

LIBRARY IN MOTION

Architecture, Presence & Craftsmanship

Master Thesis in Architecture 2020
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CHALMERS

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STUDENT BACKGROUND

Education

Master in architecture and planning beyond sustainability
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Ink in water or movement within a contained space

CONTENT

ABSTRACT 04

BACKGROUND

Questions	8
Discourse	9
Method	12
Site	
Delimitations	

RESEARCH 16

Presence	17
Movement	18
Tactility/Light	21
Clay	22
The Library	24
Place and Space	27

PROCESS 28

Explorations	30
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PROPOSAL 38

Concept	
Program	46
Site	48
Sections	50
Bricks	56
Situations	60
Plans	68
Discussion	74

ABSTRACT

With a focus on how architecture can create presence the project is investigating movement, tactility and light in relation to materials. Connecting people to materials, place and each other. The project explores how space are experienced with our bodies, to highlight sensory aspects of social sustainability.

Technological developments are changing the way we perceive space, adding another layer to it. The project does not want to neglect the possibilities of technical developments but to enhance architecture as a social place of a material reality. The library is an important actor in the urban fabric and will be affected by technological developments. The aim of the thesis is to create a possible scenario for libraries as low intensive meeting places when books become digitalized. Where the focus have been on creating a movement inside the building by sculpting with clay.

To connect to the context the investigations are implemented using an existing industrial building in Malmö as a site and shell. Connecting to local stories. As a method the project is developed by model making, using the same material as the building will have. Starting with the model rather than the plan, the development of the building are developed by sketching in 3d by using hands. To address sustainability and connect people with material the investigations have been made using clay and wood, two natural materials. Connecting to the topic of architecture and craftsmanship the focus have been on clay. In the ceramic tradition there's a playful way of working with tactility that will be explored in an architectural context. Working with an in-zoom of creating a brick of clay that can create the ceramic movement inside the building.

BACKGROUND

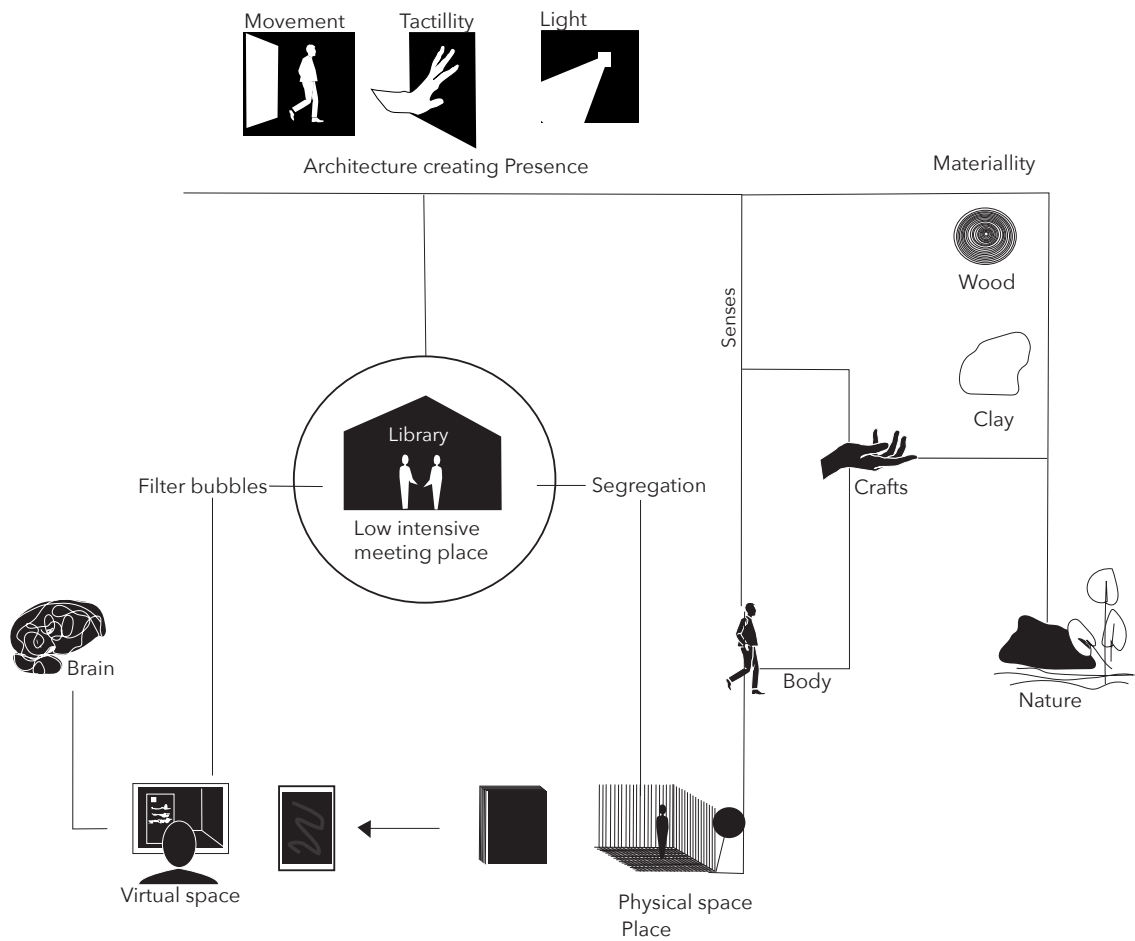
In a discourse about architecture and atmosphere the focus of the thesis will be on the sensory part of the library. How architecture could stand for a material reality that could help to connect us to place, nature and each other. Increased urbanization and globalization are challenging the inclusiveness of our cities and their ability to create commonness and understanding. Where the future of libraries could be a key actor serving to sort information and act as a low intensive meeting place. When books transfer from the physical to the digital sphere, there will be a need of saving the books for future-proofing but also a need of future-proofing public spaces for knowledge/story sharing and democracy.

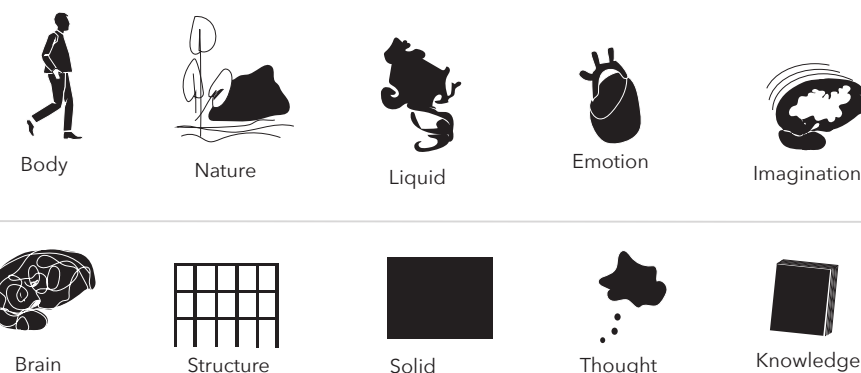
?

How can the use of tactility movement and light create presence in architecture?

How can using craftsmanship and clay help to create movement and presence in architecture?

How can the library survive as a place in the city when books become digitalized?





The project is explored in the discourse of sensory architecture in connection to a library. The illustration on previous page is a map of the themes of the project and how they are related to each other. The project are focusing on architectural atmosphere from the elements of tactility, movement and light. Aspects of architecture that have to be experienced and thereby could enhance the feeling of being present. The project are explored with a close relation to materials as a way to connect with our natural resources. Seeing architecture not as separate from nature but a part of it. In relation to a new craftsmanship movement the project wants to enhance crafts sensibility both to materials and the human experience. Libraries are places in the urban fabric that are affected by digitalization and also one of few, public places for contemplation. Therefore I will use the library as a place to test exploring architecture and presence.

The library is an important actor in the urban fabric as a non commercial place and low intensive meeting place. A place where you are exposed to otherness and pluralism. The development of the library are more and more becoming an urban living room. The travel-station, the urban street or the shopping mall are other places where people from different parts of the society are exposed to each other. But

there the focus is rather on a fast track movement, on activity. While the library is a place that allows you to stay. That invites to reflection, imagination and meeting. It is inviting to a slower movement, to notice, to contemplation. The library has the poetic that it deals both with what is an the ability to escape. Just as architectural atmospheres have been said to be able to both make us closer to the world and to the imaginary.

(*Architectural Atmospheres Borch 2014*)

Embodied thinking, acknowledges our total experience of the world, questioning the hierarchy of the mind over the body and other dualism thinking. (Johnsson Mark, 2007, The meaning of the body) Example of dualism thinking shown in the illustrations on the above. The idea of embodiment are mentioned by Pasllsamaa in the book Architectural Atmospheres on the experience and politics of architecture (*Borch 2014*) to highlight the perspective that we experience architecture with our bodies, beyond the visual. That our experience of space are connected to emotions and spatial memories. The idea of embodiment is also connected with seeing humans as a part of nature rather than trying to separate us from it. An aspect that becomes interesting in the process of architecture and materials used for construction.



To create presence in the process the project have been explored through model making. As a way to come closer to the sensory and material output of the design while in the making. To work with models in relation to the division of program have become the tool for redefining the project, rather than starting from the plan. The models have been photographed to come closer to the spatial character of the building, preventing it from becoming a sculpture. As seen above. More pictures from the process can be found in the process chapter.

CONTEXT Research. Understanding atmospheres, movement and the library and its potential program. Interview: developer of libraries in Malmö. Site visit

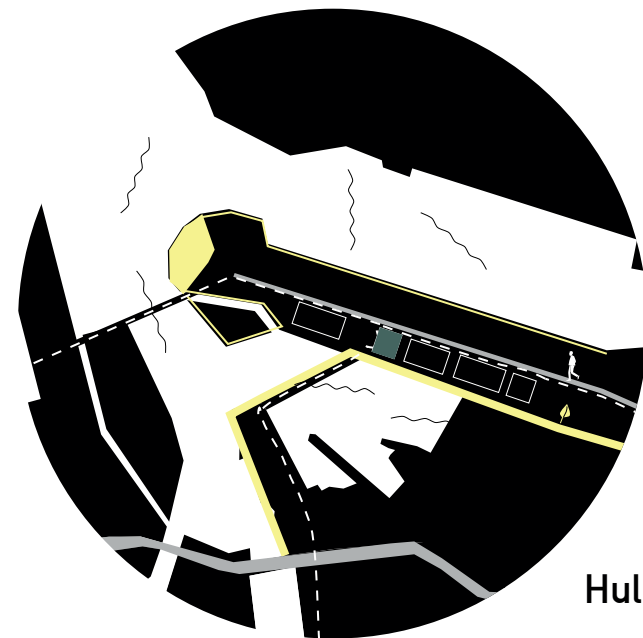
CONCEPT Approach to exiting building. With the program in the background a movement have been created inside the building, using clay. During the creation of the first clay model the inspiration have come from movement in dance, and an idea of space as choreography. Another metaphor have been movement of ink pored into water as a para-

ble of the existing block and the created movement. Starting to explore the relationship between the clay and the wood. Models are made in 1:10

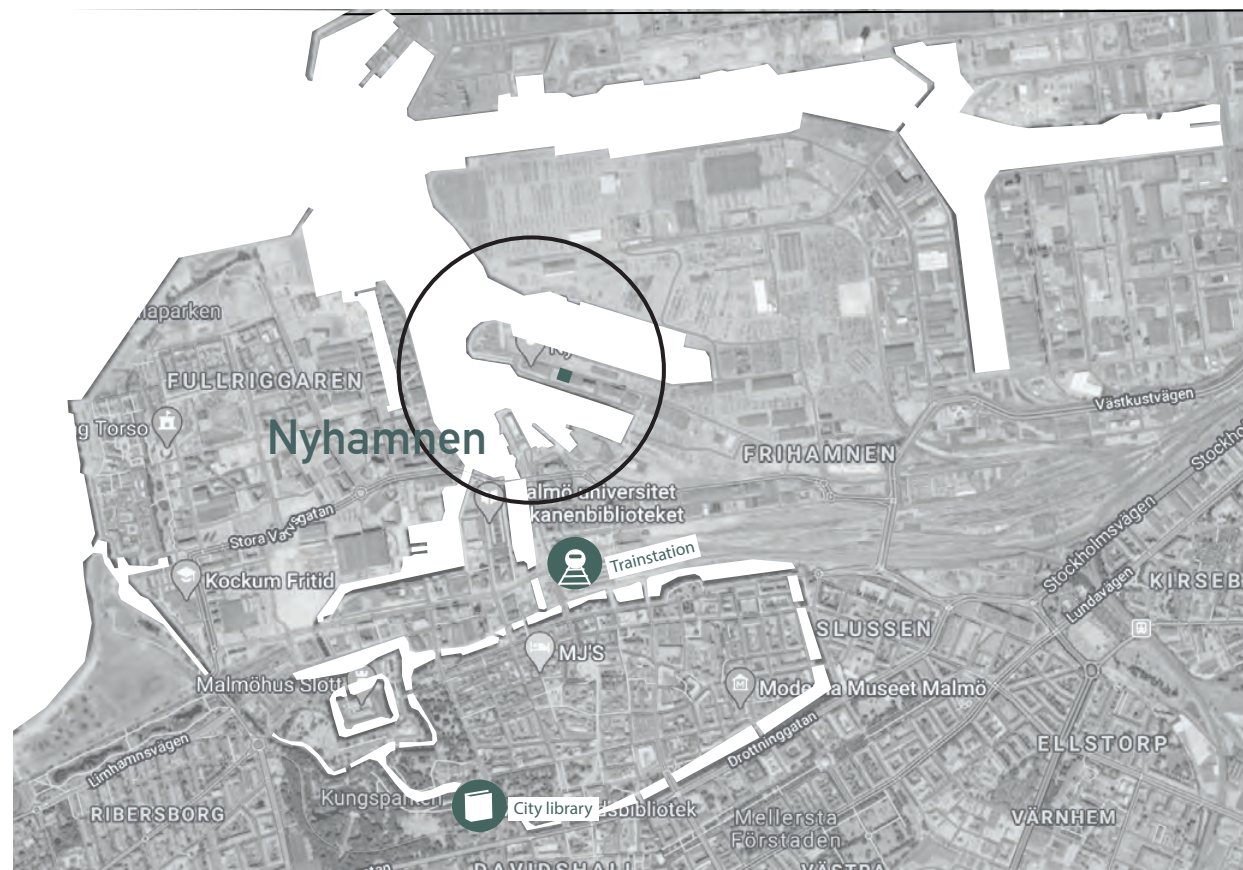
REFLECTION By photographing and drawing on top of the photos interesting elements to continue work with have been detected. In a third model the exploration are becoming closer to a design proposal seeing a clearer relationship between the wood and the clay but also to the program.

TEXTURE As a parallel investigation tactility have been explored in a zoomed-in perspective with the use of ceramics. Where the clay has been able to be burnt and glazed. In a beginning phase it was used to test specific textures. As the project developed the main focus became to explore different pieces that could be assembled to create texture and build up the movement inside the building.

RATIONALIZE The investigations are translated into architectural drawings. Tightening the different aspects of the project together.



Hullkajen, Malmö



Existing building that I'm using as a shell for my explorations, marked with blue on the maps to the left



Nyhamnen in Malmö is a port area that are under developments. In the detail plan it says that the area should have culture functions that could attract people from the whole the city. There's an emphasis on cultural as motor for developments, attractive meeting places and breaking social barriers. Places for recreation are to be created close to the water. And the city wants to enhance Malmö's identity and create sensorial experiences, The area will be a mix area of apartments, several preschools, 3 schools and commercials. The city has an aim to keep some of the industrial buildings in the area to connect to its heritage. The building I'm using in the project (see photos on above) is today a fodder silo in use by Lantmännen, built in 1948. It's marked as a possible building to keep to connect to the sites heritage. The harbour was developed under the industrialize nation in the late 1800. Due to increased water levels, the pier are to be made water barriers of approx. 1m at the site. (2009, Christer Larsson, Överisktsplan

FOCUS



Materialize ----- Theory

To start from the sensory part of the architecture the focus have been to explore the project by tests and model making rather than approaching it from theory.

Ecological Sustainability

In the project I have decided to use an existing building, and using natural materials to work with. Though the project have not been exploring the levels of the sustainability output of the design or the energy efficiency of the building. The project is rather exploring a spatial and sensory aspects that could be created by using this and mainly investigating new possible ways to build using clay.

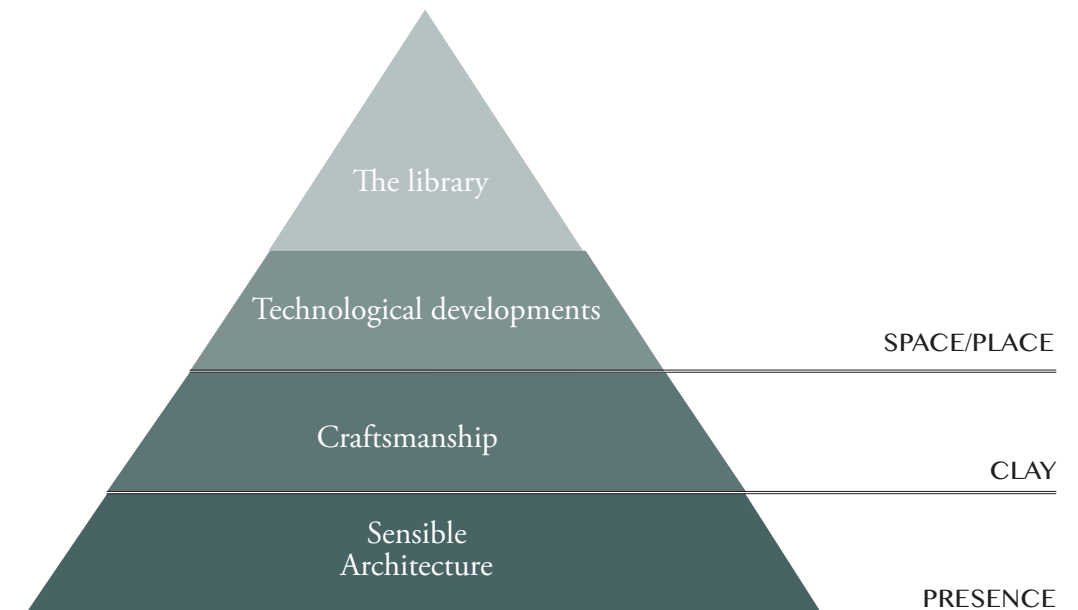
Crafting ----- Industrialization

The exploration have not looked into the economy or manufacturing of the project/to turn into an industrialized product, but have started from the craft, with an aim that it could learn and inform the design. Though the bricks created are all equal and made to be able to use in different ways.

Low intensive meeting place ----- Virtual space

Libraries, being a hub for information, could turn into high tech institutions. Though the project is investigate the role and value of the physical space and the creation of a place. Starting from experiencing space with your body.

HIERARCHY



As seen in the diagram the base of the project are on sensible architecture, where the library is the place to explore this.



Movement

Tactility

Light

In the exploration of architecture creating presence movement have been given the most attention

RESEARCH

The relation between architecture and people has a subjective filter, with a relation to previous experiences, memories and culture. Therefore it can be hard to graph the idea of how architectural atmosphere are created, or even say when and if it has been achieved or not.

In the philosophical book *The meaning of the body* Johnson writes about how intertwined our cognition is with our bodies. That our language comes from the physical world around us and that we therefore create meaning and understanding primarily from the physical world. Thomson point is that we find meaning in the interaction with our world, rather than “inside our head”. Thus questioning the hierarchy of the mind over the body. Stating that this understanding already exists within the fields of art. (*Johnson Mark, 2007, The meaning of the body, the aesthetics of human understanding*) This implies a bodily understanding of space, that could be a beginning to an explanation of how we experience space with our senses.

Architectural Atmospheres on the experience and politics of architecture Borch (2014) are addressing the idea of embodiment as a part of noticing a bodily understanding of the world. Pallasmaa says “I have mainly used atmospheric thinking, in the sense in which atmosphere is understood when referring to the weather. But I think the notion of atmospheres is in balance with my understanding

of the body image, or the embodied image, in its comprehensive, sudden grasping of the emotional and existential essence of a situation, whether social or architectural. And I think it is an important notion that should be taken seriously in architectural training.” (*Borch 2014 p.93*)

Borch addresses the idea that architectural atmospheres are beyond form and includes the human life happening within the spaces. Actions supported by or beyond the architectural form. Apart from this the idea of light, movement and the haptic are mentioned. It is stated that: “The power of architecture lies in its ability to strengthen the experience of the real, and its imaginative dimension arises from this strengthened and re-sensitised sense of reality, an experience of ‘thick’ space and time.” (*Architectural Atmospheres on the experience and politics of architecture Borch 2014 p. 29*)

I ask myself if starting from the bodily experience of space, the atmosphere can help to create presence in architecture. If architecture could create a sense of presence it must be from the experience of space, that could help to connect to the situation. Therefore I have started to look at atmosphere, the aspect of architecture that are addressing the experience of space. To work with parts of the spatial experience that are connected to be in the space I decided to work with movement, tactility and light. Aspects I perceive important in the experience of space.

In my understanding architecture beyond its form is action. It is written in social approaches where doing architecture is more about the social life that takes place in it. A view of the continuation of process even after the building has been built. Or as Lina Bo Bardi's approach to architecture that has been explained as a scenography for public life. But also in the atmospheric references Juhani Pallasmaa says "In my view, a door is not architecture, whereas passing through a doorway, crossing the threshold between two realms, is a genuine architectural experience". (Borch 2014, *Architectural Atmospheres on the experience and politics of architecture* p. 99)

Having different approaches to the action within the space, may it be sensorial or social, I see it as a way to approach how architecture could affect us, outside just the form. A form implies something to be looked at. Whereas we move through space, we act in space and live in it. Thus not to say that architecture always creates the action but that the action itself, within the architecture are enhancing the importance in the experience of it. That's why I would argue that the aspect of moving through space/ the sequencing of space becomes an important aspect of an experience of architectural atmosphere. As well as the action within the architecture certain design/ form could also imply for different speeds or ways of moving.

The bodily experience of movement can be divided into three parts: the sense of movement - Kinesthesia, the felt position of the body in space - Proprio-

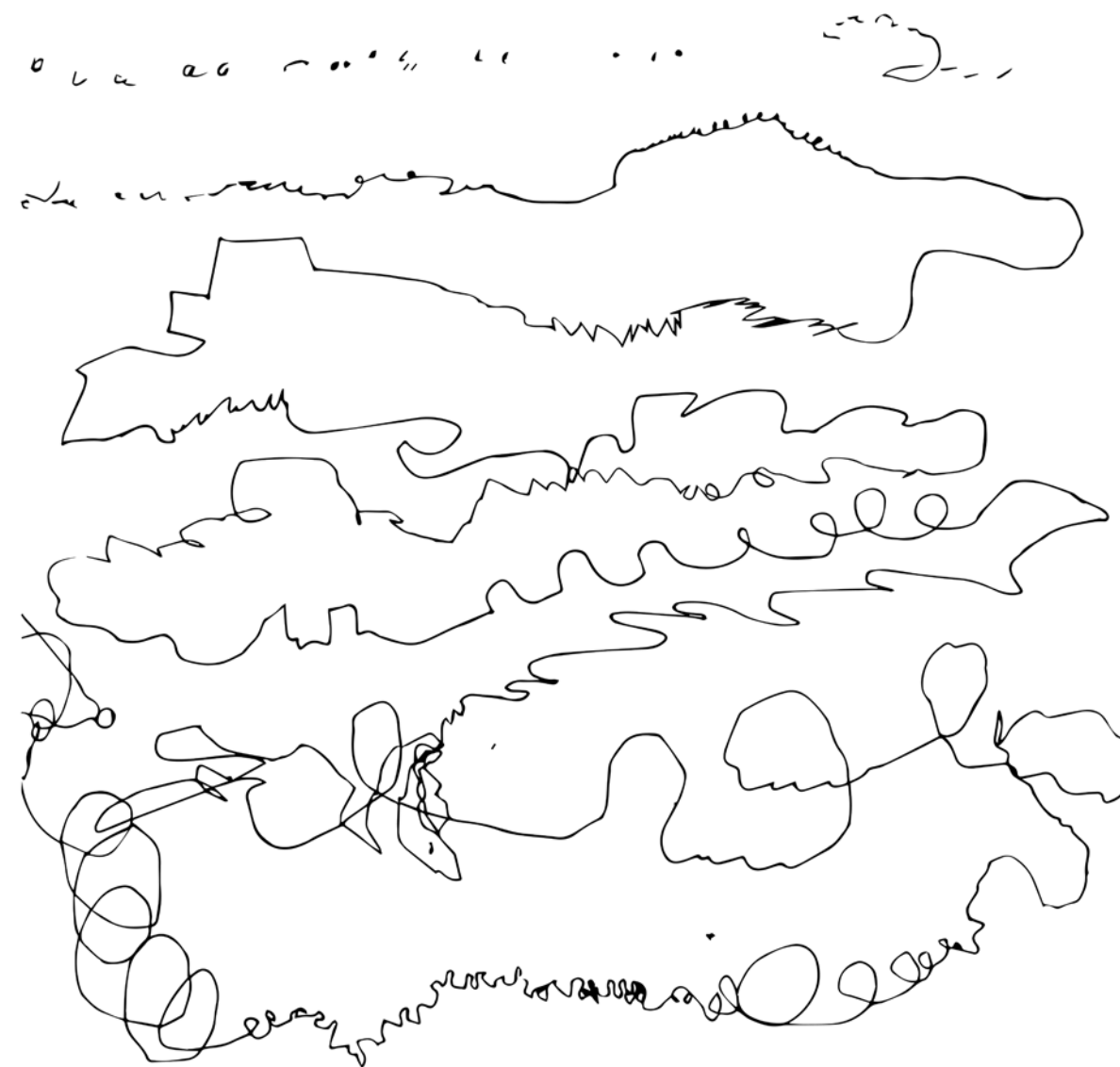
ception, the sense of balance - Vestibular system. Architecture is directing movement. It creates borders for how we can approach a space. Architecture are to be said to be frozen music, but it could as well be a frozen movement. Johnson writes:

"The choreographer is most often trying to express a way of feeling, not a specific content of the feeling. We know the meaning of various bodily movements and gestures in dance precisely because we know the feeling and meaning of our bodily gestures." (Johnson Mark 2007 p. 45)

"Such concepts as curved, diagonal, zigzag, straight and circular get their meaning primordially from our bodily postures, our bodily movements, and the logic of those movements... Furthermore all of this bodily meaning is appropriated even when twisted comes to be used in a psychological or moral sense." (Johnson Mark 2007, p. 26) The quotes implies that the movement of a form also could affect a sensory experience.

To work with movement or an idea of space as choreography, dance became a prominent starting point for this project. From own dancing experience as well as analyzing a clip from Sharon Eyal's - Half life and seeing the Sharon Eyal's piece Autodance and Solo echo at the Gothenburg Opera. I found some aspects to work with within the space, which are used in dance and would be important for creating a sense of movement. (notations illustrated here)

Theses elements are: gravity, tempo, unfolding, repetition/ surprise, playfulness



Notations made while watching a clip from Sharon Eyal's, half life. The marks are made in an intuitive process while watching. The line reflects the movement of the dancer, may it be small or big movements. Depending on the way the dancer move, the size and form of possible spaces vary. In the same time it also reflects the rhythm of the movement, creating both repetition and surplises. In later investigations, using clay models, I had the base of this sense of line, or movement in my hands while creating.



Here the dance clip was notated by portraying human figures. The movement of the body creates lines and direction, in the same time as the space they occupy creates a space, as well as the void between the dancers.



An early clay model, exploring a relationship between movement and static. The model is also showing a folding of light-inlet and how the clay texture differ when put into light.

“The architecture of the eye detaches and controls, whereas haptic and atmospheric architecture engages and unites.” (Borch 2014 The politics of the Atmospheres, architecture, power and the senses p. 35)

The skin is our most sensitive organ and have a close connection to other senses. Therefore the surface have an ability to affect the experience of a form or space. (Borch 2014) I find that texture, or the haptic is interesting in relation to technological developments, where images have a loss of surface. There have been a trend in architecture to strive after white, blanc surfaces. A surface that have an effect but that are also unrelated, without connotations or an understanding of the material. I would say that tactility is the simplest layer of ornamentation. Something that as a part of a big architectural structure have a close relation to our sensory experience, of a human scale. Having this close relation to the bodily experience, it becomes an important aspect in creating presence in architecture.

Light is close related to both movement and texture. The light is moving through the room as the day passes by. It could also help directing movement inside the building. Would you be more drawn to towards the light or the dark within a building? The light falling on a material are enhancing the texture of it.

Crafts are sensitive in its approach, it provides knowledge of materials and are often done with care. With a close relation to the hand and the maker. Catherine Ross quotes Tim Ingold "even if the maker has a form in mind, it is not this form that creates the work. It is the engagement with materials. Materials have a role in making buildings just as architects do." As a counter reaction to industrialization a renewal of the interest in crafts have arise due to its sensitive approach to materials, both in experience, tactility and in terms of sustainability. (Rossi Catharine, 2017, Craft contains the critical thinking that could unpack the current stage of architecture) Explorations of crafts, in relation to technical tools have also been a way to bring back knowledges off craftsmanship in a new way within architecture. I decided to work from a crafting approach to get an understanding of and come close to the experience of the material, as well as be free in my explorations and it's possibilities of creation.

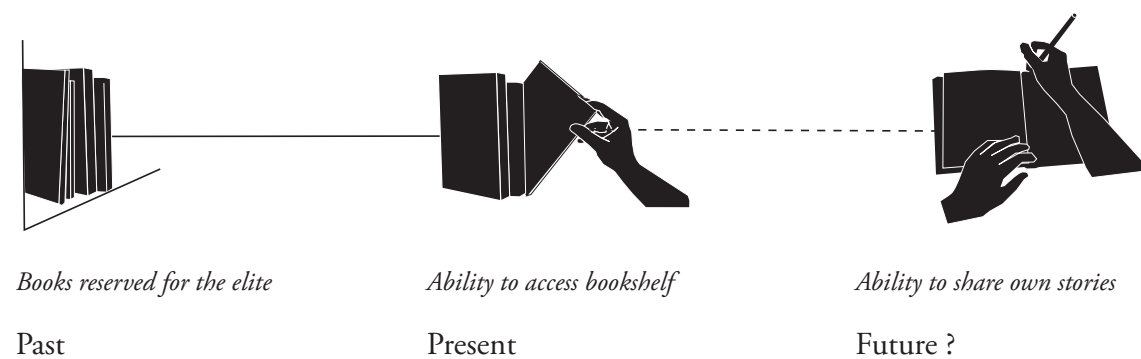
Why clay or ceramics? When I'm thinking of ceramics, I'm rather referring to mortar material than the ceramic tile used in architecture. In the ceramic tradition there's a lot of exploration of working with the surface, in bending, in glazing and texture. The question I chose to explore with in this project is if the sensitivity of ceramics also could be turned into architecture.

Clay is one of the oldest materials, it can be find almost anywhere on earth. From the beginning it was stone, that became hard crust, mostly granite while time and weathering broke it apart, turning it into

clay. As a raw material clay is soft and easy to manipulate, while after being put into fire it becomes hard, and durable. Something that made human do clay figures early in history (Staubach Suzanne, 2005 Clay, history and evolution of Humankind's relationship with earths most primal element, p. 10, 12) Clay has also served to help keeping stories. Remains from clay tablets with scripts was find in a library from 669 bce and scripts on vessels, eg from the Mayas have helpt us to understand stories about their way of life and believes. (Staubach Suzanne, 2005 p. 108-111)

Clay as a construction material was started to put into use as soon as human started to settle, making mud houses off unfired clay. Even today 1/3 of the worlds population live in unfired clay houses (Staubach Suzanne, 2005 p.114) The use of bricks first stated as unfired bricks, dried by the sun, where the fired ones where more time consuming and expensive. Bricks have been used for stupas, Pagans, temples, and even skyscrapers such as Empire State building that consists of 10 millions of bricks. In 2900 fired bricks came into use in quantity in the Indus Valley, as roof tiles. The Romans mixed bricks with concrete and created the vault brick. Today the brick have become industrialized but the bricks shape and proportion have at most part stayed intact. (Staubach Suzanne, 2005 p.123-135). The project has been exploring possibility to use bricks but in the same time keep the organic and non perfect essence of clay. Example of test from the process are seen on the picture to the right.

Ceramic brick test with pieces that can create different kind of bended surfaces



The development of the Library as a public institution parallels the progress of the individual rights from the time of enlightenment. In the 1900s the library transferred from a public institution to a familiar living room in the city. Since then libraries have adopted to the change of times and local communities. (*Lushington, Wolfgang, Liliane, 2018*)

As explained in the picture above when books transfer to the digital sphere there will be less place needed for books, instead the space could be used for more places for people or other media. If the core role of the library is to provide information and storytelling it can also be done in other ways than through books. I could see a “natural” development of democracy in libraries not only in borrowing books but also an ability for the citizens to share own stories. (As seen in illustration to the left). When books can be accessed from home the library becomes more interesting as a low intensive meeting place or a place for contemplation. I have developed the library from a notion that some may like to linger and look in books or go over to read a traditional magazine, but that there are fewer books than in traditional programs for libraries. Something that is already happening in contemporary libraries. In the social sciences the change of digitalization and fear of fragmentation have created an interest about the public sphere. Research shows that libraries have the possibility to expose citizens who visit the library to other values. In the discussion of the social aspect of

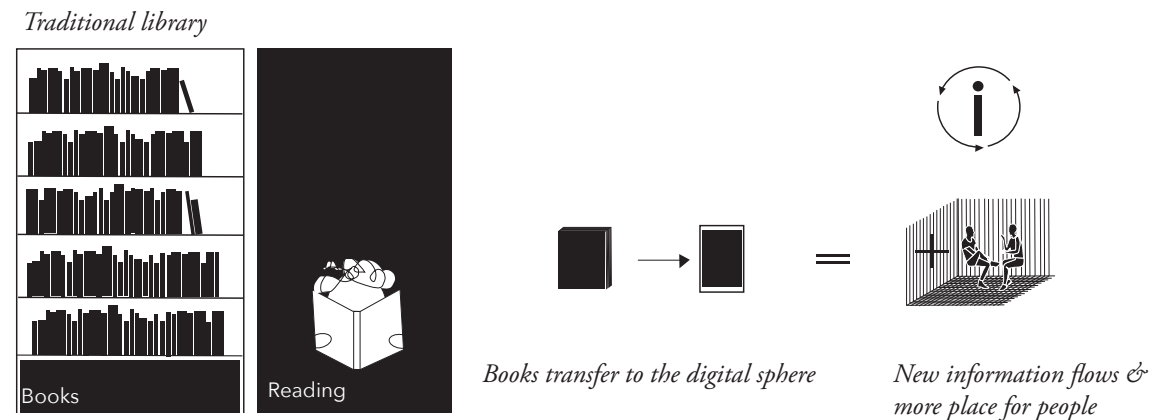
the library Audunson introduced the relation of low intensive meeting places:

”Where low intensive meeting places are arenas where one is exposed to otherness and pluralism, and Audunson discusses the potential of public libraries to develop into such low intensive meeting places which a society threatened by fragmentation needs.” (*Audunson, Aabo m.fl. 2019 p. 777*)

These studies shows that high information flow also creates a need for sorting all information and finding what you’re looking for in big databases. And even if the library not always is an equalizer for democracy there is a need for places in the city where different stories can be heard, a place to be and meet without commercial activities. Söderholm and Nolin are mentioning the third wave of community engagement ”The third wave took off at the beginning of the twenty-first century and can be interpreted as a result of digitization: digitization creates a need for physical spaces opening up for human interaction and community. This third wave, according to Söderström

and Nolin, focuses upon community hubs, open social space and diversity” (*Audunson, Aabo m.fl. 2019 p.780*)

In the Swedish governments strategy for future libraries there’s an emphasis on digitalization of books but it also highlights the importance of the library as a place for meeting and democracy. It’s stated that



the library should be safe, peaceful and inspirational and that the citizen should feel like it's their library. That the library should support interaction with art and creativity in a known milieu. (*Fichtelius, Persson, Enarson 2019*)

To get a perspective from someone with a lot of knowledge about libraries I did an interview with Katarina Forsström, who is working with the developments of libraries in Malmö. She emphasized the importance of libraries in the city to create open and safe meeting places where you can share knowledge and create. A place that can help to increase safety in the city room and connect the city. A place more important than in a long time due to existing pressure of the democracy. When asking how the library will change when books becomes digitalized she mentioned that the function of the library as a place to mediate knowledge and be an important actor for democracy will not change, just the media will change. Books will find its way e.g. children books can have a learning aspect when turning the pages and it's better to read a book than on a screen before

you go to sleep. Forströms believes it will rather be sustainability aspects that affects when you use what medium. Though the future of the library will be needed flexibility and to be thinking in new ways. The library today actually have to include more functions rather than less, which is also a challenge when it can't be the same depth in each function. Other challenges is if it's possible that some parts of the library could have longer opening hours and how to really link the library with the city. The closeness of the library to its users increased the visitors and in Malmö they are working with a 1,5 km radius. Even if it's not been totally decided if there will be a library developed in Nyhamnen it's an area that are outside the radius of today existing libraries.

Architectural space are traditionally connected with place. Whereas Social media/virtual realities are creators of space without an obvious connection to a place. The new connection with the world creates new relationships within space. The sense of place are also challenged in a global world where things turns general. In this relationship I would argue that architectural place have a possibility of connecting us to the world, creating presence.

Virtual space can connect people to each other across physical boundaries. It comes with vast possibilities, maybe even a small crisis for architecture. Though architectural places have the ability to connect to the earth and to create non expected encounters. Futuristic images have often showed a shiny, high tech version of the future. Fast speeds and complex infrastructure, white and shiny surfaces. The question is if that is the world we as human thrive to have around us. The material reality of architecture have the ability to tell stories about where it came from. Both existing buildings within the urban fabric and the materiality of newly built.

In the context of libraries there's initiatives outside the containment of the building. Including smaller interventions of swapping books. The digitalization gives you the possibility to borrow a book just at the moment you have some time over. There's situations when spatial relationships can be created outside a built structural solution.

Thus place gives you the possibility to return, linger and connect. What we give place to in the cities also shows what we value and I think we should value the library as a non commercial public place for contemplation, story sharing and democracy. In the digital sphere filter bubbles are created. Therefore I would argue that the library could be a place with a possibility to encounter and see information that you are not actively searching for. Places are connected to the physical, something that also libraries need. For meeting pluralism, others and a possible way to get out from "the bubble".

PROCESS



An early sketch of movement



1. Tools used while doing model: wood pieces, clay, glue, water, hands.



2. While the clay was still wet, different support was needed to hold up the clay.



3. A few clay pieces still remaining as support, movement start with one anchor point



4. The model created direction, and an elements that turns away or



6 (3). When the clay had dried, much of the support could be taken away and left is a path of clay-movement created.



5. Clear directions seen within the space.



7 (6). An early exploration of burnt and glazed clay.



8 7. Exploration of relation of liquid and solid clay elements, also using light inlets.



9 10. 2nd model, are using the idea of folding, while the first model focused more on a sense of direction.



10 8. Relation between the wood and the clay are explored



11 9. The two materials are used to support each other



12 13. The liquid clay as a roof going down, explores the sense of gravity.



13. When the clay is folded in a space with a feeling of safety are created.



14. The relation between the clay and the wood creates thresholds



15. 3d model, using a clear idea of the wood structure as a base



16 15. The relation between the wood and the clay can create interesting light inlets and contrasts.



17. The wood platforms creates both fragmentation and connection within the space. Working with different hight levels, and lights from above.



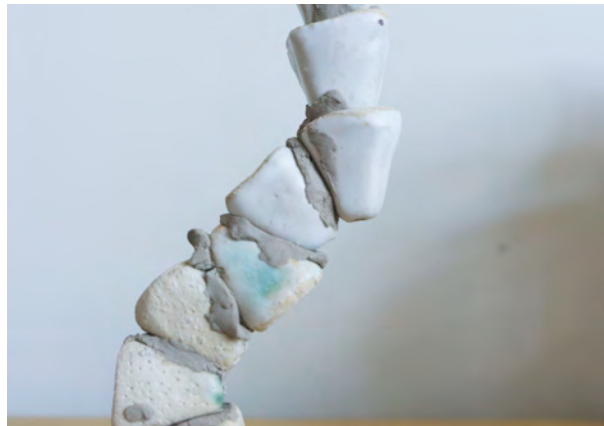
18 16. Wood platforms when taking away the clay.



19 18. Building pieces (scale 1:10)



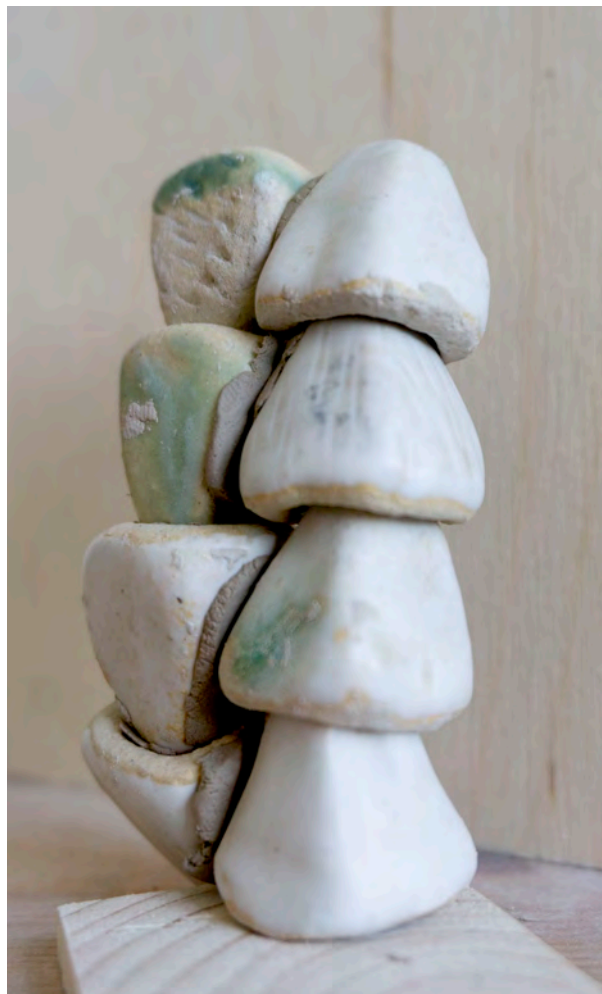
20 22. The piece creates a more straight wall, with possibilities of interesting light-inlets.



21 19. Pieces could be put together while changing the direction



22 20. By stacking on top of each other a knitting like pattern are created, creating texture and movability.



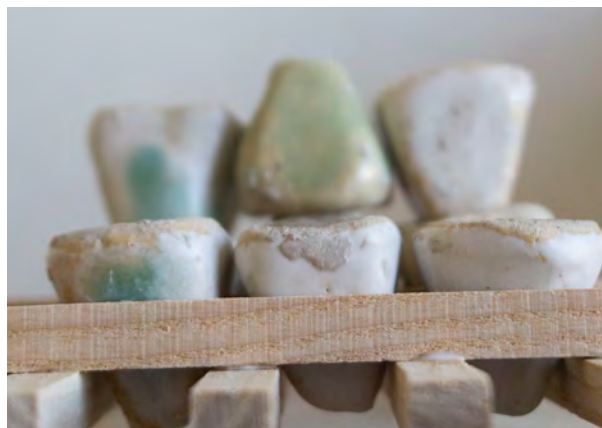
24. Bending pieces with soft clay(mortar)



23. Flooring using mortal to add up the differences.



25 27. Possible floor/wall change, using mortar on the floor



26 21. A try of how the pieces could be used in relation to a wooden grid



27 24. Pieces put on a steel-wire To investigate how several pieces stacked would and could spin



28 25. Bending pieces with light



29 28. Twisting



30 26. Several pieces put together on steel-wire to see how a surface could bend (scale 1:20)



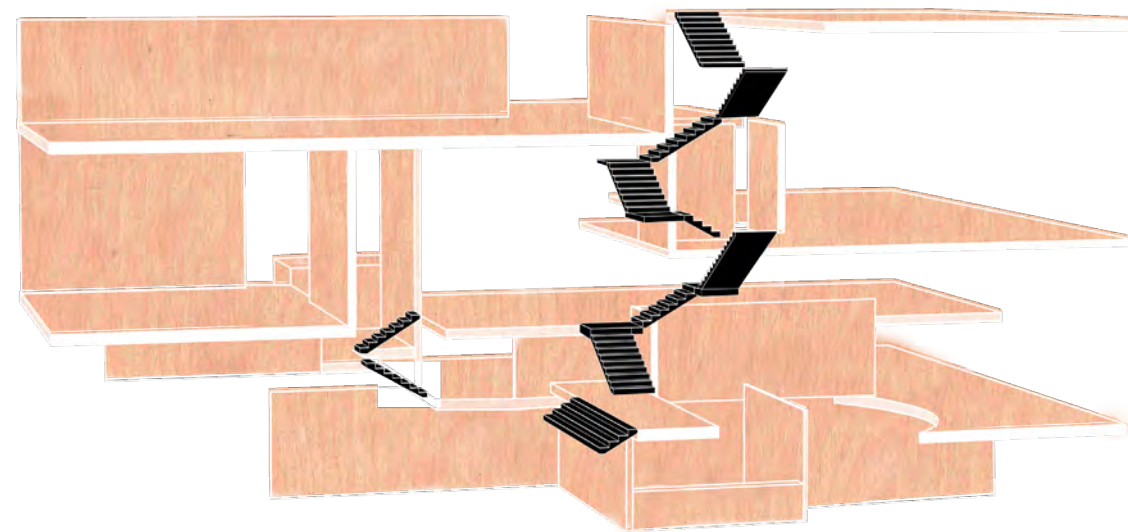
31. 1.1 prototype



32. 1.1 prototype

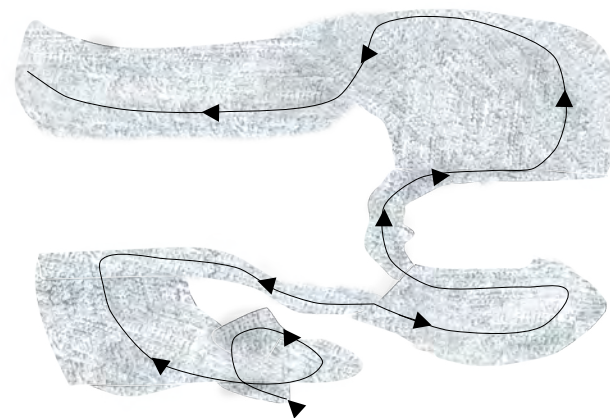
PROPOSAL





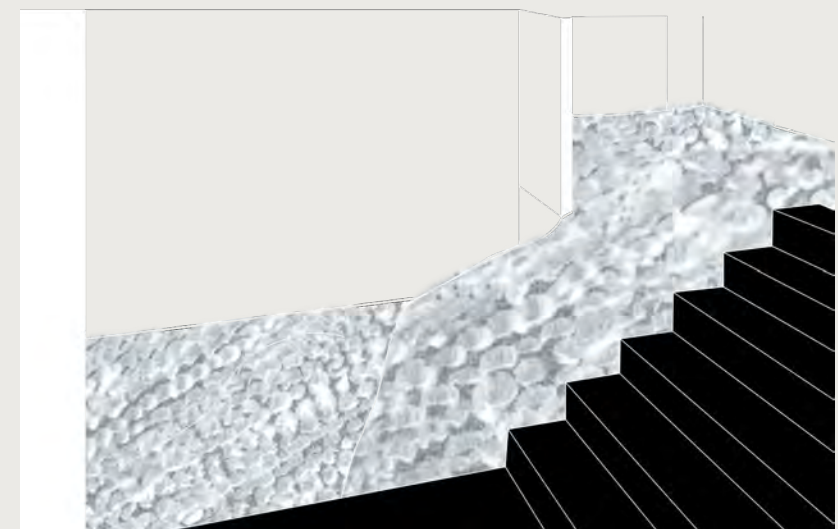
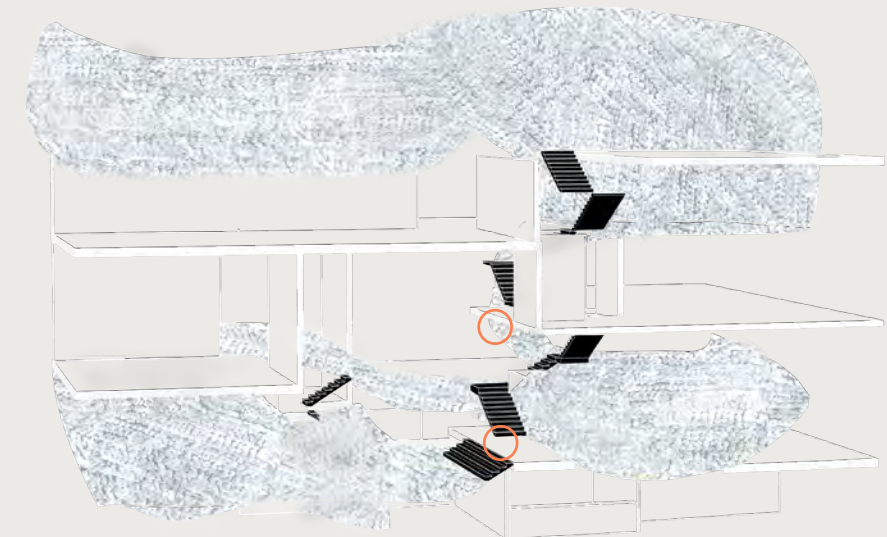
THE STATIC

The wood platform have a static structure and appearance, even if the stairs are where you move they have the same language of stability as the wood platforms



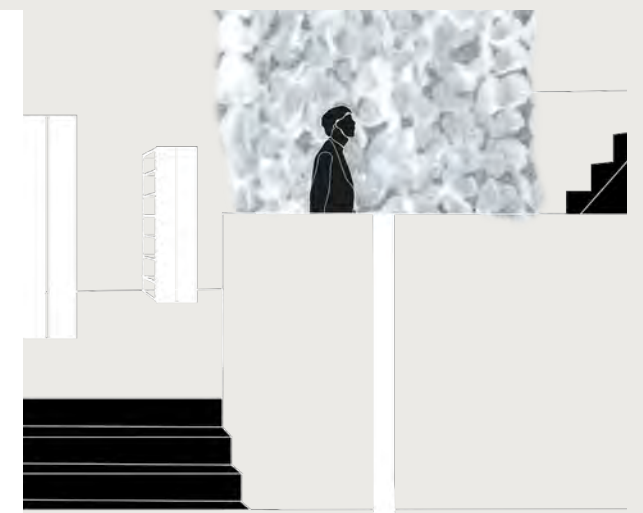
DIRECTIONS

The movement inside the building does apart from creating a sense of movement with spatial qualities within the building also helps with creating directions within the building



IN MOTION

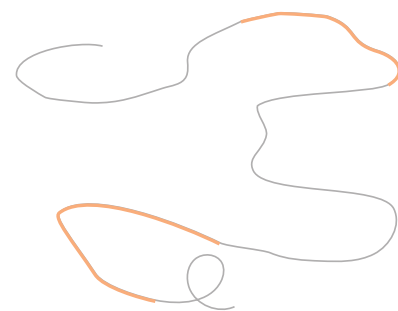
The movement support the directions of the stairs, and thereby the movement of people inside the building. Illustrations showing situations where the stairs and the ceramic movement inside the building are supporting each other.



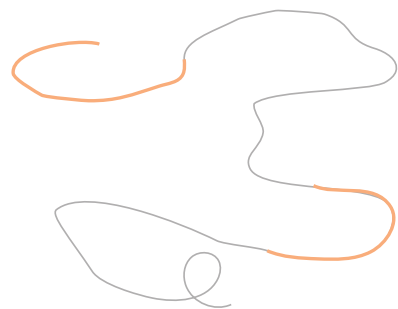
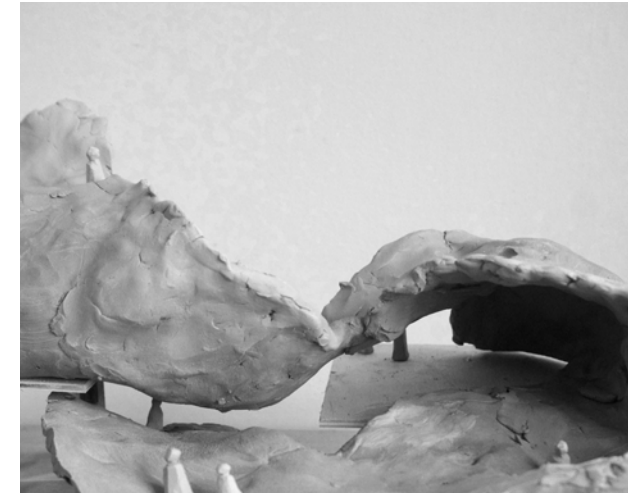
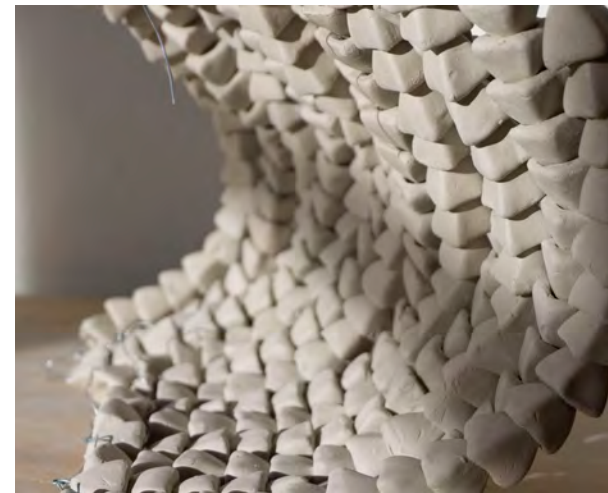
SITUATION

WITH CERAMIC BRICKS

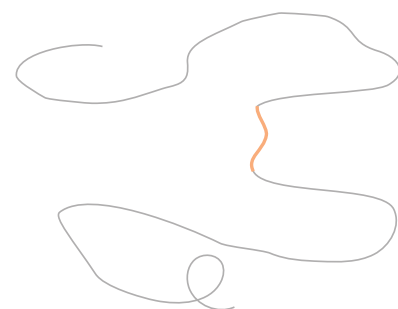
FROM EARLY EXPLORATION



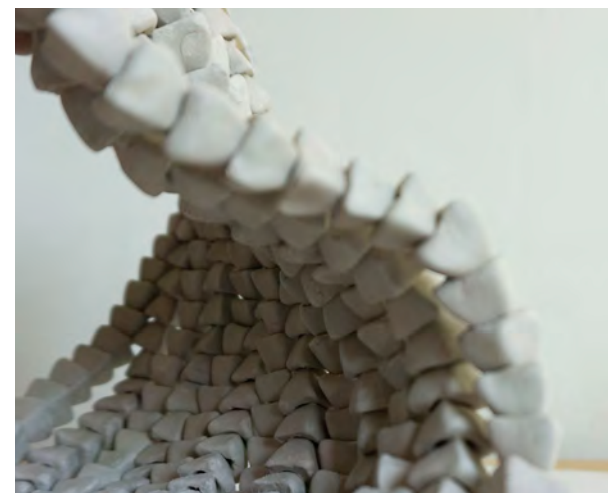
Folds



Turns



Wrinkle



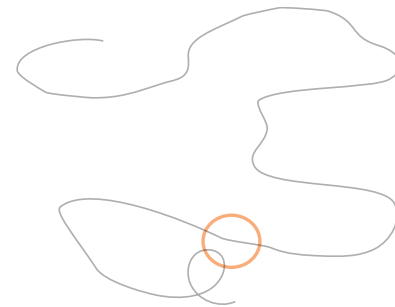
THE MOVE

Simplification of the movement created within the building are illustrated as a line. Specific situations are further explained, as to early clay models and the development of ceramic bricks. This illustrates spatial qualities but also the origin of a sensation of movement.

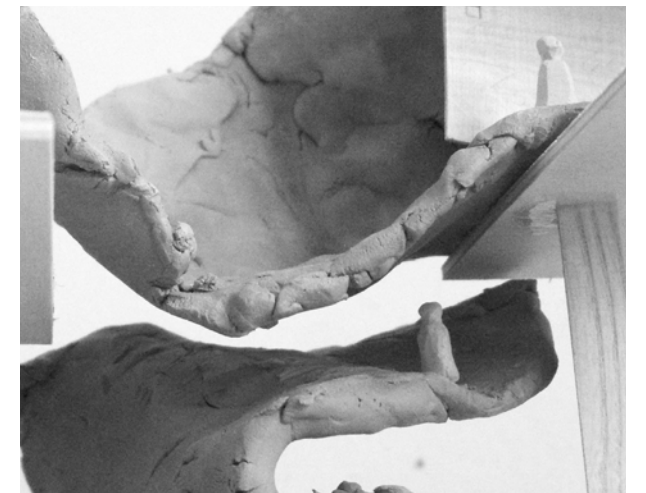
SITUATION

WITH CERAMIC BRICKS

FROM EARLY EXPLORATION



Gravity meeting







Floor movement

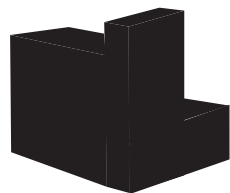


Anchor point

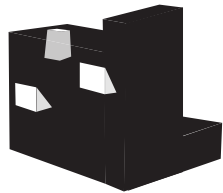


FUNCTION	SPATIAL QUALITY	ACTIVITY
Spaces for reflection, contemplation and informal meetings. Focus on free reflecting, to find pause.	Spaces with "interesting" light qualities. More relaxed seating areas.	 <i>Reflecting</i>
For focused work e.g. study	Spaces with not too much distractions, a view to the outside but limiting things that could steal attention. Calm. .	 <i>Focus</i>
Spaces where one are browsing through different media: books,, exhibition, computers, or others	Space ordered in relation to each other so it's easy to find what ones are looking for. Rational and connected	 <i>Browsing</i>
Space that invites to play	Non flat surface that invites for movement	 <i>Playing</i>
Meeting rooms, community space, some that can be booked	Enclosed space	 <i>Meeting</i>
Space for creative activity	"Embraced" by the ceramic pieces. Soft light	 <i>Creating</i>

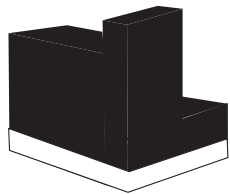
APPROACH TO EXISTING BUILDING



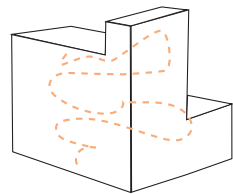
A block of darkness



Paint with light



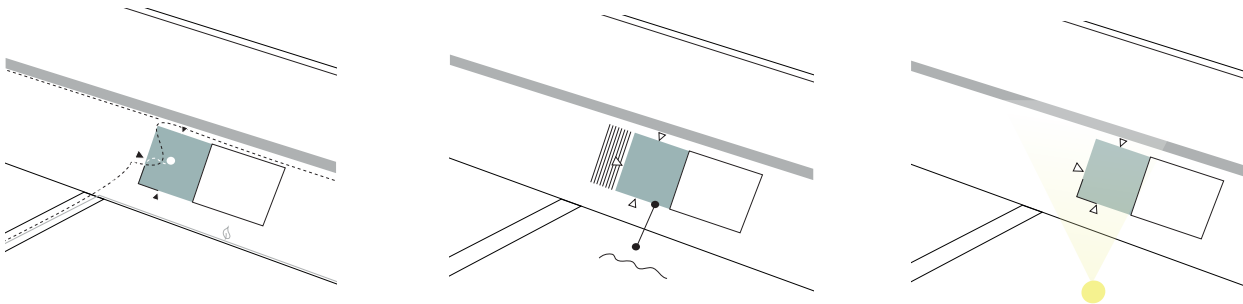
Open bottom floor



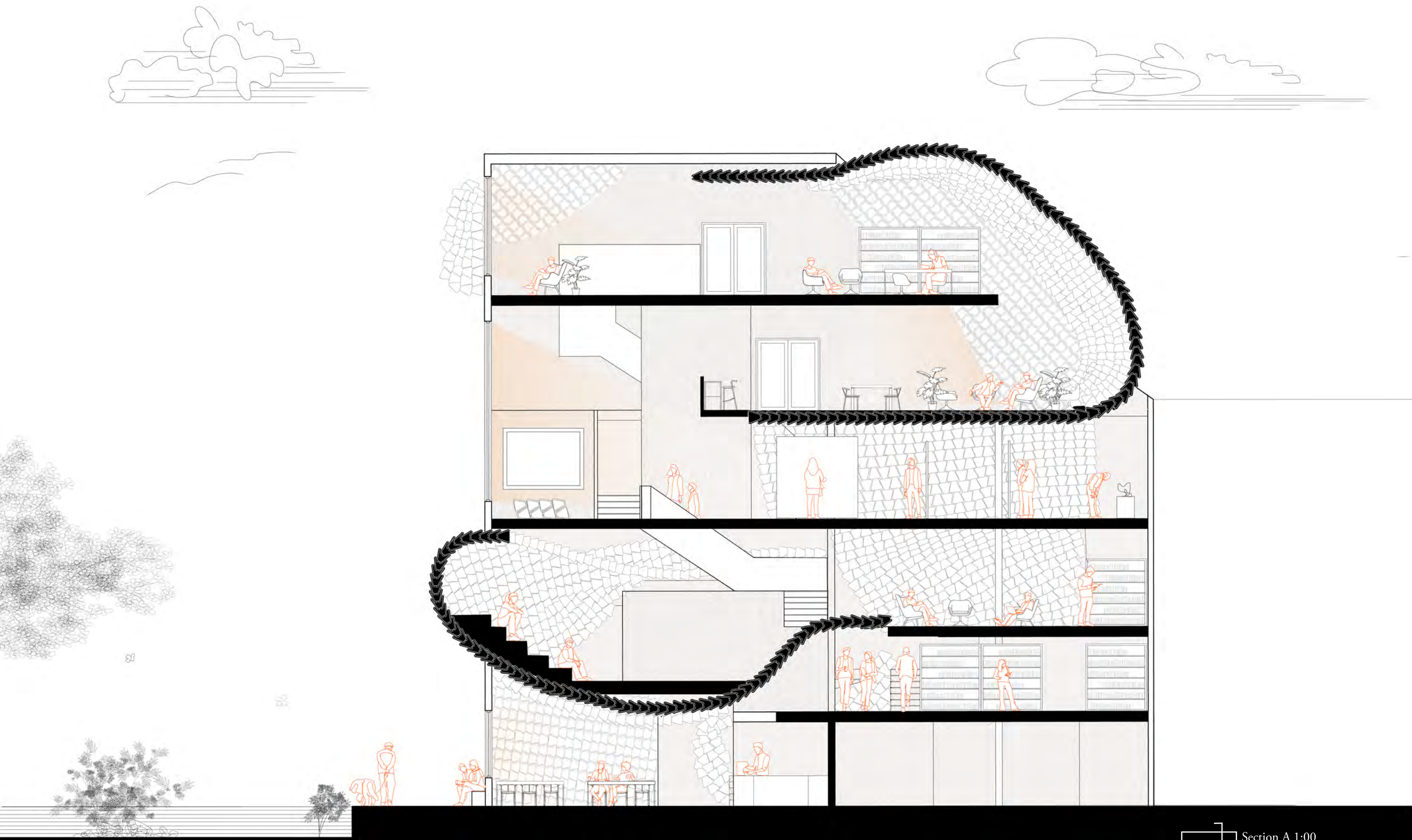
Liquid movement



Existing building as a concrete shell with created light inlets and connection to the movement.



The lower part of the building are connecting to the context, inviting people to interact, blurring the relation between inside and outside. Whereas, while moving up to the upper floor the movement becomes slower, more controlled. And the visitor is invited to a versatility of spaces. You could go to the library to get help with information, to join a group, listening to lecture, seeing friends, reading a book or just to find a pause from your everyday life. To connect to the site, the movement are leading the visitors into the building while in the same time creating a water harvesting pond. A garden/square are created in relation to the building as well as stairs connecting to the water.



Section A 1:00



Section B

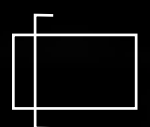
Section A

Square/Garden

Water harvest pond

Connection to water

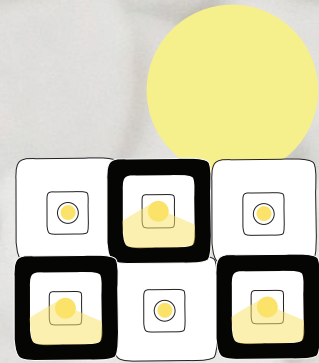
Site plan 1:200



Section B 1:100



*Stacking bricks that can bend.
Used to create the sensation of movement
inside the building.*



*Bricks in relation to a window could
create light inlets. Used in contemplation
corners.*



Brick used for plants



Bricks used as a seating bench

Background picture shows tested of pieces in 1:20



*Test-pieces of bricks in burnt and glazed clay, scale 1:10, with soft clay (mortal) as a
way to connect them*

The created clay bricks can be stacked and put together in different ways. In the project I have mainly worked with stacking them on top of each other as it gives possibilities to bend a surface and create spatiality. Turning the bricks, the wholes can create light inlets that are also used in the windows in the contemplative corners on 2nd and 3d plan. Further investigations can be down in how to treat the bricks with glazing/not glazing etc. Though in the proposal I have worked from an idea with having mainly white bricks but with some use of colour, as seen in the picture above. The edge of the bricks are exposing it's nature clay that works well together with the wood texture. Partly a result of needing to keep a surface free from glaze when burning.



Pictures of 1:1 prototype of the brick, to give an understanding and sensation of what the brick may look like in actual scale. Different textures of the sides of the brick have been tested and the idea of having another glaze on the inside have been kept.





C. Small atrium 1st floor

Contemplation corner 1st floor



A. Coming up from the stairs to first floor



B. Illustration of play-scape on first floor.



H. Exhibition space plan 3

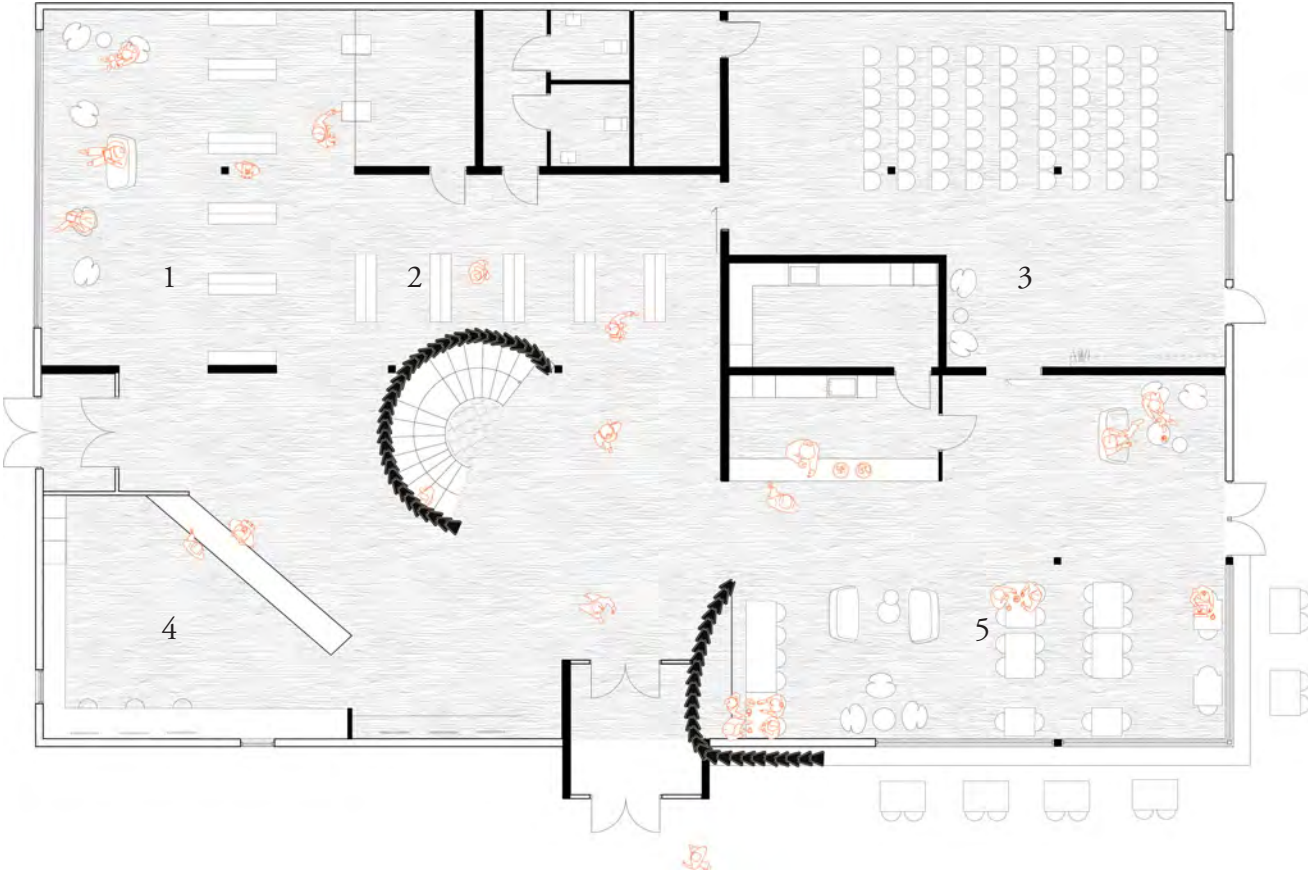


E. Quiet area plan 4, with a view to contemplation corner on plan 3



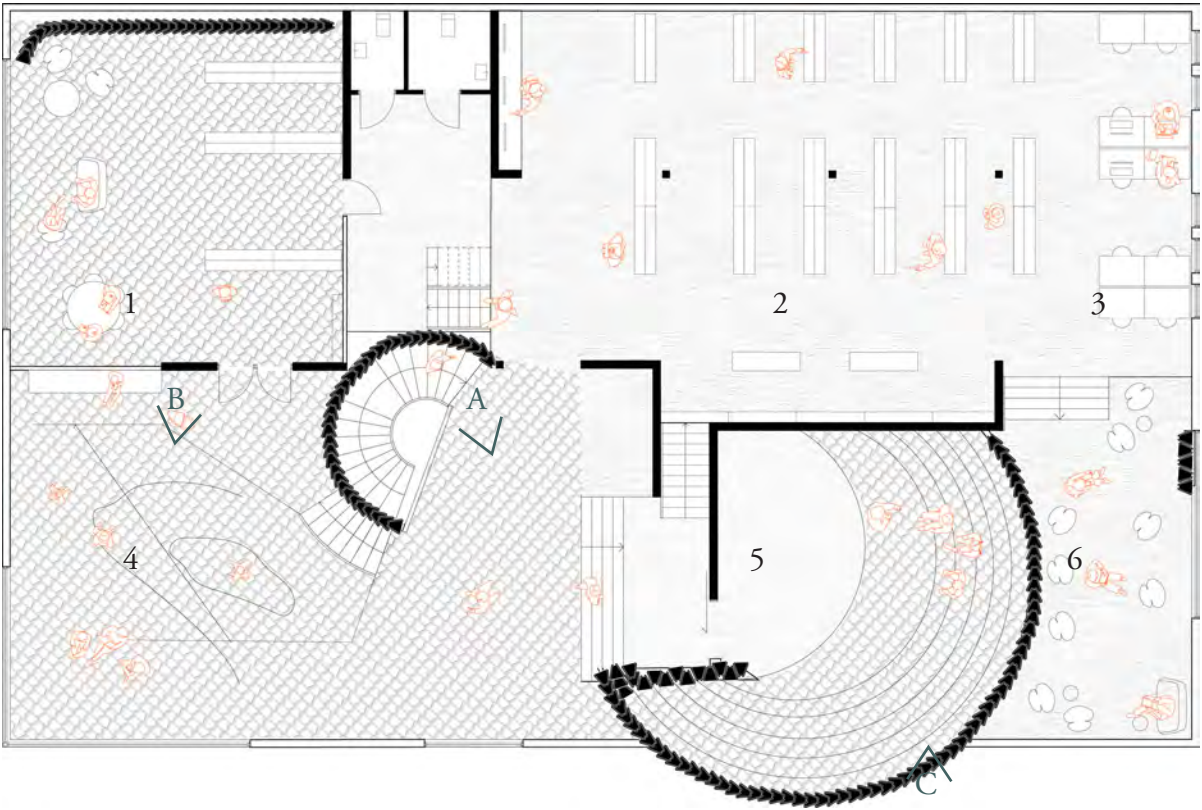
F. Mixed use area plan 5

Ground floor
Scale 1:200



- 1. Relaxed seating area
- 2. Magazin/New books
- 3. Flexible room that can be booked
- 4. Reception
- 5. Café

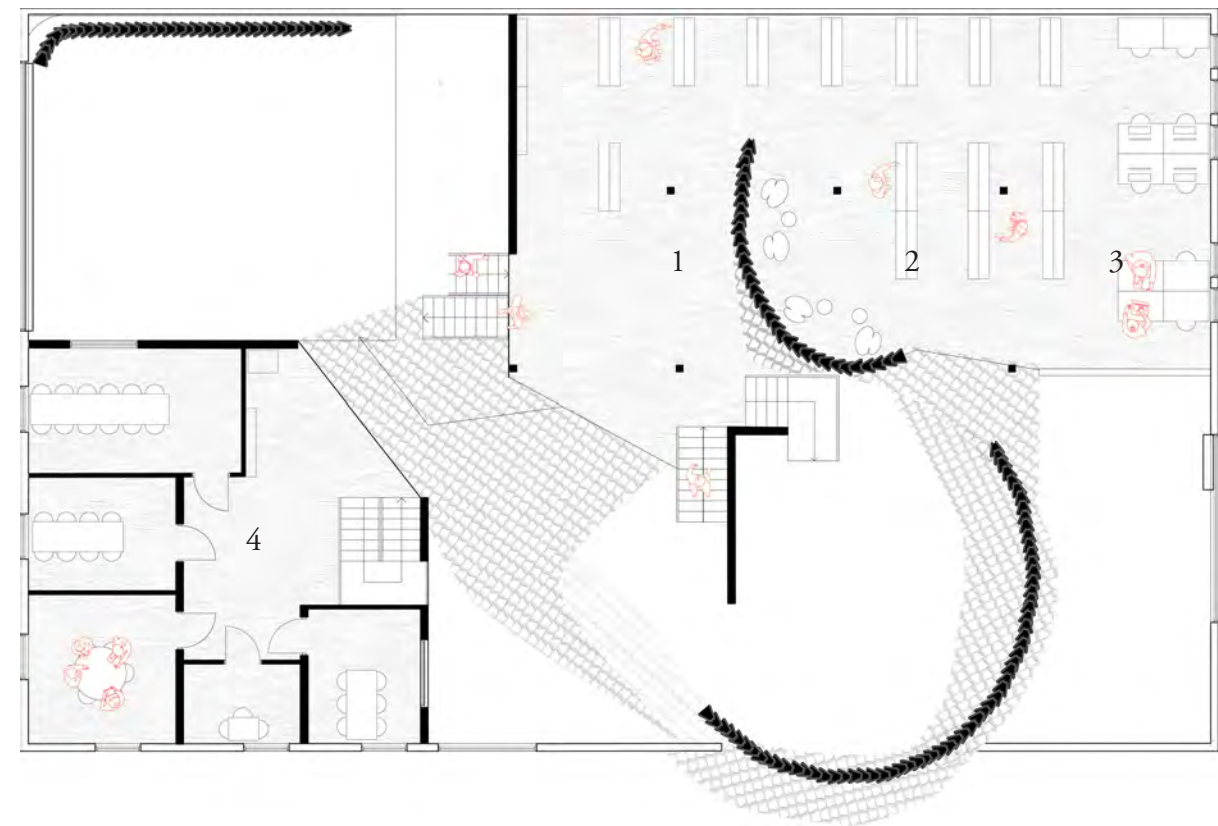
Plan 1
Scale 1:200



- 1. Children area
- 2. Litteratur
- 3. Study space
- 4. Playscape with seating corner
- 5. Small auditorium
- 6. Contemplation corner

Illustrated situation A,B,C

Plan 2
Scale 1:200



- 1. Bookshelves
- 2. Reading space
- 3. Study space
- 4. Meeting rooms floor 1

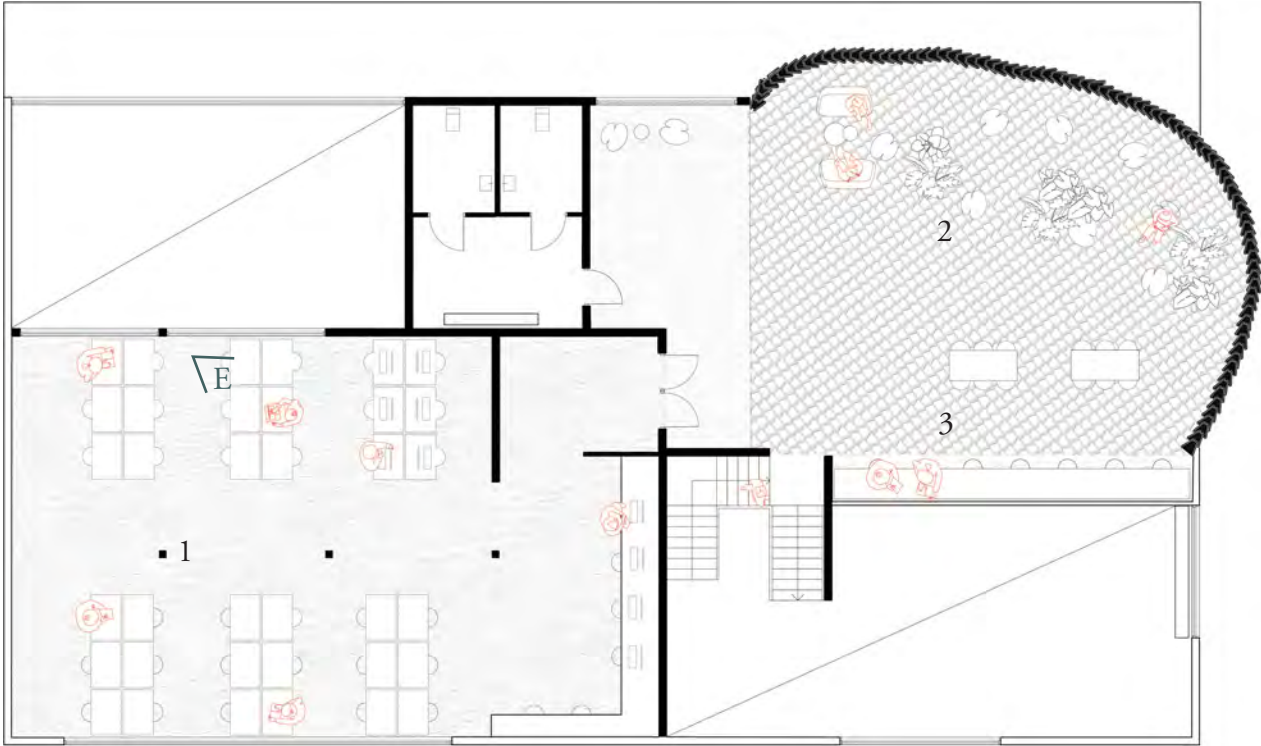
Plan 3
Scale 1:200



- 1. Contemplation corner with ceramic brick window
- 2. Meeting rooms floor 2
- 3. Exhibition floor, bookable

Illustrated situation H

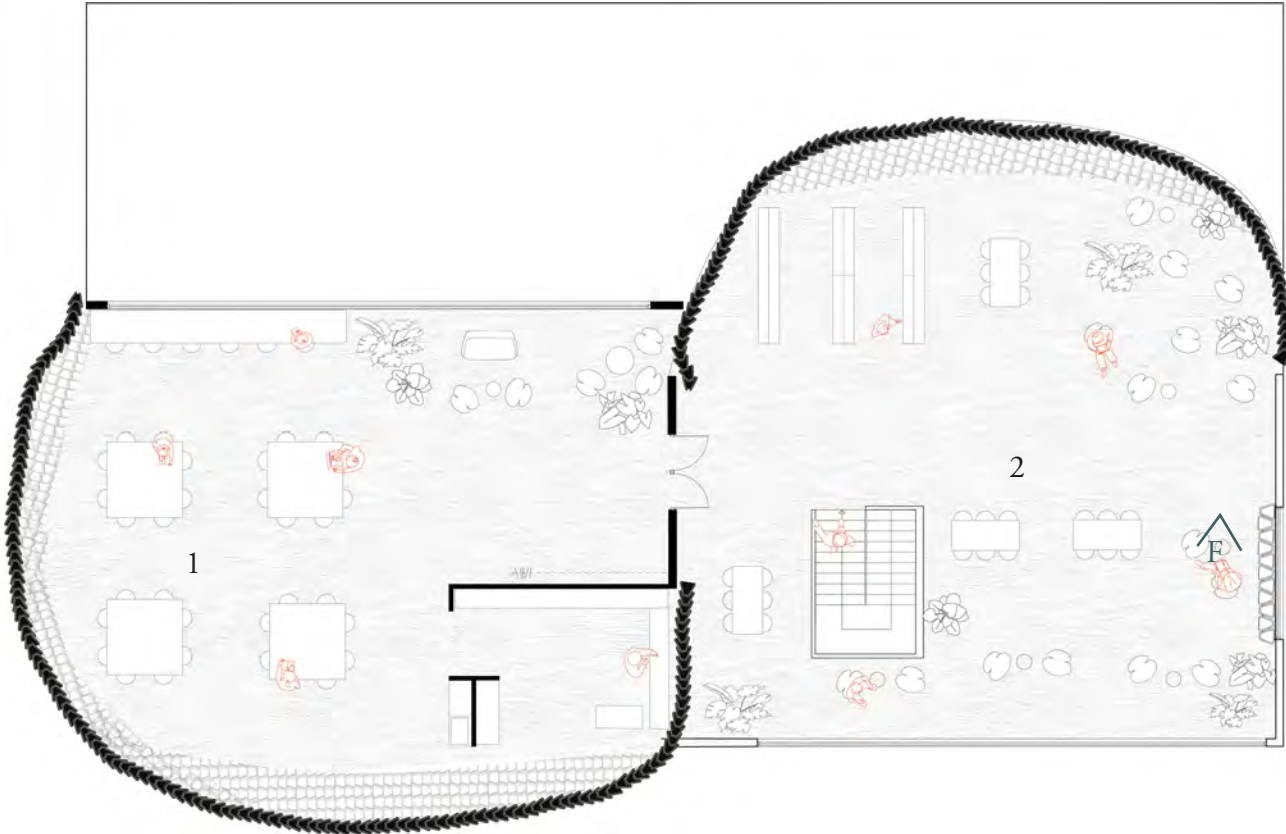
Plan 4
Scale 1:200



Illustrated situation E

- 1. Quiet zone
- 2. Contemplation corner
- 3. Study Space

Plan 5
Scale 1:200



Illustrated situation F

- 1. Creative corner, with access to tools, printers etc.
- 2. Mixed use area

PROCESS

Making the models by hand became an intuitive and creative process. Where I started to design from the experience of space, from inside of the building rather than from the outside. I believe trying to express movement became easier when working with my hands. I don't think I would have been able to come up with the same kind of essence by sculpting digitally. Though I can not state that it would be the case for everyone. Due to time and personal skills I did had very limited incorporation of technical tools, in an early stage of the project I had an idea of using 3d scanning to merge the relationship between the hand made model and technology, though I decided to leave this step out I think it would have been an interesting investigation. Probably also creating a different result. Starting from the material and producing things in it, have definitely created an understanding of the behaviour of the material in a way that would not have been able to have by only using simulations in the computer. Though I want to be humble in expressing that the interaction with clay is relatively new for me and I have more to learn to really understand the behaviour of the material, and even more the structural capabilities of it. Making the test-bed of the small ceramic pieces (fig 28-30) gave me a good understanding of the time required to make this bricks. And the added complexity of constructing when moving away from the traditional block. Making the 1:1 prototype made me see developments and improvements when scaling it up

but mostly to understand how it could look like in an actual scale. The complete aspect of working with clay also generated ideas. When coming to the ceramic study, the material can not make you rush, and thereby situated me in a sense of presence in the process.

One of the most interesting parts of working with clay was its ability to turn from soft too solid. In the model making the models required support, and it was almost collapsing at a few points. (fig 2) When the model had hardened and some of the support could be taken away the form could come forward, as a positive surprise. For example creating a tension in areas that previous would have required support (fig. 12). This relation became interesting when adding the wood, and trying to find situations where the two materials could support each other (fig 9 -11). Though in the development of the project, trying to make more precise models the clay became harder to work with, being hard to be exact in its nature. In that way clay has many contradiction to traditional model-making in architecture where there is often a strive for being so exact and precise as possible. Though this have advantages, that in the sense of the hand, it can create sensitivity and unexpected forms. Creating the smaller bricks (fig. 19) became a good tool to find back control and realizable elements to create the movement within the building.

With the starting aim of working with texture the brick made it possible to combine the creation of a soft texture and the construction of the shape. To keep a softness and blur out hard edges, all edges of the bricks are softened. The bricks made it possible to bend in different ways, creating movement in a straight surface (fig. 30) or bend the wall in different directions (25, 28) as well as twisting (29). When the light falls on the assembled bricks it also creates a shadow pattern (28).

To make the project realizable the bricks would need to be test-assembled in 1:1 scale. When assembling the burned and glazed pieces (fig. 20-24) I've been using soft clay with the aim to be able to use clay mortar in construction. In the surface created by the smaller pieces (fig 28-30) I've been using metal wire to connect the pieces. Some or both of this principle might be able to use in further developments. Though the structure have not been further investigated in the project, where the focus has been on exploring the material and creating a strong architectural concept. The aim of the project have not been that the bricks in a final stage need to be constructed by hand, something very time consuming. But rather to start from the handicrafts of thing to develop the project and how that can affect the output of the design. In a second stage there would be a need to develop how to be able to create and manufacture the ceramic bricks in an industrial

scale, also as a way to reduce costs. An argument to continue with a craft process would be to be able for citizens to be involved and influence the texture of the brick, and thereby leave a "fingerprint" in the library. How the bricks would be used in relation to a window could be further investigated, and maybe creating different versions of the brick dependent on the use. When it comes to the sustainability of the brick I believe the most questions thing is the glazing, containing strong chemicals. A second stage could investigate alternative glazing or other ways to add or change colours of the bricks. The engagement with the material have definitely influenced the final design of the project and made it easier to understand how the material will influence the final result. New technologies makes it possible to merge the technical with the material and I see a great value to use both, even if this project have been focusing on the material. To increase the investigation of the material when making a project makes it possible to create new expressions, coming closer to the sensory experience and moving away from just using standard elements. Creating something specific, made in relation to the expression of the material that makes it unique and could enhance an experienced connection with the material, creating presence.

MOVEMENT

Why should a movement be created within a library? The movement inside the building are to be used both as creation of shape, bending in (e.g fig. 11) and bending away (e.g fig 3) as well as a way to direct the visitor through the building (fig 5) that might help in way finding as seen in the concept explanation. Though this is not deeply explored. As stated in the references, a shape or sensation of movement would also influence the experience of space and the bricks created are enhancing the created shape. The movement inside the building have an ability to create the sensitive architecture I've been striving for, its form and texture has a sense of another world. The connection with the wood creates as warm contrast to the concrete shell. It is a movement but in the same time it could also be connected to a sense of an imaginary landscape. Something that fits very well in a library, maybe it could be considered an inspiring space or even make you dream. Further investigations about the treatment of the bricks surface, in texture or glaze could enhance the experience of the elements, creating differences that could create a wish to slow down and look closer. When moving in the space I've been striving for creating differences in contraction, e.g. from being squeezed between walls in the staircase to opening up, looking out in the atrium (seen on illustration on Concept). Differences in perception might enhance a feeling of presence. The fragmentation of the space, creates different experiences

when visiting the building. There is a main staircase but the building also gives possibilities to different directions, a freedom in movement. The fragmentation of slabs creates different roof heights, and different qualities of spaces. That have aimed too in relation to the activity based program create different qualities of space to support different activities and sensations. May it be too support movement or create a place to stay, as the contemplation corners to support reflection. The non flat floors created, in the play cape and area leading to the contemplation corner on floor 3 are elements that would require you to be present, to mind your step and maybe inspire to movement.

THE LIBRARY

As for the question of finding an alternative scenario for the future of libraries, it seems like both the government, and the developments of libraries in Malmö see the importance of the library as a place. The open interpretation in the program, as the browsing gives space for a flexibility of change in media. Also finding ways for contemplation in a segregated society, that are not your home could be an important aspect for the library. Functions added in the program, the exhibition and the creative space gives possibilities for people to create and share own stories. The creative space could also be a sustainable aspect in the ability to borrow tools and fix things. As earlier mentioned the idea with the

library is not to neglect its ability to expand digitally but to explore an importance of it as a place in the city with a highlight of architecture ability to create presence, to connect to our senses and materiality. The use of clay in the library also connects to a material aspect in how we are and have been keeping stories and knowledge in history.

As a criticism towards the project, the library is still in some ways similar to contemporary libraries. Further investigations about how and for what the library are used for today could have created a deeper understanding of its current use and needs. Maybe creating a possibility to look further into the future. Though the program of the library have not been the main focus of the project, but used as a test bed for exploring sensitive architecture. Therefore I believe the investigations have been done in such a way that it gives an insight in the use of libraries in the future that have influenced the program and design. While still giving space and time for the exploration of movement and the use of clay within the project, which have been the main focus of the project. The discussion of the creating of place has not been deeply explored but hopefully the project could open up for a reflection about place and space in relation to a technological world.

CONCLUSION

To conclude the process of using craftsmanship helped me to come closer to the materials in the process and created a sensation of movement inside the building. The project is still in a conceptual phase, and further investigations would be needed to make it realizable. Example given to put the bricks into use or further investigations in the relationship of the new design and the existing building. The library have been designed to create different spatial qualities that could support its activities that are supported by the ceramic movement inside the building. The enhancing of the textural/material and the movement in connection to the place could support a creation of presence.

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Thank you!