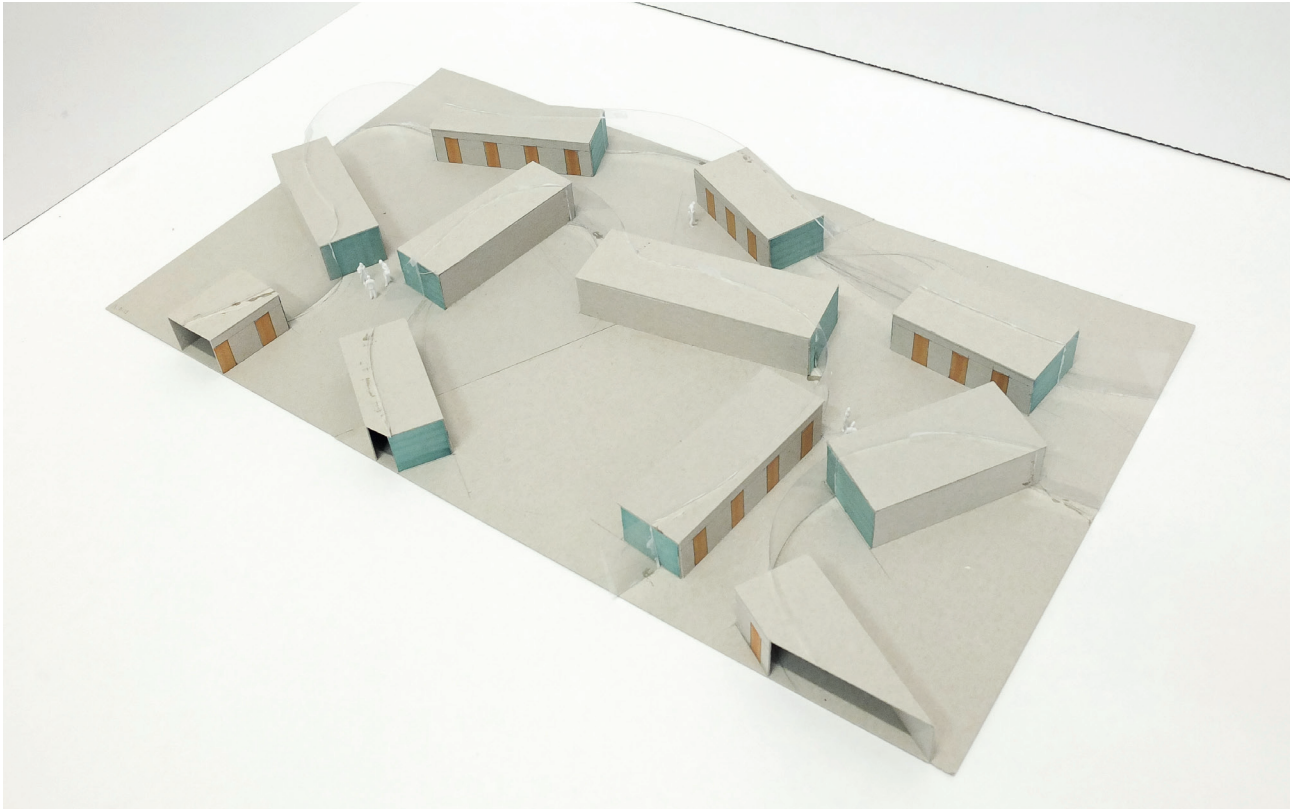


- + small community focus
- + circulation makes for encounters
- + visual contact
- + has private, shared, common

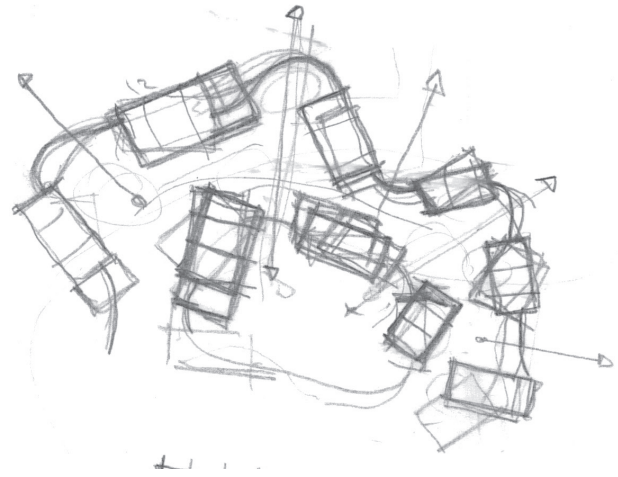
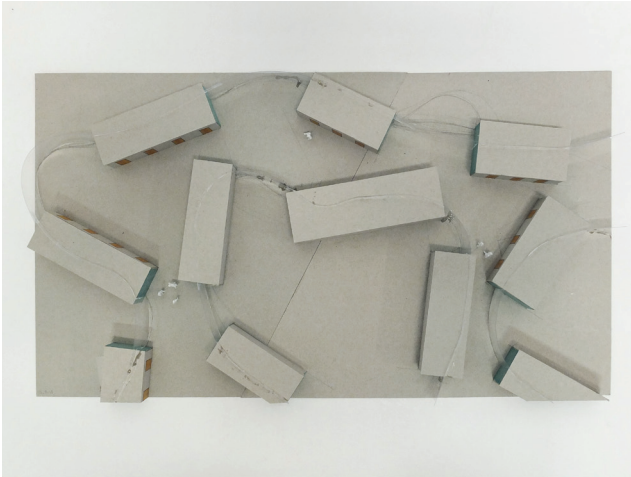
- turns back to the greater student village
- institutional character, rooms like prison cells?
- no semi-private spaces
- usability of yard? too compact?

SPATIAL ORGANIZATION MODEL 1:100:
COMMON FLOW

16.01.13



Private rooms as closed volumes. Common areas in between, protected from the outside only by a thin glass skin. The sleeping units are closed, clearly defined, private. At the same time the various common spaces are flowing between the volumes and have quite diffuse transitions as they are blending into each other and the more public outside.



- + circulation thru zones of common activity
- + difference private <> shared
- + student live in smaller units = more homey?
- + can branch, create inner yards, etc

- low density
- too much common area = too little intensity?
- few small spaces to be alone in shared areas
- how to navigate if the structure grows?

SiT kindly invited me to take part in a today's workshop kicking off the new architectural planning competition for Moholt. Among the attendants were several people from SiT, representatives for the competing offices, students, and a wide range of other interests. The goal of the workshop was to kick start the competition by collectively imagining future wants and needs, brainstorming the site's potential, generate initial ideas, and starting to find the right premises for the process.

Notes from the workshop:

Teams to compete:

- Fantastic Norway + Brendeland & Kristoffersen
- Rodeo + Architectopia + Lusparken + Landskaperiet
- MDH Arkitekter + Arne Henriksen Arkitekter
- Anne Lise Bjerkan + Moseng Poulsen Arkitektur + Erik Langdalen Arkitektkontor

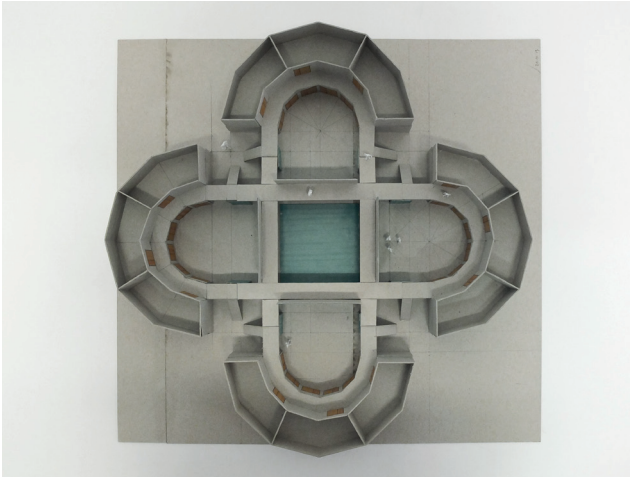
Brain storming Moholt today:

large, international, sealed of/isolated from neighborhood, affordable, cheap, worn, old, well known, durable, dated?, under-used site, home for families with children, students don't live here long, close to campus, close to nothing?, low status

Possible future trends/focuses for the new Moholt:

- focus on health and physical activity/sports
- time: save, use right, earn
- money: rent is ever rising so keep things cheap, offer what's needed and every student can afford
- social: students wish to form relationships, build social networks, feel like they belong
- the village: make Moholt a small community, offering everything needed in everyday life – jobs, shops, activities, services, hotel +++
- strengthen the reputation of Trondheim as a student city
- my student village: create a sense of ownership and identity among residents

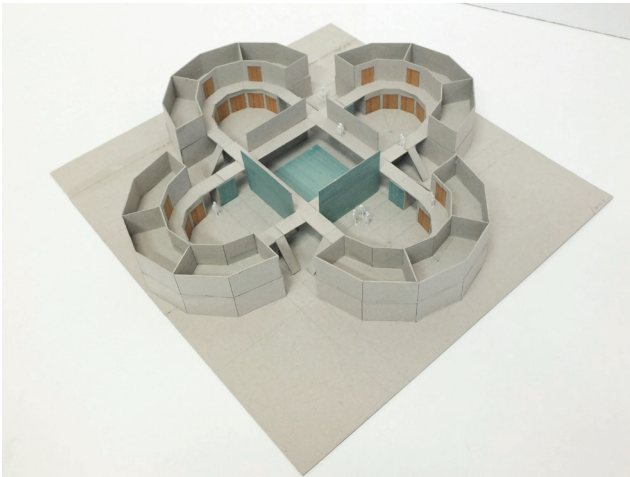
THREE LEVELS OF PRIVACY



Investigating more clearly defined levels of privacy / sizes of community. A clear hierarchy of spaces: nine private rooms enclosing a shared kitchen, four kitchens define a central common zone between all of them. This is a diagrammatic investigation, not an actual design!

- + Clear hierarchy
- + Smaller groups, possibly closer contact
- + Kitchens are interconnected

- Little chance of activity in central common room
- Introverted, turns back to student village



REFERENCE PROJECT:

SWEET PARLIAMENT HOME

Prototype Pavilion, Gwangju Design Biennale 2011

Andrés Jaque Architects

20.01.13

*Domesticity in Seoul is no longer something that happens in the single place of the house. **Home is constructed by connecting different spaces spread out within the city.** It is not spatially fixed, unitary and consistent; but discontinuous, fragmented and constantly changing.*



*Homes tend to be thought of like places where conflict, diversity and collective are left behind to find familiarity and unpolitical calm. But a number of daily evidences could be seen as **an opportunity to think homes as places where we get to meet and discuss with others.** Shared homes are parliaments in which we get to share are living and confront with otherness.*

*Based on a five year research that explored all venues of domestic interiors, the pavilion draws from a **number of different urban pockets that together represent the idea of 'home'.** They are largely driven by social networks and individually provide a spatial forum for meeting and discussion, such as a karaoke bar, a public sauna, and a cafe.*

vimeo.com/28586784 , archdaily.com/170133, designboom.com/architecture/andres-jaque-arquitectos-sweet-parliament-home-complete/

REFLECTION

20.01.13

Are my ideas so far too much based on conventional solutions and existing perceptions about student dwellings? Each student, one room - then a shared space (kitchen).

How can I challenge this?

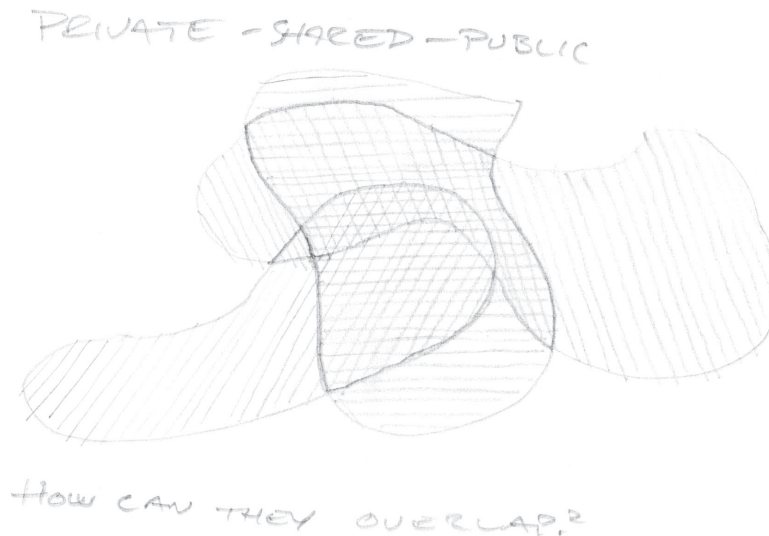
Do conventional rooms have to be the only solution?

The real needs aren't the rooms themselves, rather much more basic: You don't need a sleeping room - you need one or more places to find privacy, security, retreat, sleep, have sex, cry... You don't need a shared kitchen, you need to eat. The food you can get ready made, cook yourself or together with others. You need a social life - at home or elsewhere, and the needed amount is highly individual.

Basic needs to be met at home (in collective dwelling):

Security, privacy, sleep, social life/relationships, belonging, eating, hygiene, +++

Where are these needs met? < private - shared - common - public >



SOMEWHERE TO

SLEEP

DO SCHOOLWORK / STUDY

BE ALONE

CONTEMPLATE

CRY

INVITE FRIENDS

HIDE SECRETS

HAVE CONVERSATIONS

MEET PEOPLE

COOK

EAT

SURF THE WEB

WATCH + MOVE

DO LAUNDRY

EXERCISE

READ A BOOK

PICK NOSE

BRUSH TEETH

SHAVE

CLEAN ONESELF

DO NOTHING

USE THE TOILET

LISTEN TO MUSIC

PLAY AN INSTRUMENT

SMOKE A JOINT

HAVE SEX

CALL HOME

MEDITATE

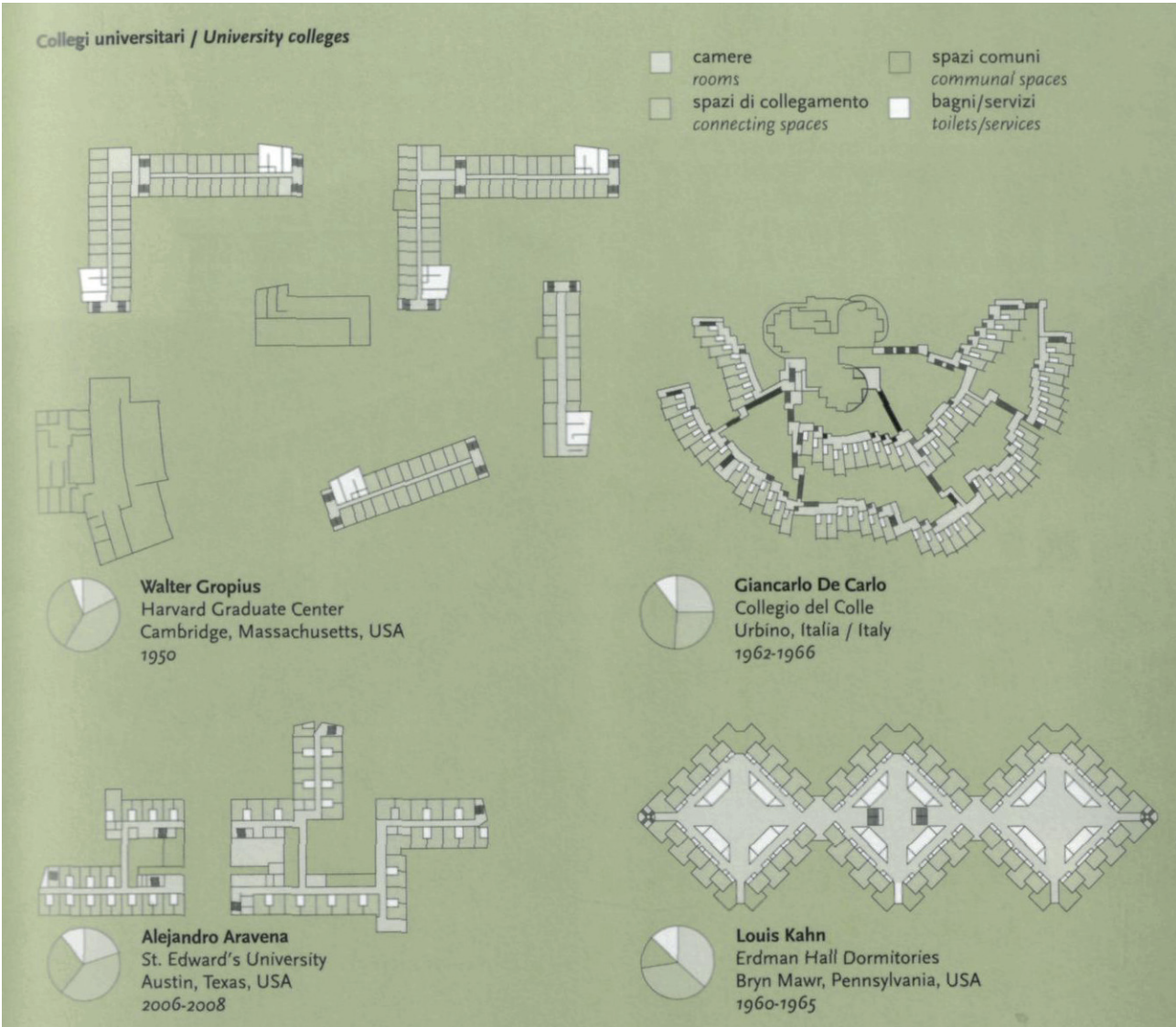
SHOP GROCERIES

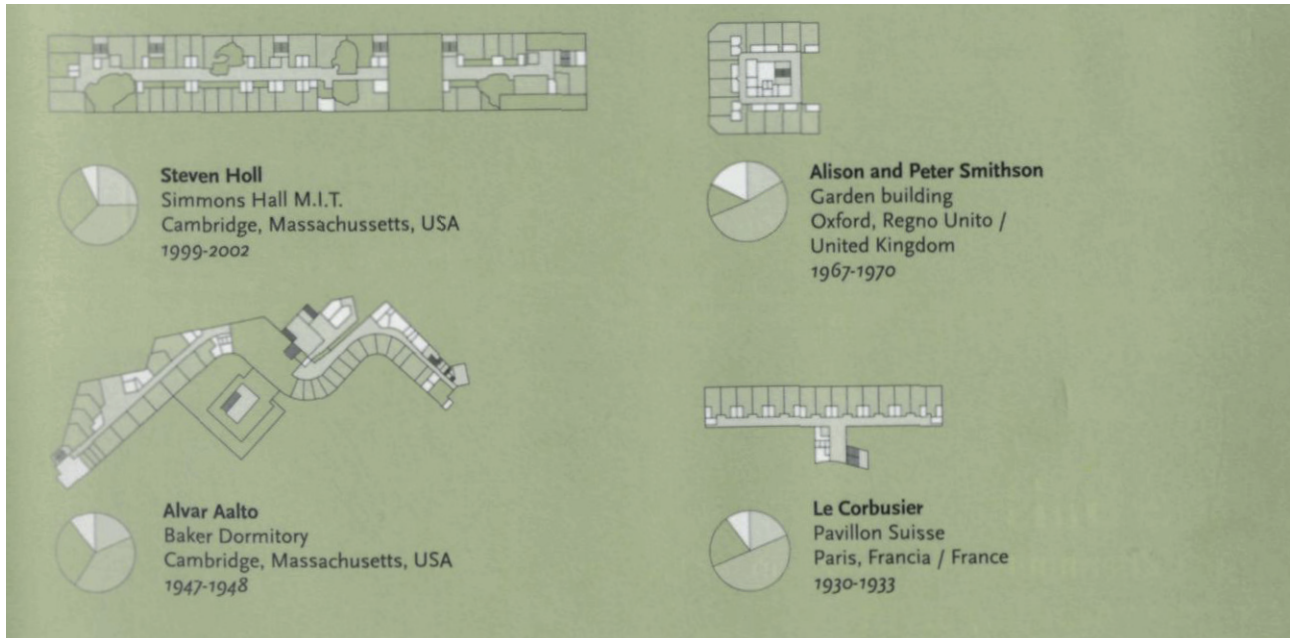
+++

THESE ACTIVITIES CAN TAKE
PLACE IN A NUMBER OF
SETTINGS, DON'T BE
LIMITED TO STANDARD
CONCEPTIONS! A NETWORK
OF INDIVIDUAL ACTIVITIES
AROUND MONOLT?
(AND TRONDHEIM?)

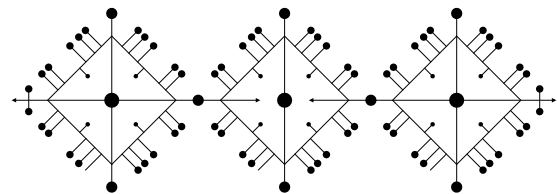
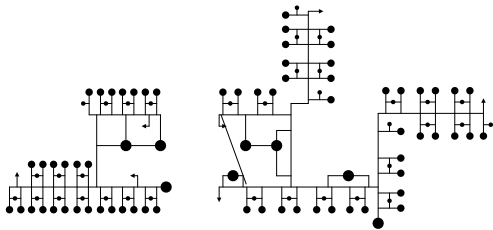
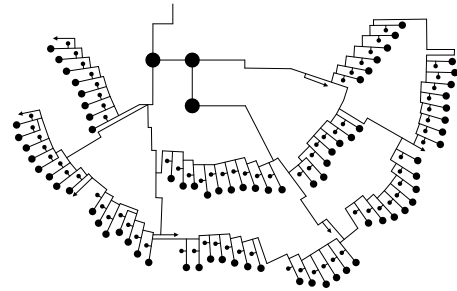
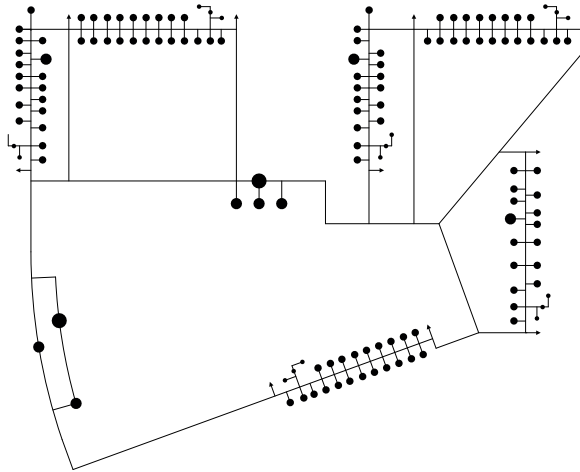
SPATIAL ORGANIZATION REFERENCES

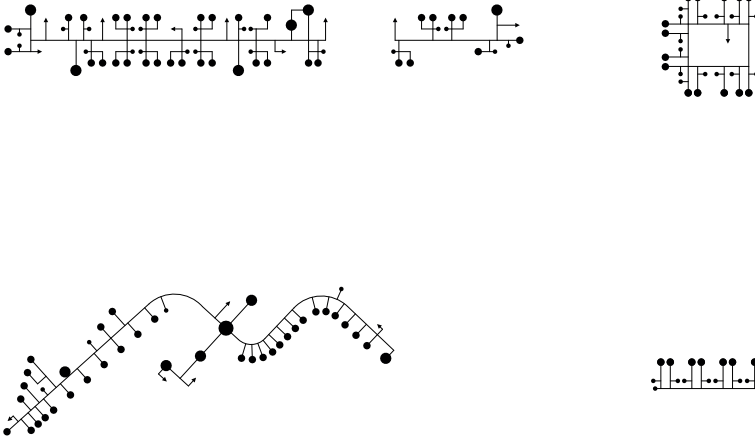
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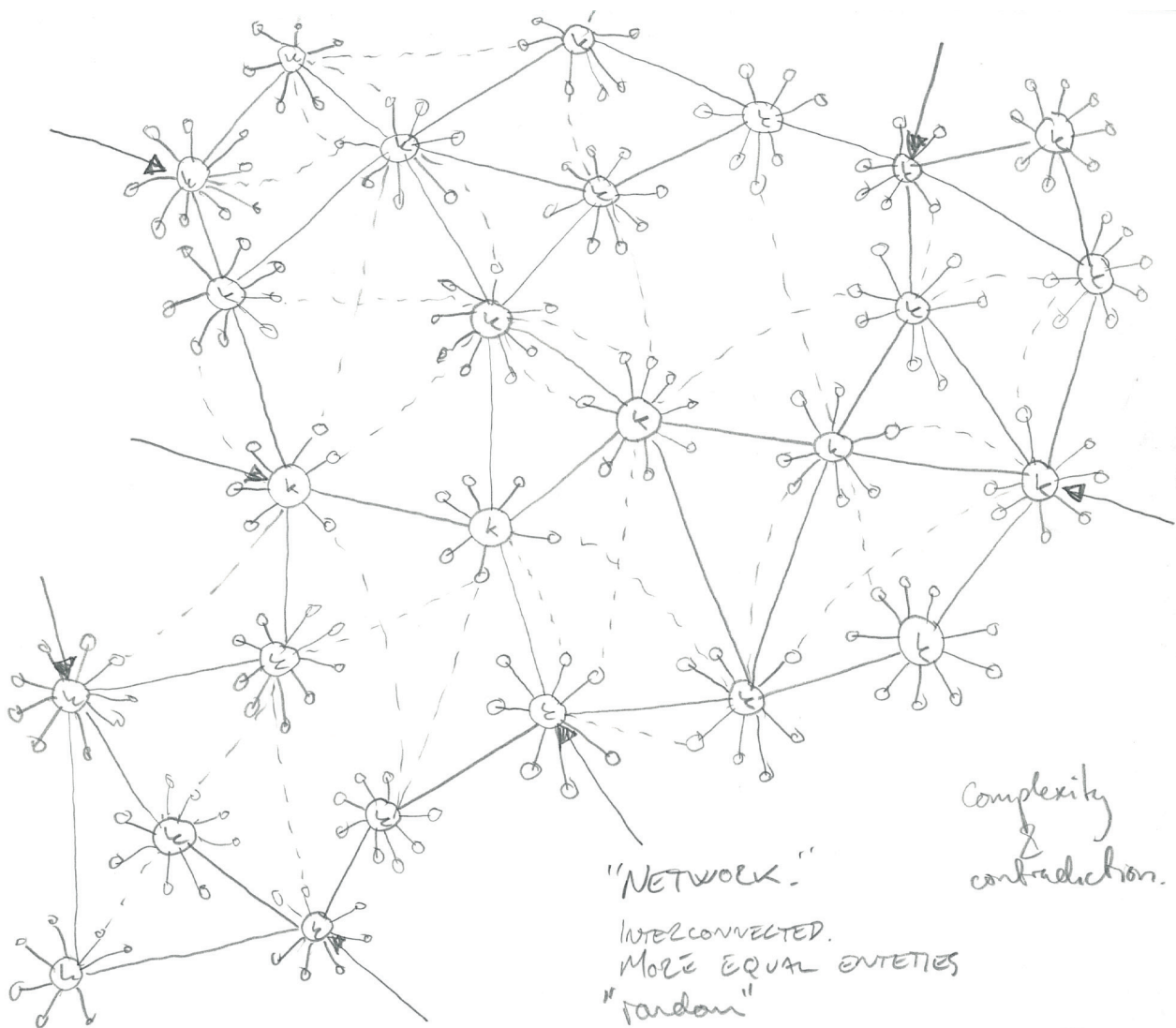
Found a great graphic overview of selected student housing projects from the last eight decades. Very interesting to see the different approaches, clearly different ideas about what student dwelling is!
 Scanned from the magazine Abitare #495 (01.09.2009)





Made these circulation diagrams to clarify some of the organizational differences between the projects. And they are fundamentally different! While some projects have common areas placed along or in the natural lines of communications, some place them more separately, yet others seemingly exclude these arenas all together.

Personally I believe projects like Simmons Hall and Baker Dormitory (the two to the left on this page) have a real strength in the closeness between private rooms and shared areas. This is what makes the common areas work, the residents don't have to make a decision to visit them and then see if anything is happening, rather they encounter the activity in their daily routines.



"NETWORK:"
 INTERCONNECTED.
 MORE EQUAL ENTITIES
 "GARDEN"

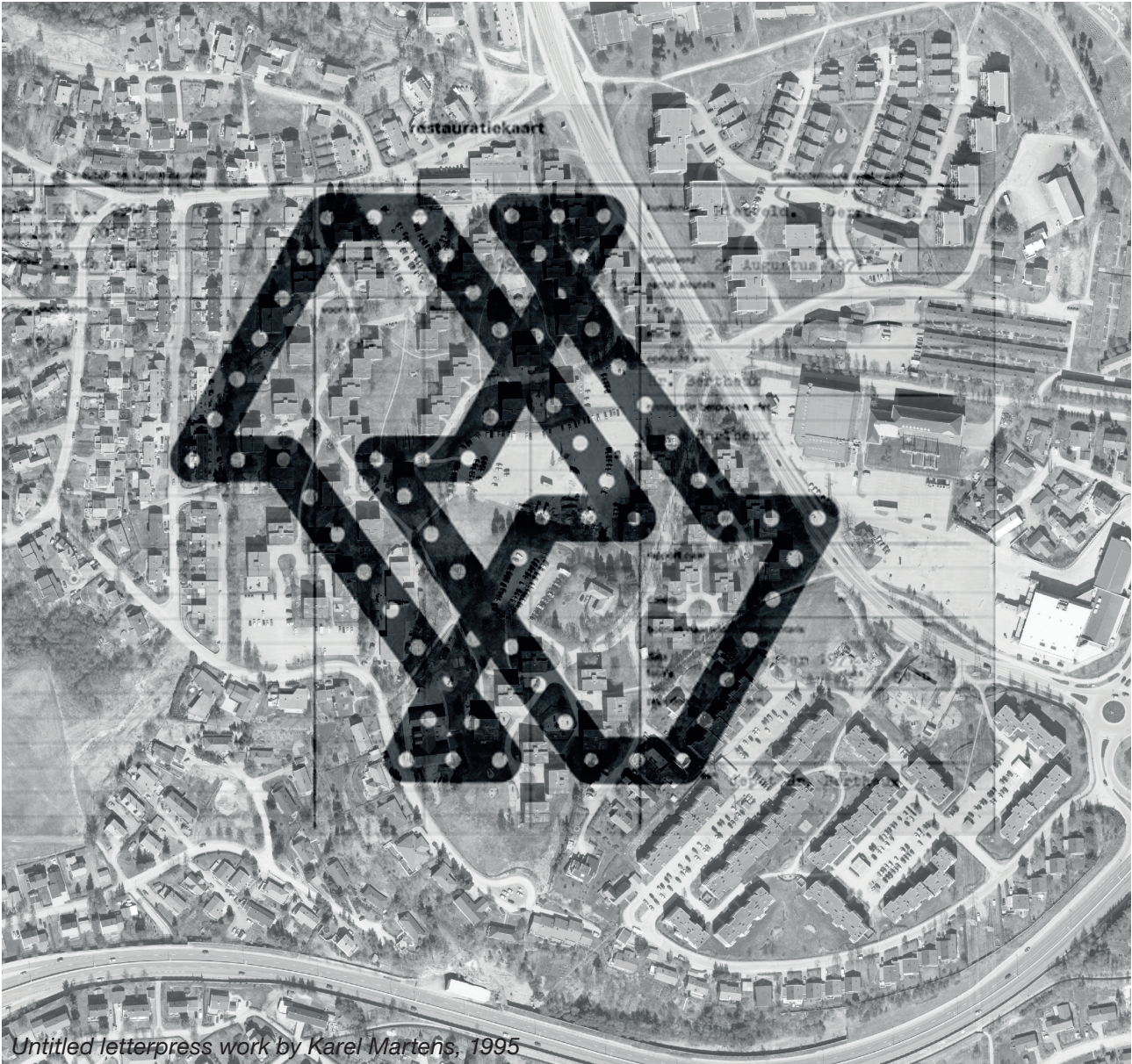
Complexity
 contradiction.

NETWORKS

21.01.13

Based on the preceding study of circulation, how can the thousands of student housing units at Moholt be connected in a bigger network? I believe there is a huge potential here. How can the different homes relate to each other? Do they interconnect and form one gigantic home network? Is the structure of this network random, flat, simple, complex, hierarchical, spatial, physical, psychological, or is it even real at all? Are there several individual housing networks or a single shared one?

The following investigation imposes several different network structures on Moholt. This is an open approach intended as a tool to evoke new connections, uncover possibilities, and tune the mind to understand Moholt as a network of student dwellings -any scale - physical or abstract.



Untitled letterpress work by Karel Martens, 1995



Spider web









*Based on photographic artwork
by Gyorgy Kepes, 1930s*

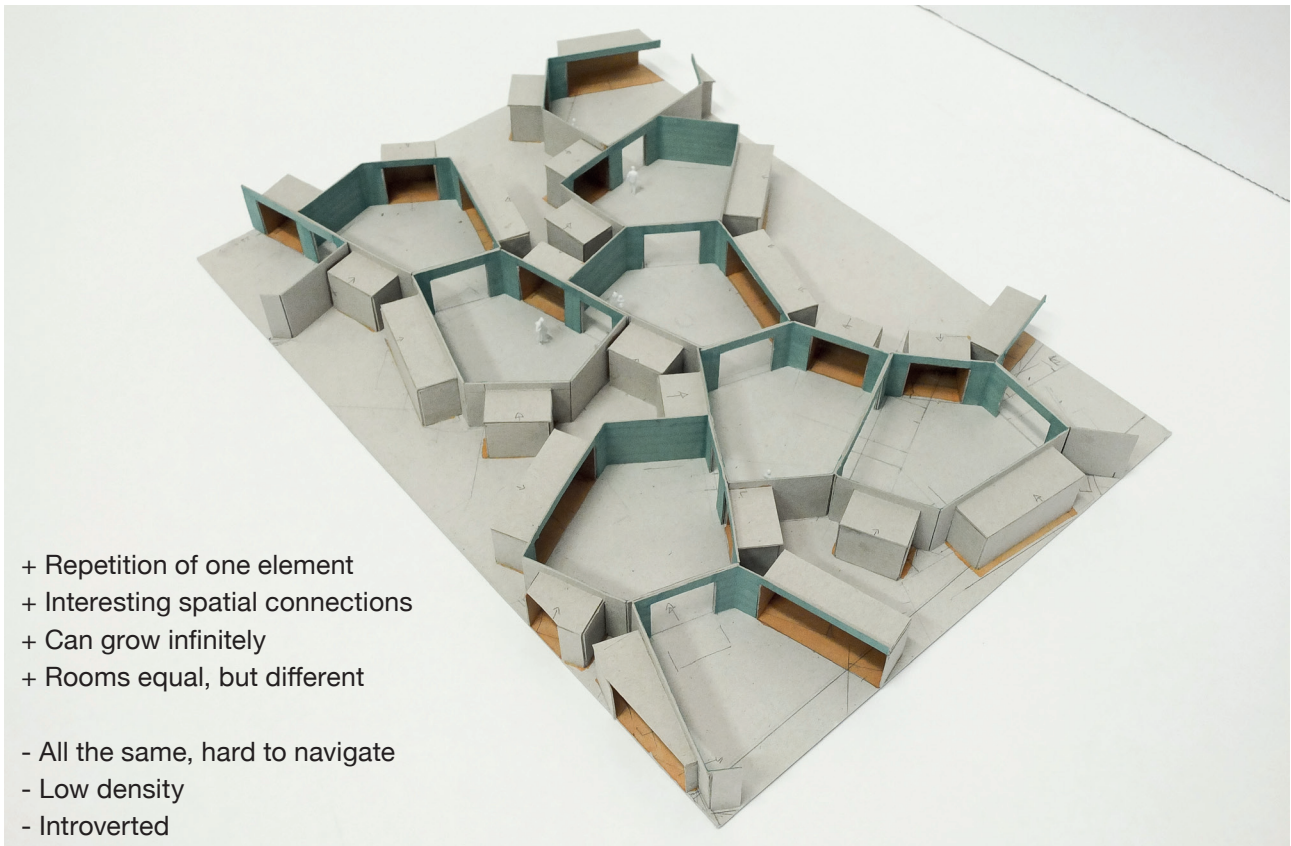




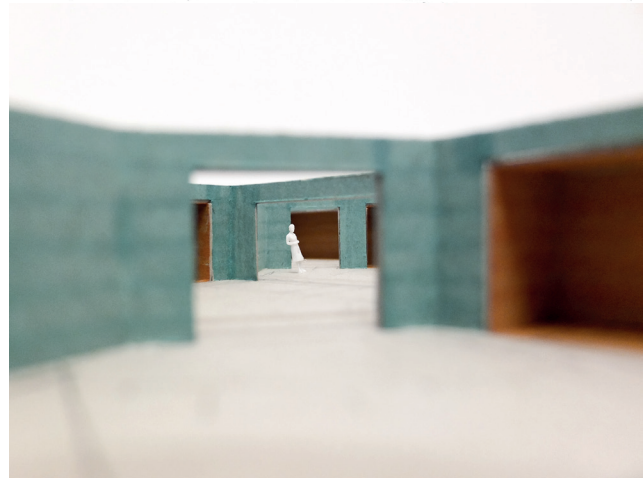
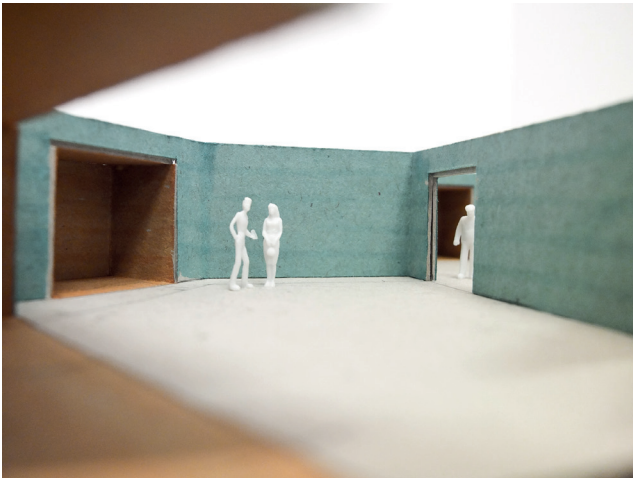
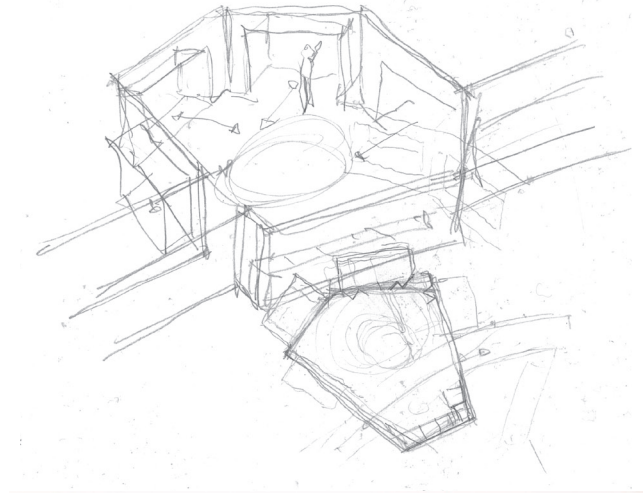
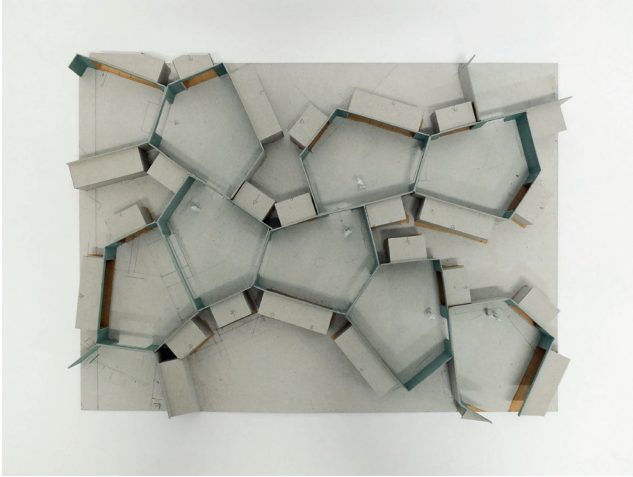
*Moholt streets with house numbers
chronologically connected*

NETWORK OF SHARED CELLS

A network built up by the ever repeating addition and direct connection of common cells. The perimeters of the cell hold tiny personal spaces and connections to the neighboring cell. While the shape of every cell is the same they get different characters depending on their individual relationships with the surrounding cells.



- + Repetition of one element
- + Interesting spatial connections
- + Can grow infinitely
- + Rooms equal, but different
- All the same, hard to navigate
- Low density
- Introverted



TOP EXTENSIONS

23.01.13

Exploring the existing

Is it possible to make additions to the existing structures adding more floors? This could offer new possibilities for connecting the buildings, providing new kinds of common spaces, and obviously house more students. Today the buildings have 3,5 to 4 floors and do not appear very tall, largely thanks to the generous open green outdoor spaces. How to integrate? What could top extensions this look like?



Moholt meets Didden Village, MVRDV



Moholt meets Caixa Forum, HdM



Hovering horizontal box



One floor extrusion



Two floor extrusion

Reflections

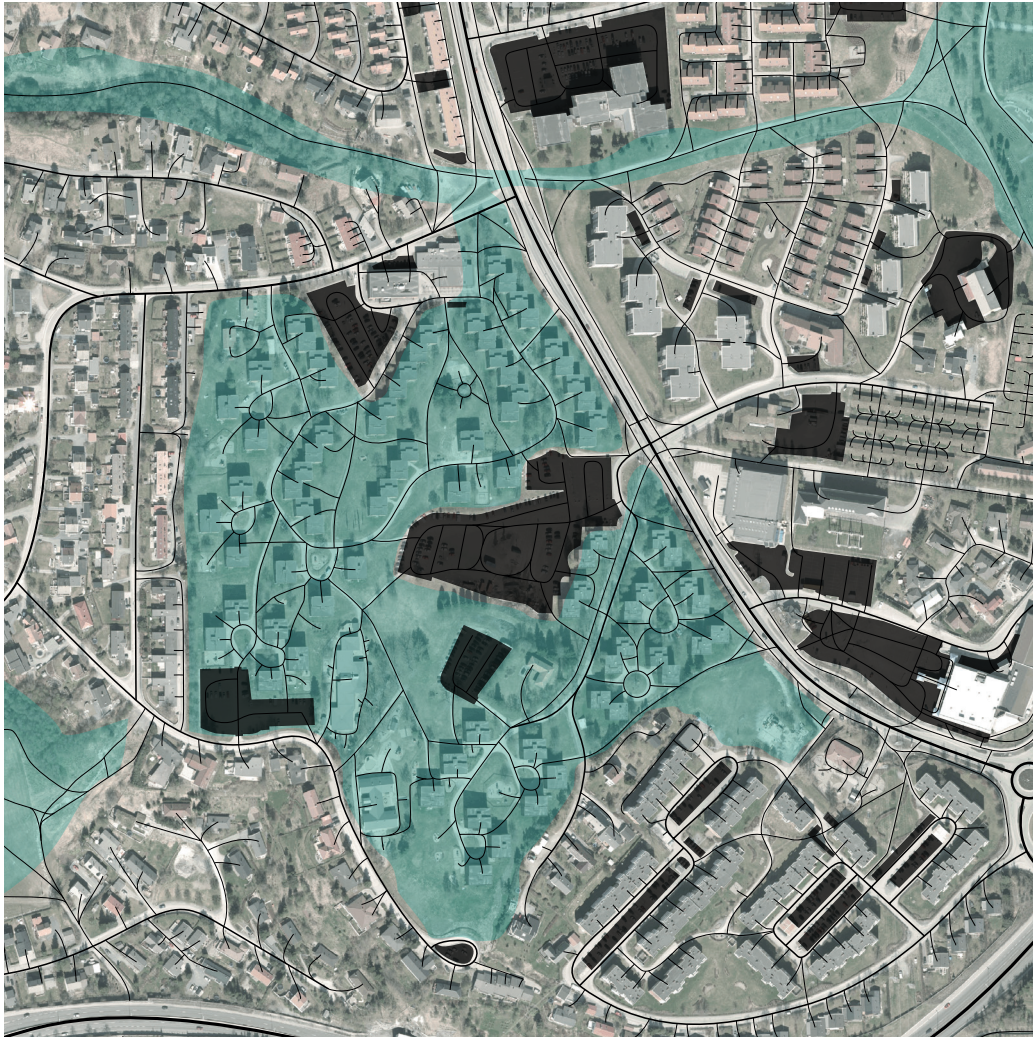
Are these pictures more than studies of form? Can new top floors join the houses in each row? This study shows that the buildings easily can handle more floors, but by doing this one should not only provide more units, but also offer something more? Form connections between houses - part of a network? Can new structures also connect the rows and single houses to each other? A physical network - all the buildings connected -> one huge building - one network... A new layer placed on top of the existing student village. Should be investigated on master plan level.

If I extend the existing structures something new should be offered. The existing structures have to bring new ways of using the original buildings - if not they are probably better of left alone. They have lasted 50 years as they are, why can't they last another 50 years? The original Moholt standing, new

Also, there might be other ways of extending the existing structures. The plan layout today is extremely fixed, area effective and rooms are tightly packed together. It is not easy to do changes - this is likely the reason the buildings are still pretty much in their original state. Still, other ways of connecting to or transforming them should be further investigated.

TYPICAL MOHOLT

24.01.13

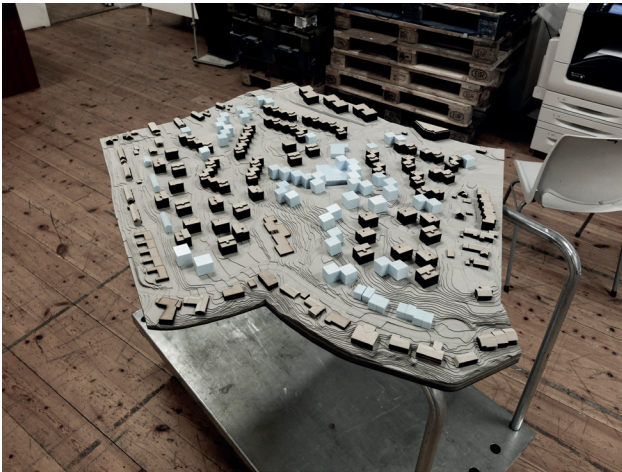
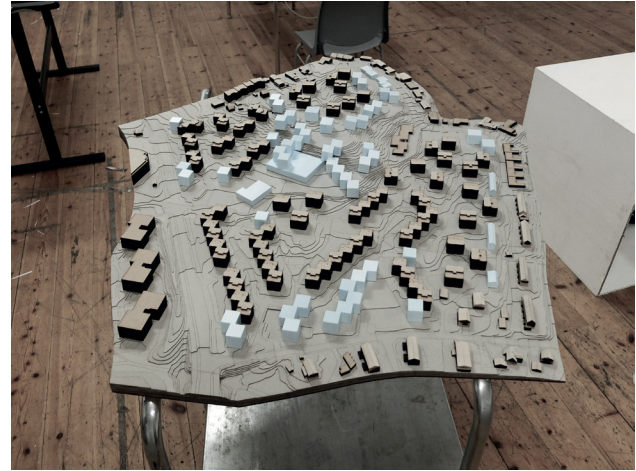


Three things of interest in understanding Moholt student village and its structure: Dead end road system, generous green areas, vast parking lots.

MODEL 1:500:

24.01.13

NEVER CHANGE A WINNING TEAM?



Investigation of what it could be like if future growth at Moholt strictly followed the already established scheme. This is a starting point for the master plan development, but why not just do more of something that apparently works?

The approach immediately seems quite alright, but isn't it a bit passive? Why is something that was right 50 years ago still right today? I should try to challenge the status quo more.

Notes and afterthoughts

-Set some reasonable numbers to work from, it's easier to work towards something defined, concrete Also makes the project more real, makes it easier to compare different proposals, no reason to feel around.

-**20m²/person.** Including personal and shared space, no circulation etc. Anything more is likely to make things too expensive to construct, maintain, and will lead to too high renting prices for the student group.

-Level of utilization (utnyttelsesgrad): **150%**. This is a high, but reasonable number. In the big picture Moholt is centrally located, relatively close to the city and campuses. Society has several expectations, one being densification. Moholt also represents a big potential for SiT for numerous units of housing - one that should be utilized.

-Who is going to live here? Now its mostly international students, which SiT has to offer accommodation, small young student families, and some early year students. Though living in the same student village, families and residents of the shared flats are not well integrated and seem to be living in different worlds, perhaps not too strange considering their different stages of life.

The trend among students without family or kids seems to be to move on from Moholt after a fairly short stay. They somehow find the situation inadequate in the long term. As they get to know the city, start to focus on the studies, make friends, or find love, there seek better options of housing. Though this in many ways is natural, Moholt as a student village would most likely gain tremendously in terms of social qualities if students chose to stay longer.

If Moholt is to grow a lot (which u150% implies) students not only have to stay longer at Moholt for the student village to work, it also needs to attract a more diverse student population. This shouldn't be any problem as SiT still is far from meeting the demanded number of units. The main question of interest is what kind of architectural consequences a bigger, more diverse and longer staying student group will bring to my project?

The students are members of a highly diverse group. How do the different members fit at Moholt? How can I make it possible and desirable to move and stay there? Can I open up the possibility of couples in the collective? Do individuals have different needs or wishes for their rooms? Single studying mothers? Young adults who just finished their studies? Larger families than one baby? The loner, the active, the party animal, the a-level student... what can they contribute?

AREAS

25.01.13

Moholt by numbers:

Site: ~145 000 sqm

Built: ~63 000 sqm

Utilization: ~43%

Given a future goal of 150% utilization:

Added: 155 00 sqm

Number of new units:

~6000

(approximation, 20sqm gross/pers, 80% gross/net, all new as housing)

Some potential additional functions:

Sports center: ~ 2000 sqm up

(examples next page)

Kindergarten: ~ 3000 sqm / 72 children

(Trondheim kommune)

Grocery: 750 sqm up

(existing store)

Standard size swimming pool
315,5 sqm (12,5 m x 25 m)

Handball field
800 sqm (20 m x 40 m)

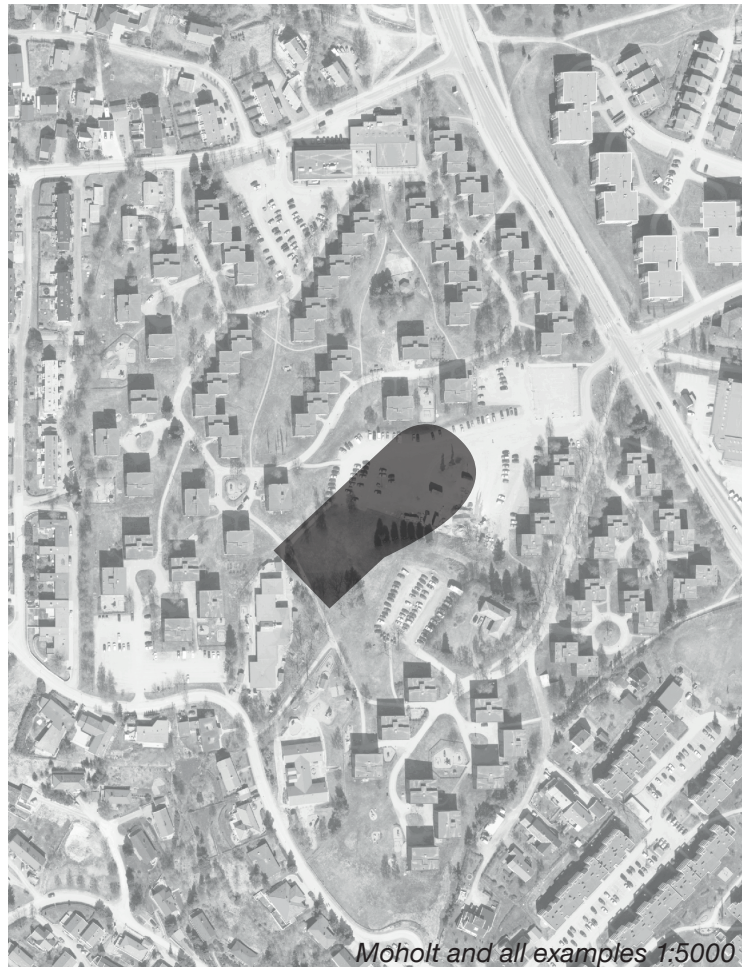
Olympic size swimming pool
1 250 sqm (25 m x 50 m)

SiT Gløshaugen sports center
~ 1 800 sqm ground floor
~ 45 m x 40 m

SiT Dragvoll sports center
~ 4 700 sqm ground floor
~ 76 m x 59 m

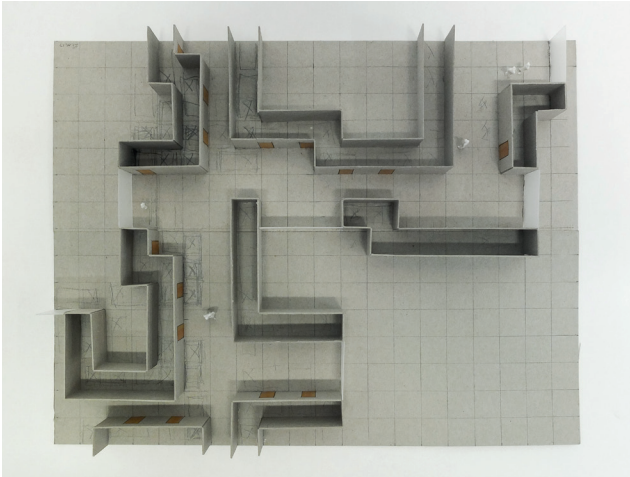
Pirbadet
~ 6 900 sqm ground floor
~ 120 m x 50 m

Nidarøhallen
~ 12 400 sqm ground floor
~ 110 m x 120 m



SPATIAL ORGANIZATION MODEL 1:100:
STRUCTURING WALLS

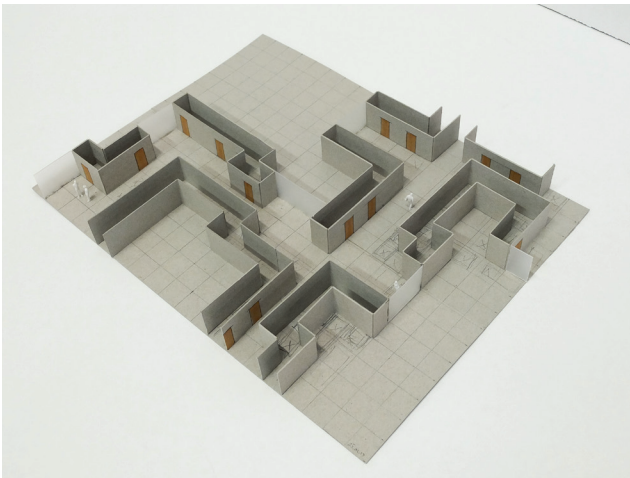
25.01.13



A spread out structure with private rooms as a wall between shared zones and outside. It gives the project form and can be envisioned as a one-floor wide-spread network (as seen in network investigations) organized along a long combined communication and living space, expanding as it turns and branches it's way over a large area.

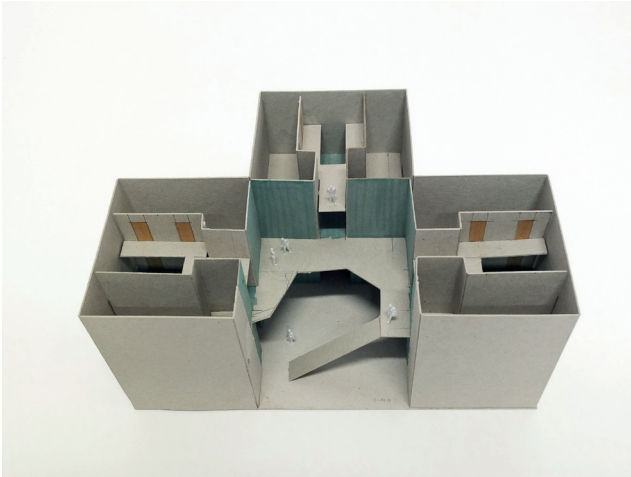
+ a system/structure
+ zones along communication

- navigating



SPATIAL ORGANIZATION MODEL 1:100:
PYRAMID

28.01.13



Model investigating a clear 3 step hierarchical spatial organization.

1. My private room >
2. Our shared kitchen >
3. The common hall.

Spaces go from big to small, user groups from the large to the individual. A network branching out. Compact, still distinct zones.

How much is really perceived as home?

Will it work?

What are the critical sizes (no of residents)

INITIAL MASTER PLAN SKETCHES

25.01.13 – 31.01.13

Open approach, exploring site thru plan sketches, getting the feel for the sizes.

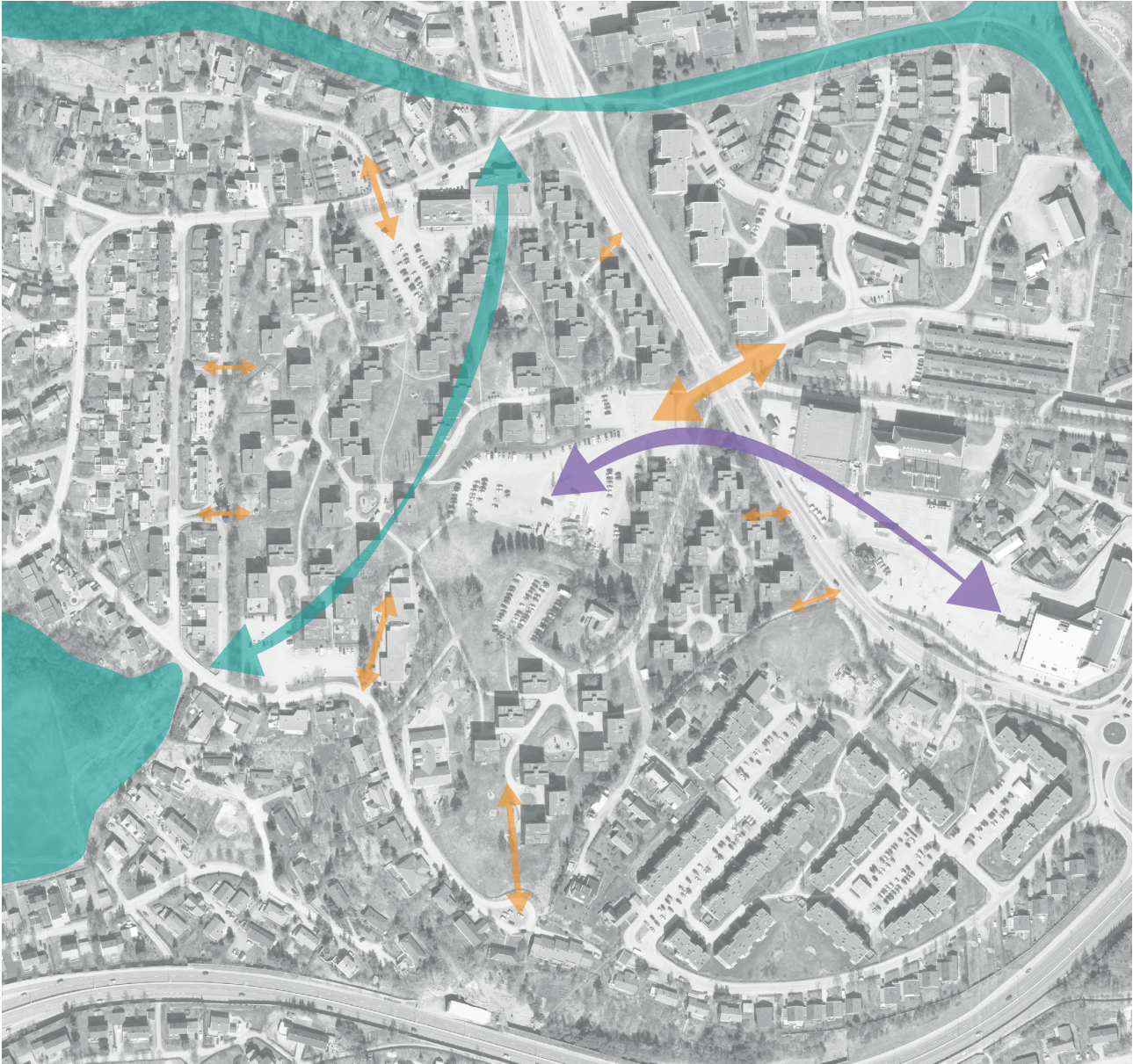
Discussions

- Center vs no center (existing situation)
- What is a good size for new development?
- How to use existing buildings
- Time frame - how many units are needed today, in 5, 10, or 50 years? The master plan should include phases of development and has to be flexible enough to adapt to future unforeseen needs

Master plan goals:

As illustrated on the next page:

- Connect the student village with surroundings:
 - Connect green belt in north to rec
 - Match pedestrian and vehicle connections with surrounding infrastructure
 - Retail area
- Keep as much as possible of existing housing structures.



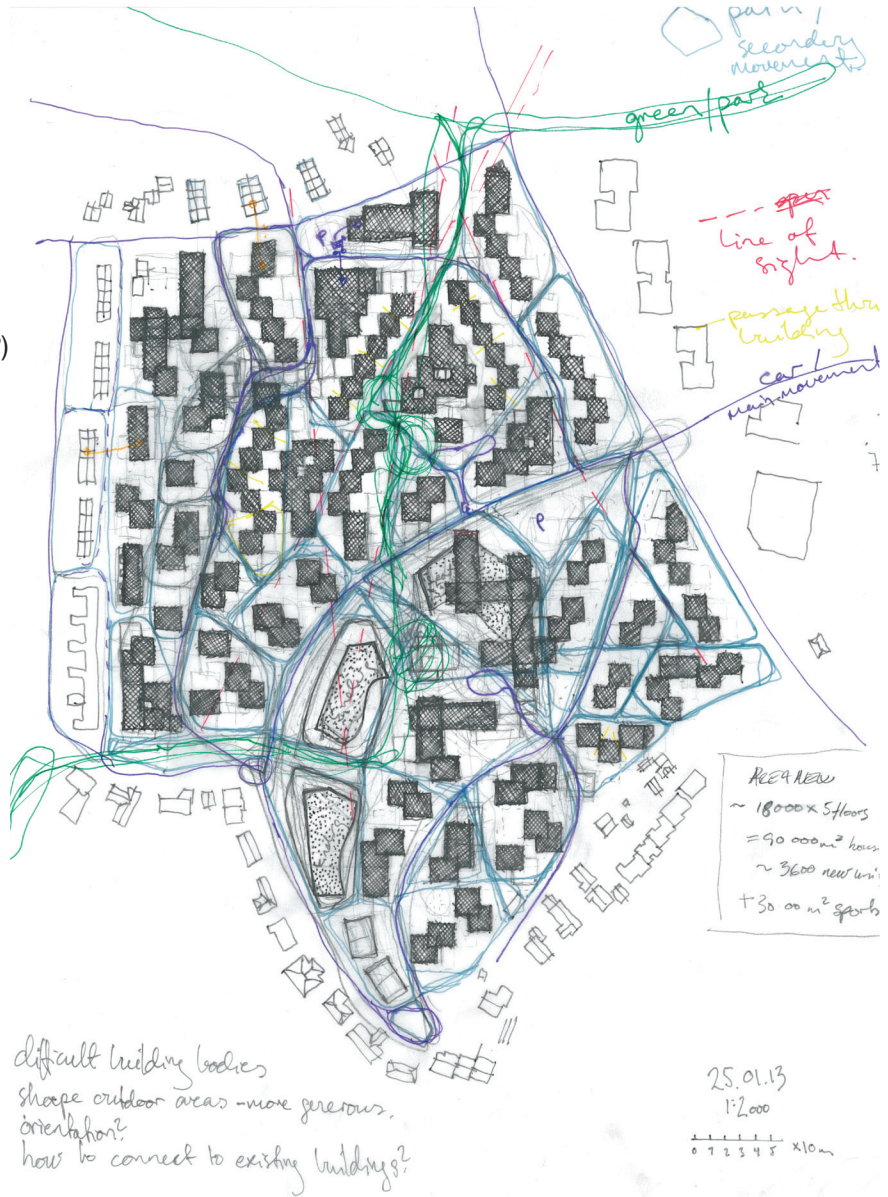
MAX FOOTPRINT, FILL THE GAPS

Reflections:

- Difficult building volumes
- Should shape the outdoor areas between houses better and more generous
- New main road
- Is this MOHOLT? (as we know it?)
- What about orientation?
 - are the areas distinct,
 - do you know where you are?
- Connecting to existing buildings
how can this be done?
 - Must be investigated at more detailed scale

New Building Area

- 5 floors avg
- ~ 90 000 m² BTA
- ~ 3 600 units
- + sports center
- + kinder garten



GIVE SOME DISTANCE

Reflections:

- Shaping a center
- Is this keeping or changing Moholt's character?
- Big volumes, long facades, institution?
- Scale new/old
- What's left of the green belt?
- Outdoor spaces, differentiation, sameness?

New Building Area

- 5 floors avg
- ~ 70 000 m² BTA
- ~ 2500 units
- (doubling)
- + sports center



TURNING URBAN

Reflections:

- City-like blocks
- Public functions centrally located
- Starting to create zones of different intensity
- Integration with Moholt and landscape?
- Parking along roads



MAIN STREET MOHOLT

Reflections:

- Directions from landscape and existing buildings.
- Navigate along street
- Am I getting there?

New Building Area

- 5 floors avg
- ~ 87 000 sqm BTA
- ~3400 new units
- + sports center
- + kindergarten



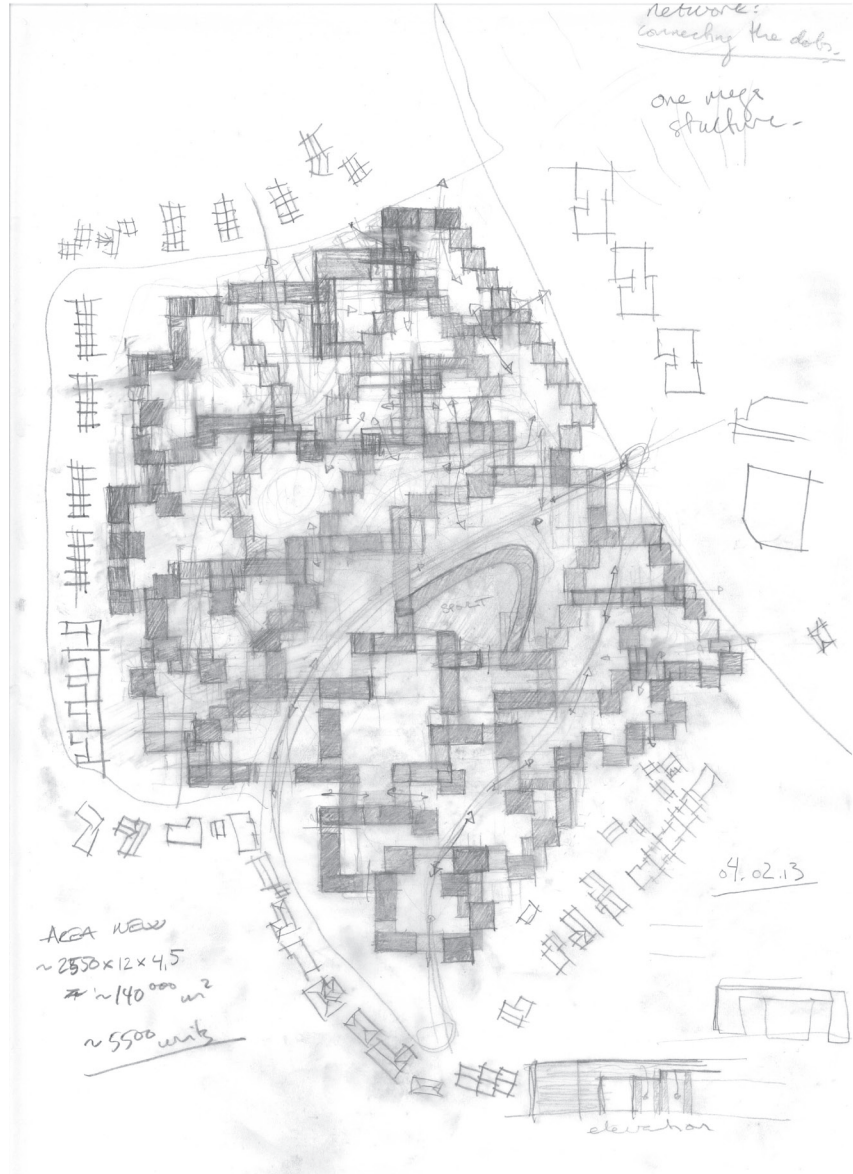
MEGA STRUCTURE

Reflections:

- Connecting the dots (existing)
- A physical manifestation of a social network?
- All residents belong to the same home.
- Mi casa es su casa!
- Usability?
- Can much of the same be achieved without it being one building?

New Building Area

- ~ 140 000 sqm BTA
- ~5 500 new units
- + sports center
- + kindergarten



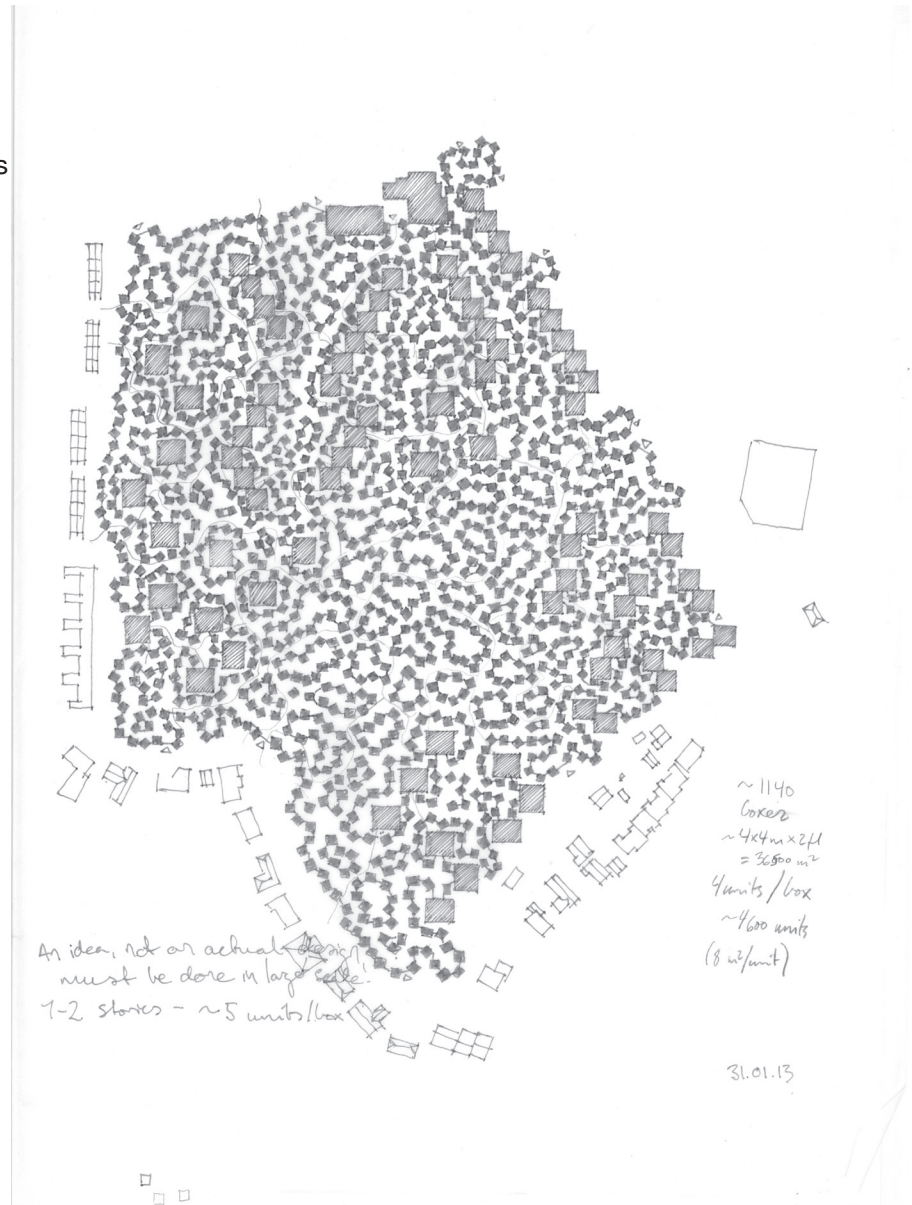
GOING WIDE

Reflections:

- Making the dots
- A carpet of small scale structures
- All equal, all different

New Building Area

- ~ 1140 boxes
- 4 x 4 m , two floors
- = 36500 sqm
- ~4000 new units
- + sports center
- + kindergarten

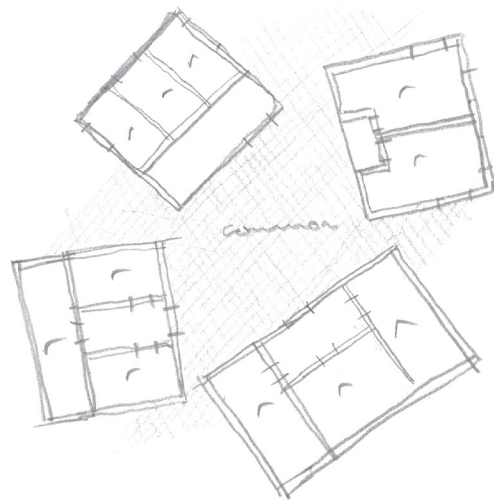
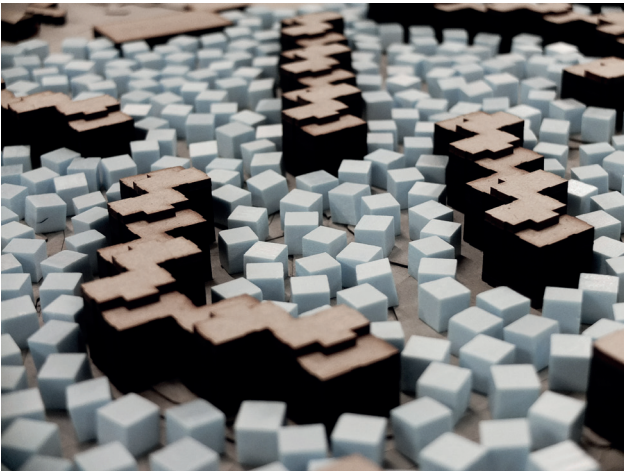


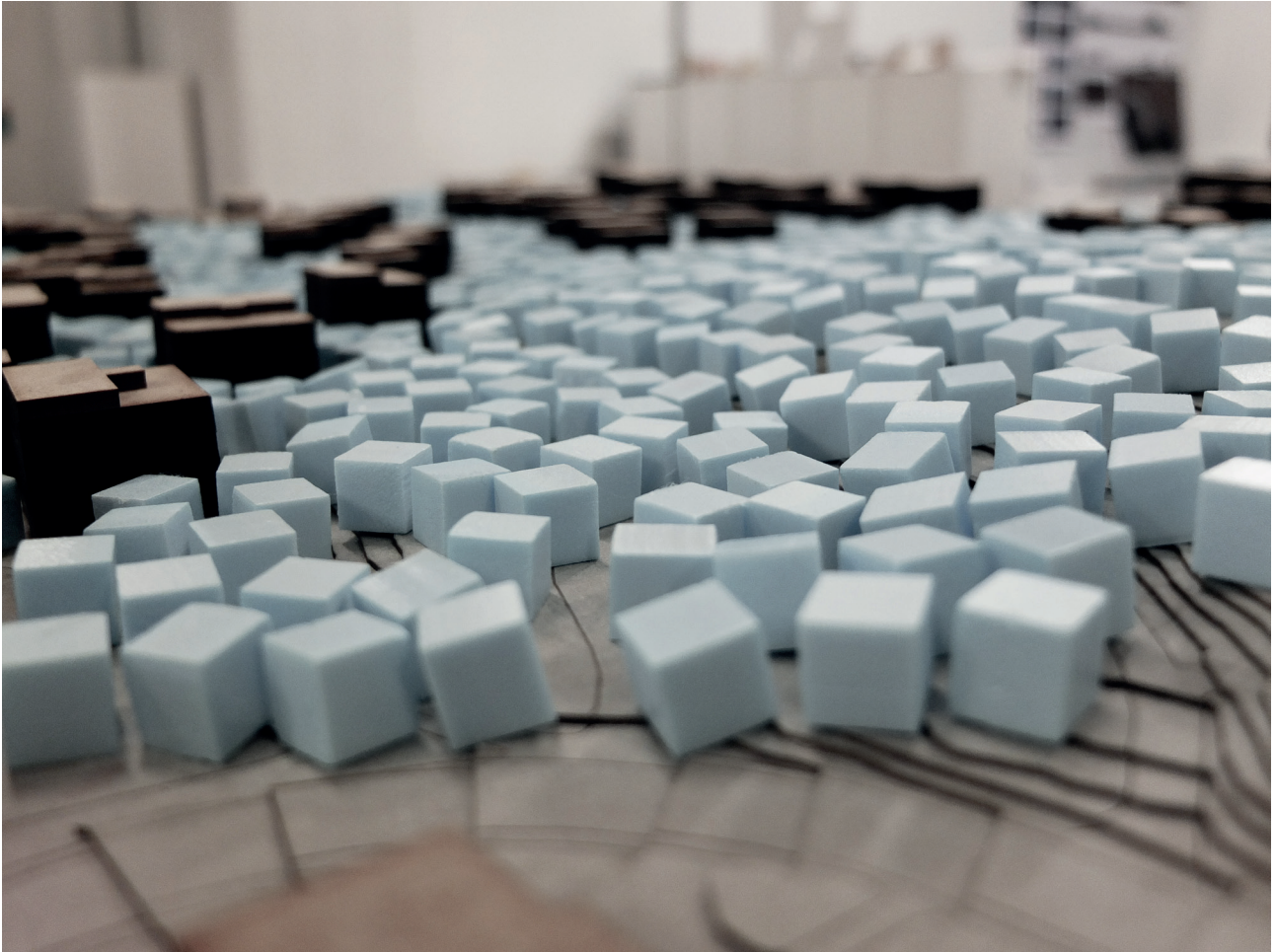
MODEL 1:500:

CARPET HOUSING

24.01.13







Modelling the idea of a village of small houses. Each house a collective, relating to its neighbors. Though a lot of obvious practical concerns there is something truly appealing about this approach. It expresses both individuality and community/collective qualities in a beautiful manner. Also it moves communal life to outdoor spaces, where the whole student village becomes one collective! I think this model carries a lot of interesting things to bring along in the further development of the project.

SITE VISIT

04.02.13



The student village lies quietly covered in white by last night's snow fall. Paths have appeared where people have been walking this morning, crossing the open areas between the houses on their way to school.

Winter makes Moholt beautiful. Black and white birch trunks are rising from a soft carpet of fresh snow making the red brick houses stand out. Today it seems clear how any future additions would have to respect this precious relationship between landscape and buildings.

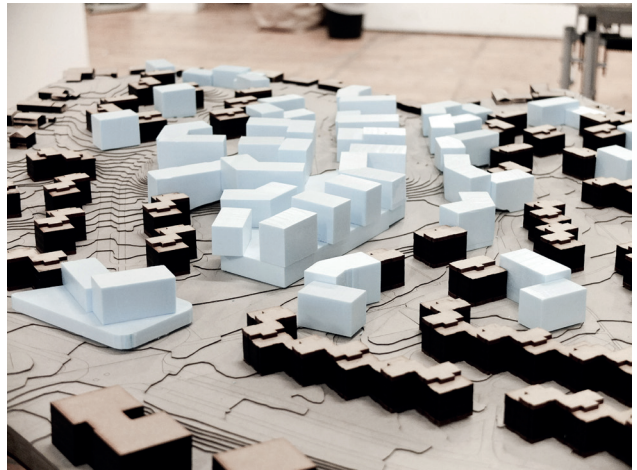




MODEL 1:500:

MAIN STREET MOHOLT

06.02.13



- Urbanization. The student village turning into a student town.
- Directions from landscape and existing buildings.
- Navigate along street
- Am I getting there?

New Building Area

- 4,5 floors avg
- ~ 92 000 sqm BTA
- ~3700 new units
- + sports center
- + grocery
- no kindergarten



MOHOLT 50|50: COMPETITION PROGRAM

08.02.13

SiT has released the program for their competition Moholt 50|50. Even if I'm not to answer to this with my project, it holds some interesting considerations and background for my further work:

Main question: How to create an attractive, exiting, and robust student village at Moholt?

About surroundings:

- NTNU Dragvoll might move closer to city center
- The greater Moholt area is planned to continue developing into a local centre - core being existing retail area close to E6.
- Future more city-like character: Urban qualities, streets rather than roads, street-facing program and public functions.

The student village:

Site: ~ 145 000 sqm / BTA ~ 63 000 sqm / Use ~ 43%

- Existing old trees are a quality (perhaps especially the avenue - Moholt Allé?)
- Little needs for car parking, high demands for bicycle facilities.

Goals:

- The area is to be developed over the course of several years. The project needs a strong main intervention that is adaptable to future change and strengthens the identity of the student village.
- Moholt should meet the needs of a wide range of users, not only students. This group will change throughout the course of the day, week, year, and even in a longer time frame.
- Dense development opens several possibilities for future urban development, i.e. larger part of the area can be used for other things than student housing.
- The plan should include a mix of functions: student housing, private housing, kindergartens, sport facilities, common areas, and possible business functions.
- Common areas/facilities exceeding the shared areas of the housing must be financed through development and sale of private housing/business areas.

-The student village requires kindergarten(s). Immediate need of 220 places (~2700sqm + outdoor areas).

-SiT estimates a need of about 1 600 student housing units until 2020

-Estimated BTA/unit: 30 sqm

-Time frame for the whole development: 10-20 years.

	Byggeår	Hybler 4-koll.	Hybler 2-koll.	Par- leiligheter	Familie- leiligheter	Antall HE ³⁾	Antall SBE ⁵⁾	Voksne beboere	Barn ⁴⁾	Beboere totalt	Brutto- areal m ²
Byggetrinn 1 (HK) ¹⁾	1962-66	840		12	144	1224		1152	144	1296	33 376
Byggetrinn 2 (MA/PK) ²⁾	1971-73	432	36		177	911		645	177	822	25 195
Moholt barnehage	1970						86				764
Nissekollen barnehage	1979						76				415
Kontor/forretning	1972-73										3 083
Totalt		1272	36	12	321	2135	162	1797	321	2118	62 833

1) HK = Herman Krags veg

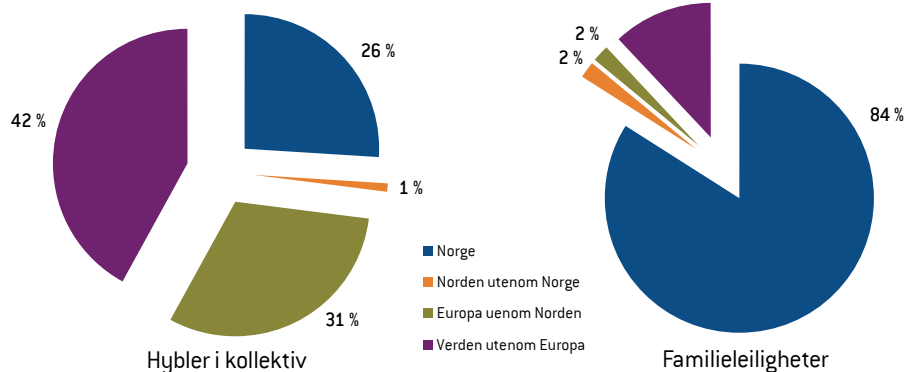
2) HA = Moholt Alle og PK= Prestekragevegen

3) HE = hybelenhet: 1 hybel =1HE, 1 parleilighet =2 HE, 1 familieleilighet=2,5 HE (0,5HE tilsvare ett barn)

4) Barnebeboere: Regner ett barn i gjennomsnitt pr leilighet

5) SBE = Storbarnsekvivalenter i barnehagene

Fordeling norske og ikke-norske studenter på Moholt



Moholt today
(from competition program)

REVISIT: TOP EXTENSIONS

09.02.13

A few weeks ago I did a short study of different approaches if extending the existing buildings upwards. These were not intended as actual designs, but rather as quick investigations of possibilities of different approaches. Of the 5 previously studied proposals I personally clearly prefer the one based on Caixa Forum in Madrid (picture next page). I have to admit I think this is largely based on looks, more than any particular idea of how to work with the existing, thoughts on spatial organization, or the idea of the student village as a network. But still that should give a hint of the right approach to this buildings? (If I in the end am to extend them) What exactly is it that I find visually pleasing about the particular proposal? I like that it is connecting the existing using a similar scale, broken into several smaller volumes rather than one big structure forcing a horizontal connection on top of the volumes. As previously stated this is not intended as an actual design, it is more an approach, a way of working with the existing. Still it might be hard to clearly judge as such. But how much is the fondness for this proposal based on similarity of color between corrugated steel and red brick? What if the color was complementary (copper) or more neutral gray (aluminium)?

Just by changing the color of the top extensions one gets a quite different feeling of them. They do not connect in the same way to the existing, but are more clearly something different added on top. Still I believe the previous thoughts on volumes and dimensions stand true.

If I choose to extend the existing buildings upwards, these findings will be taken into account. Extensions to the existing buildings - how I work with them in general - has to be further investigated with architectural drawings and models. The extensions do not only have to be adding floors, but can also include building next to - as suggested by some of the master plan proposals.

Note: It is not clear if the existing buildings can take more floors, still this discussion is of interest for a student project. If top extensions should become a main strategy, this would need attention, but at this open stage of the process the studies and their findings are of interest, as they anyway provide clues to the bigger question of how to work with the existing



Notes and afterthoughts

-Master plan:

-Connecting to surrounding areas (green + roads) - good. Points of connection will be important.

-At this point anything between 50 000 sqm and 100 000 sqm additional student housing seem reasonable (~2000-4000 units). This is still very open and will depend on later findings. How much can the area take, what's the time frame, what's needed etc.

-Let design of housing form master plan

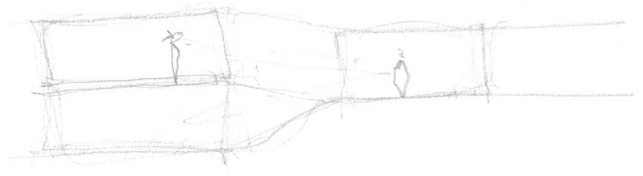
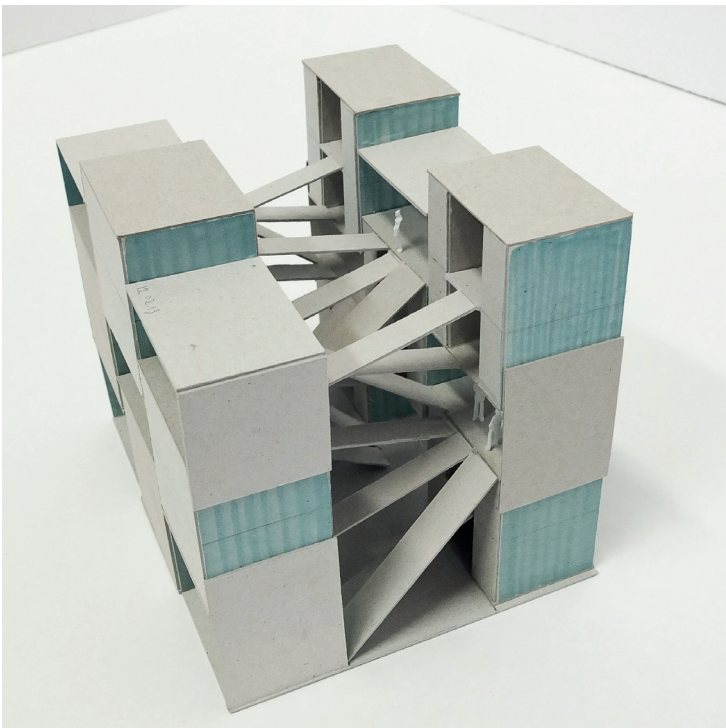
-Moholt's character today is largely the relationship between landscape and houses. This is a quality, how do I handle this? Enforce/contrast/erase?

LIFTED BOXES

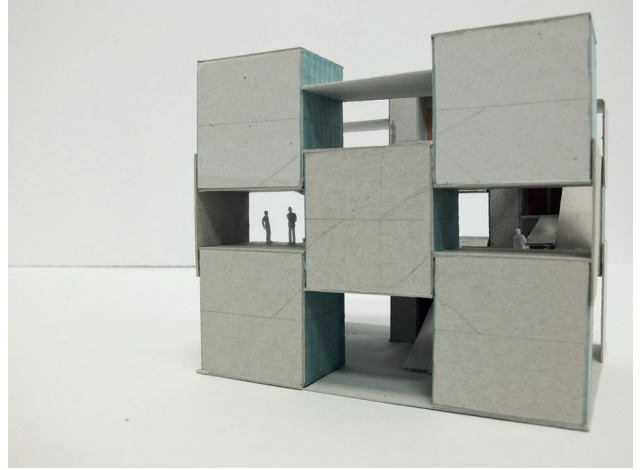
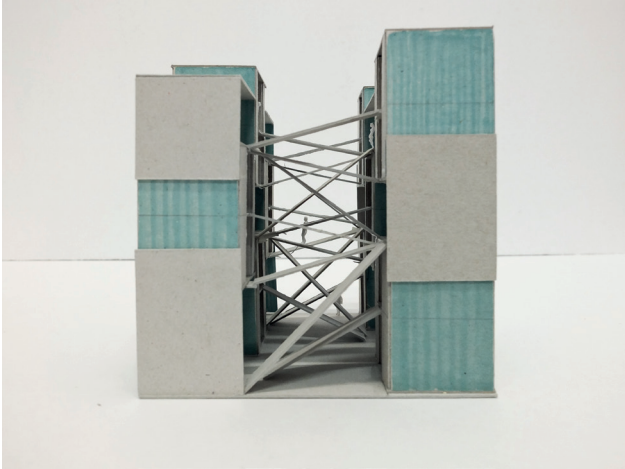
Vertical vs horizontal boxes.



Can i do both, using the same boxes?

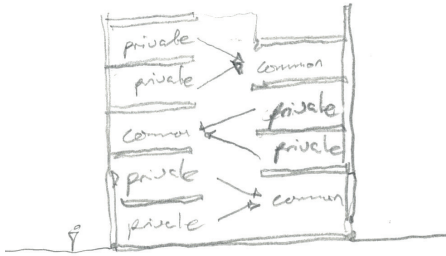


The carpet master plan (horizontal) raised vertically. Two floor boxes with personal sleeping units, shared kitchens in gaps between boxes. Each level of boxed directly connected to a gap on other side of central circulation. Half floor alternation between boxes, both between the two sides and along the two rows. Middle stair filled communication space - not an actual design, but with stairs highlighting the relationship between private rooms and respective kitchens.

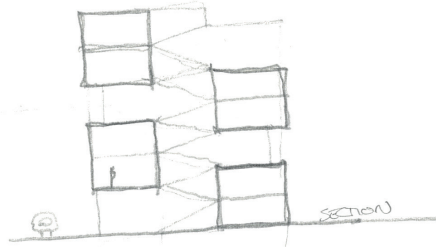


12.02.13

DEAS

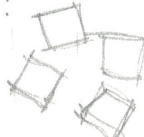


derived from
existing
structure

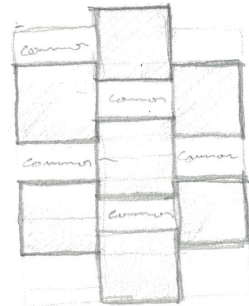
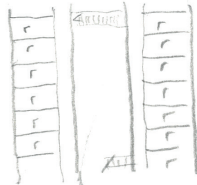
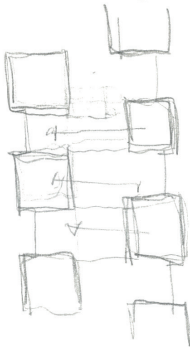
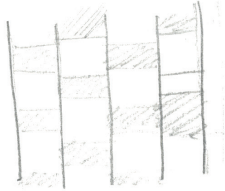
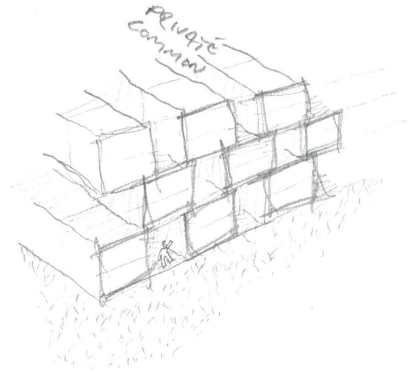


private boxes
common gaps

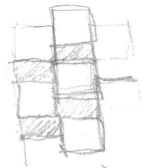
ref:



(horizontal
arrangement)

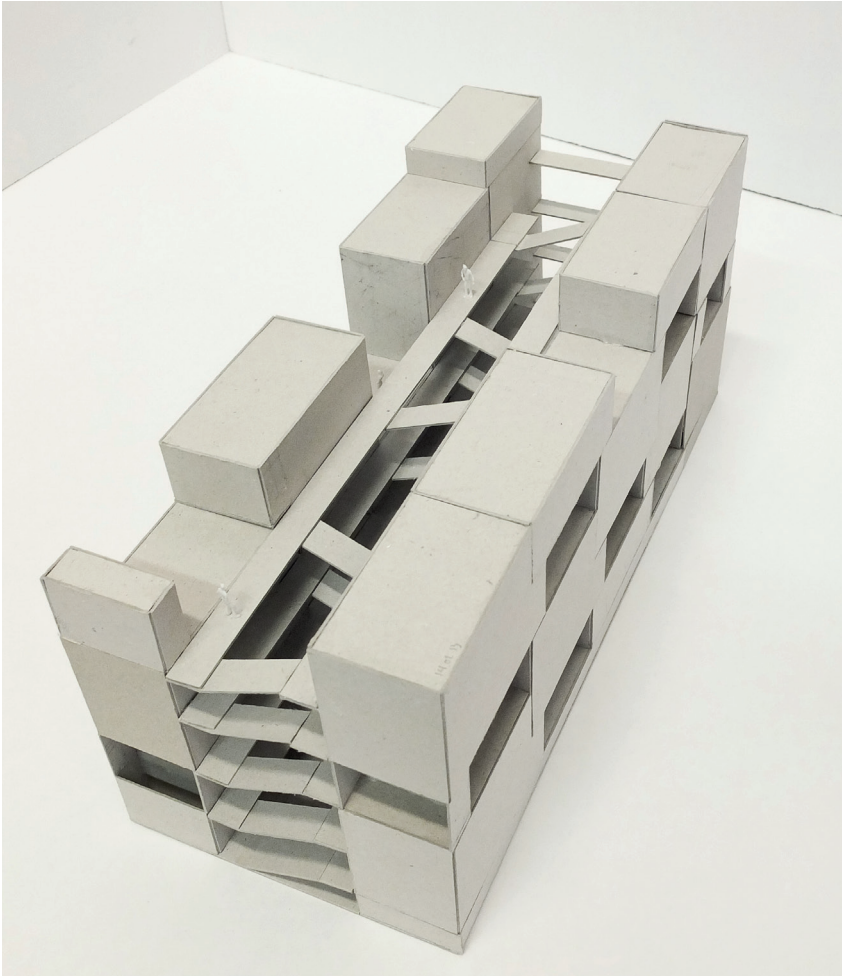


possible elevation



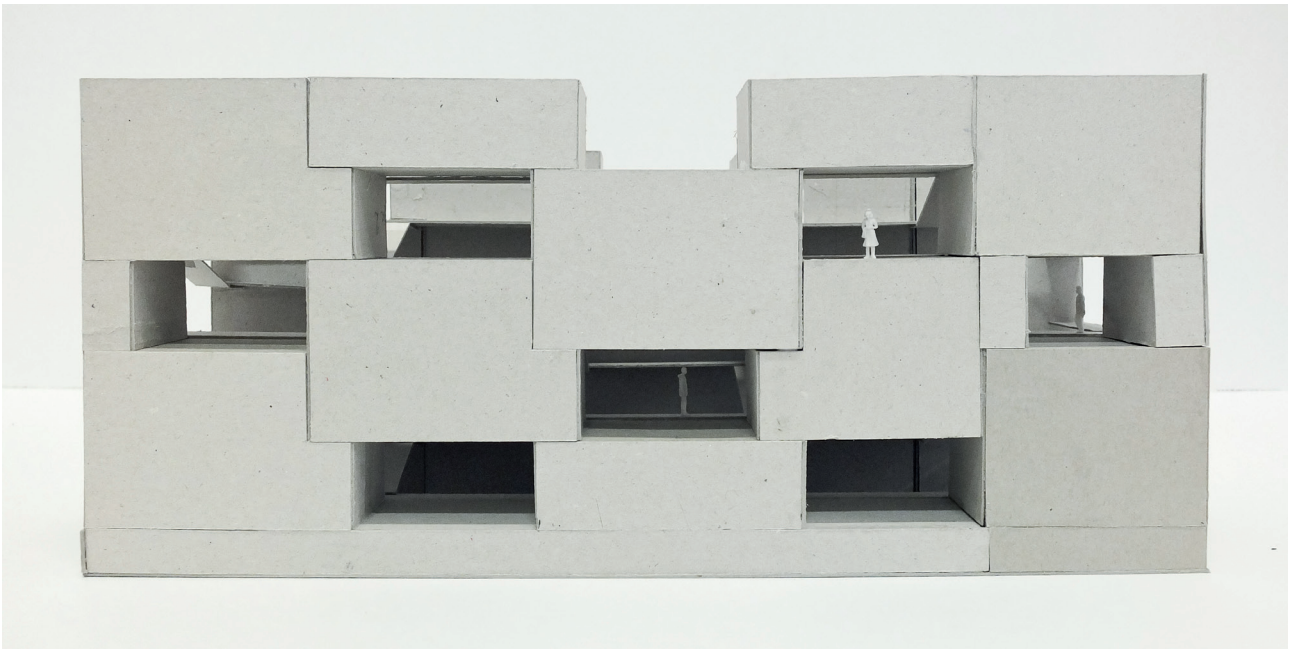
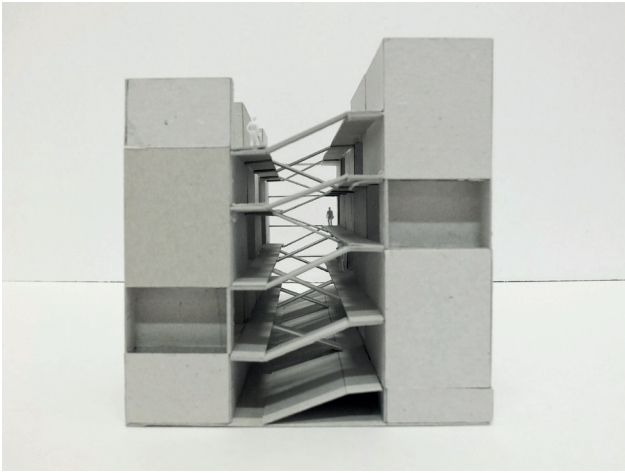
DEBOX

14.02.13



Cleaning up the last model, trying to be less boxy, but use the idea of private room as a building block

- Two “walls” of rooms, circulation big gap between
- Boxes of different sizes = different rooms/units/users
- Half floor shift between the two sides would allow for interesting connections of common spaces and interesting relations to private rooms.
- Holes in the two walls as shared areas.



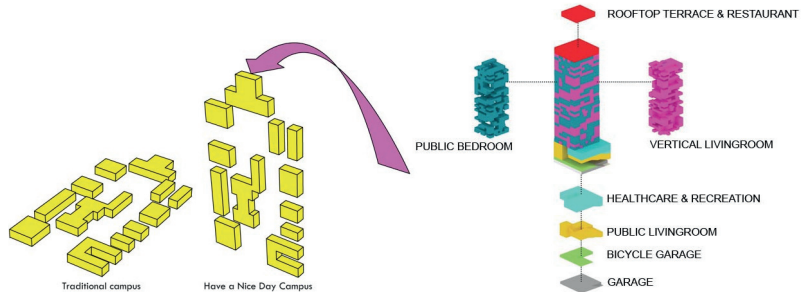
REFERENCE PROJECT:

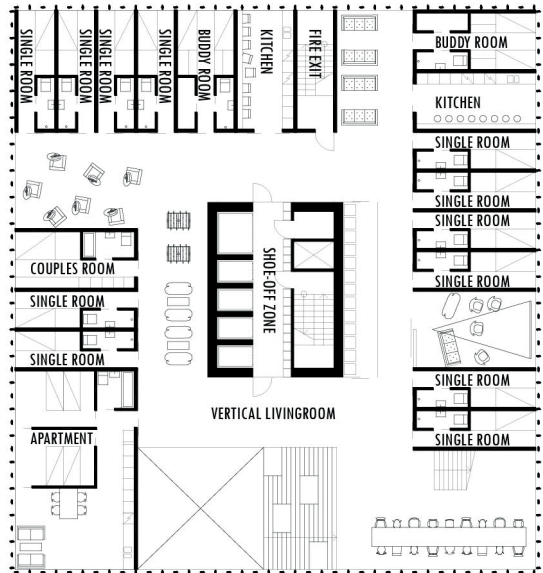
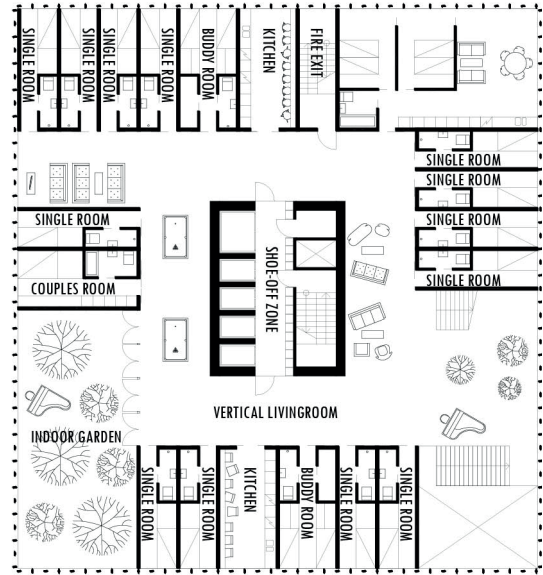
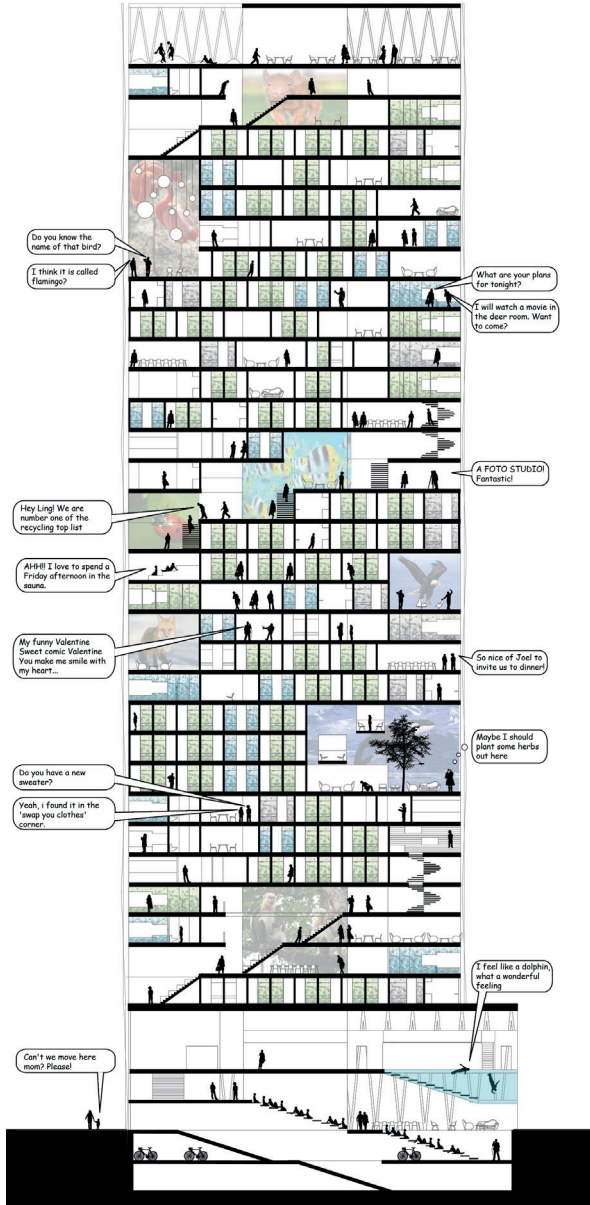
HAVE A NICE DAY!

Student Housing Competition, Toronto, Canada

We Are You

- One single continuous **vertical living room** flows through the whole building
- Small private spaces, opens for more generous common areas
- Dense, urban setting
- Different activities on every floor
- Public facilities ground floor - city meets housing





Notes and afterthoughts

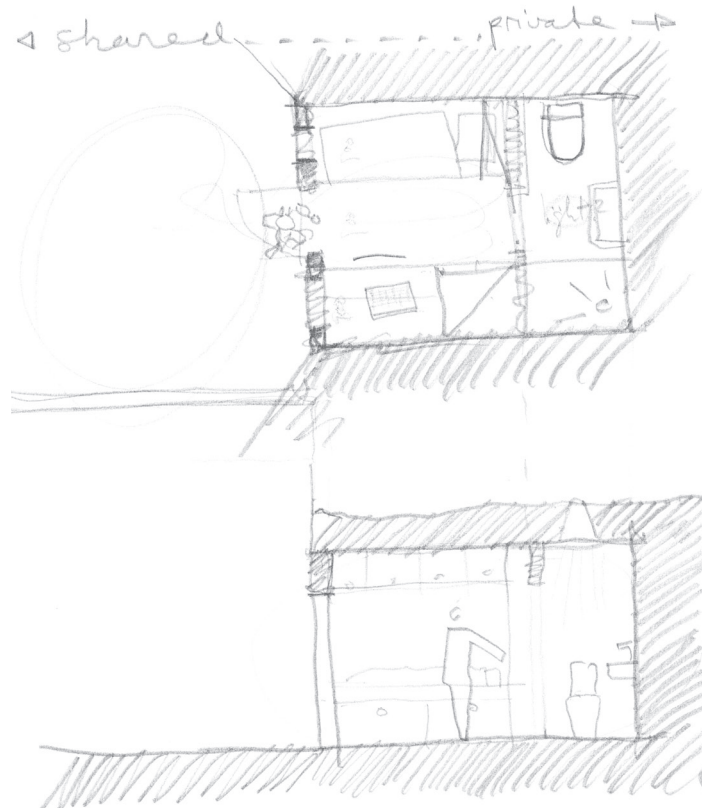
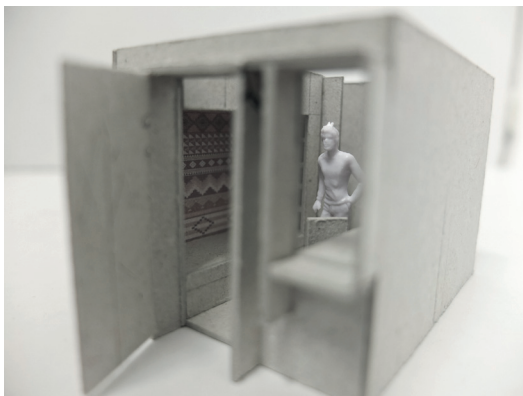
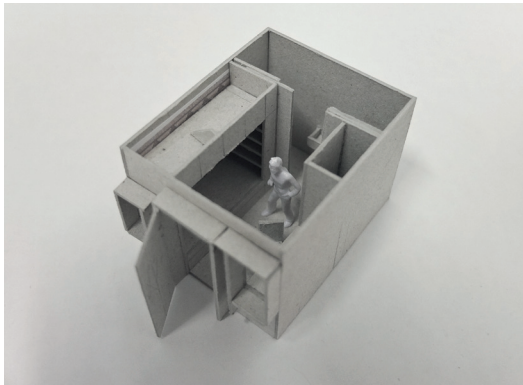
- My process is about doing and investigating alternatives, not sitting and waiting for a brilliant idea. Good, stay in control and direct the process.
- Don't be afraid to stay in this open zone, I find out a lot. Several things seem to be going on, but they will all come together nicely - later.
- Seems more productive to focus on the dwellings/ private vs common in student housing than to spend time on the master plan, it gets too general. I find out more by looking more closely at the housing, eventually this will inform the master plan.
- Several interesting ideas/concepts are emerging. They could all work, continue investigation.
- Two main trends:
 - 1: A wide, spread out approach, repetition of similar volumes, interwoven network, no hierarchy.
 - 2: Denser blocks, stronger hierarchy of spaces/several levels of interaction.
- Limiting private space: allows for larger common areas. 20 sqm/person isn't that small after all - compare to space per person in a typical family dwelling.
- Midterm: Do I want to present a few different concepts and discuss/compare these approaches OR do I present one (decided upon) concept more in detail and discuss that more deeply?

THE MINIMAL UNIT REVISITED

15.02.13

I want to keep down the size of the individual units in order to save space for use in common areas. But how much is needed of a private space? There is no absolute answer, the needs will be highly individual, is there anything such as the minimal (area-wise) student unit?

Coming as fresh student to Trondheim. Few belongings. Small or no social network. First own home. Expectations, impressions. A private place to retreat. This is mine. My place. Protected, underground.



ARTICLE: THE BIG RETHINK

PLACE AND ALIVENESS: PATTERN, PLAY AND THE PLANET

17.02.13

by Peter Buchanan

I've read an article in Architectural Review's series called The Big Rethink. Along several other interesting discussions on what makes a good place, the author has some particularly relevant considerations for my development of the student village:

*“Remember though that place rarely, if ever, has to be created from scratch. Instead it starts as a response to place, to what is local and pre-existing, enhancing and even intensifying the genius loci of both site and setting, as well as relevant factors in what might be a large hinterland; place is also a lasting legacy to be patinated with the overlays of time, use and memory. **Thus creating place starts with sensitive attention to what is there**”*

I must not forget the existing qualities of Moholt in my work. As previously stated Moholt has some strong modernistic characteristics - repetition of identical units, no defined center, buildings spread out in landscape. Although somehow different from today's ideals, these are none the less the qualities that constitute Moholt, wouldn't it make sense to strengthen these qualities, not work against them?

Buchanan goes on:

*“**Design tends to cement relationships with elements in the surroundings, often resulting in novel relationships between these, while also bringing into visible focus the myriad forces – from climatic to cultural, economic to land use – that shape or act on the site and location.** This is a very different dynamic to the sort of passively parasitic contextualism that merely tries to fit in [...] these strategies tend to sap character and vigour rather than adding them to place. Instead of such parasitism, a designer might explore the many forces impinging on site and setting and seek to resolve them in a synergetic synthesis, as the essential nutrients for a design that is rooted in place and manifests as its ultimate flowering. Or the designer might ask, when drawing on all these same forces and factors, what would the earth or evolution dream into being here?”*

The solution is not to try to fit in, ultimately the future Moholt should draw on both existing and potential qualities, evolving from the past and existing into the future.

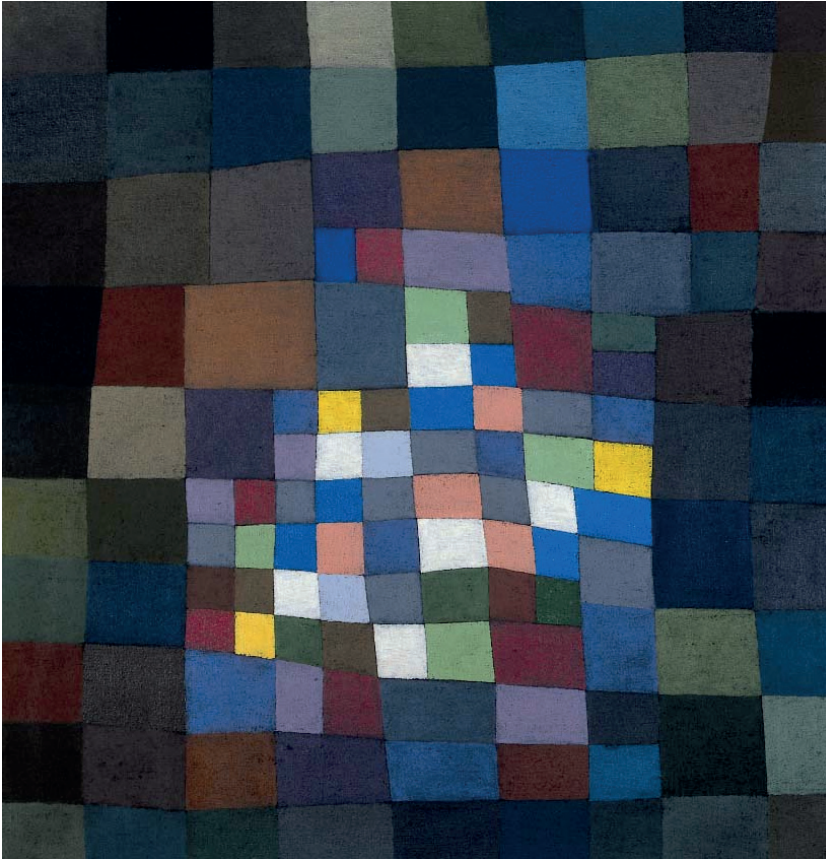
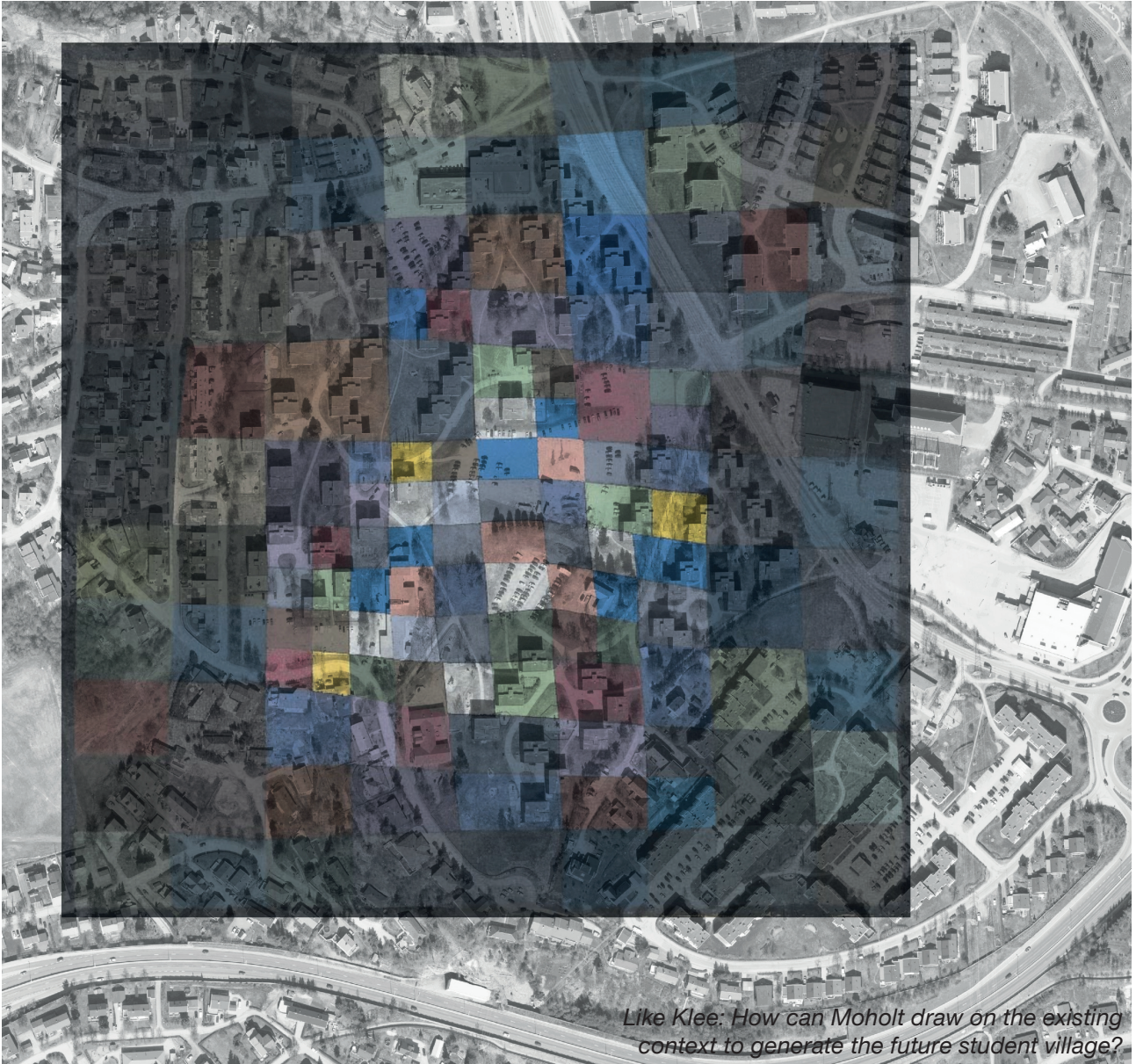


Illustration from the article:
“Paul Klee’s ‘Blossoming’ depicts in an abstract composition how nutrients in the surrounding moist earth feed and are fulfilled by the opening flower – an example of how buildings may draw on and fulfil their context”

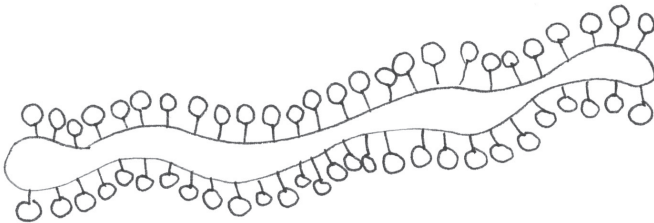
Article Source:
<http://www.architectural-review.com/the-big-rethink-place-and-aliveness-pattern-play-and-the-planet/8633314.article?blocktitle=The-Big-Rethink-Essays&contentID=6601>



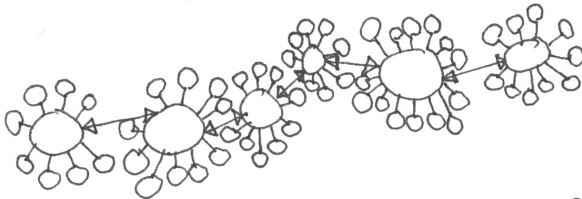
SPATIAL ORGANIZATION

19.02.13

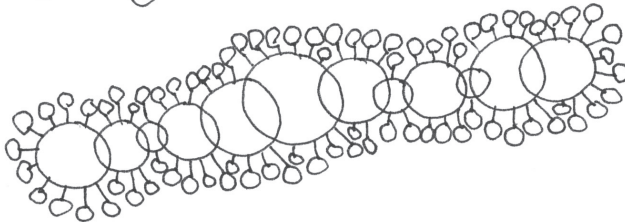
Axial organizations



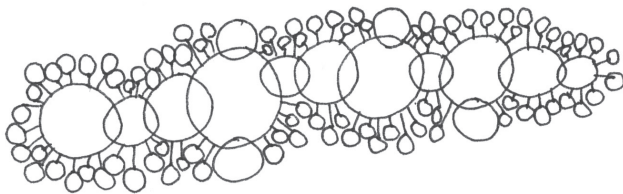
Private rooms as equal entities along one big common living room
-too direct connection? no transitions? where do I belong?



Private rooms around separate common areas connected to each other
-clear where I belong, but am I welcome to the neighbors?



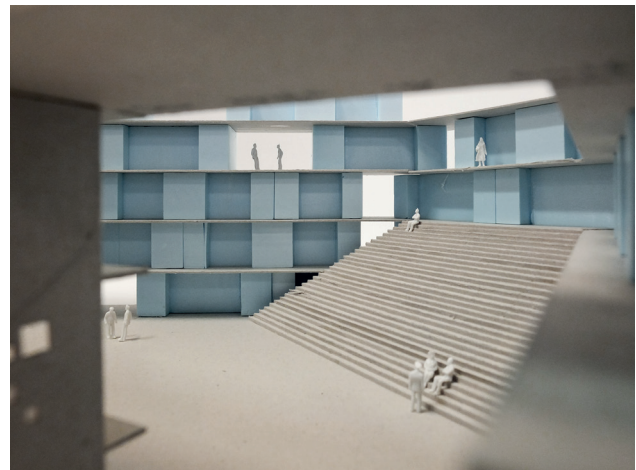
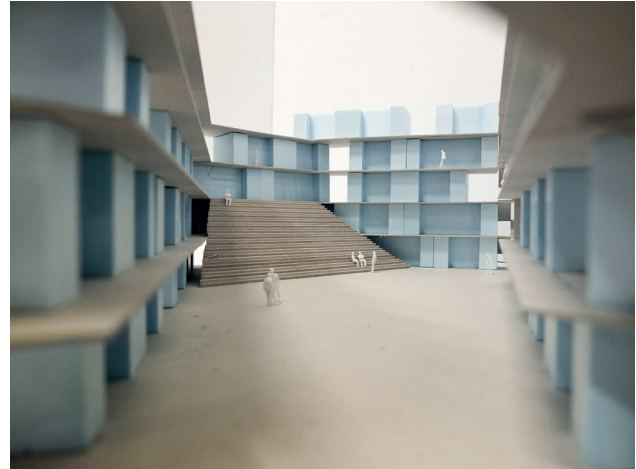
Private rooms connected to a sequence of common areas, merging into one.
-each room relates to a specific space, which flows into the next

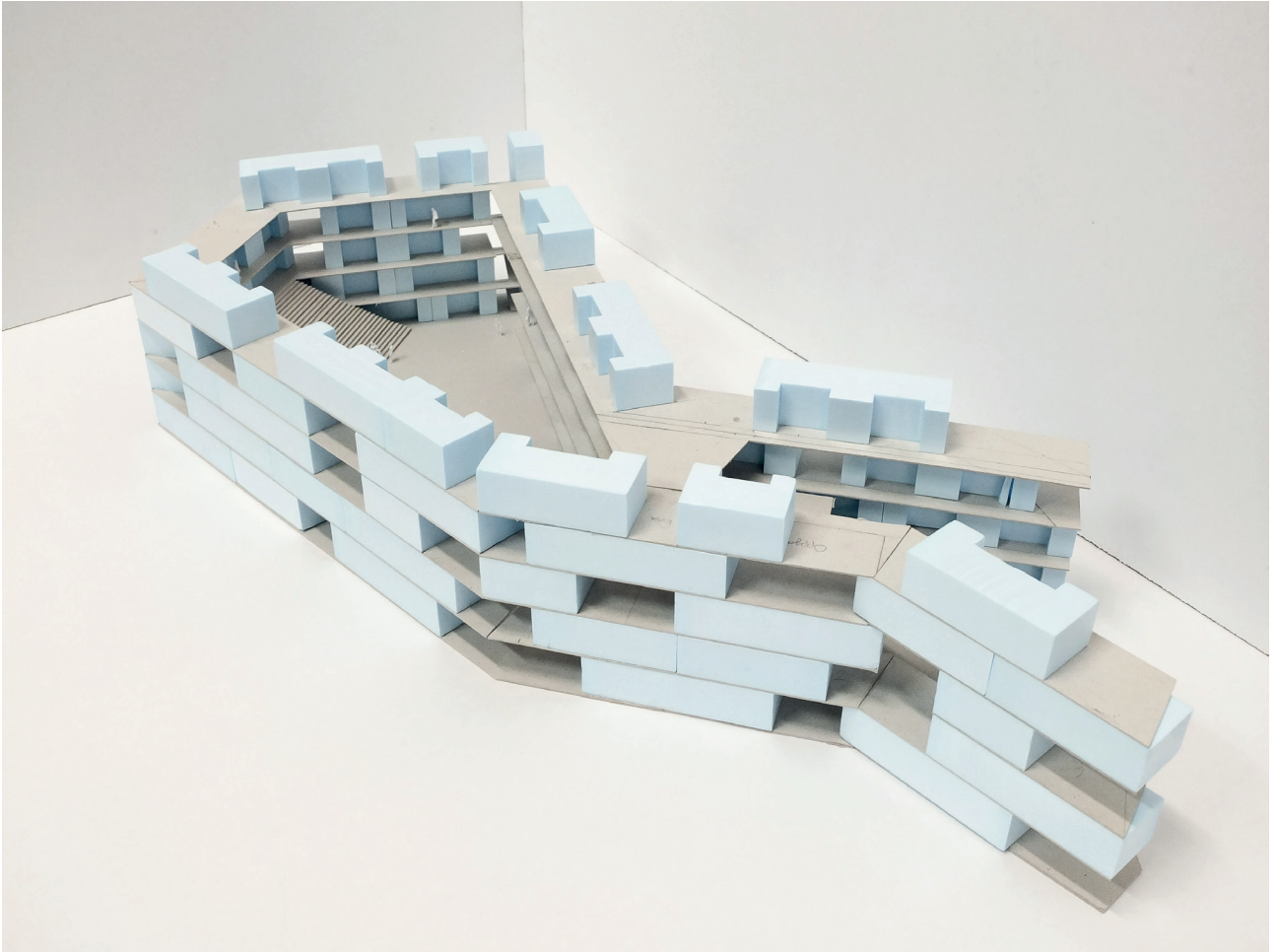


As over, but with some shared functions as quiet "pockets" along the sequence.

THE BIG COMMON COURTYARD

I'm back researching the idea of the courtyard, this time much much bigger than the earlier model. Mega collective that makes it very clear what's private, shared, and common. Is there a sense of community? A system that could be applied in a number of ways to suit different locations of the student village.





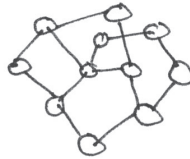
(ALMOST)

22.02.13

EVERYTHING I KNOW

OR THINK I KNOW THIS FAR

- Minimize private space → more common areas.
- Private spaces are private. A personal retreat, less blending with common space.
- Avoid institutional-like spaces (scale / repetition / sameness)
Home is traditionally a smaller scale.
- The network.
Non-hierarchical structure. Not a pyramid of spaces, interconnected network.



The model network.

Not only physical - also an idea / notion.
a mental network, feeling part of the same.

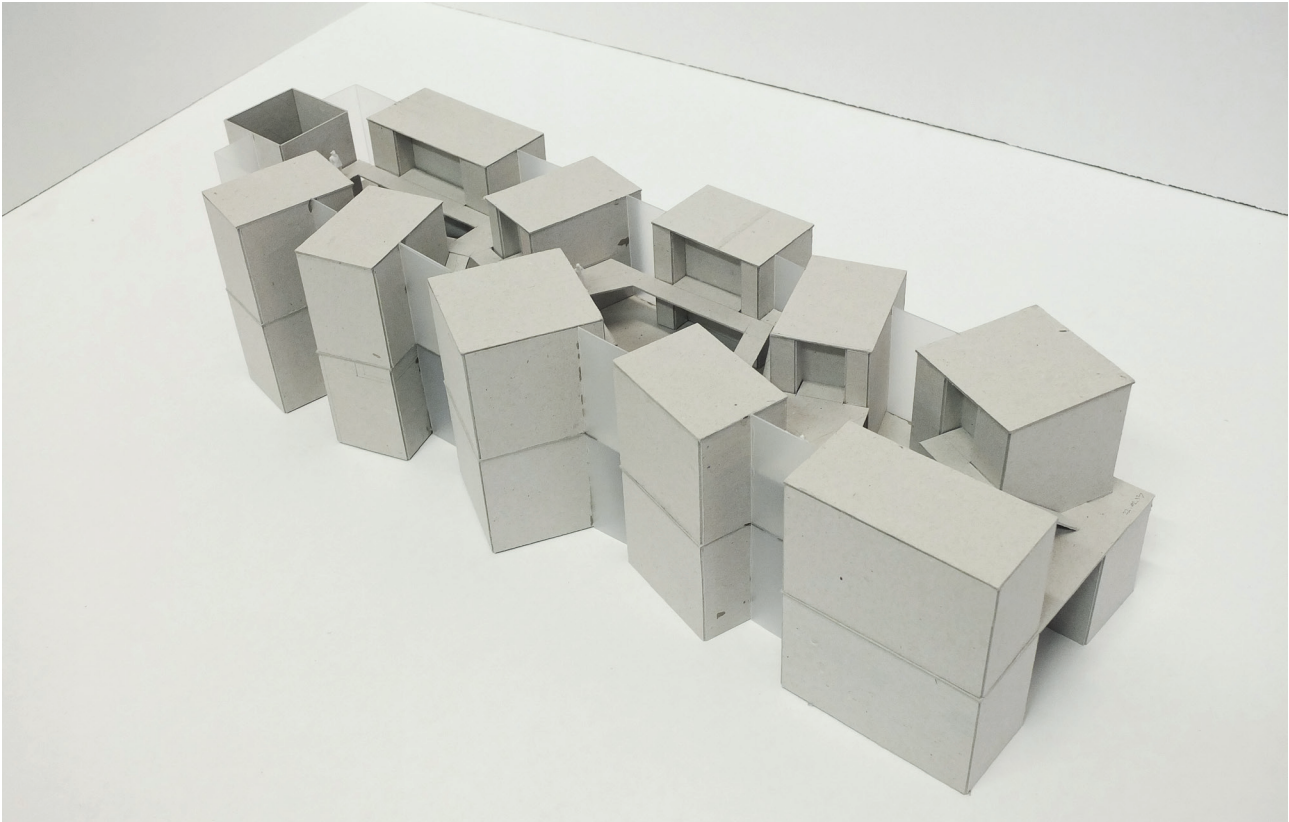
- Keep building-landscape relationship.
- How to work with existing?

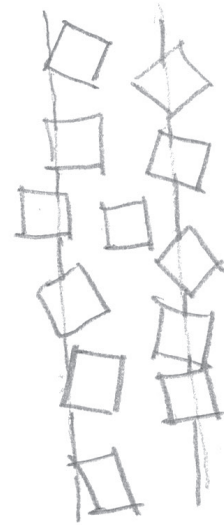
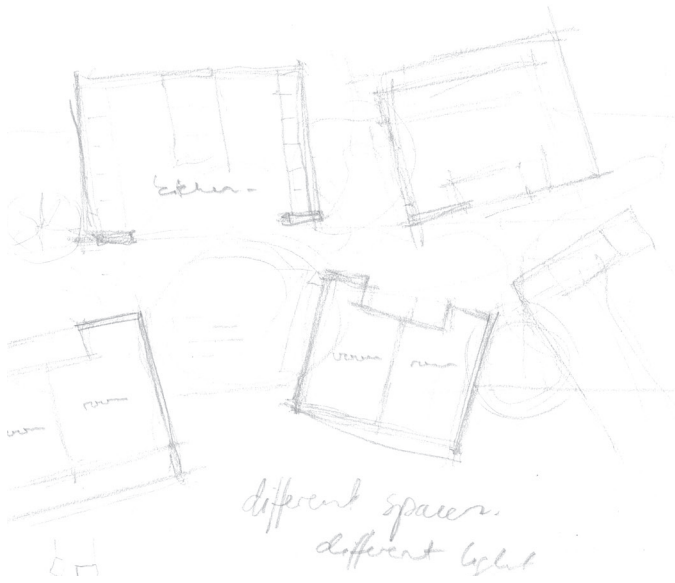
STUDENT HOUSING MODEL 1:100:

22.02.13

VOLUMES RESTACKED

A grandchild of the carpet master plan. Relationship of boxes. Personal rooms as boxes, common spaces between. Shaping space with space. Several different zones, for different activities, moods, personalities, size of groups, Two plus two floors, each pair a collective. Common space partly double height. Model shows two alternative configurations, giving two different facades.

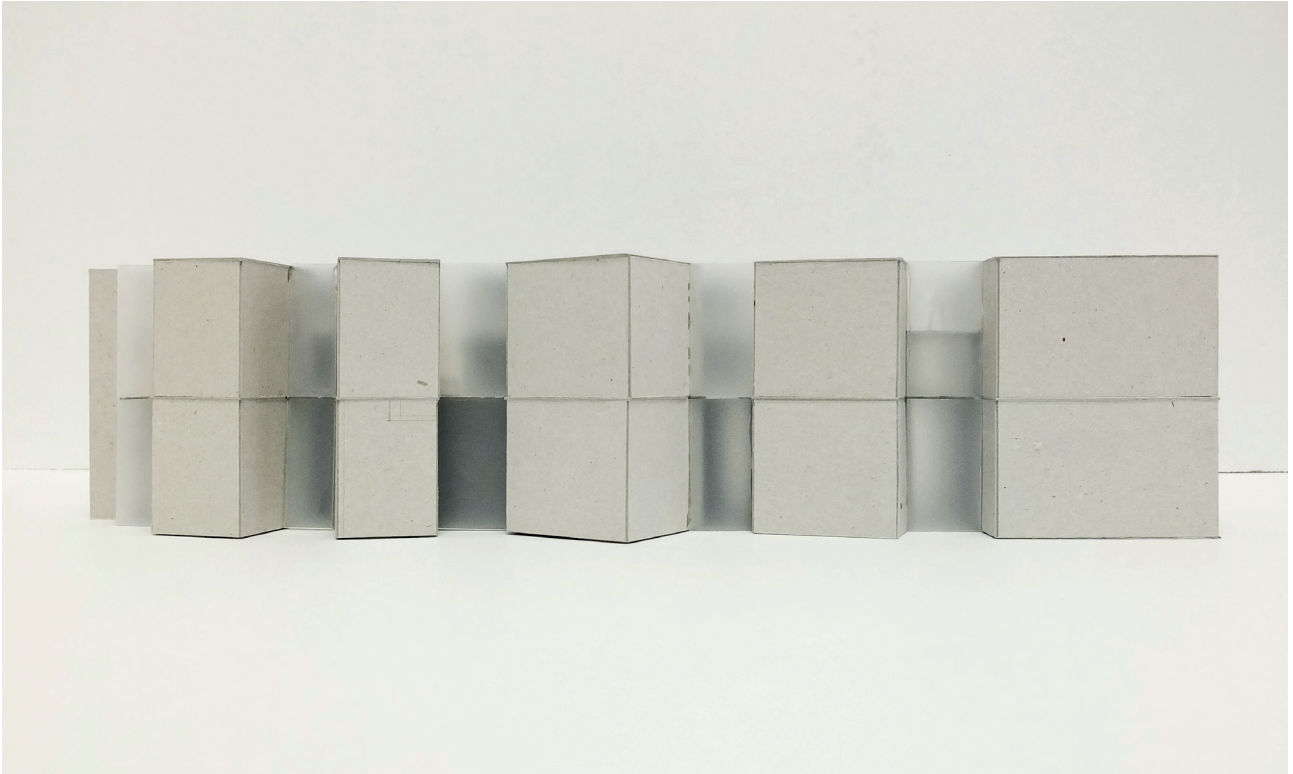




*different spaces,
different light*

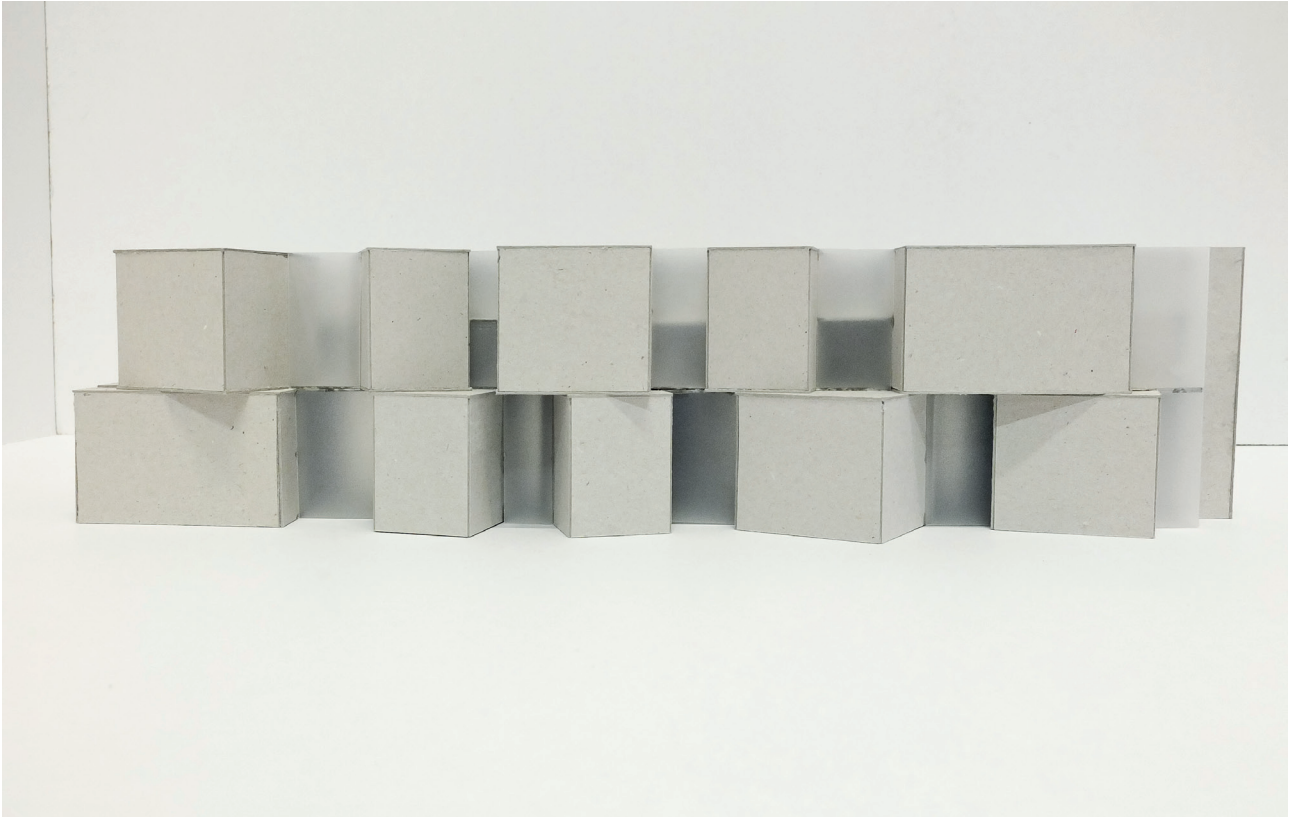






Facade A

Same configuration of boxes on all floors. Verticality, almost towers. Box-gap-box-gap-box. Nice rhythm! Communicates well with existing buildings of both development stages.



Facade B

Alternating configuration of boxes. More messy. Boxes are more individual. I live in that one! More home, less institution? Less buildable than alternative A.

REFERENCE: SOU FUJIMOTO

INTERVIEWED BY ORIS MAGAZINE

24.02.13

Just saw a video interview of Japanese Architect Sou Fujimoto done by Oris Magazine. During the more than one hour long interview Fujimoto discusses his thoughts on and approach to architecture. Fujimoto touches upon many of the same subjects I already have been considering in my project, and I think there is a lot of considerations here that can prove really useful for me to bring along in my further work.

On approach:

*Architecture is used by people, and I like to start from that basic point. And people are for me somehow primitive, because we have a body, we have kind of an animal-like body, we have instincts. Of course we are not animals, but our behavior, **our relationship between the space and the body could be very very primitive**, I think. So when I think about the future I like to start from such a basic fundamental point, **go back to that really fundamental point and then think what is an architecture, what is a space, or what is a place for people to live?***

On hierarchy:

*I think the nonhierarchical space is one of the very interesting points for me, [...] I like to create some kind of say a dense space, less dense space; more of a gradient situation. Recently that has been more interesting. Then people can select, the dark space or the more open space, **a kind of a landscape-like situation**. [...] Then we can recreate a kind of new concept of space. I think forest-like spaces are interesting for me. The forest has many trees. It's like a non-hierarchy, it has kind of different areas, different spaces in it. So the spaces are **nonhierarchical, but not equal**.*

On flexibility:

*Architecture is itself a very huge constrain, even if we can, say move some sliding doors or something, the whole area is strictly defined by the architectural system. [...] Architecture is not flexible; I like to start from that point. Architecture is very strong. We couldn't change such a very fundamental point. **But if you're flexible in your mind then you can behave according to your situation, or according to how many people you are with, or such kind of things. So it's kind of a drastic change of attitude. Flexible is not kind of moveable things, but flexible is the flexibility of relationship between the space and your body.***

[youtube.com/watch?v=5lgyi65DRv8](https://www.youtube.com/watch?v=5lgyi65DRv8)

REFERENCE PROJECT:

24.02.13

Children's Center for Psychiatric Rehabilitation

Hokkaido, Japan, Sou Fujimoto

*This is the treatment center for mentally disturbed children where they live together to get regaining their mental health. It may be thought that it is a very special building when I write so, but **it is truly rich life space that requested in origin like a large house and also like a small city, the intimacy of a house and also the variety of the city.** This is a proposal of a loose method.*

The method of being random

A precise planning / Accidental landscape

*If it was possible to make a building with such a method how something was merely scattered, I thought it was a dreamlike building. And, as for this method, surprisingly precision planning is possible. **As opposed to the complicated program called for, moving a box delicately, the plan can be flexibly packed just because it is random.***

However, the first feature of this method is over there.

*Although, this space is created as a result of an infinite, strict and artificial design process, it stands as a place which is not planned at all, or which has been made automatically with no intention. The place which is vague, unpredictable, filled with unlikelihood. **Something that is not meant is produced as a result of an intentional and strict design act.** And plenty of a place is achieved because of ambiguity for not being intentional.*

Selectivity and contingency / freedom and inconvenient

*A surely irregular alcove-place is produced between the boxes placed at random. It is the place of a small scale where children can hide in while they are connected to the living area. Although it is **the space with no function in which it can make it avoidable in a simple form strangely,** children play with the place like the primitive man who interprets landscape freely and lives very well in it. They hide in a place behind something, show up, relax at back, and run about here and there. **By being separated and being connected are compatible, freedom and inconvenient live together in the meantime. Plenty of the place for living is achieved.***

***It can be said that there is nothing center here and conversely, it can be said that there is a countless center.** They are "relative centers" which always interchanges and changes with the consciousness of those who are there or the condition of light. For the staff, a staff room is a functional center. For children, living room, a single room, or an alcove is a center. The occasional center is found out in fluctuation of space.*

archdaily.com/8028/children's-center-for-psychiatric-rehabilitation-sou-fujimoto/



REFLECTION: EXISTING HOUSES

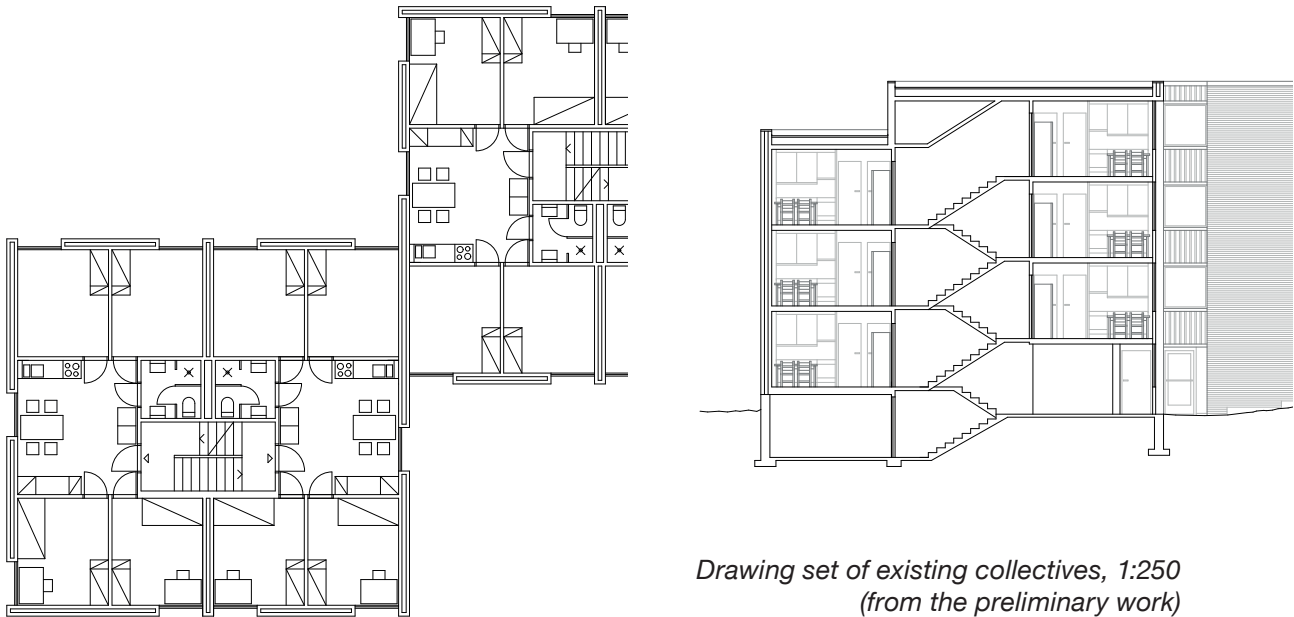
27.02.13

WHAT TO DO ABOUT THEM?

As part of the project I have to take a stand in what to do with the existing houses. Will I create an A- and B- team if I do not upgrade them alongside the new buildings I will bring? Or do I want to change them just for change's sake? This is bothering me a bit at the moment. I wish to find a concept that is embracing the existing houses, making them an integral part of the new Moholt I'm planning.

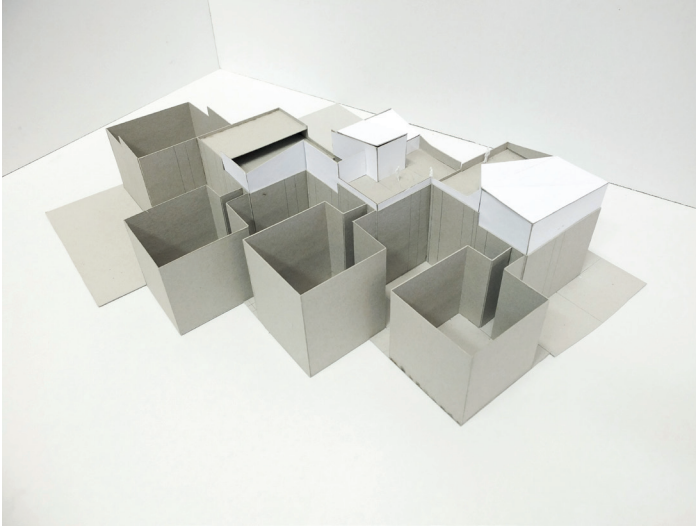
However, the existing structures are a real challenge. They have remained mostly unchanged for 50 years, the reason might be that they actually work quite well, or it might be that it's simply too difficult to make any significant change. The structures are pretty much tight and locked at their current state.

Which strategy should be chosen for these houses?



*Drawing set of existing collectives, 1:250
(from the preliminary work)*

STRATEGY: SATELLITE SLEEPING HOUSES



One strategy I investigated earlier, but have to admit also abandoned was the idea of new separate satellite houses connected to the existing ones through elevated walkways. The existing houses would be a common hub with kitchen and shared living areas, whereas the new additions would hold private zones.

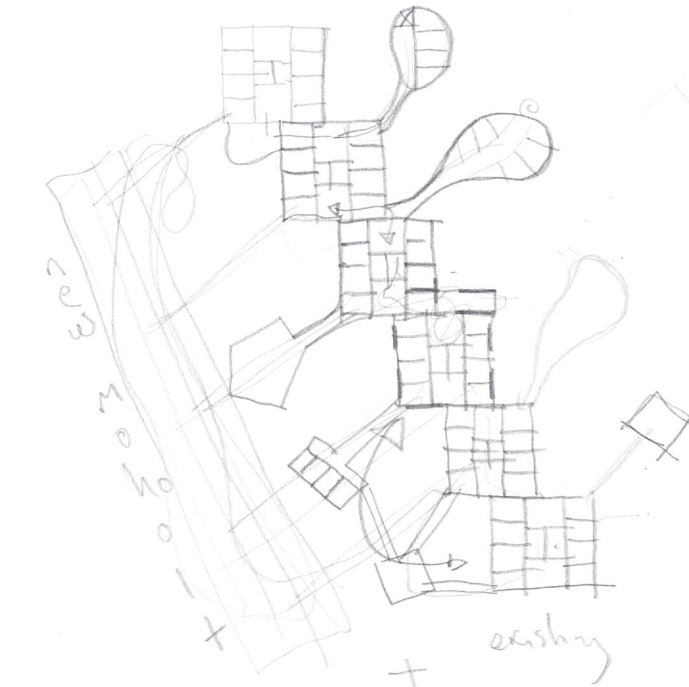
Whatever form these satellites might have there is a real challenge in the limited space around the existing and how one could connect without losing qualities for these.

I also believe the outdoor middle ground between the new and old would be a problematic area, but this can not be concluded without a more detailed design exercise of these.

The main challenge however, is that i do not see how one could create good common spaces for bigger groups in the small rooms of the existing.

I feel I'm working against the existing, not with it.

connecting to existing
(more units / kitchen)



satellites.



existing
connected
to
new

vs

new
connectivity
to
existing

who's
serving
who?



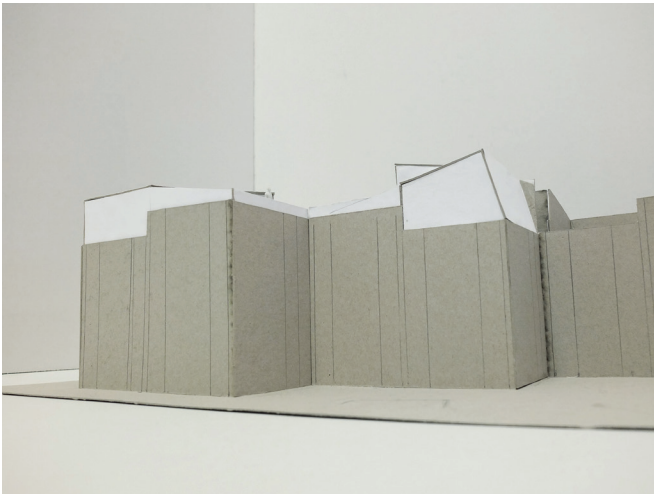
STRATEGY: TOP EXTENSION / ONE HOUSE ONE COLLECTIVE



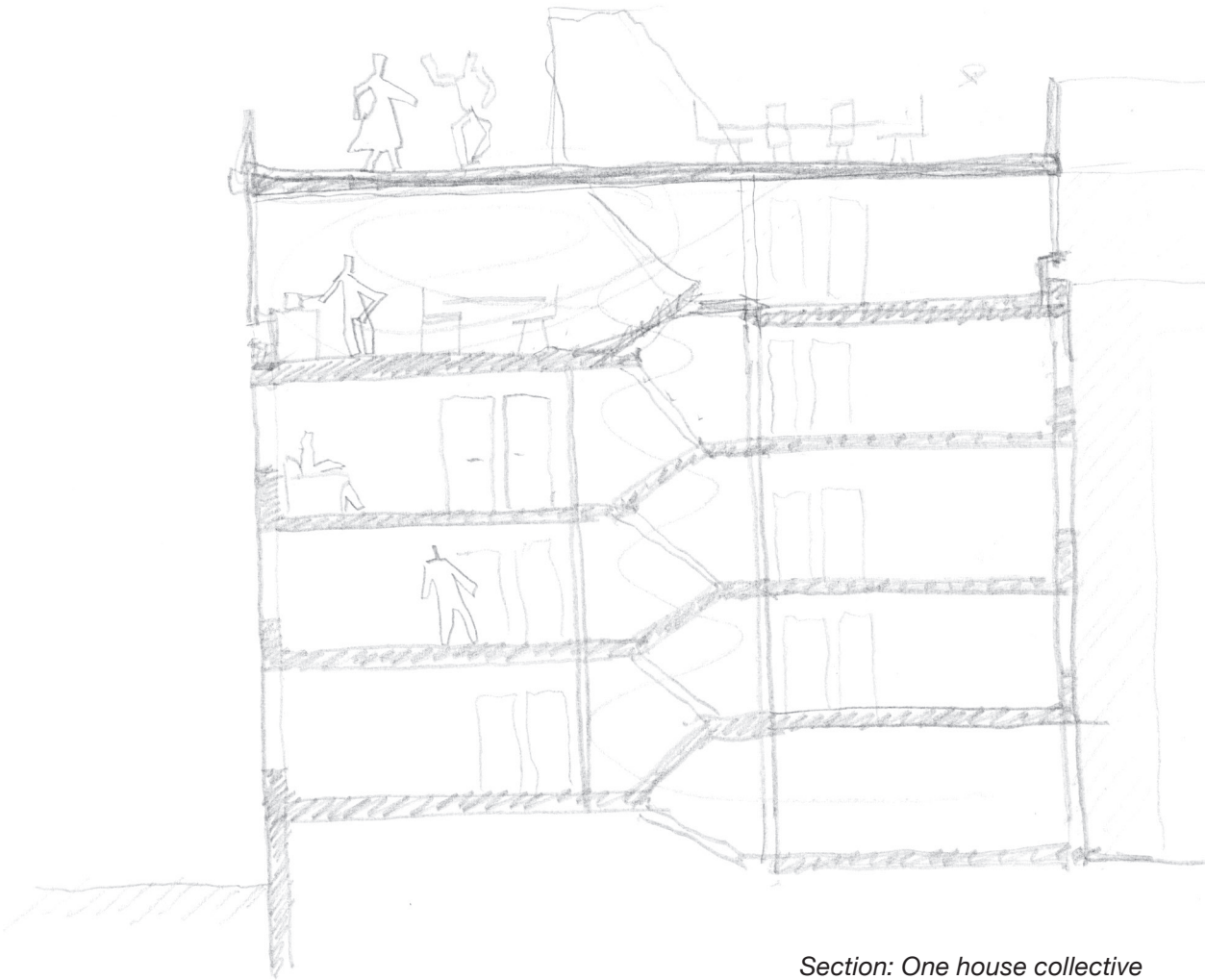
This is a strategy that I believe somewhat more in, but it still has a lot of challenges. The intent is to connect existing houses (primarily within the rows) with each other through the addition of a new top floor. Thus every house would be interaccessible.

This implies common spaces on in the new top floor – is this a good strategy if I want to activate the student village and encourage life between the houses?

Though the form of the possible additions is a challenge, this is not the main one, I doubt how well it will actually work and if considering cost/gain one could seriously start to question the whole approach.



Still there is something in me not willing to give up yet. But I find it a real struggle to work out a good strategy for changing the status quo. Maybe I just feel I ought to do something, that this is part of the task, while the structures say no?



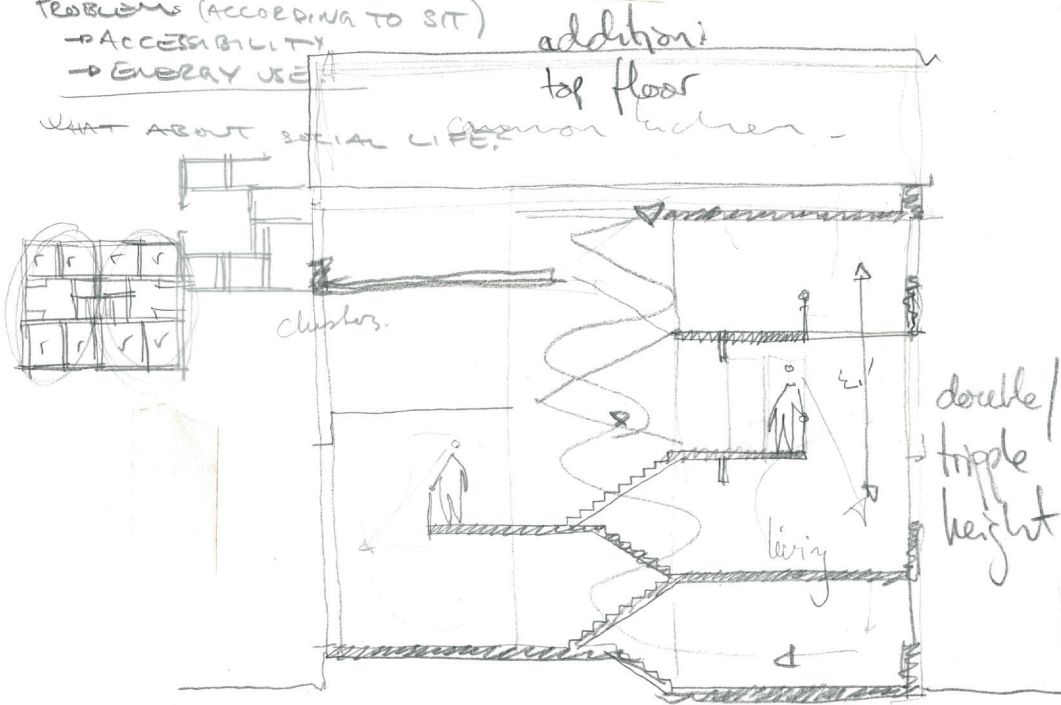
Section: One house collective

EXISTING HOUSES AT MOHOLT.

PROBLEMS (ACCORDING TO SIT)

- ACCESSIBILITY
- ENERGY USE

WHAT ABOUT SOCIAL LIFE?



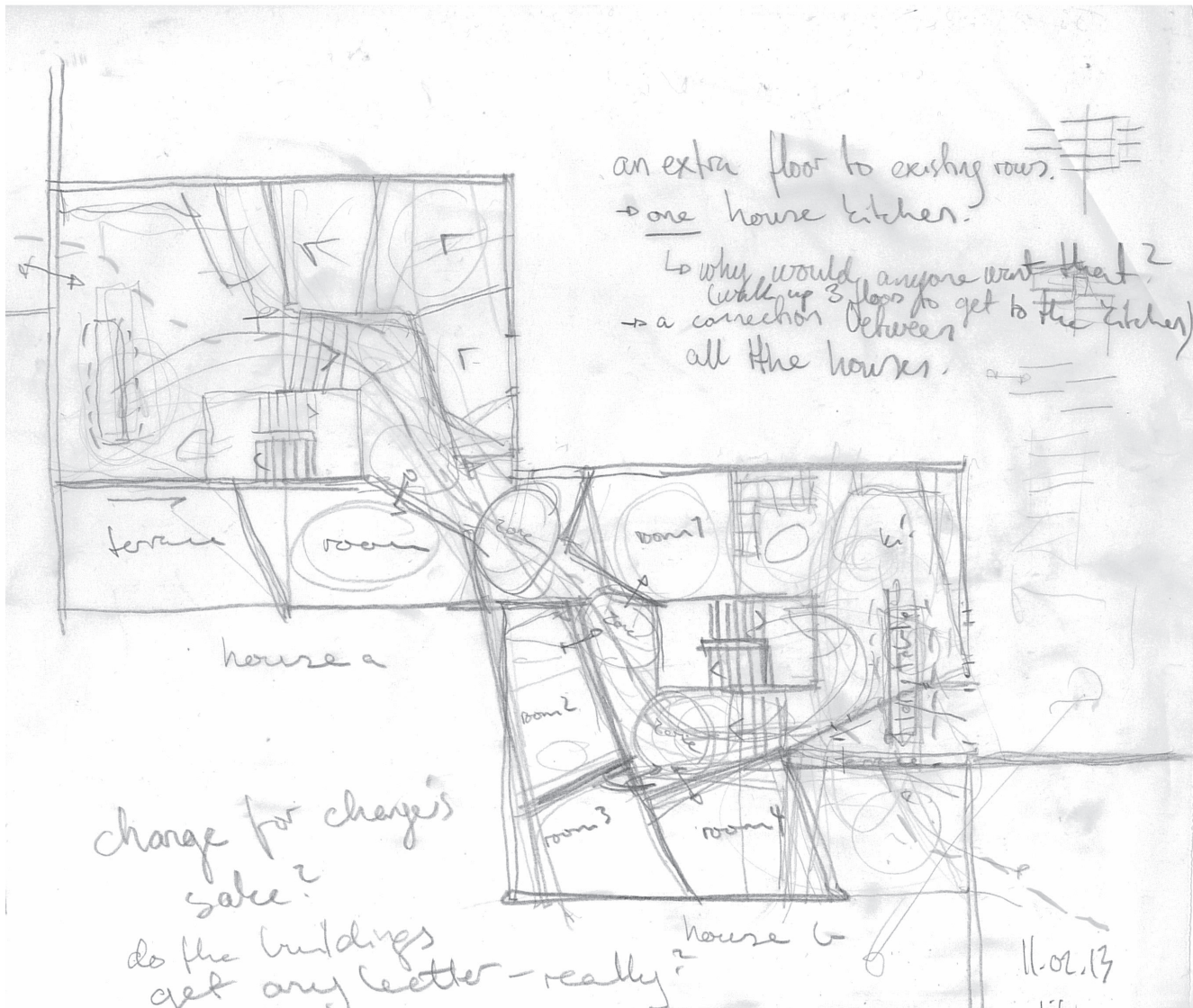
1 house = 1 community

what's the pain?

- less useable area.

o more people to share
kitchen.

money invested vs gain?



PHASE 2: SPECIFYING

Concept:

The chosen approach looks good, continue work on this one. Wouldn't have come here without board, open investigations to start out. The project has references to several different early investigations.

Master plan:

This seems a better approach - relating to and drawing upon what's already there. Using landscape, road side + green side. Main connection point very important. The main meeting point between student village and surroundings.

Housing:

Looks good. Define entrance zones. Vertical communication and contact between floors/openings. Work with spaces between boxes. Do students need hints on how to use the space - not just open furnishable space, but more programmed? Work on sizes, make usable zones.

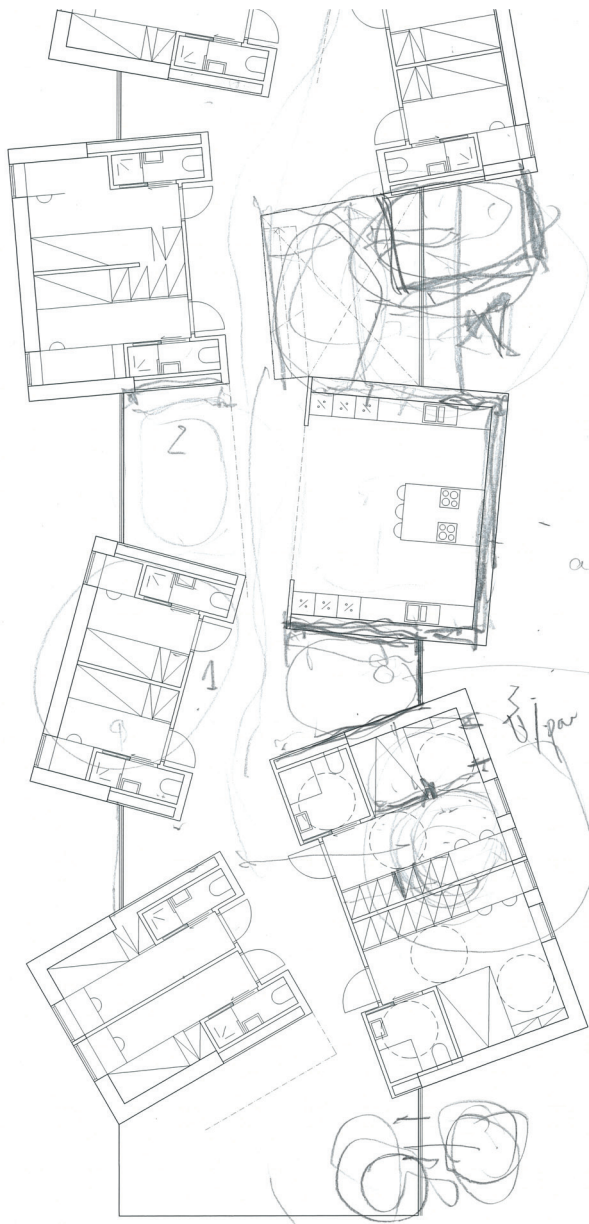
Private rooms: Continue to work out a set of boxes - single, couple, accessible, family.... Different need for private space for students of different stages: Ex: first year single student with no network vs late year couple or small family. Some groups might need to be alone together.

Shared/common boxes: Other functions than kitchens? Can common boxes have an other appearance/look/material/etc. than the more private boxes?

Further work:

Zoom in on a specific area, design a project there for midterm presentations.

I have already come far - why not look into the design of the sport facilities as well? Kindergartens - should develop some thoughts/ideas on what this should be in a student village (as opposed to elsewhere.) Not a design, but more than just locating.



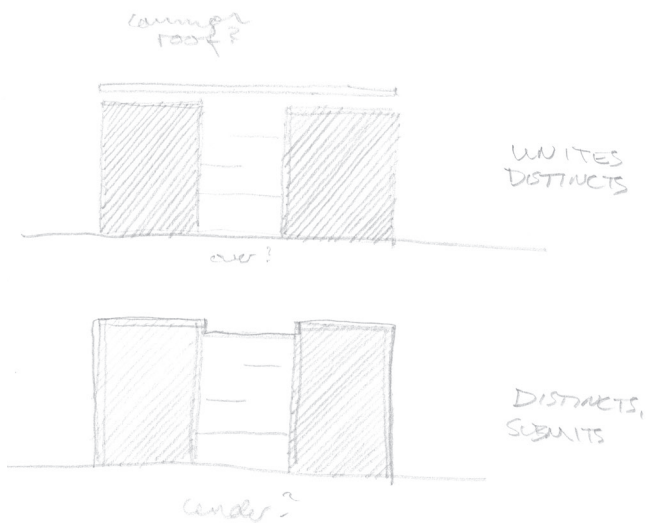
annen utforming
 kjøber. vs private
 lover.



felt umulig
 vs "hjelp til"
 (moduler integrert
 i vegg)
 over hvordan
 senere bli.

→ Server
 server/oppbehold.
 være privat

COLLECTIVIZING EXISTING



Wow can this idea be incorporated in the student village? Connecting and creating collectives with existing buildings? Zooming in on collective connection to family house on central parking lot.



**Collectives stretching in the landscape.
Defining a main entry point for Moholt.
2500 units,
Buildings laid out by the principle of **one side green, one side road**;
New buildings as barriers?**

MIDTERM PRESENTATION

Selection

13.03.13

I chose to present my process so far for the midterm presentation, focusing mostly on the later development the past few weeks. The following pages show new material from the presentation, followed by the received feedback.



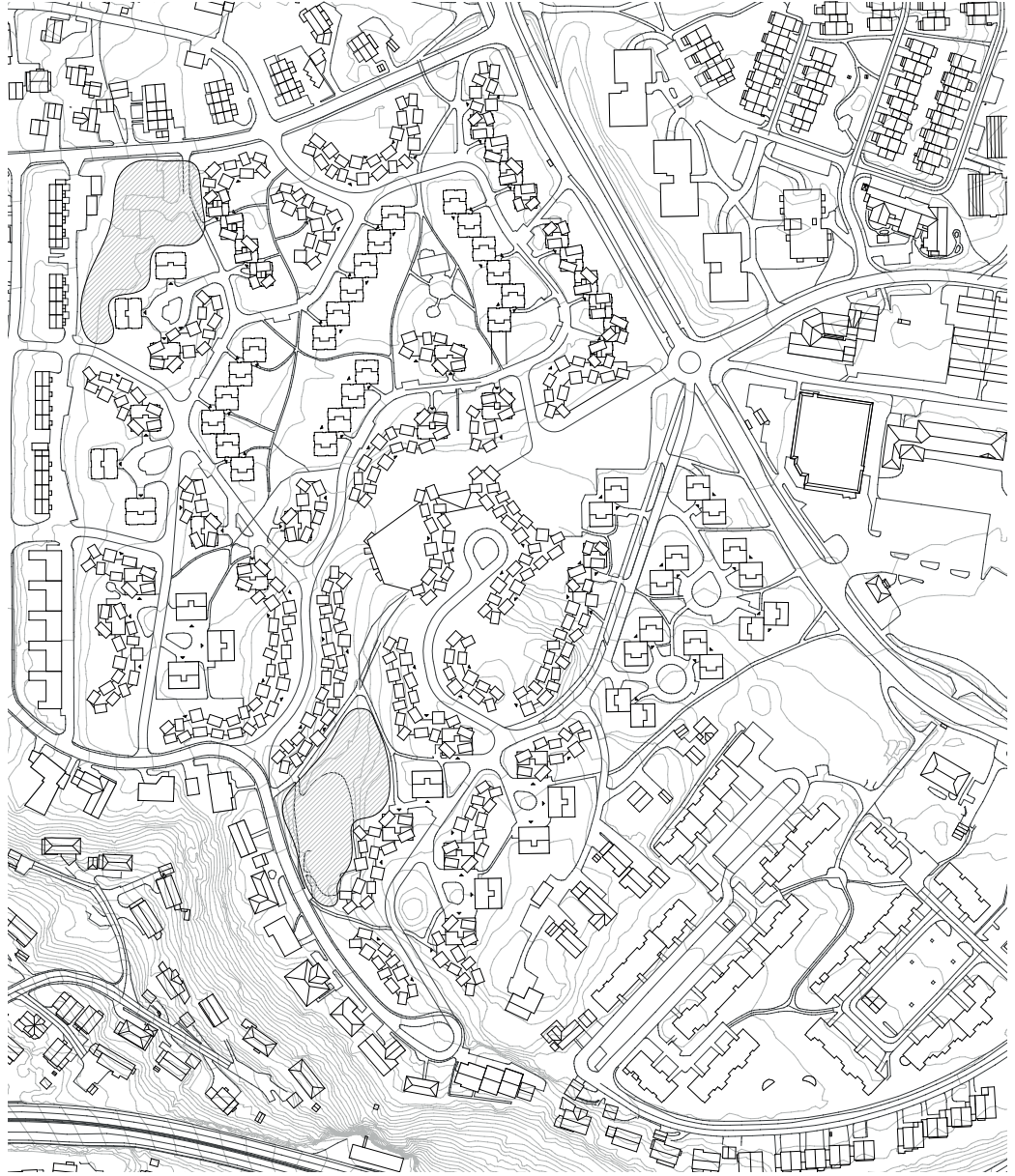
TASK

Through design investigate the collective student dwelling as type by transformation and densification of the existing Moholt Student Village.

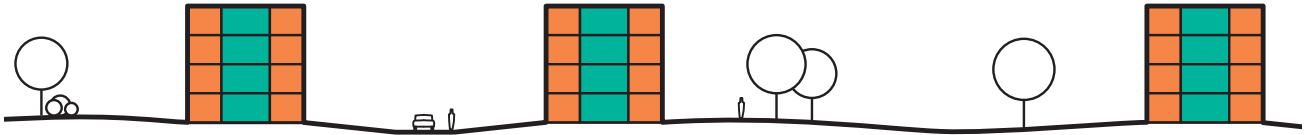
MIDTERM PRESENTATION

Selection

Master plan
1:4000



MASTER PLAN



Follow lanscape

Relationship road - buildings - landscape
Buildings along/perpendicular to contours

Connect to surroundings

roads
green
centre
view points

Create a center

Public functions

Kindergartens
Sports center
Grocery
Activity house
Bus stop
Other uses?

Doubling number of housing units

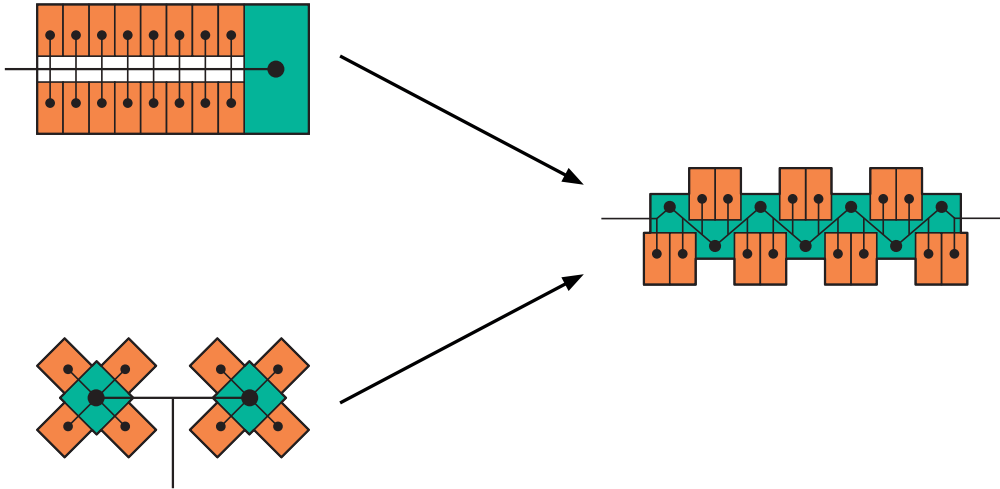
Phases of development

MIDTERM PRESENTATION

Selection



HOUSING



Cluster and corridor

Focus on common areas

Personal rooms

- In volumes
- Space efficient
- Fixed furniture
- Standardized types
- Different units to suit personal needs

Common areas

- Between the volumes
- Circulation and living
- Encounters

Connecting to existing, becomes a part

Flexibility

Hierarchy?

Programming of the in-between spaces

Built in furniture in walls of boxes?

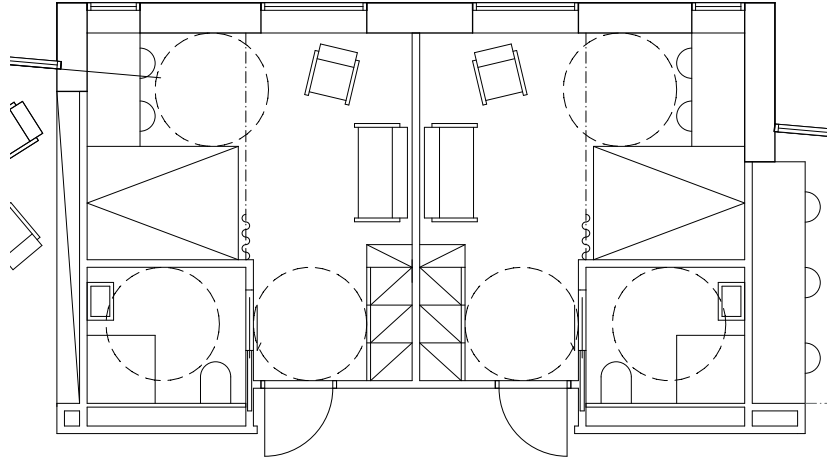
Vertical connections

25 sqm BTA/person

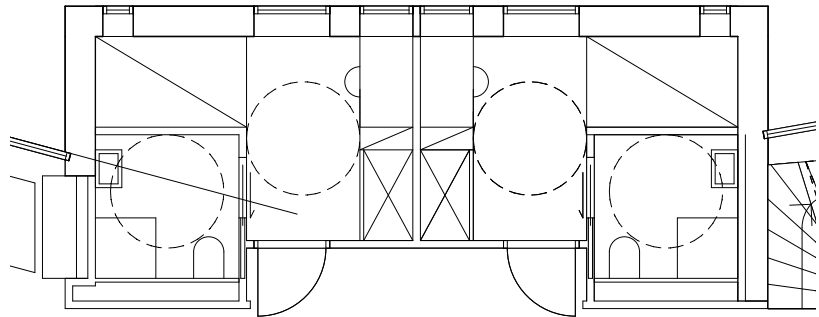
Materials

MIDTERM PRESENTATION

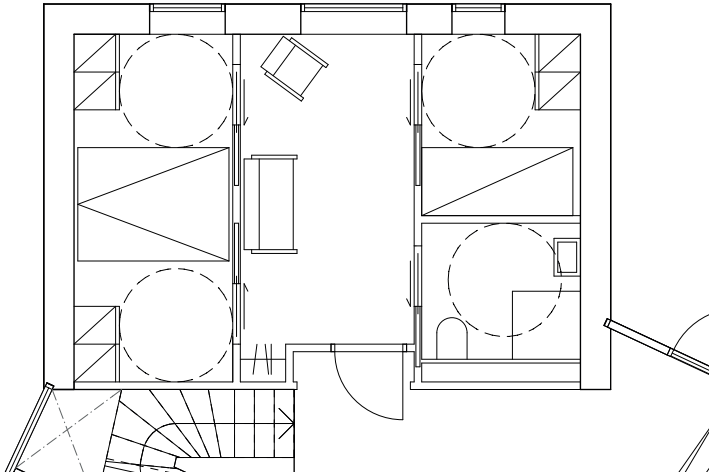
Selection



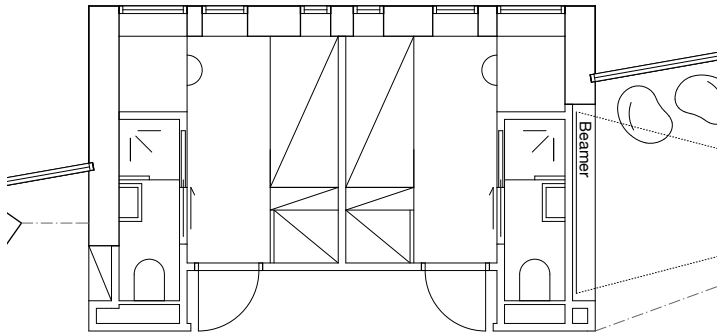
ACCESSIBLE / COUPLE'S UNIT
20 sqm, 2 beds, Wheelchair accessible, Private living zone



ACCESSIBLE SINGLE UNIT
12 sqm, 1 bed, Wheelchair accessible



FAMILY UNIT
29 sqm, 3 beds, Wheelchair accessible, Private living room



SINGLE UNIT
9 sqm, 1 bed

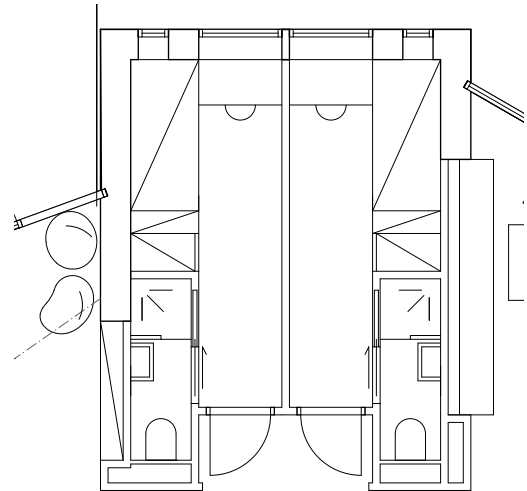
PRIVATE ROOMS

Types to suit students of different stages, needs, wishes

Varying scopes of private spheres

All have

- bathroom
- work space
- sleeping space
- storage



SINGLE UNIT
10 sqm, 1 bed

MIDTERM FEEDBACK

13.03.13

My notes and summary of the midterm feedback:

Cits: Fredrik Shetelig, Barbra Matusiak, Ole Jørgen Bryn

Be clear on main priority, both in presentation and design implications. Densification? The social aspects?

The student's life. They are not a homogeneous group. Different stages, personalities, wishes, needs. Reflect on these realities. Give this discussion a clear structure - it's absolutely crucial for the project. What are the real questions to be answered architecturally? A reflection has to form the basis. Go deep. This should be investigated, reflected on and presented as a starting point.

The project is romanticizing the idea of the common, social life. Being together always is not always good. People need to be able to be alone, a fundamental aspect of living. Find the balance. I can be social, but I don't have to! What is social life at home? What kind of community should I offer? Reflect.

Common life does not just have to happen inside the buildings! Think urban! City like spaces, the life between the houses. Main places to meet are often not inside! Studentby = student city. Social living in public spaces. Life in a gradient between private and public.

Master plan. Think city! Work with a clear hierarchy, different spaces / zones / areas, not all the same! What are the goals of the master plan? Be clear! Densification? Change character, keep character, new qualities? New public functions could work like a generator for the greater area. Connect not just like a representative space, but like a living public spaces, focus on this particular one as the urban space of Moholt. High rise vertical marker? Who are the users, residents or people from outside as well?

Family dwellings <> single units

Very different stage of life, what are their real differences in needs / wishes? Can or should they live together? Partying vs sleeping children +++. The life styles are fundamentally different, not necessarily compatible. This should be clear in master plan (as it is at Moholt today)

About kindergartens - the current locations are not convincing. Why are they there, seems to happen by chance. Take a active decision. Where do they fit on the fabric? Where do people come from and where are they going? Infrastructure. Who are they for?

How to work with the transitions/boundary between the student village and the surroundings? Define the periphery. One strategy would be to build along the outer edges to define the student village more clearly. A separate entity, NOT part of the surroundings. An own world. Does not necessarily have to be blended in....

I work both formalistic AND structuralistic - can the structure generate the form?

Do I want to just densify Moholt OR actually change it as well?

How to proceed:

- 1: Go one step back to typology, investigate, define. What should the buildings do, how should they work.
- 2: Proceed to form, actual design. What should it look like.

Notes from midterm feedback by Hanne:

Svarre:

- strategi for å velge.
- Hva har du valgt og hvorfor?
- Prioritering. Fortetting / sosialt nettverk.
- Parkering. Bil
- Synkel, synkelveger
- Vegetasjon. Park med hus i.
- Undersøkelserne av sosialkvaliteter i boligkvalitetsform.
- Fantasi rundt fellesskap. HVA ER FELLESSKAP.
- Hva er studentens liv?
- Hva er det reelle behovet for fellesskap?
- Strukturelle behovet.
- Bruke fellesskapsammen mer konstruktiv.
- Administrere SD fellesskap/neytraut
- gi festerplan.
- Private/ offentlige rom, friske
- konsentrere.

Definere rom. Mye bygningssmasse.
Generere aktivitet til tyngdepunkt.
Folde hierarkisk.

Fokusert. Topphierarki - Fellesskapets rom.
~~Bor~~ Bormus West 8. 3 etg. bebyggelse.
B.M.F. Borenburg. 1990-tallet. Amsterdam.

FELLESSKAP. HVEM ER STUDENTEN? HVORDAN LÆVER DE?
Hva slags romsyn. undersøkelser i bunnen?
Hvordan administrere rom, konstruksjon,
hierarki etc?

Monot som spesifikt sted? slår det ut?
Er det nettsete i kantene?
Monot som tydeligere sted. Periferi.

JEG KAN, MEN JEG SKAL IKKE
Hva med de introverte studentene?
ALLE ER IKKE SNILLE MED HVERANDRE.

Gi et navn tilbake. Typologi, fellesskap
og hva er studentens liv.

Formalistisk med struktur og
Systematisk med struktur.

Form.

struktur - logikk.

Hva slags type fellesskap burde de kunne
tåle.

FORM → TYPOLOGI → FORM.

SITE VISIT

14.03.13



Good to be back day after midterm. Need to connect again, understand the fundamentals of the village.

Things thinking about today:

- Do you ever look out?
- Same, same, but different.
- The sun always shines on TV



STUDENT, WHO ARE YOU?

DISCUSSION OF THE 'STUDENT GROUP'

14.03.13 - 17.03.13

I'm doing student housing, so who exactly am I designing for? Who are the students?

Obviously students are not a homogeneous group, they are all kinds of people! Still there exists some kind of common understanding of a typical student: someone in their early twenties, full time student, living in a shared flat, and never returning to education after the degree is finished. Though this description obviously fits for quite a large part of the students, it is far from the total picture. The student group is getting ever more diverse and blending more and more with society in general. This is true when it comes to differences in age, ethnicity, relationship status, personal economy, and a range of other background factors. A number of students are working part time, or may even take a shorter or longer break from studies to work in order to earn money, gain experience or just do something different.

In addition to being too narrow on basic demographic facts, the typical view also fails to consider the diversity between students on a level of unique personalities, interests, aspirations, and life styles. These individual qualities are far harder to measure than pure demographic facts differences, but are probably of even greater importance. This is obvious, who you are is much more than what can be measured statistically. Students are extroverts and introverts, active and lazy, happy and depressed, contact seeking and shy, meat-lovers and vegetarians – the list could go on forever. These individualities can in no way be said to be particular for students, in the end they mirror society in general.

*The time when one is a student is included in what Frønes & Brusdal (2000) describe as the young-adult phase, a phase that is characterised by the way young people live: without established families, and searching for ideals, friendship and new experiences. The young-adult phase has become a prolonged period in life and the field of Sociology of Youth defines it more according to living circumstances, interests and needs than according to age (Mayer 2002). **Nowadays, the time spent on education and living alone is a period that stretches from leaving the parental home and up to the establishment of one's own household.** Becoming a student is the reason why many young people in Norway move to a new city and leave the parental home. This is a period where new definitions of social interaction and living conditions are required and own decisions have to be made. Finding accommodation is one important part of this process.*

*–Judith Thomsen (2008),
Student Housing - Student Homes?*

STUDENT TYPES & SCHEDULES

So what are the students' personalities? What do their days look like? These seven examples are based on and expanded from SiT's classification of student types. Obviously these stereotypes do not cover all (or perhaps not even any) students. This is a simplification, unable to catch a range of individualities. As always generalizing comes with danger. Still this exercise highlights a few common trends and that can be very useful in thinking about the different housing needs among students. Which personality types am I designing for?



The Dedicated

Age: **Early twenties**

Main trait: **Responsible**

Friends: **Study group**

Work: **During summer holidays**

Housing preference: **Cheap, not too fancy**

Needs: **Quiet working space**

Transportation: **Bicycle**

Born to: **Work**

Schedule:	0600:	Home
	0700:	Wake up
	0800:	Self study Uni
	0900:	
	1000:	Lecture
	1100:	
	1200:	Lunch
	1300:	Study group
	1400:	Lecture
	1500:	
	1600:	Exercise Gym
	1700:	Dinner Home
	1800:	Self Study
	1900:	
	2000:	Watch a movie Friend's place
	2100:	
	2200:	
	2300:	Bedtime Home
	2400:	
	0100:	
	0200:	



The Involved

Age: **Early twenties**

Main trait: **Engaged**

Friends: **In same organization**

Work: **Volunteer**

Housing preference: **Centrally located**

Needs: **More time**

Transportation: **Bus**

Born to: **Save the world**

Schedule:	0600:	Home
	0700:	
	0800:	
	0900:	Wake up
	1000:	Lecture Uni
	1100:	
	1200:	Lunch
	1300:	Volunteer work
	1400:	Lecture
	1500:	
	1600:	Group study
	1700:	Volunteering Student
	1800:	Society
	1900:	Dinner
	2000:	Socializing
	2100:	
	2200:	
	2300:	Self study Home
	2400:	
	0100:	Bedtime
	0200:	



The International

Age: **Mid twenties**

Main trait: **Different**

Friends: **Other exchange students**

Work: **No**

Housing preference: **Cheap, with others**

Needs: **Close to school**

Transportation: **Bus**

Born to: **Study abroad**

Schedule:	0600:	Home
	0700:	
	0800:	
	0900:	Wake up
	1000:	Lecture Uni
	1100:	
	1200:	Group study
	1300:	Lunch
	1400:	Lecture
	1500:	
	1600:	Group study
	1700:	Relaxing Home
	1800:	Self study
	1900:	Skyping home
	2000:	Shared dinner Friend's place
	2100:	
	2200:	
	2300:	
	2400:	Watch a movie Home
	0100:	
	0200:	Bedtime



The Active

Age: **Mid-twenties**

Main trait: **Ambiguous**

Friends: **Team mates**

Work: **During weekends**

Housing preference: **Close to nature and gym**

Needs: **Storage sports equipment**

Transportation: **Bicycle**

Born to: **Run**

Schedule:	0600:	Home
	0700:	Wake up
	0800:	Exercise Gym
	0900:	
	1000:	Lecture Uni
	1100:	
	1200:	Lunch
	1300:	Self study
	1400:	Lecture
	1500:	
	1600:	Skiing Nature
	1700:	
	1800:	Dinner Home
	1900:	Self study
	2000:	
	2100:	Socializing Friend's place
	2200:	
	2300:	
	2400:	Bedtime
	0100:	
	0200:	



The Overly Social

Age: **Late Twenties**

Main trait: **Outgoing**

Friends: **Everyone**

Work: **No**

Housing preference: **With anyone**

Needs: **Contact with others**

Transportation: **Walking**

Born to: **Hang out**

Schedule:	0600:	Home
	0700:	
	0800:	
	0900:	Wake up
	1000:	Lecture Uni
	1100:	
	1200:	Lunch date City café
	1300:	
	1400:	Lecture Uni
	1500:	
	1600:	Self study
	1700:	Exercise Gym
	1800:	
	1900:	Dinner party Friend's place
	2000:	
	2100:	
	2200:	
	2300:	Call friend Home
	2400:	Relaxing
	0100:	Bedtime
	0200:	



The High Class

Age: **Mid Twenties**

Main trait: **Self-centered**

Friends: **Rich boys, beautiful girls**

Work: **No**

Housing preference: **Central, large, high standard**

Needs: **Nothing, has it all**

Transportation: **Personal car**

Born to: **Party**

Schedule:	0600:	Home
	0700:	
	0800:	
	0900:	
	1000:	Wake up
	1100:	Late to lecture Uni
	1200:	Breakfast
	1300:	Group study
	1400:	Lecture
	1500:	
	1600:	Self study
	1700:	Exercise Gym
	1800:	
	1900:	Dinner Restaurant
	2000:	
	2100:	Home party Friend's place
	2200:	
	2300:	
	2400:	
	0100:	
	0200:	Bedtime



The Parent

Age: **Late Twenties**

Main trait: **Responsible**

Friends: **Young families**

Work: **Yes, to make ends meet**

Housing preference: **Large, outdoor play area**

Needs: **Several bedrooms**

Transportation: **Personal car**

Born to: **Raise kids**

Schedule:	0600:	Home
	0700:	Wake up
	0800:	Drop off kids Kindergarten
	0900:	Self study Uni
	1000:	Lecture
	1100:	
	1200:	Self study
	1300:	Luch
	1400:	Lecture
	1500:	
	1600:	Pick up kids Kindergarten
	1700:	Dinner Home
	1800:	Kids' sports Field
	1900:	
	2000:	Kids to bed Home
	2100:	Relaxing
	2200:	Self study
	2300:	
	2400:	Bedtime
	0100:	
	0200:	



The Trend

When: **What:** Where:

Morning	Morning routine	Home
Day	Study	Uni
Early evening	Activity	Venue
Late evening	Socializing	
Night	Night routine	Home

The diagram to the left shows all the seven student schedules overlaid. The result is a surprisingly clear general trend, but not a conclusion. As already stated the average student does not exist, thus neither a common average schedule. Still it is interesting to note that the seven different schedules together form a clear pattern. Though in no way not absolute, the diagram highlights these already known general patterns:

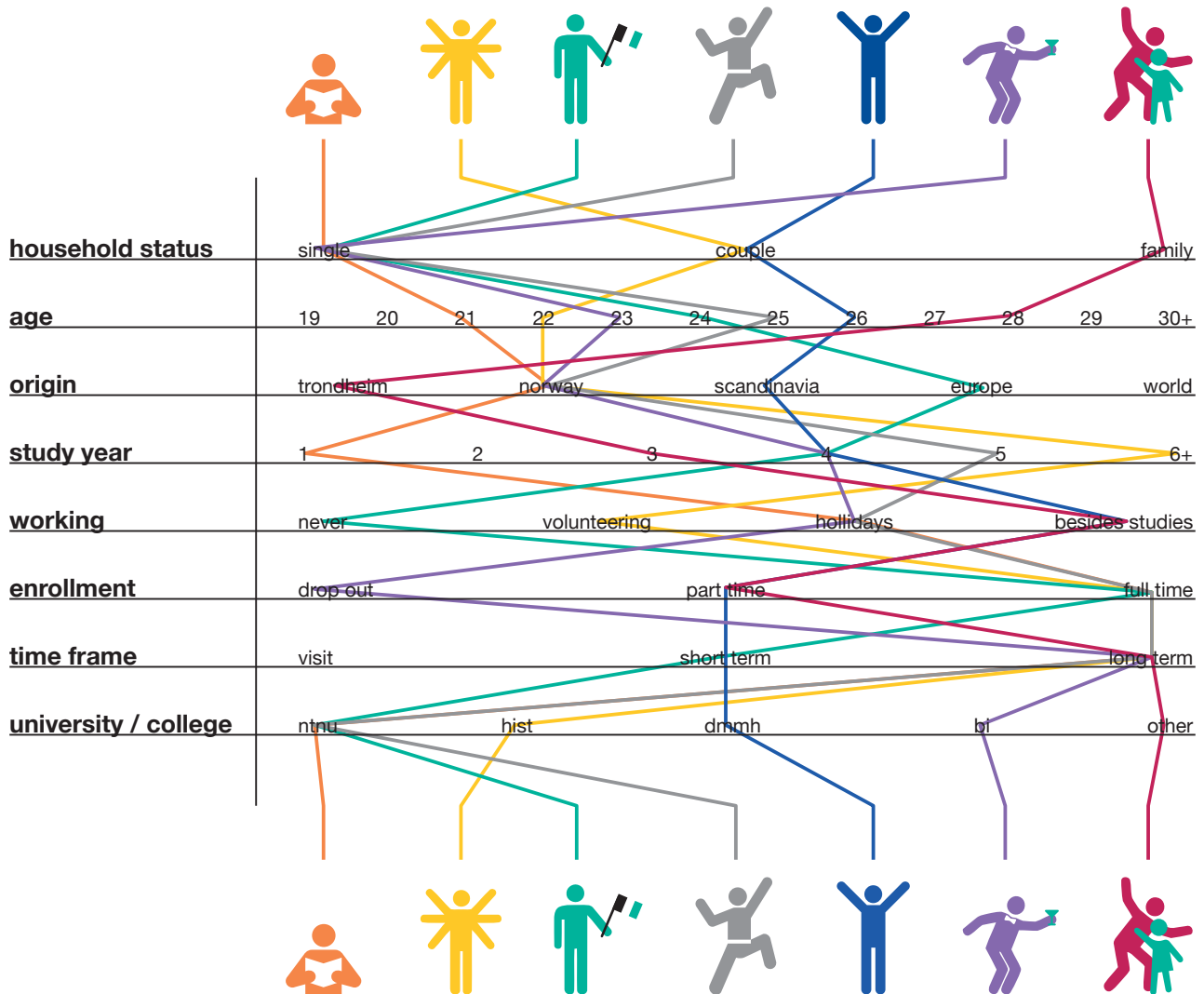
- School is an important social arena
- Students often take part in organized activities
- Relatively little time spent at home
- Much of social life takes place outside home

This finding underlines the assumption that most students despite different personalities, interests, and diverse demographic background (as shown on the next page) share some strong characteristic simply due to their main occupation.

Note:

The diagram probably under communicates the time actually spent at home. Very few students go the entire day from they leave for school until they go to bed without at least stopping by at home.

Also, the socializing sector typically takes place in someone's home, making it part of domestic life.



Plot of the seven student types assumed demographic data. If anything this representation shows that there are few clear patterns to be found. This is not what defines a student.

STUDENT LIFE IN NUMBERS



28

average student age nationwide¹



6h20m

time spent on studies working days²



40%

work part time¹



1/2

members of SiT sports¹



5%

have kid(s)¹

So, what makes the student special?

As illustrated so far students represent a big and highly diverse group still typically sharing some general characteristics besides the obvious fact of occupation:

- young adults
- not yet settled down
- defining own identity
- establishing own household
- making of social network
- limited financial resources
- sees own housing situation as something temporal
- involved in activities, spends less time at home
- transition from the parental home as “real” home

1. Trondheim Kommune ,2008, Rapport Helhetlig Studentpolitikk
2. SSB, 2011, Levekår blant studenter 2010
3. Studiebyen/Sit, Boldeer2010
4. Trondheim Kommune, 2006, Rapport Prosjekt studentbosetting - hyblifisering

STUDENT HOUSING IN NUMBERS



And how do students live?

Students' housing situation must be seen as directly connected to their stage in life as characterized on the following page.

What makes students housing situation something unique is not only the groups in general limited financial resources, but more importantly the home as an arena for defining one self. As forming social relationships is crucial to this process students collectives obviously carry a lot of potential especially people in this phase.

Even though architects often strive for wide diversity of people to inhabit their projects, students, like other people, often seek together with other people in which they have something in common, being an interest, cause, activity, or stage in life. For institutionally proved housing it is therefore of main interest finding a reasonable side of the collectives, large enough for the residents to find both otherness end like minded, still small enough to contain a sense of community where each individual is seen.

1. Trondheim Kommune ,2008, Rapport Helhetlig Studentpolitikk
2. SSB, 2011, Levekår blant studenter 2010
3. Studiebyen/Sit, Boldeer2010
4. Trondheim Kommune, 2006, Rapport Prosjekt studentbosetting - hyblifisering

STUDENT MOVEMENT PATTERNS

The illustration shows a the typical moving stages of a student during the years in Trondheim. This is a highly simplified and generalized view, still serving to illustrate a clear pattern.

When first arriving the student moves into an institutionally provided (SiT) collective with complete strangers. This is followed by a stage in a private collective together with friends before ending up in a small apartment with a partner.

Why does the student move in the first place?

Students state that the wish to live with friends is the main reason not to live in student housing. This fact does not only imply a desire, but does also reflect the social life of the previous dwelling to be unsatisfactory.



JUDITH THOMSEN ON STUDENTS & STUDENT HOUSING

Just went back to Judith Thomsen's great dr. thesis **Student Housing – Student Homes and rediscovered a lot of useful material:**

*The built environment influences the degree of privacy and social interaction in residential settings. **Social aspects of student life and the need for contacts among the various inhabitants are probably more important in a student house than in other residential settings.** Especially in the case of young students, who are used to living with their family around, new social relations need to be established when they move into their own place. Housing satisfaction among the students was influenced by such qualities as contact with flatmates or neighbours, and also by sufficient possibility of privacy. **The importance of a balance of privacy and social contact can also be seen as a necessary balance of individuality and communal life. The private space plays a significant role for an individual's identity building, and the student phase is a time when personal identity has to be developed independently from the parental home.** Having the possibility to be alone and to have a private space to personalise are important aspects in this context.*

The spatial organisation of the circulation area, the interconnection of private and common areas, and the entrance situation are crucial for regulating the quantity and quality of social contact. [...] A balance of privacy and social contact is a necessary balance of individuality and communal life. Too much emphasis on privacy may turn in the negative direction of anonymity, The design of boarder spaces, such as semi-private spaces, entrance areas, verandas, and zones between the most private rooms and public areas, are critical to our experiences of a home environment. These spaces allow residents to move between inside and outside, to observe and guard their territory, and to meet others. In institutionally provided student housing, often too little emphasis is put on the design of the zone between private and public.

Privacy and social life

How to design future student housing?

The study has looked into architectural aspects that contributed to both positive and negative perceptions among student residents. The building exterior, the use of materials and colours, the spatial organisation of circulation area and entrance, the usability of common facilities and private rooms, and their interconnection, had impact on the students' perceptions of the building and influenced, for instance, an individual or anonymous notion, or an institutional or home-like character (see findings chapter).

[...]

The following key points address implications for design [...]. They are formulated as indicators of what, according to the findings from this study, may contribute to attractive student housing, no matter what the given context and housing form is:

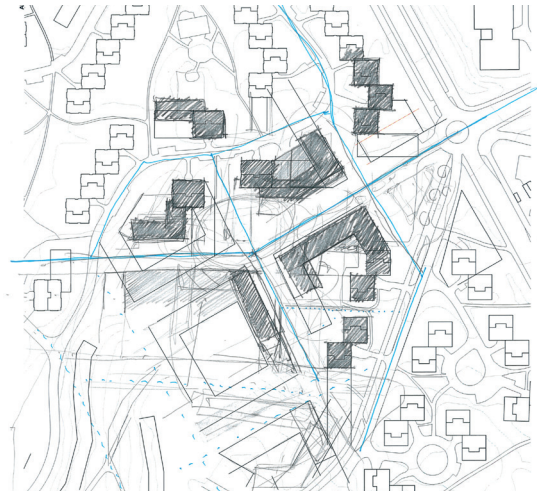
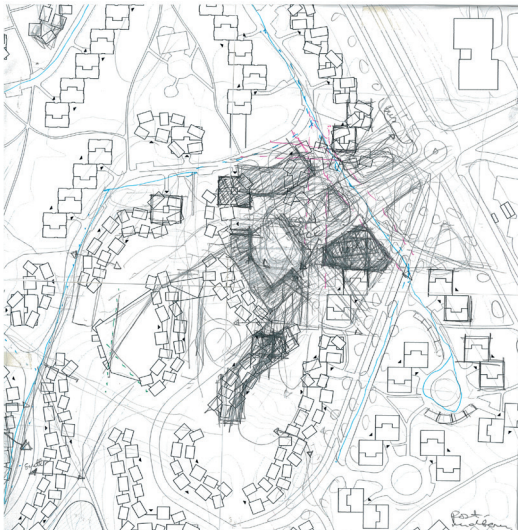
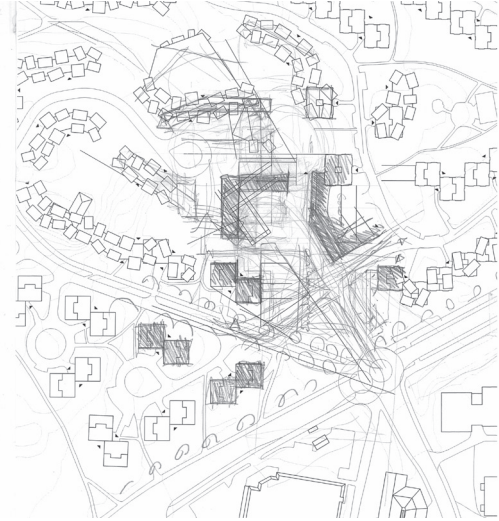
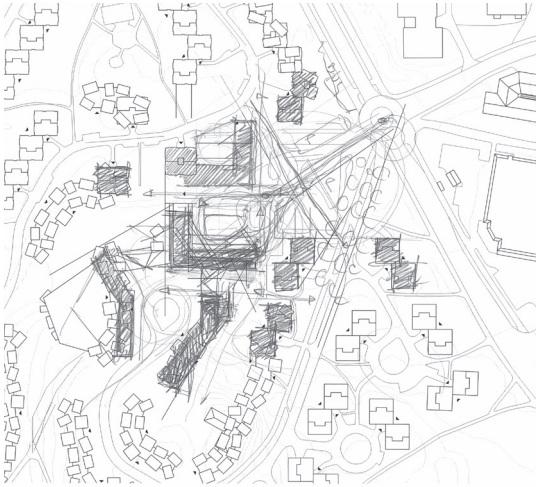
- Variety instead of uniformity, in relation to the design of dwelling types, the use of materials and the building's exterior design*
- Non-standard instead of predictive design, focusing on material use and exterior design*
- Robust yet aesthetic solutions, in material use and detailing in order to tolerate frequent use*
- Differentiation of spaces and provision of private, semi-private and public areas, through the interconnection of spaces, a gradient between public-private and the definition of meeting points and common spaces (“boarder spaces”)*
- Small groups instead of large groups, in relation to the number of students sharing an entrance and common facilities to enhance a feeling of belonging*
- Floor plan solutions that allow for individual adjustments, considering the shape of rooms and their usability for e.g. re-furnishing*

URBAN MOHOLT

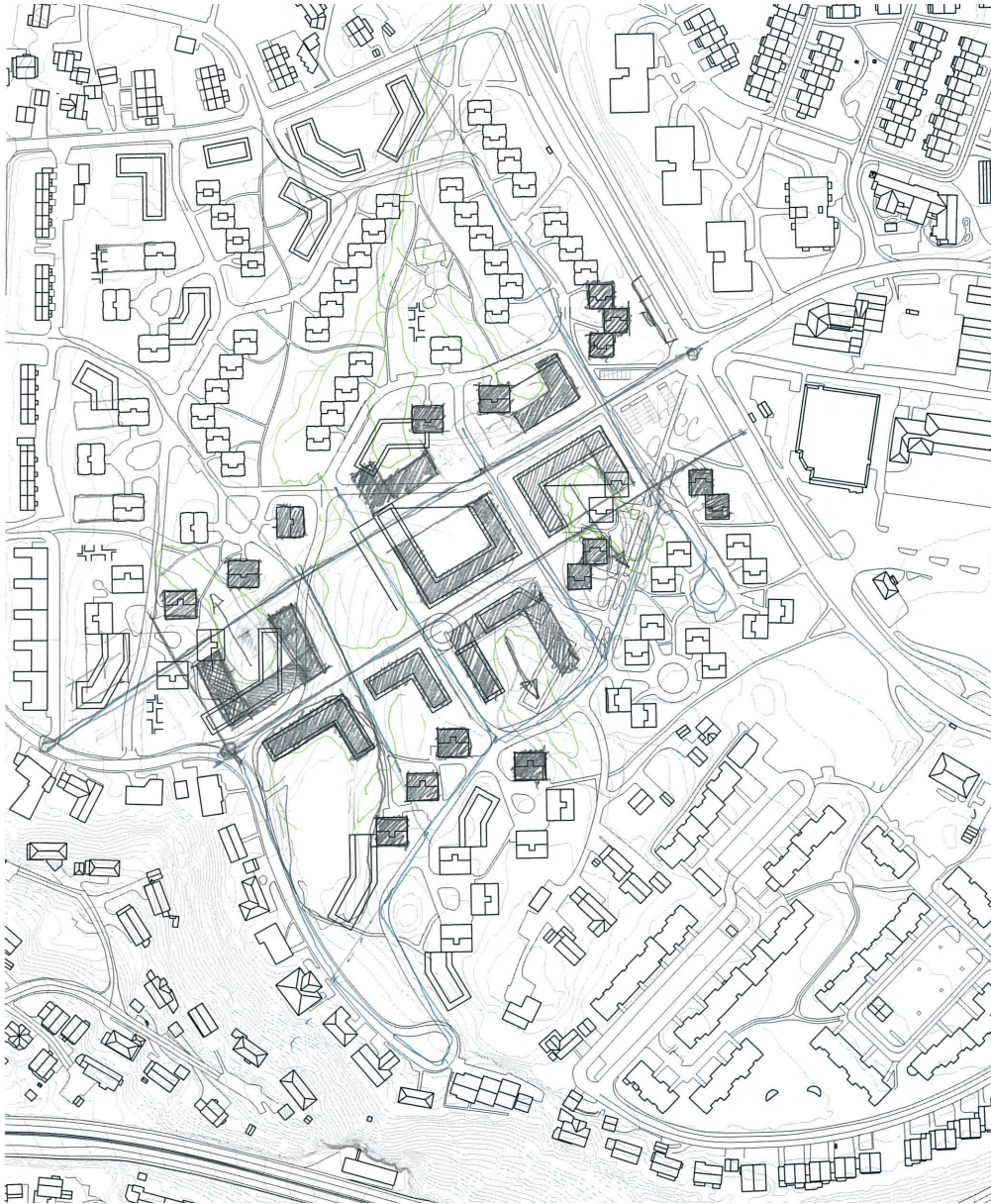
15.03.13

One of the main feedbacks I got from the midterm crits was that I should be thinking more urban. Student is not something that just happens in the collective houses themselves, but in the relation between them. Outdoors, just like a city. I'm trying to think more urban, shaping a clear focal point and center for the student village and also thinking about how to integrate with the surrounding fabric. Not just a place of entering Moholt Student Village, but a place to stay there.





Shaping the urban connection point and a main urban space, selection of sketches.



Real city-like.
Imposing street grid
with blocks. Forget
about landscape, it's
just so rural!

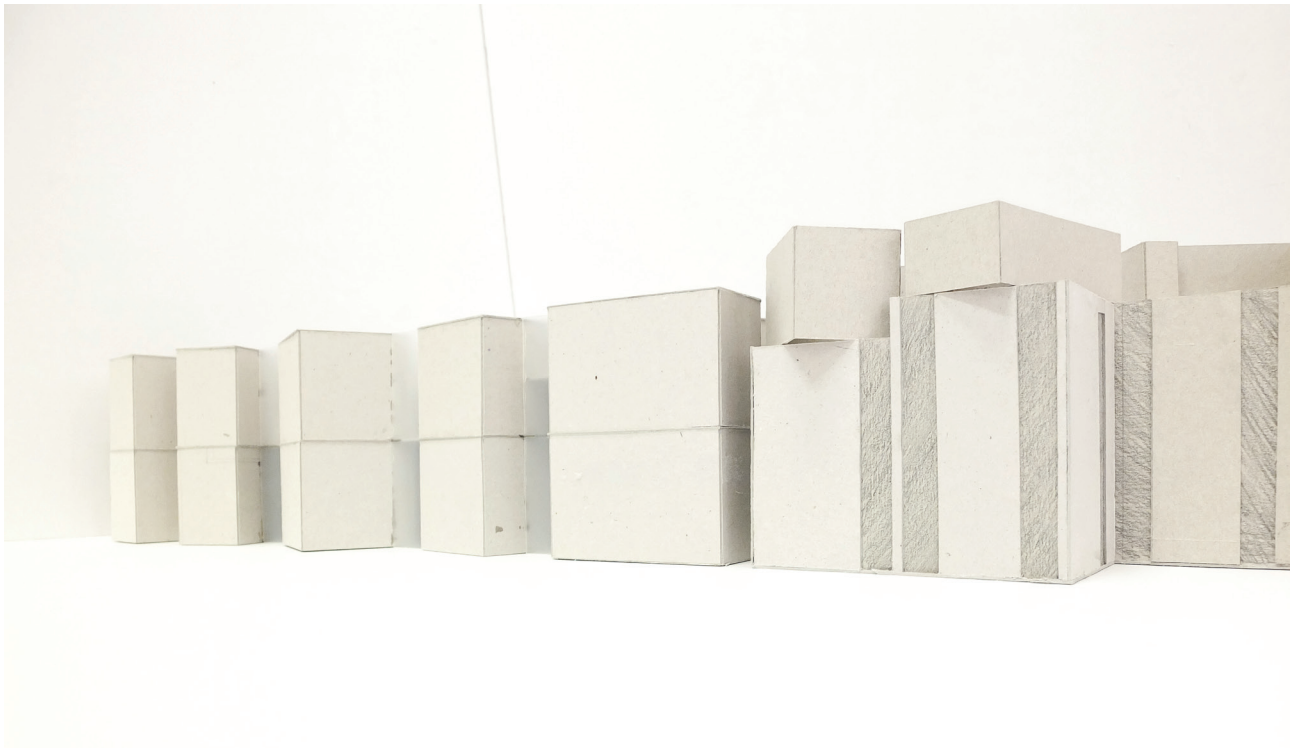
But seems I can't
keep my self from
at least opening the
building blocks to
that beautiful green
park.

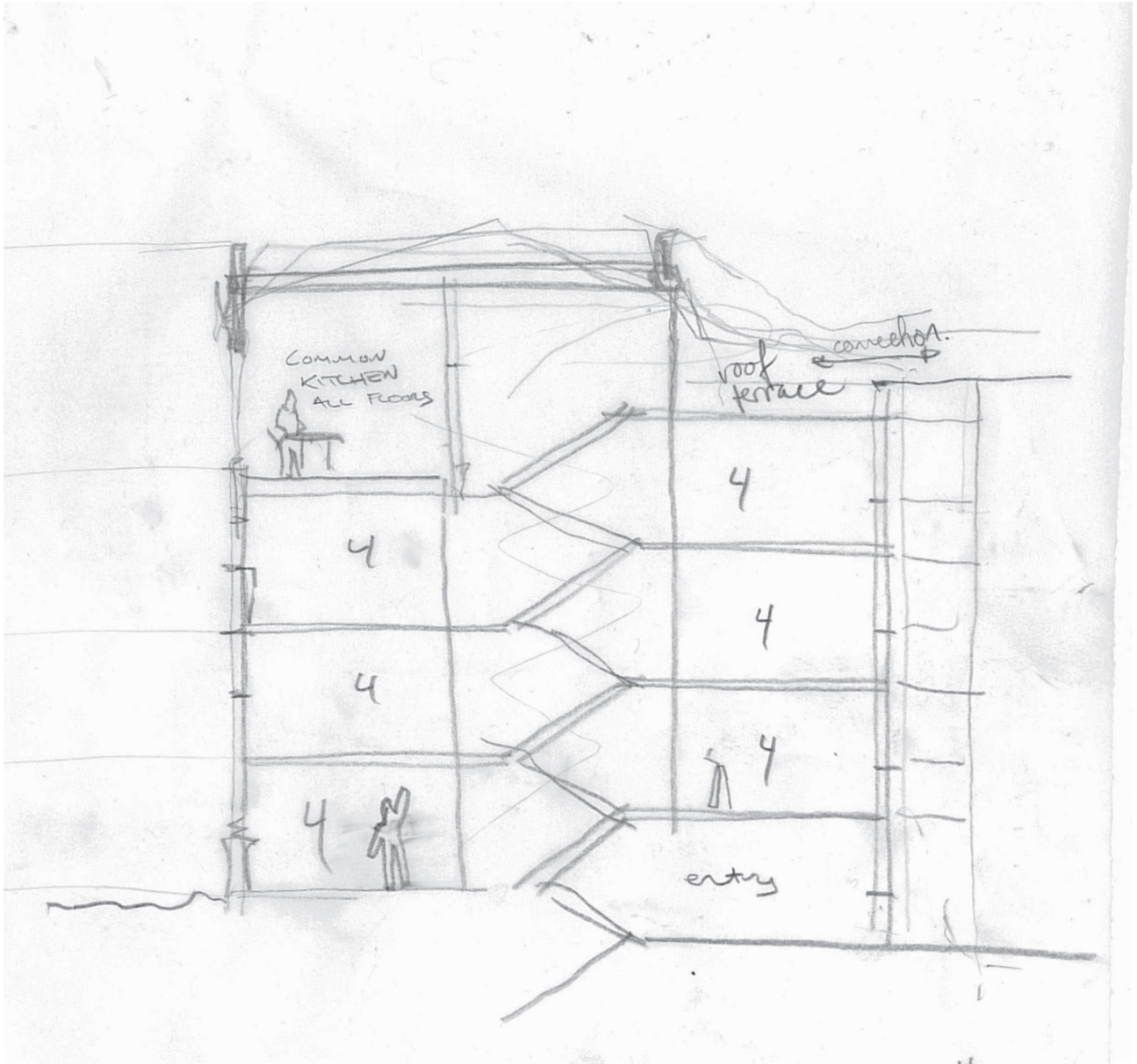
TOP EXTENSIONS

14.03.13

TRYING ONCE MORE

I'm trying to make top extensions work with the vertical volume concept. The verticality is lost. They do not connect with each other. Three different things: existing, main new buildings, roof top boxes. Tuttu frutti is not a natural flavour.





Urban development vs park/landscape. The most important is that you are clear about which way to go.

The 1:500 model is not doing the concept any justice. Buildings seem massive, like single volumes with flat roofs. Not really communicating the concept. Make the volumes as solids, between only the slabs.

Top extensions. Are not working well together with the concept. Leave them, maybe investigate possibilities of roof top terraces instead.

Stick with the concept - volumes with circulation between. Investigate what happens if the angles are tightened up. 1 to 200?

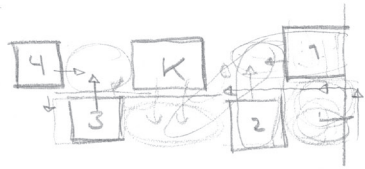
Some of the buildings are too long, act as barriers, break up.

Kindergarten. Yes, this has to be investigated further. Try to integrate in the master plan.

Family units. Separate from other collectives. Make areas in the master plan. Family collectives, how can family living be collective? Follow same concept, slightly different answer to a different need?

THINKING ABOUT THE FAMILY

15903.13



How can family apartments be collective and relate to each other & the common?
Private - shared- common / 1 - 2 - 4?

18.03.13

FAMILY COLLECTIVES

ONLY FAMILY UNITS.

2 & 3 Bedrooms.

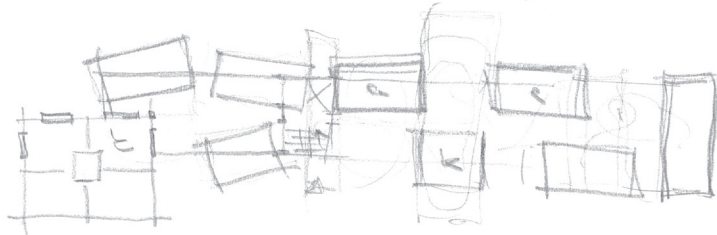
Smaller, more intimate collectives - ~4 families
sketchy kitchen + common space

↓
living area.
dining area
play area.

Every family has:
separate bed rooms.
bathrooms with
living/play area

outdoor space.

Connecting to existing?
what do I gain?
what do they gain?



Existing buildings. The preliminary work asks to investigate Discussion about whether or not to connect to the existing. Already left roof top. What about sides? Is there any real gain? Do the advantages outweigh the disadvantages. Challenging making levels heights fit. The project becomes more clear if the existing are left alone?

Geometry. Has gotten more defined, more clear on both master plan and dwelling level. But which one is really better?

Dwellings: Rooms between volumes more easily usable. More clear lines of circulation (can also be applied Do they have different qualities? Can choose to do both, central area more strong and clear geometry, outer areas more loosely defined,

Master plan: Midterm proposal had a lot of landscape qualities. Don't lose these! Don't let the center get too big, this is not the city. Small, concentrated center.

Plans of rooms.

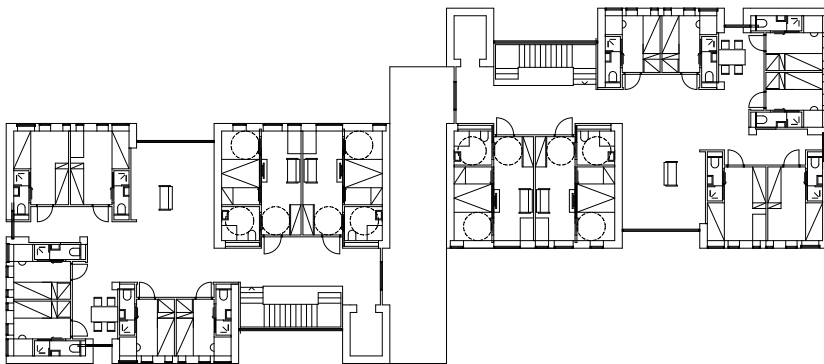
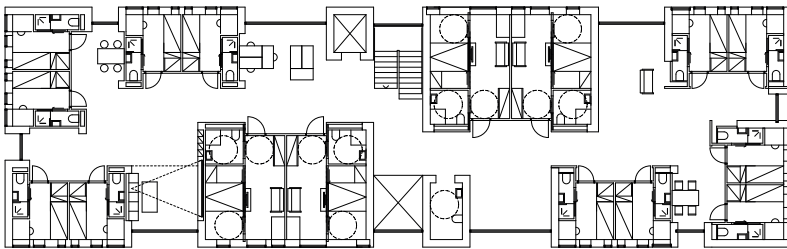
Mostly good, one single room very long and narrow.

Kindergarten. Don't let the size asked for by SiT be absolute. Adjust to master plan. Idea to integrate more closely with housing good.

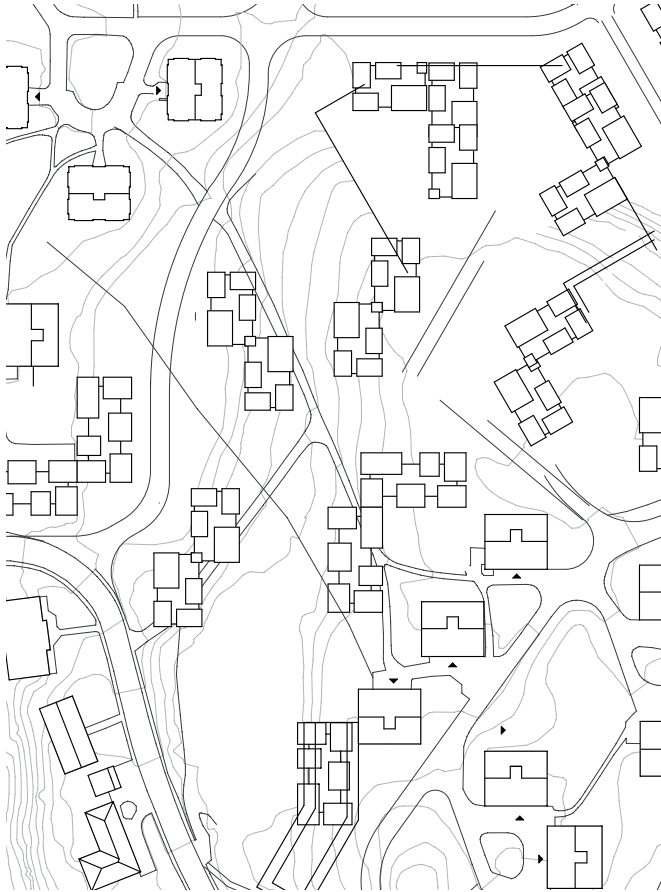
STRUCTURING THE COLLECTIVES

04.04.13

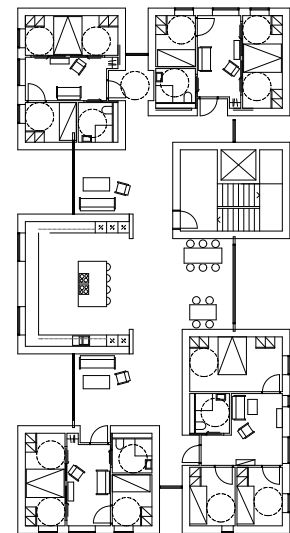
Taking one step back, hopefully in order to make new one forward. Structuring the system, finding the core. Basics. What if they're smaller? Small standard collectives to be repeated throughout? Now, that's Moholt!



Single + couple collectives. 10 + 10 persons. Common with kitchen and living between private volumes. (1:400)



*New structures in master plan.
Too much sameness?
(1:2000)*



*Family collectives. 2 + 2 families.
Separate kitchen volumes, living
between. (1:400)*

Go on with straight angle shapes. Can be used in different ways relating to urban or landscape. Work on outdoor spaces

Kindergarten - northern location works well.

Fire escape. If one fire cell in common area I need outside emergency staircases.

Energy use / glass. Calculate glass as percent of floor area. Should not be much bigger than 20%

Checked: approx 15%

Master plan. Demolishment of existing houses. Not a clear question. Have to consider gain vs loss. Be clear.

Update: goes for emailed idea.

Construction. Pre fabricated modules can be an idea, sizes depend on transportation sizes. Else walls as ready made elements.

Material. Consider cladding material. Not sure if horizontal wooden paneling is the right choice.

PHASE 3: CLOSING IN

LIVING LARGE

05.04.13 – 11.04.13



Master plan

Continuously revising the master plan, and I think it's starting to all fall into place nicely. Have to build a model of this and check out heights, gaps between buildings etc.

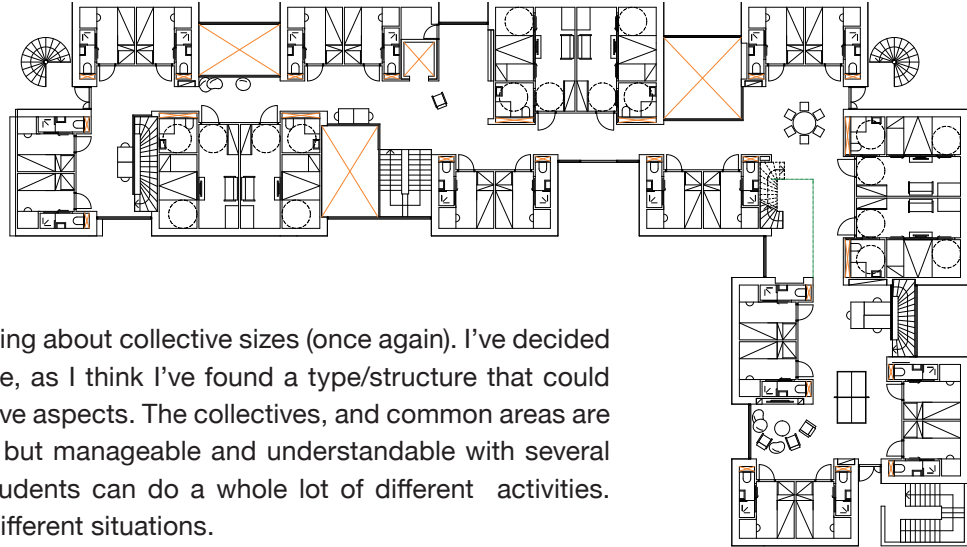
Main elements of master plan:

- Urban center
- Variety of outdoor spaces
- Using directions of existing buildings and landscape.

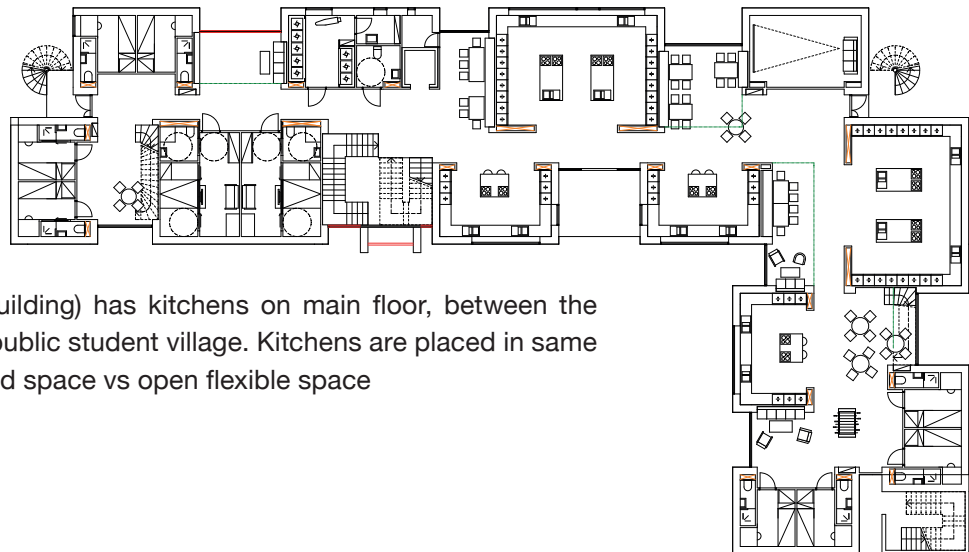
I truly believe this will better Moholt in a lot of aspects!

Zoom In

I will use the activity house building on the main center as my study area. Perhaps the most important one - what's found out here will be applicable to a lot of others



Been doing a lot of thinking about collective sizes (once again). I've decided to go for a quite big size, as I think I've found a type/structure that could work very well in collective aspects. The collectives, and common areas are large in square meters, but manageable and understandable with several smaller zones where students can do a whole lot of different activities. Flexible spaces to suit different situations.



Collectives (the whole building) has kitchens on main floor, between the common zones and the public student village. Kitchens are placed in same volumes - ok programmed space vs open flexible space

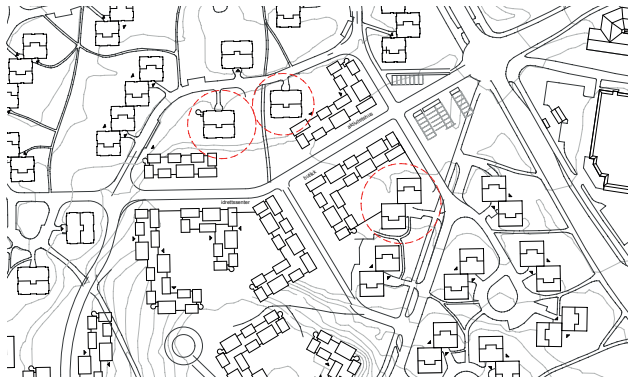
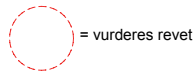
TO DEMO OR NOT TO DEMO?

07.04.13

So far I've pretty much stuck with the rule of not to demolish any of the existing student housing. The argumentation being they're a valuable recourse and that there should be plenty of space left at Moholt to achieve what I want anyway. Working with a new center I'm starting to consider this decision, simply because I realize better outdoor spaces as well as a higher total number of units will be possible by demolishing a few houses. It is also worth noting that I already long ago decided to tear down the existing grocery, activity house, kindergartens and a few other standard houses, so really it hasn't been a consistent rule not to touch them at all. E-mailed my considerations to Svein, who follows the arguments and agree.

Beholde eksisterende

- 1788 nye hybelenheter
- +1300 kvm bta butikk
- +700 kvm bta aktivitetshus
- +2 200 x 2etg kvm bta idrettssenter
- + 800 kvm bta og 700 kvm bta barnehage



Rive 4 blokker

- 2242 nye hybelenheter
- 112 hybelenheter rives
- (= 2130 hybelenheter økning)
- +1700 kvm bta butikk
- +800 kvm bta aktivitetshus
- +2 200 x 2etg kvm bta idrettssenter
- + 800 kvm bta og 700 kvm bta barnehage



MODEL 1:500:

MOHOLT URBANIZED

14.04.13



Latest master plan proposal as model. Found out some quite useful things:

- Buildings do not necessarily have to be of uniform height: Lowering volumes towards the end makes the connection to lower neighboring volumes smoother and makes room for a roof terrace.
- The master plan is not consistent in how buildings relate to the existing houses. I've managed to define outdoor spaces with most, but not all new buildings.
- Some of the private room volumes are too high - should counter this with a base.



The main facade composition of vertical volumes have been a part of the concept for long, but now I find myself working a lot with various elements of the facade. I want a dialogue with existing houses. Something that works well together, picks up points, but does not copy. Generally there is a lot of repetition for the program of most floors, and I wish to find a way to express individuality within a greater sense or system of order. I think I will spend quite some time on figuring this one out, but things seem to be heading the right way.

LAST WEEKS / LAST WORDS

The last weeks of the project have obviously been filled with hard work, finalizing the last aspects, producing drawings, models, and presentation material. These efforts can be seen in the final material.

The thesis project has been a long road, and though most of the time felt I had a sense of which direction I was heading, I could never have imagined what was to be discovered along the way and where I would be at the end of the project.

Sverre Bjerkholt Aamlid
Architect to be.