Continuous Space
- Transforming a car park into a co-house

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CONTINUOUS SPACE
-TRANSFORMING A CAR PARK INTO A CO-HOUSE

Diploma project
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The cohousing is a smarter type of housing, where we can find solutions through sharing. It combines the home with the social meeting place, resembling an indoor/outdoor fusion.

My intention with this project is to create a housing that is unfinished, a continuous project. Where the residents are encouraged to try other ways of living. Where the rooms are not only made up by walls but also created by the bodies of people, forever changing and rearranged—a continuous space.
I started in the notion that architecture is all about dividing spaces and categorizing them. Through walls, floors and roofs the architect connects and separates. In housing we create protection, manifestations of values and ideas and a definition yours and mine.

In what way is this readable in the way in Swedish housing today?

37.7% of the Swedish households are single households and 70% of the households are inhabited by only one or two people. Sweden has the lowest household size in Europe with only 1.8 persons per household. Household size numbers are strongly correlated to the welfare of a country and a symbol of independence and wealth. If we can live alone, we do. Still, a new wave of movements in housing is on the marsh. A generation receptive of a radical change in how we live, with less materialistic ideals. According to a survey done by Bostadsförmedlingen, 4 out of 10 people in Sweden have an interest in living in a cohousing. Fenomenons such as Airbnb shows how people have become more open to the idea of sharing, even our most private spaces.

I've been inspired by the article Familial Horror: Toward a Critique Of Domestic Space by Pier Vittorio Aureli and María Shéhérazade Giudici where they discuss and criticize the focus on efficiency and a more static choreography in housing.

Are we missing out on the benefits of sharing and having a variation of housing alternatives?

This project is a questioning of a possessive approach to space, in search of an alternative to the single household.

The dominated group of people interested in cohousing are single mothers and elderly.

The benefits possible in a cohous are such as sharing workload, costs, material things as well as an easier way to have a social life.
Abandon the possession of space and expand the idea of housing!
As an alternative to the single household, this project presents a way to co-live with
a focus on the unclosed spaces. A place to live together, with an aim to enhance
interaction, to share and exchange as opposed to separate ourselves from each other.
In this project I have transformed a car park into a co-house,
inspired by the Zen Buddhist concept of Eno, the incomplete circle, that allows for
movement and development.
Through working with the design methods cut out and spiral connection, I have
designed a co-house with three types of zones; the private, the shared and the open
space.
CONCEPT

-THESIS QUESTIONS

-How can you replace small, private spaces with a large shared space?

-How can a space be divided into different zones without closing them off from each other?

-How can living spaces and circulation spaces be combined?
A continuous space with a variety of connections between the floors. Using the existing ramp structure and adding interior and exterior connections. The circulation within the building is encouraging movement and interaction between the residents and provides for a physical, as well as visual connection throughout the building.
METHOD 2:
CUT OUT

- Opening up the ramp slabs to either let in light and create a distance between the private and the shared spaces without walls
- Create vertical connectivity in the center of the building, the stair
- Raise up a part of the floor or lower a part of the floor to create diversification in the larger shared space.
PROCESS

- MODEL STUDIE 1;
- WHICH STRUCTURE CAN PROVIDE FOR INTERACTIVE SHARED LIVING SPACES?

MODEL STUDIES

CUT OUT / VISUAL CONNECTIONS / RAMP STRUCTURE
PROCESS

MODEL STUDIE 1;
-WHICH STRUCTURE CAN PROVIDE FOR INTERACTIVE SHARED LIVING SPACES?

The ramp that leads from the street to the top floor provides for an entrance to the public swimming pool without having to enter the building.

The garden area at the entrance floor connects the building with the surrounding area.

A transformation of the car parking building. The color indicates the different parts of the program: green = garden/planting, blue = public area (Workshop at the entrance level and swimming pool on the top floor).

The slabs have been opened up to provide a visual connection between the floors as well as more light.

The open shared spaces are divided up into different zones by openings in the floors/ceilings and by flexible walls of different heights that can diminish the visual as well as auditory connection to the rest of the room in order to provide for a variety of activities happening within the same room.

The offset of the floors creates a connection between the floors, making it easier to see what’s happening within the building and opens up for interaction.

Openings in the walls, floors and roof to maximize the circulation between the rooms, letting the transportation within the building happen through the rooms instead of in a corridor, to maximize the interaction and diminish the feeling of the privatization of the smaller rooms.

A garden is separating the dinner room from the smaller rooms to keep the connection between the rooms visually but separate them auditorily.
PROCESS

- MODEL STUDIE 1;
- WHICH STRUCTURE CAN PROVIDE FOR INTERACTIVE SHARED LIVING SPACES?

VISUAL CONNECTION
MODEL 1

Several layers of sliding walls provides for a variation of transparency between spaces.

VISUAL CONNECTION
MODEL 2

The private spaces and the shared spaces are separated vertically. The large shared space can be transformed into smaller semi closed rooms. One of the long sides of the building consists of a glass house facade that connects the private and the shared spaces.

VISUAL CONNECTION
MODEL 3

In order to create a feeling of a shared and continuous space the walls never reach from one side to the other but reveals a part of the neighboring space.

VISUAL CONNECTION
MODEL 4

Enabling a visual connection between the levels through scaling down the width of the volumes.

VISUAL CONNECTION
MODEL 4 (TOP VIEW)


VISUAL CONNECTION
MODEL 5

The private rooms on the top level and an open shared space on the entrance level.

VISUAL CONNECTION
MODEL 5 (TOP VIEW)
PROCESS

- MODEL STUDIE 2;
- HOW CAN A SPACE BE DIVIDED INTO DIFFERENT ZONES WITHOUT CLOSING THEM OFF FROM EACH OTHER?

RAMP STRUCTURE
MODEL 1

The floors slabs of the building are tilted, leading from the entrance level and gradually rises throughout the building.

RAMP STRUCTURE
MODEL 2

The entire interior of the building consists of ramps. A wide ramp stretches out from the complex, breaking the closed facade.
PROCESS

- MODEL STUDIE 2;
- HOW CAN A SPACE BE DIVIDED INTO DIFFERENT ZONES WITHOUT CLOSING THEM OFF FROM EACH OTHER?

EXISTING STRUCTURE

PRIVATE HUTS

Smaller, private huts that provide the privacy needed in a collective house. The backyard becomes an inside space and works as a shared living room. By placing the hubs scattered on the ramp, the circulation between the hubs and the other zones of the house is varied and enhances the interaction. Instead of effective corridors, hallways or streets, that separates the shared from the private, the transportation area is combined with the living spaces.

CUBE MAZE

Instead of dividing a large space into smaller units, rooms with closed walls, the rooms are opened up and connected with each other, creating a maze. The rooms always open up to another room, a continuous flow that is encouraging the circulation within the building.

OPEN TIPI

EXISTING STRUCTURE

OPEN CUBE TOWER

Rooms with partially open sides. Closed in plan but open in section.

STEP ZONES

With a variation of height levels you read the transition of one space to another by moving through it. The space is divided into different zones without using walls.
The car park belongs to the large LM Ericson industrial complex in the suburb Telefonplan in Stockholm built in 1938. The car park was added in 1971. It hasn’t been used for some years apart from photo shooting and as a kind of a hang out place.

The idea of using an under-used building, instead of building a new one, was to take advantage of the qualities that the car park has (a generic structure that has the basic structure needed), as well as a way to experiment with a structure unconventional for housing. What benefits can you find in living on a tilted floor instead of a horizontal?

The large space divided into small units and the continuous connection throughout the building seemed fitting for a cohousing with a focus of connectivity and interaction.

A densification of the area has started and there is a plan for the car park site already; my proposal could work as an addition to that. The proposed suggestion is a large scale project with a diversity of typologies. I think that the cohousing could be combined into the suggestion, adding some extra diversity. The site, situated, right next to a hill, and a small green area with an amphitheater is more suitable for a lower building that can be connected to the green area. The not often used amphitheater, could be activated through activities in the cohousing.
SITE
CAR PARK IN TELEFONPLAN
-SECTION

CAR PARK, 1971
SECTION
SCALE 1:200
SITE
CAR PARK IN TELEFONPLAN

SITE PLAN
1:5000

NEW HOUSING AREA
PRIMARY APARTMENT HOUSES

KLÄTTERCENTRET
CLIMBING CENTER

KONSTFACK
ART SCHOOL
OLD LM ERICSON FACTORY BUILDING FROM 1938

HOUSING AREA
PRIMARY APARTMENT HOUSES
FROM 1940’S-1950’S

TEATERPARKEN
AMPHITHEATRE

LANDET
RESTAURANT AND BAR

TELEFONPLAN CENTER
LIBRARY
SUPERMARKET

NEW HOUSING AREA
PRIMARY APARTMENT HOUSES

HOUSING AREA
PRIMARY APARTMENT HOUSES
FROM 1940’S-1950’S

SPORTS GROUND

STOCKHOLM

SITE PLAN

CAR PARK IN TELEFONPLAN

SITE PLAN
1:5000

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STOCKHOLM
SITE
CAR PARK IN TELEFONPLAN

-SITE PHOTOS-
Stolplyckan is the largest cohousing in Sweden with 180 residents. Built in 1980, the design became a model for modern housing. It consists of 135 rental apartments and 35 assisted living apartments. Every housing block has shared rooms that can be used during the day by seniors and by other residents in the evening. They have access to a gym, a workshop, and a shared dining hall.

The residents have access to a 2000 sqm of communal spaces, obtained through abstracting 10% of the private apartments.

One of the first cohousings in Sweden, built 1935, was designed by Sven Markelius. On John Ericsonsgatan 6 in Stockholm. Ideas about new ways of housing that suited the modern citizen were developed in the 1930s by Alva and Per Myrdal amongst others. Through day care facilities within the building and dinner deliveries in an food elevator connected to the restaurant in the ground floor, women got a more realistic possibility to have professions or to practice activities outside of the home. The home were to be reduced to a place to sleep and store your belongings. The cohousings on John Ericsonsgatan the focus was rather on rationalizing housework and creating the efficient and active citizen than on creating a communal environment with your neighbors. On the contrary, the small apartments, tiny kitchens and food lift minimized the opportunities for the home to be a social space. Although, the ideas could be applied in a different manner where instead of a staff of servants taking care of the housework, the residents can share the work load amongst themselves to spare time and money. 1/5 of Swedish mothers are single parents (SCB). A majority of the group of people interested in living in a cohousing are women. Living closer together and having an extended family could be beneficial for this group of people.

REFERENCES

COHOUSING. STOLPLYCKAN, LINKÖPING
HÖJER-LJUNGQVIST ARCHITECTS
1979-1981

COHousing. John Ericsonsgatan, Stockholm
Sven Markelius
1935

TIETGENKOLLEGIET
ØRESTAD, DENMARK
LUNDGAARD & TRANBERG
2004

COHOUSE ON JOHN ERICSONSGATAN, STOCKHOLM
SVEN MARKELIUS
1935

COHousing. John Ericsonsgatan, Stockholm
Sven Markelius
1935

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Tietgenkollegiet, Ørestad, Denmark
Lundgaard & Tranberg
2004

A student housing for 400 residents with private apartments, shared kitchens and large variety of shared facilities such as reading room, computer room, assembly hall, music studio, sewing room. The private rooms are small but through sharing spaces with a large group the students get access to a range of uncommercial rooms right next to their apartment.

The building has a circular plan that enables a connection to all floors, there is no dead end. The circular connection and the large glass windows create a visual connection within the complex, a view over the building that displays the activities going on.
**Private spaces**
All the residents have a small, private apartment designed to fit a bed, a table, bathroom with toilet and shower and some storage space. A shared balcony that can be divided up by separating walls.

**Shared spaces**
A large part of the shared space are unprogrammed, adaptable to a variety of activities such as playing sports, hanging out, playing music etc.
A generic space that enables engagement from the users.
The shared space on the 2nd floor (west side) is connected to the kitchen zone and is thought to be for louder activities. The shared space on the floor below is a more quiet zone with reading spaces, laundry and a sauna.
The cohous has a large shared kitchen situated in the north part of the building. The stair running along the facade opens up a straight connection to the outside.

**Open spaces**
With a program that includes activities that can be open to the community, the possibilities of interaction is extended beyond the residents. The entrance floor on the west side of the cohous houses a work shop where you can use machines and tools and lend a work space.
On the roof of the building there will be a greenhouse that is also open to the community.
PROCESS

- EARLIER PERSPECTIVE AXONOMETRIES
1-2 RESIDENTS

4 SECTIONS OF PRIVATE ROOMS
PRIVATE APARTMENTS x 18,4 m² / RESIDENT
10 APARTMENTS
1-2 RESIDENT / APARTMENT
10-20 RESIDENTS

SHARED APARTMENTS x 11,3 m² / RESIDENT
6 APARTMENTS
2-4 RESIDENTS / APARTMENT
14-23 RESIDENTS

40-92 RESIDENTS
Passageways

Independent access in the form of corridors and stairways has historically been used as a solution to unwanted meetings. To enhance interaction between the residents of the cohous, more connections are added to increase the incidental meetings in the shared spaces. The division of private rooms and the passages in traditional housing plans results in a need for a purpose when entering a room. The cohous, on the other hand, should invite and encourage spontaneity and be adaptable for multiple usage.
Connectivity and circulation

The circulation is the core of the building, the car park is chosen as site mainly due to its ramp structure. The building structure is kept, all the pillars and beams are intact. The ramps are all connected, from the entrance floor to the roof, like a spiral, connected through a landing on each short side.

A wide stair is added on the west facade to connect the building to the hill. A ramp is tilted down to meet the ground and create an additional entrance.
Zones

To provide spaces shared by many, some kind of divisions is needed. A program divided up into three zones; private, shared and open, zones not primarily defined by function. Today we have yet another layer of separation, apart from the physical, through technology. This has opened up for a division of space in a totally different way than before. We no longer need to separate ourselves from others with walls but are able to have experience privacy while still sitting next to a stranger. This opens up for more collective spaces.
PROPOSAL

- ELEVATION
PROPOSAL

- ELEVATIONS

ELEVATION
NORTH FACADE
1:200

ELEVATION
SOUTH
1:200
PROPOSAL

MODEL PHOTO, SOUTH FACADE
PROPOSAL

MODEL PHOTO, PRIVATE APARTMENTS AND WORK SHOP ENTRANCE
PROPOSAL

MODEL PHOTO, CUT OUT DETAIL