DIPLOMA PROGRAM

RIPPLES OF A CLOSER NEIGHBOURSHIP

ACROSS GENERATIONS, SITUATIONS, AND RELATIONS

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Project Description

The elderly are getting less and worse care. Seeing less of their family, feeling less useful, and slowly losing their relevance to society. What are we doing to take care of our elderly in the way we build and live?

Loneliness is a new pandemic. People are more alone and feel lonelier which is leading to an increase in anxiety and depression - which again is leading to more people not working, more people falling outside of society, and, worst case, more suicides. What do we need to do to combat increasing loneliness?

Another consequence of the loneliness pandemic is that there is a record amount of single people. A correlating statistic is that we are seeing fewer babies born than ever before. On top of this, the younger couples able to have babies are delaying it. Seeing how young people can't afford proper housing, how could they afford having babies? What can we do about our younger generation not being able to afford proper housing?

Waiting lists for social housing is on the rise. The lack of social housing is making the municipality take to the private market and rent from there. The apartments are often the worst ones that no one else really wants, with poor living conditions. What can we change about social housing and it's increasing waiting list?

Could we combine these challenged to help each other in a project?
This is the theme of this diploma.

When our minister of health, Ingvild Kjerkhol, recently said that "we have to take care of our own old age" after we have seen a steady decline in both amount and quality of elderly care. Take care of our own old age. Make sure you can take care of yourself during the time which you become less and less able to take care of yourself. A juxtaposition in itself. The elderly rely more on help from others as they age. And as long as we see a decrease in available care and its quality, the help has to come from those around us. Family, friends, and neighbours have to step in for the health care workers.

We are getting older, we are getting more lonely, and we are having less children. These problems scream for a solution. A common solution or method could be an introduction of a third housing sector. A housing sector between social/communal housing and the private own/rent sector. A housing sector where the municipality or government controls a part of the market. A sector where diversity is accepted and curated.

This diploma creates several "generational houses" in this sector. All consisting four units - one family unit, one special needs unit, one elderly unit, and one singles unit. Private diverse dwellings with a shared ground floor with several types of programmes to cater to their respective building, their closest neighbouring buildings, and the whole neighbourhood around them. By assuring literal common ground in the buildings it will allow for casual meetings between neighbours, a closer neighbourship, and help fight the loneliness.

If a couple not from the city buy a cheaper form of housing here, they could have "grandparents" and "uncle" in their building, who could babysit or help them fix their bike. The older residents would have some entertainment to watch, people around them, and would be able to get help in doing simpler tasks. There are possibilities for joint dinners, workshops, parties, planting etc. in the common rooms, as well as proper space in their own dwellings so they could retire to their own space.

As a starting point for this method, I have found a plot in Sædal in Bergen. An open spot between villas and more recently developed apartments and family housing. An open area to try to create some middle and common ground between old and new, and be included in the neighbourhood. In the future, the project could buy housing from the private properties around it and include them in the project to send the ripples of neighbourship further. More smaller neighbourhoods using this method could emerge elsewhere in the city and country.

Bibliography

En bolig for hele livet
Kommunesektorens Organisasjon

Gaining by Sharing
Helen & Hard

Why We Sleep
Matthew Walker

References

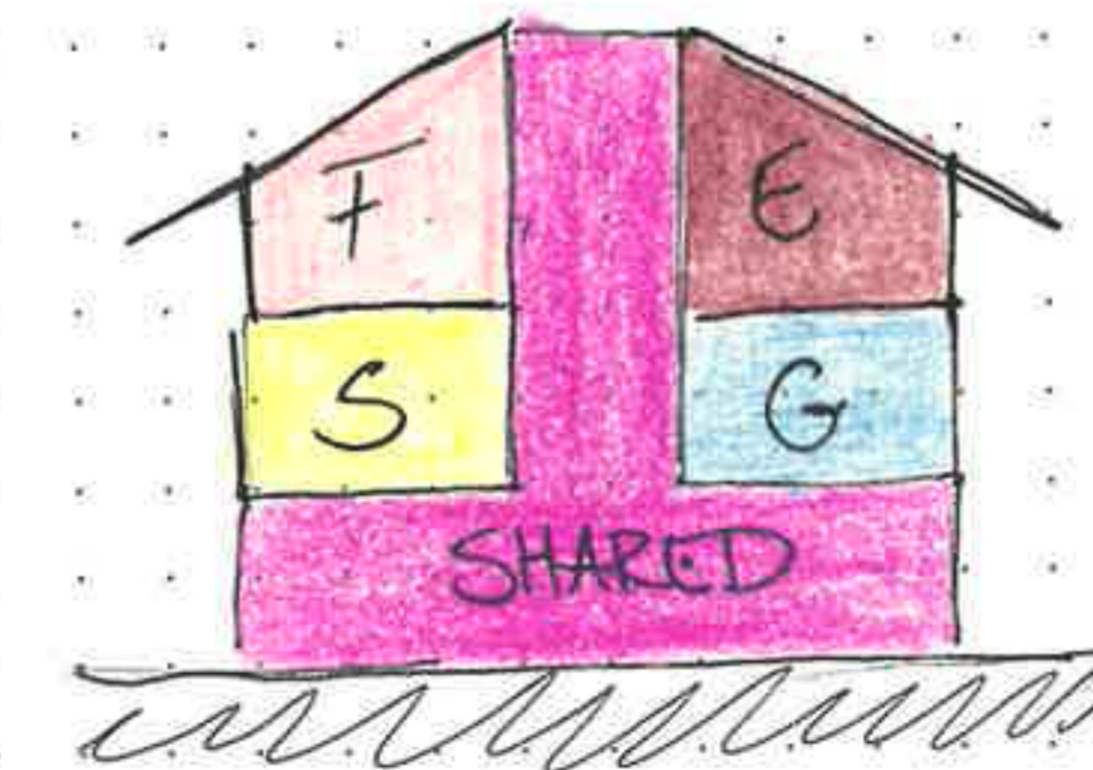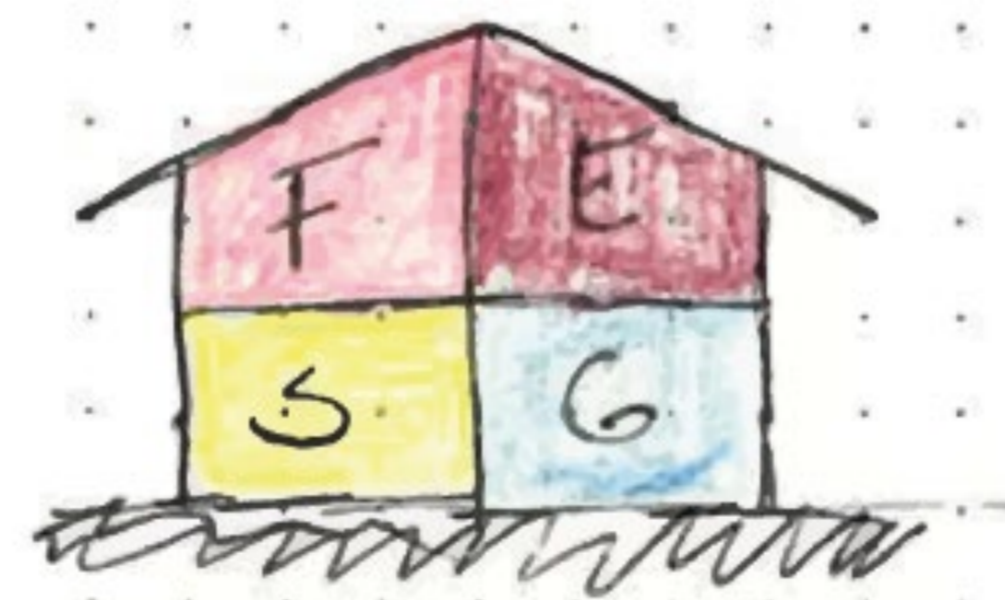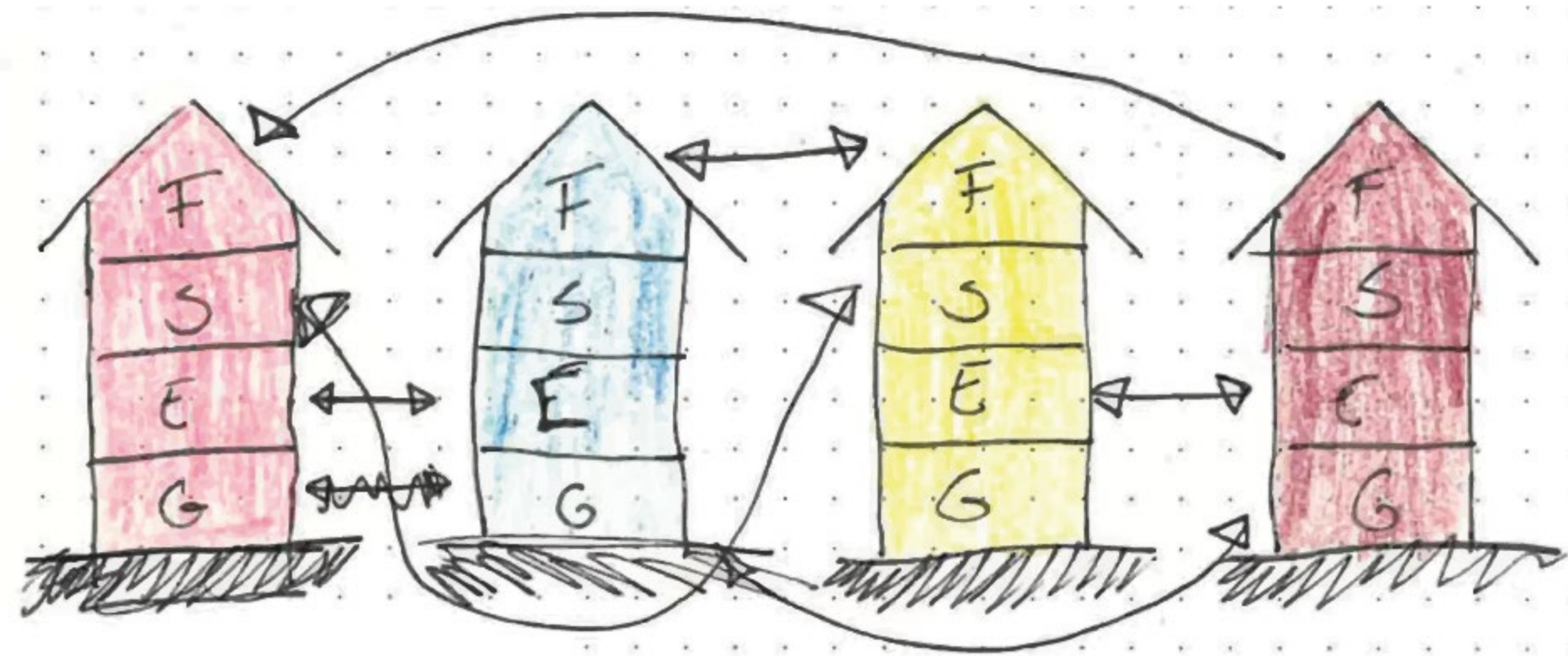Vindmøllebakken
Helen & Hard

Silodam
MVRDV

Haus am hang
MVRDV

Casa de ladeira
Florêncio da Costa - Oficina d'Arquitectura

Åre Solbringen
Waldemarson Berglund

Alexandra Road Estate
Neave Brown

Mendes da Rocha House
Paulo Mendes da Rocha

Final reflections

Looking back at this semester of my diploma I feel I have gone through an organic process of trying, failing, trying and failing again. Things have made more and more sense to me. Trying to find some answers to a complex and challenging problem we are going to face in the future.

Our society will face problems of proper housing more and more in the future considering the path we are on now. A path of profits and capital instead of a path of peolpe and relations. I see it as a requirement to shift our path on to one of solidarity. Helping each other out in a day to day life. A path of sharing and combining.

We often talk about a public ground floor in cities, but I think this is an idea and method we could bring in to new types of neighbourhoods. Today, we often build in the middle of a plot, fence up around us and we don't really see our neighbour between September to March.
I want to remove the fence and create relations that can last all year around, not just when the weather is nice.
Remove both the spatial and social barrier between neighbours, lowering the threshold of interaction. Random encounters as well as regular encounters between people in both similar and very different situations.

I want to facilitate for neighbours to know eachother better than just a face and maybe a name. Finding literal common ground. Finding relations. Finding neighbourships. Finding *good* neighbourships.
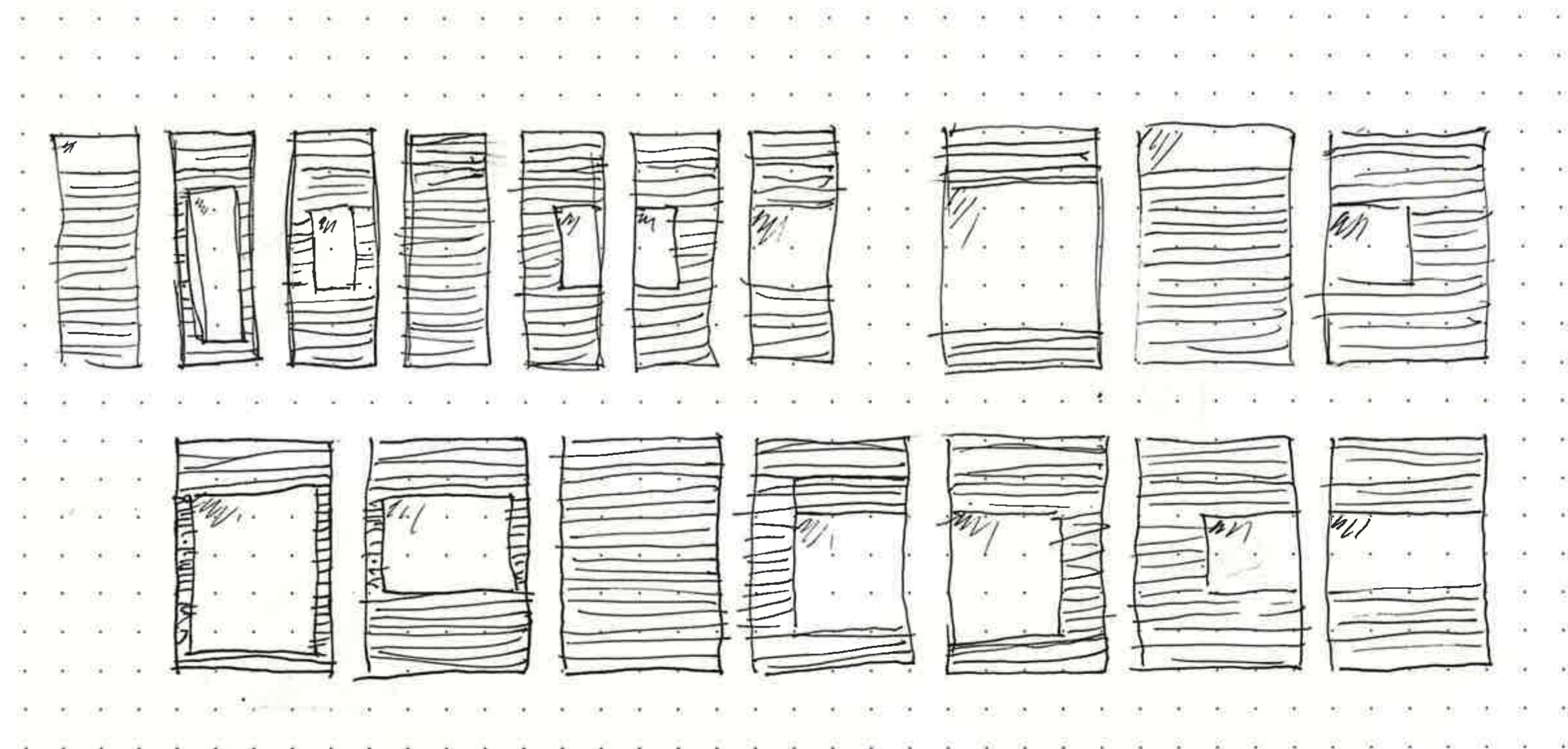
Reflections, March

Main issues to tackle:
- Younger people, couples, singles, can't afford to get into the housing market

- A constant shift in family dynamics require more specialised single-parent housing with the option of children staying part time.

- Ingvild Kjerkhol, minister of health, recently said that we need to take more responsibility of our own old age. The elderly feel more and more lonely and as a burden. How can we make them feel included and relieving?

- Social housing often ends up as the least social type of housing. How can we get more social living for social housing clients?

In thinking about how things work together I want to look at some shapes that fit together and see how they work in spaces like the plot.
Tetris pieces seem like something I can use. They are similar, but all different and cater to different needs. Like my units will have to do as well. Making tetris-pieces three dimensional I can look at what volumes they create, play around with them and see what I can make of it.

I am wondering about the structure of the place in terms of organisation. Do they all own their unit, do they rent? I have seen apartments being sold for people "55+" or "over 60 years old". So I feel confident that I can set purchaser rules for these types of apartments. Social housing is usually done through a rental process in the municipality, and can keep being that in my project. In terms of the family unit and the singles unit, I am imagining an application process to be able to bid and buy a unit such as them. Applying to the municipality to fit a "role" for the units.

Living in a neighbourhood such as this requires a certain type of people anyway, it's not for everyone. And whoever decides to buy and live here has to be prepared to live closer to their neighbours than is the norm in our country.

The split tying of inhabitants will look like a typical generational home and help supplement each others lives and roles. Provide social needs of each other. Grandparents for grandchildren, uncles for nieces and nephews, adult siblings, parents and children. But what are the spatial needs for each type?

The elderly will want to see what is going on and be able to observe the life around them, be it kids in a playground, a bus passing by, people going to or coming from work. Possibilities for stay inside and outside. They would also need a spare room for visiting family or friends that could spend the night. Large and accessible bedrooms and bathrooms for possible future loss of movement and/or capability. Everything on one floor.

Family units require separate zones for stay and play, but still some way for parents to keep an eye on their children. Young children would be closer, older children would want time and space more away from their parents.

Singles units should have some extra space for hobbies or work separate from the typical living space. A space for children part time? They would be exposed for random encounters.

Social unit would require accessible spaces in bedroom and bathroom like the elderly unit for a possible further handicapping of inhabitant. The living spaces might be more important than a big and inclusive kitchen. Exposed for random encounters and a possibility to be seen,
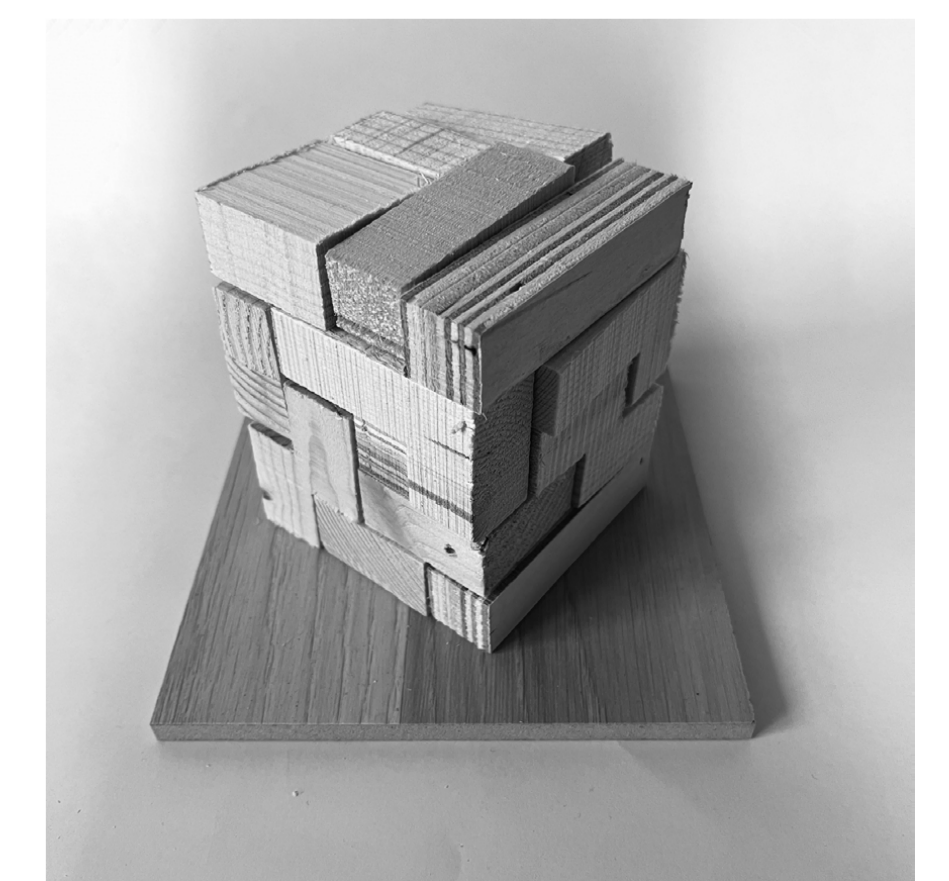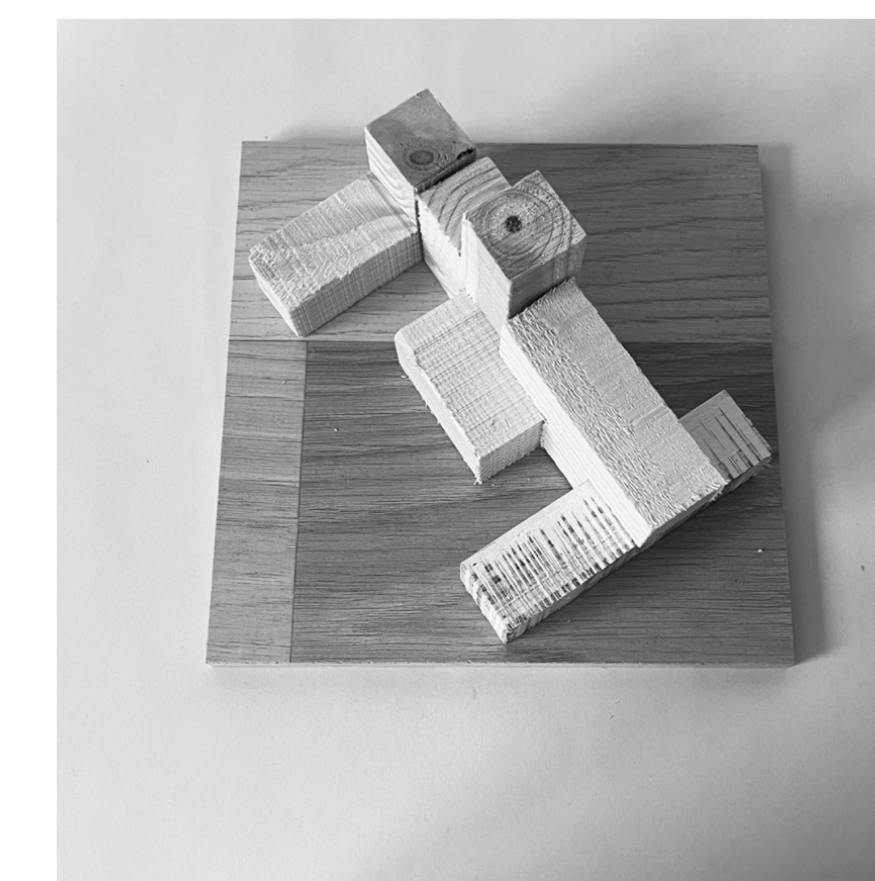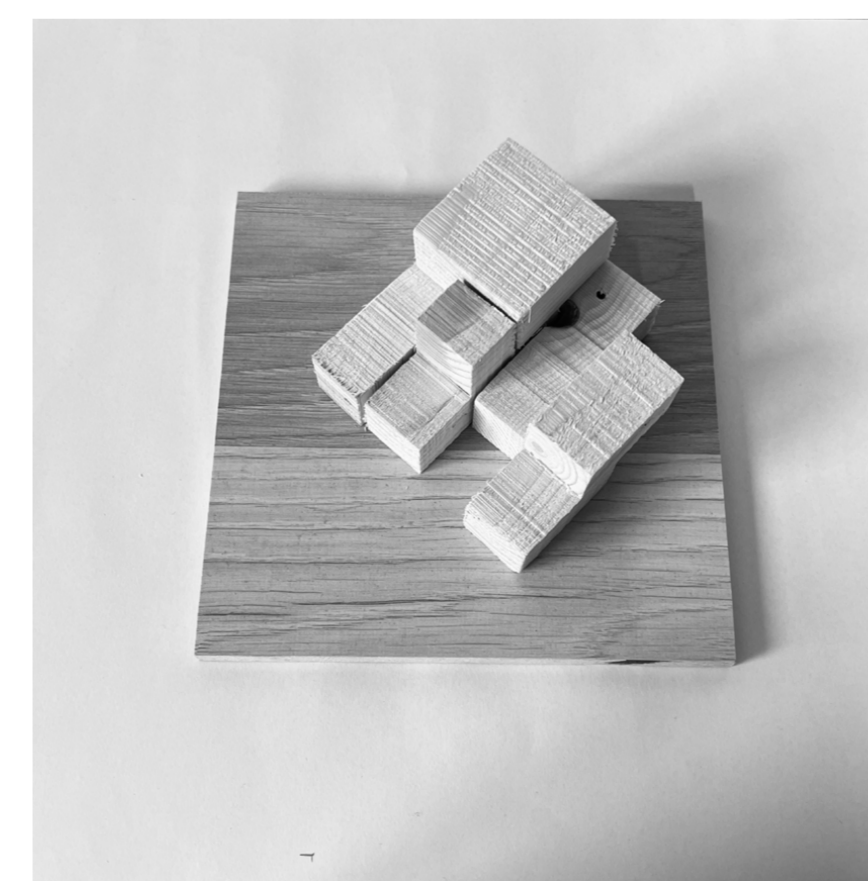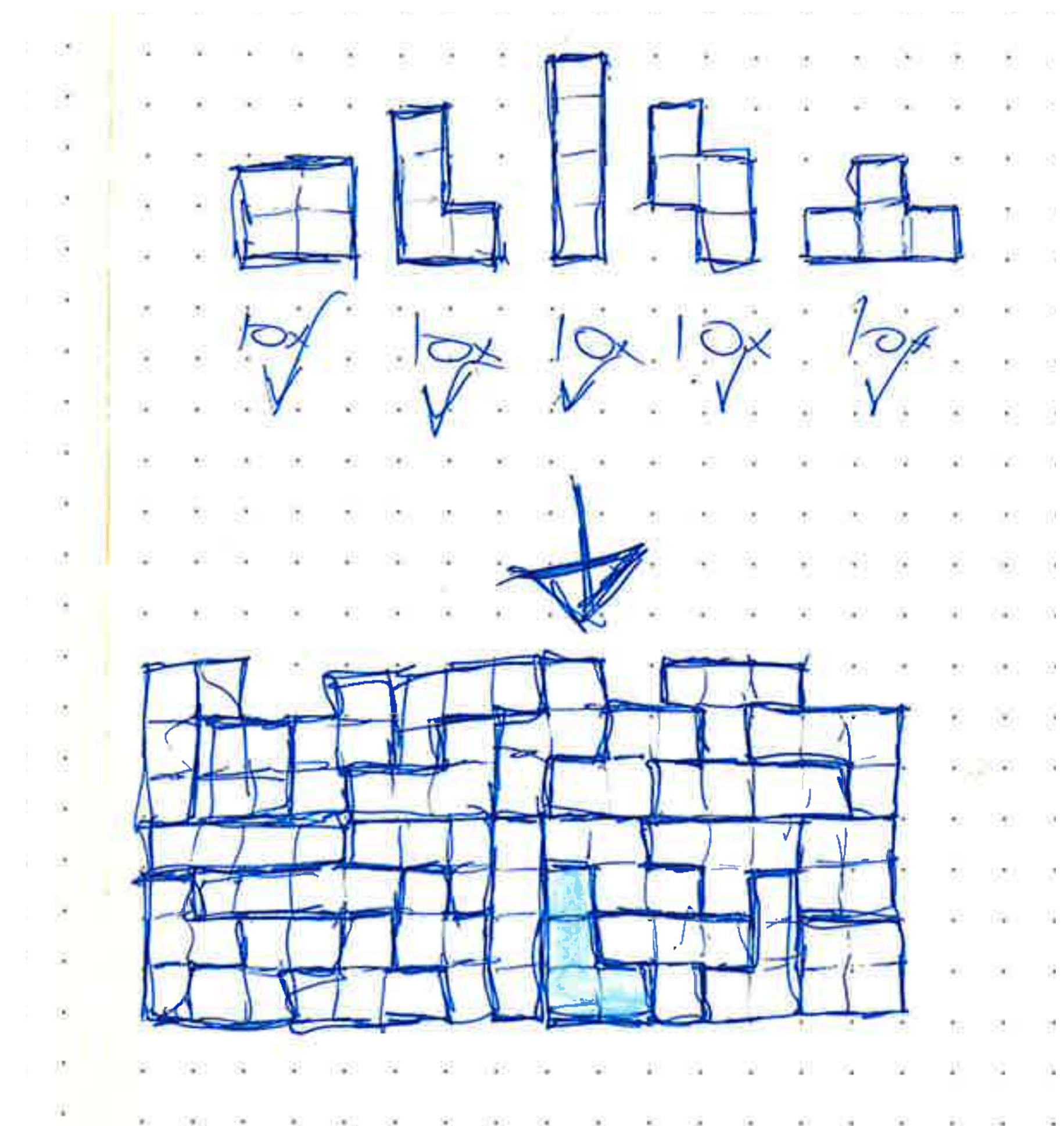
Reflections, May

What are the needs of the one? Do they want to see or be seen? In what degree? Do they want an overview of what is going on, or do they want to be away from actions outside?

Do they want to be together with everyone or separated from them? Do they want to be in the middle of everything, or do they want to be on the side lines watching? Being "a bit" there or being fully there?

I have to facilitate for different types and degrees of interaction in and around the common areas - as well as the private areas. Do you sit in a corner of your private balcony, not really in sight of people, or do you go into the sun of the court yard or roof terrace and get in amongst everyone?

What could these common areas be? A roof terrace, a guest house/apartment/studio, office spaces, a gym, a wood house, a common kitchen, a garden, a common hall, a play room, a café, a swimming pool, a workshop, a green house?

I have decided that the common areas should be in concrete, and the private units in wood. With a concrete stairwell with an elevator in the middle. The wooden units resting and leaning into the concrete core. Structural reliance as well as social reliance. The private units lean on the sturdy shared core as the private persons lean on the social stability of the community.

Taking inspiration from the tetris pieces I have introduced a grid for the construction, same as the base for the tetris. A beam-grid in the ceilings of 2x1 meters in the wooden areas with a increase of half the size in the concrete shared spaces of 3x1,5 meter grid.
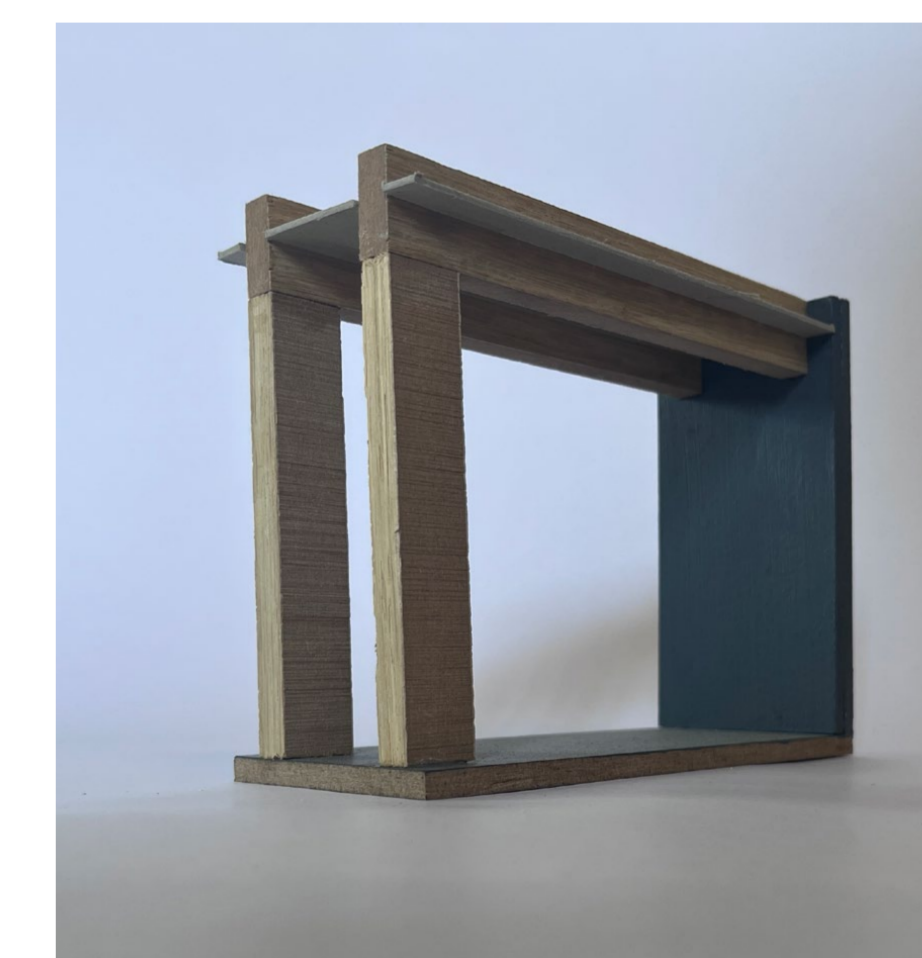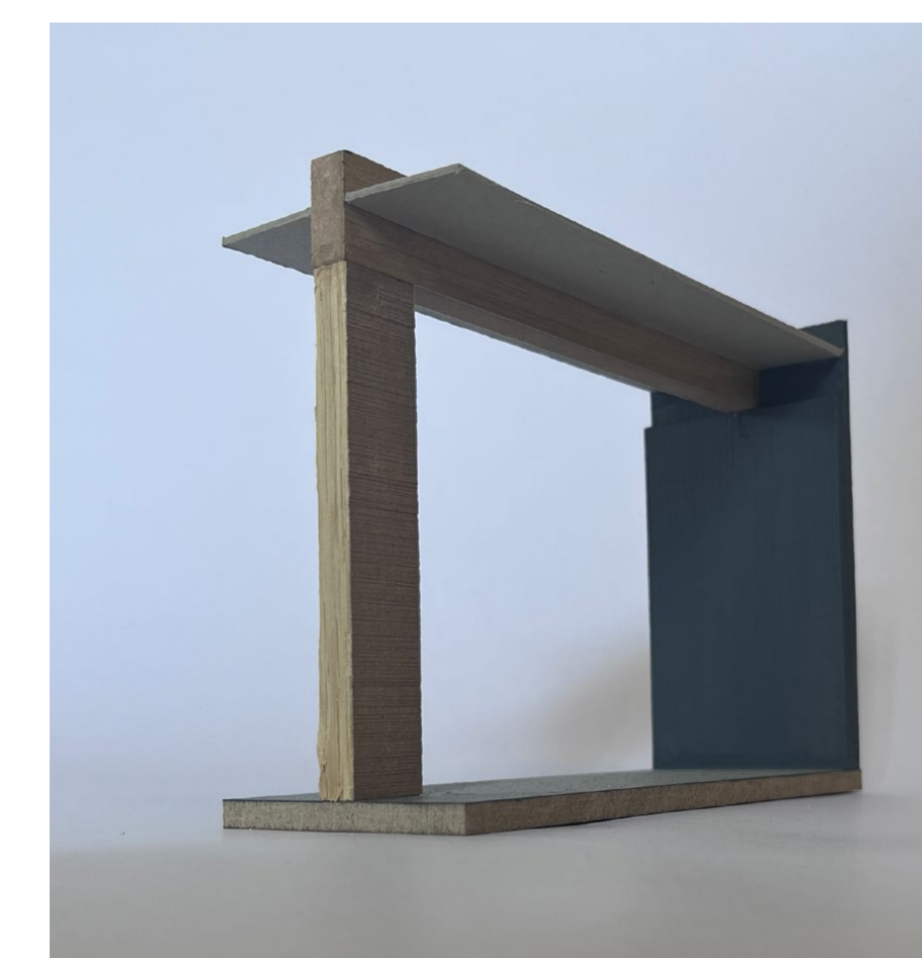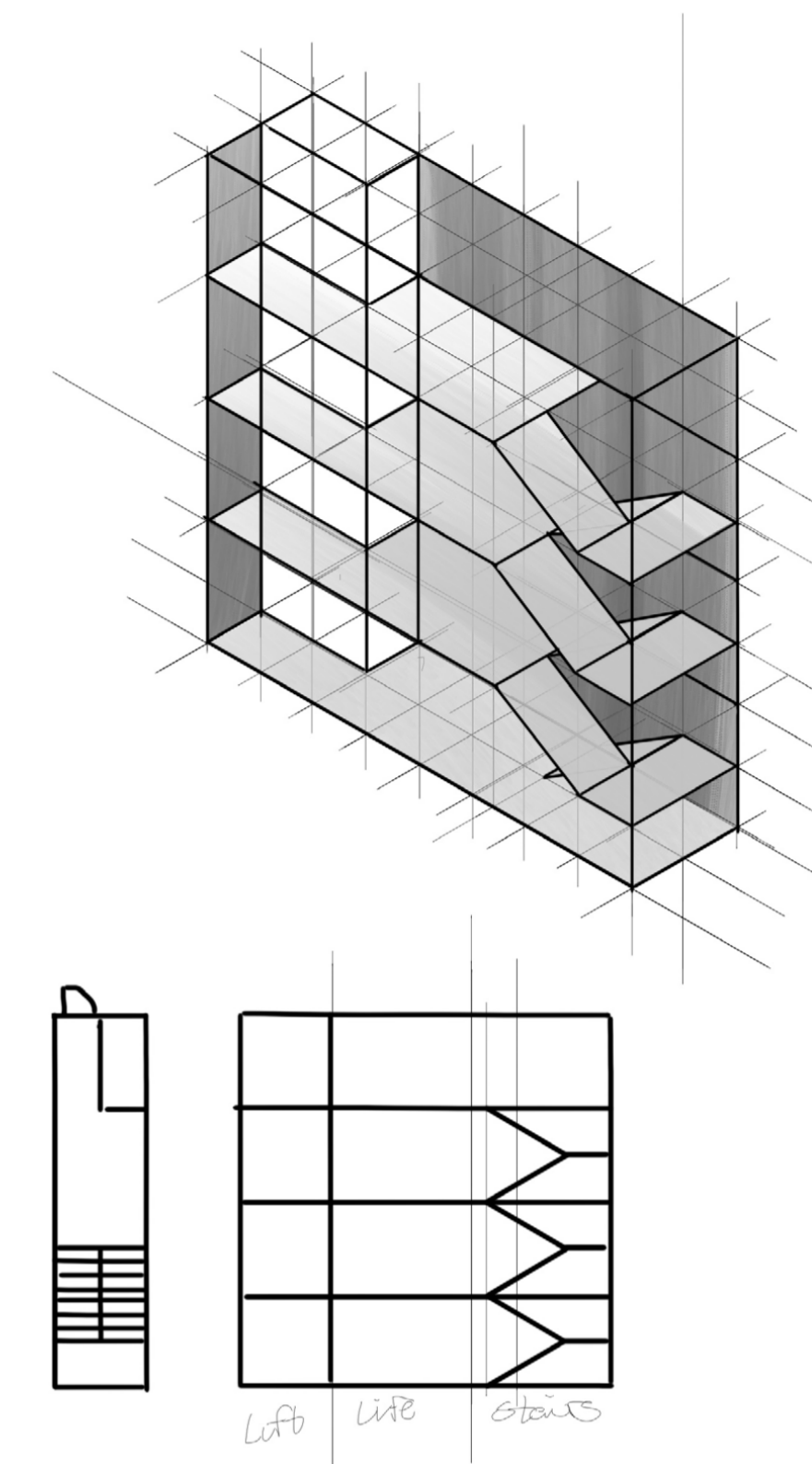
Reflections, external review

I have to consider the bigger context. I have to reconsider how i approach the project and expand my scope. Looking at the current architecture there, it's scattered and not really representative of my story and intent. I must be clearer in showing why I chose my plot and how I arrive at my current state. There is a missing link between plot, tetris pieces and current buildings.

Where is the social communication, the pathways, the activity between the buildings? How can I make architecture that says that an area is "mine" but that it could also be "yours"? Make invitations in the project.

The tetris pieces themselves show me how they can work together, but I now have to look at how the clusters of pieces can work together. Look at it a step bigger. Not apartment or spaces them selves, but whole buildings and volumes and the spaces between and around them.

Instead of working inside out, as I have now, I should work outside in. I should allow for the whole ground floor to become public or shared. The ground floor should be an area for being together and for meeting. The slope of the plot will make the ground floor more exciting and varied. The ground floor along the terrain would be a social place all over and not just parts of it. Having units on the ground floor would also compromise the ability to have your own private space. Lifting the private spaces makes it more sheltered and away from what noise and activity might be outside.

"What is a Home?"

Home is the most important place for the most of us. But it is something we often take for granted. You can always go home, you can always go where you belong. "Everyone" has a home. Pets get adopted from shelters to their "forever home" after being found on the street or been taken from somewhere after abuse. A forever home insinuates something permanent. We talk about home as something permanent. It is always there, the home. Just as much as your family, your home
is always there. Our ability to adapt is very important for the feeling of home. It is not very dependent on many things. For a widow in a nursing home, a photograph of themselves and their now passed spouse can be more than enough to create some feeling of home. Because that is what is seems home is. A feeling. It is not quite tangible or measurable. You know yourself what home means to you, and that differs from other peoples ideas of home. Home is made by time spent and memories shared. It is something you are accustomed to. It is what feels like
yours. Sports and other areas have adopted this idea. Of playing at home, be it a football match at home or when a Chinese olympian is ready a the start line next month. They are not at home. They are somewhere they are used to. Somewhere they know. They know the place better than others at least. Athletes, musicians, artists that perform to the best of their abilities in their own town, own arena, own country, are said to be at home. Have the home advantage. It is an implied advantage to be at home. You perform better there.

It's better at home.

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★ 01.05.1994

📍 Bergen

Språk

- 🇳🇴 Flytende nynorsk og bokmål
- 🇩🇰 Flytende skriftlig og muntlig
- 🇪🇸 Behersker noe
- 🇫🇷 Behersker noe

Programkunnskap

Archicad, Rhino, InDesign,

Illustrator, Photoshop,

QGis, Lightroom, Revit

Kurs

Truckførerkurs T1, T2, T3, T4
Toyota Material Handling, 2016, 25 timer

Fagbrev i indutrirørleggerfaget
VARD Piping, 2014

Norsk Grunnkurs i førstehjelp
VARD Brattvåg 2012, 8 timer

Sikkerhetskurs løfteredskap
M-BA Sikkerhetsopplæring, 2011, 8 timer

Verv og annet

TreStykker 2021
Styremedlem, 2021

Skodda Supporterklubb
Nestleder, 2018 - nåværende

Fullført førstegangstjeneste
Luftforsvaret, 2014-2015

Troppstillitsvalgt i forsvaret
Forsvarets Operative Hovedkvarter, 2015

Utdanning

Aug. 2017 — **Bergen Arkitekthøgskole**
Master i arkitektur

Høst 2015 — **Høgskolen i Oslo- og Akershus**
Bachelor i ingeniørfaget, bygg

Sep. 2014 — **VARD Piping**
Fagbrev i industrirørleggerfaget

Jun. 2014 / **Aug. 2010** — **Haram Vidaregåande Skule**
Tekniske- og allmenne fag

Arbeidserfaring

Juli 2023 / **Aug. 2022** — **HIBA Hus**
Arkitekt
- Kundeprosjekter, bolig
- Utarbeide søknadstegninger
- Opptegning hus- hytte- og garasjekatalog i ArchiCad

Juli 2022 / **Juni 2019** — **PostNord AS**
Terminalarbeider
- Lossing av kontainer
- Sortering av kolli
- Lagerarbeid

Aug. 2018 / **Juni 2018** — **VARD Piping AS**
Sommervikar som fagarbeider
- Montering
- Prefabrikkering
- Utbedring av rørsystemer ombord i båt

Juni 2017 / **Mars 2016** — **Øglænd System AS**
Salgskonsulent VVS
- Kundeservice
- Ordre- og tilbudsbehandling
- Salg over disk, telefon og mail

Jun. 2014 / **Aug. 2010** — **VARD Piping AS**
Lærling i industrirørleggerfaget
- Montering
- Prefabrikkering
- Utbedring av rørsystemer ombord i båt

Portefølje

Petter Tomren Ludvigsen

Skal vi møtes ved taket?

Complex Context

MED ANNA ØGLAND & MAREN MUHR KVERNELAND

Master, 3. semester
Bergen Arkitekthøgskole, høst 2021

Tom Chamberlain   André Fontes
Hedvig Skjerdingstad   Magnus Wåge
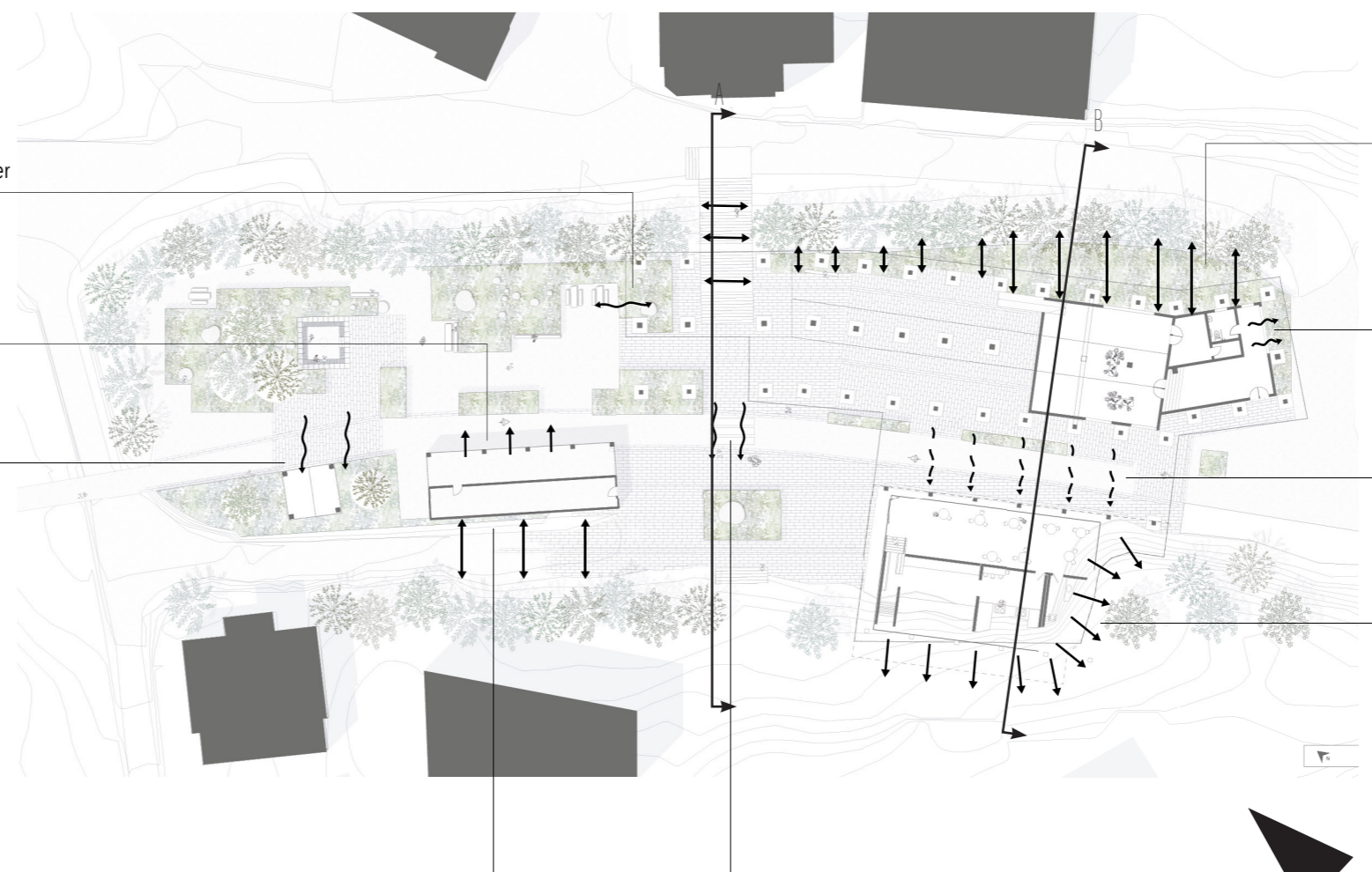
Rett ved bybanestoppet Nesttun Sentrum ligger den gamle tomten til Nesttun Stajson, et stopp på den gamle Osbanen. Etter nedleggelsen av banen har bare et godshus blitt igjen, og tomten er omgjort til en parkeringsplass med en sykkelsti omkranset av overgrodde grønne vegger og en fjellvegg.

Prosjektet gjør den overflødige parkeringsplassen om til et uforpliktende møtested for innbyggerene i Fana. Dette gjøres ved å innføre program som en hall med overbygd tak og et forsamlingslokale, en café og et parkområde, samt sykkelverksted og bysykkelstativ med tak. På tvers av tomten er det lagt til rette for en kryssbevegelse ut av tidligere tråkkede stier gjort av naboene.

X- og Y-akse

Snitt A

Snitt B
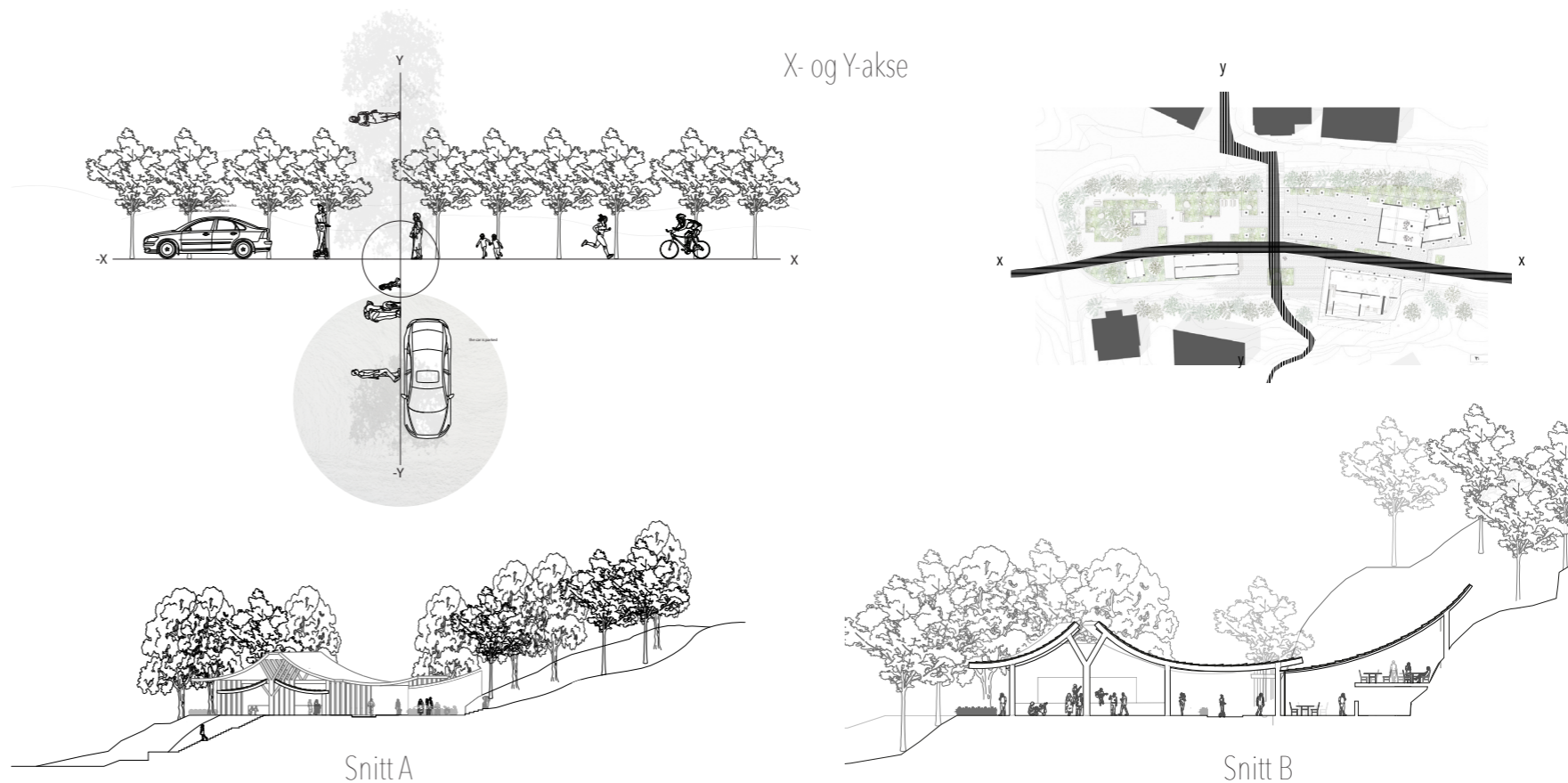
Tilnærminger til endelig utforming

1:1 skissering, vegger

1:1 skissering, kanter

Researchvideo, Pendleklubben

To invite from the y-axis and into site the greenery is drawn into the sheltered space. It is a transition from under roof to the open landscape.

The facade towards the biking-road is opened to connect it with the cyclists coming through.

Crossing edges with stone tiles. It is a part of the entrance, a transition into site.

The roof and columns are drawn back to have a distance to the green wall. This distance makes the roof and floor as a frame towards the green wall. It also invites lower greenery to grow from outside to under the roof.

Crossing an edge - the columns melts into the meadow landscape. Crossing an edge that used to be respected by cars.

Crossing an edge - allowing for stone tiles to cover the bicycle lane in order to slow down the pace through site. The roof also crosses the road to strengthen the pace reduction.

The roof and space attaches to the mountain wall. The mountain was once barely visible, now it becomes an important element within the space of the cafe.

Keeping the existing building as an island. It is kept on its own to emphasize its position in site.
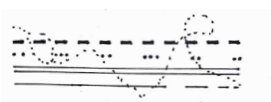
Crossing an edge to strengthen the y-axis and connecting to the centre of Nesttun.

N

Modellbilder

A Remedy for a Memory
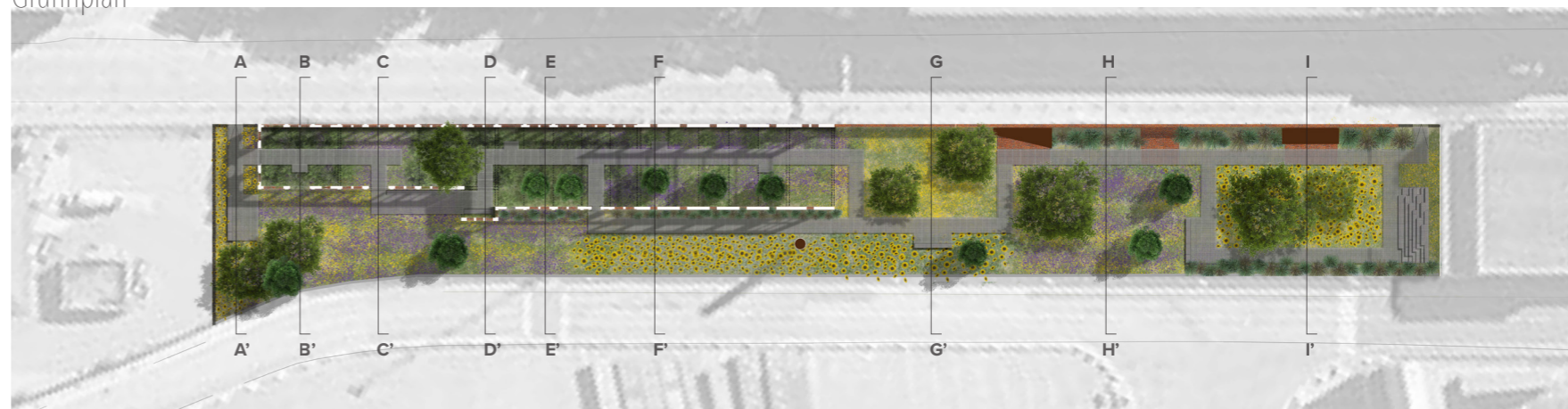
Re-form

med Zoelie Millereau-Dubesset

Gassverket er den eneste gjenstående delen av gassverket som ga strøm til hele Bergens gatelykter på 1900-tallet. Siden nedstengingen for 37 år siden, har Gassverket stått ubrukt, forglemt, råtnet bort og etter hvert blitt giftig i både bygg og grunn. Minnet om byggets tidligere viktighet har forvitret hen til "mursteinsbygget på Dokken".

Gjennom fytoremediering, en bærekraftig prosess som bruker levende planter til å rense jord, skal prosjektet gjennopprette byggets verdi og gi Gassverket tilbake dets rettmessige plass i Bergen sentrum.
En løftet gangbro igjennom parken er lagt inn for å lede fotgjengere igjennom Gassverket og dets fornyelsesprosess.
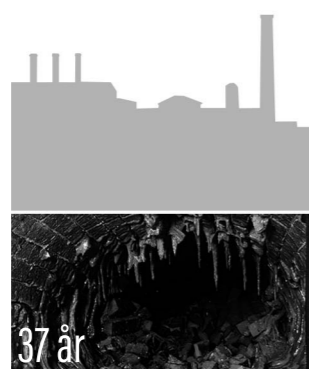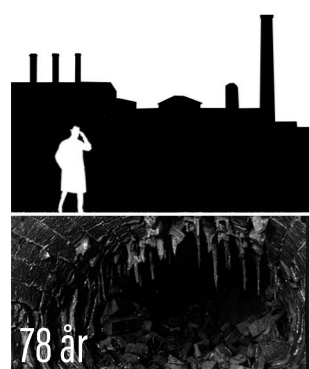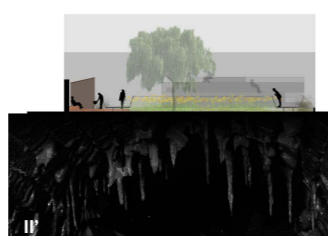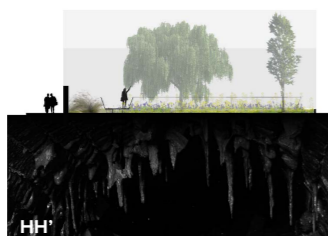

Gassverket da og nå

78 år   37 år   Fra nå

Grunnplan

Tverrsnitt

DD'   EE'   FF'

GG'   HH'   II'

Langssnitt

Plantekart

BENZOPYREN, BTEX, PAH[16]
 SUNFLOWER
 RAPS FLOWER
 PERENNIAL RYEGRASS

ARSENIC, PLUMB, BENZOPYREN, BTEX, PAH[16]
 POPLAR
 WILLOW
 ALFALFA
 CLOVER
 FERN

BENZOPYREN, PAH[16], OIL, BTEX
 CLOVER

ARSENIC, PLUMB, ZINC, BENZOPYREN, PAH[16], OIL, BTEX
 RAPS FLOWER
 PERENNIAL RYEGRASS
 POPLAR
 WILLOW

BENZOPYREN, BTEX, PAH[16]
 FESTUCA
 MISCANTHUS

PLUMB, BENZOPYREN, BTEX, PAH[16]
 ALFALFA
 RAPS FLOWER
 PERENNIAL RYEGRASS
 POPLAR
 WILLOW

ARSENIC, PLUMB, ZINC, BENZOPYREN, PAH[16], OIL, BTEX
 SUNFLOWER
 RAPS FLOWER
 PERENNIAL RYEGRASS
 POPLAR
 WILLOW

BENZOPYREN, PAH[16], OIL, BTEX
 PERENNIAL RYEGRASS
 POPLAR
 WILLOW
 ALFALFA
 RAPS FLOWER

BENZOPYREN, BTEX, PAH[16]
 SUNFLOWER
 RAPS FLOWER
 PERENNIAL RYEGRASS
 WILLOW

Modellbilder

Bringe tilbake porten til Gassverket
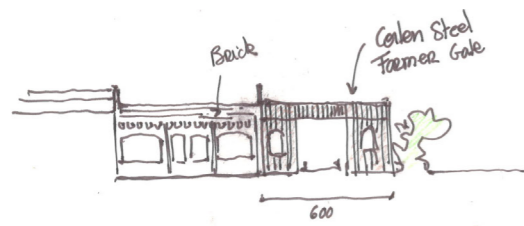
Noisy Waters

Explorations in Ocean Space II

Nancy Couling
Vibeke Jensen

Kurset var et todelt prosjekt, først research og utforming av del av en avis, senere utstilt på Bergen Kunsthall under The Ocean-utstillingen høsten 2020.
Avisen handler om Bergens fem marine næringer, olje og gass, fiskeri, fornybar energi, turisme, og shipping, som min gruppe tok for seg. Hver gruppe så på historien, hvordan de forholder seg til Bergen, fordeler og ulemper med hver av de.

Den andre delen var et individuelt kunstprosjekt hvor man skulle ta for seg et aspekt ved havet man fant oppsiktsvekkende. Her tok jeg for meg lydforurensingen til shipping-industrien og hvordan konsekvensene av de befester seg under havoverflaten, med et hovedfokus på blåhvalen og dens liv. Resultater er en håndtegnet video med formål å formidle situasjonen på en jordnær og enkel måte.

[REDACTED]

ENVIRONMENTAL IMPACT

Noise pollution -noun
- *Environmental noise that is annoying, distracting, or physically harmful. Also called sound pollution.*

Habitat -noun
- *The natural home or environment of an animal, plant or other organism.*

Cetacean -noun
- *A marine mammal of the order Cetacea: a whale, a dolphin, or porpoise*

Anthropogenic -noun
- *Something produced of caused by humans.*

Pinniped -noun
- *A carnivorous aquatic mammal of the order Pinnipedia, such as seals or walrus.*

There are fewer than

400

North Atlantic Right Wales left in the world

At any given time there is

75000

shipping vessels at sea

Over

300

whales and dolphins are beached every year

HABITATS OVERLAPPING

Many cetaceans and pinnipeds have their natural habitats in frequently trafficked waters. Due to the ever increasing amounts of ships, and thereby, noise in these waters, their homes are deteriorating and slowly dissapearing. The spaces they can occupy freely and without anthropogenic disturbance are steadily decreasing. Over the course of the shipping industry's rise, more animals are dying and their means of communication has altered. Collisions with vessels, beaching, net entanglement and general noise disturbance hinder their natuarl behaviour and habitats. Multiple species and stocks are endagered and their position in the ecosystem is in jeopardy. The shipping industry has to take a large part of the blame.

NORTH ATLANTIC RIGHT WHALE HABITAT
Eubalaena glacialis

Reigning, as the name says, in the north of the atlantic, the North Atlantic Right Whale is one of the worlds most endangered whale species. Only about 400 whales remain. Their mortality is mostly caused by entanglement in fishing gear, collisions with vessels, and noise pollution from vessels on the surface.

The whale has it's habitat in the northern part of the Atlantic, seen in the white spot on the map.

KILLER WHALE HABITAT
Orcinus orca

The orca has their habitats mostly in the Atlantic ocean as well as most of the southern hemisphere. Orcas, or killer whales, hunt in a wolf like pack making them very susceptible to vessel noise harming their ability to communicate with each other. All killer whales are protected under the Marine Mammal Protection Act, and two populations of killer whales recieve special protection.

Killer whales roam most waters on our planet exept the deepest parts of the pacific

BLUE WHALE HABITAT
Balaenoptera musculus

The Blue Whale roams all over the world exept the arctic seas eating tonnes of krill.Blue whales are the largest species of animal to ever live on our planet and are found all over our oceans exept the arctic. Due to vessel collisions and -disturbance, entanglement, and long term climate change, all it's stocks are seen as endagered.

The blue whale can be found in six of the seven seas. Only the arctic sea lacks the blue whale.

CETACEAN STRANDING

Dead or lifeless whales beach or strand in numbers every year. Some individually, others in groups. If a whale is stranded individually it is highly likely that it is of natural causes, whereas a group found stranded at a beach or shoreline might indicate some form of human interaction. Whales crashing with an offshore vessel, whales being driven away by loud vessels, maimed whales seeking safety, and whales caught and released from fishing nets can be common causes of strandings.

NOISE POLLUTION

FREQUENCIES

Scientists have discovered a clear relationship between growth in shipping vessels out at sea and measurements of low frequency noise. This poses a problem for many marine mammals as they use low frequency sonar to locate eachother, communicate and find food. As the shipping industry grows, their ability to survive reduces. An example of trying to answer to this, the north atlantic right whale has increased it's sonar frequency in order to communcate with others of it's kind. Other whales use their sonar to locate prey or breathing holes. Thus, if a species won't be able increase their frequency, it could prove to be fatal.

UNDER WATER SOUND

12 sec

3 sec

Sound travels about four times faster and longer per second under water. This makes communicating marine mammals simpler over longer distances, but with the steadily increasing marine traffic, their noises of communication are being dulled out.

Underwater, right next to the ship, sounds can be as loud as 170-180db. The threshold for bursting your eardrums is 150db, and the threshold for (human) death is 185+ decibels. Whales and other sea animals are usually not located right next to a vessel, but they are often located close enough for the sound to be as loud as 60 to 90 decibels. In the workplace it is mandatory to use hearing protection when the decibels exceed 85. Recommendations though, ask you to use it from around 70 db and upwards.

THE BELUGA WHALE AND THE NARWHAL

Beluga whales, knows as the "canaries of the sea", use their vocal sounds to form groups to hunt, migrate and interact with eachother. Narwhals act in a similar manner, communicating using sonar because it is so effective in water compared to in air. A call to a mate can reach much further than other land-mammals could. In their habitats in the arctic, they are still fairly alone, little anthropocene impact. In todays climate, shipping routes aren't particularly accessible in the Arctic Sea - yet. However, as the ice caps melt, these routes will become more and more accessible causing a disturbance to the life of the beluga and the narwhal. The beluga require air to survive, but as noisy ships pass, they will migrate closer to the north pole. This could lead to them being trapped under the rapid freezing ice in the fall. The free air would then be impossible to reach exept for a few holes in the ice they could find using their signals - if not disturbed. The more traffic we have in the arctic, less whales can survive, less whales will be a part of our ecosystem.