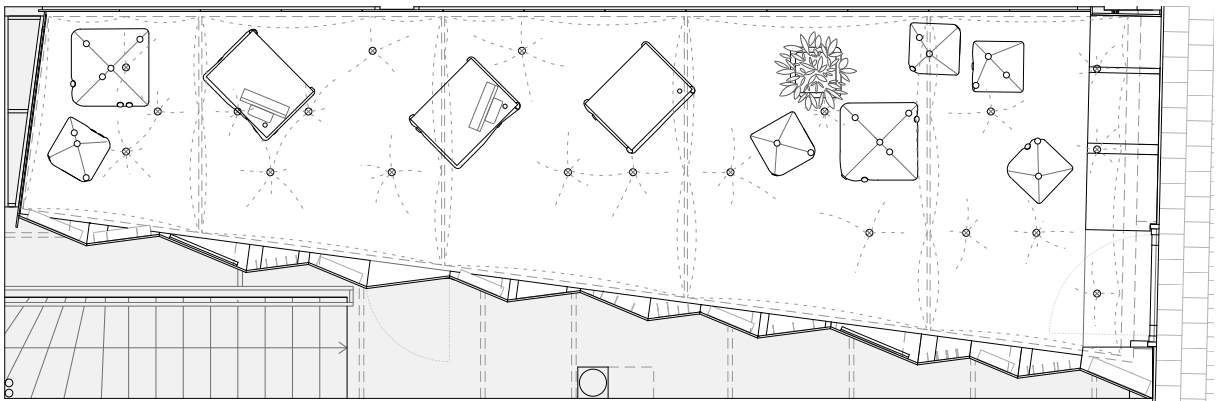


ARCHITECTURE AS DISPLAY





CHALMERS
UNIVERSITY OF TECHNOLOGY

MARTINA VESIK · MASTER'S THESIS IN ARCHITECTURE · MASTER STUDIO MATTER SPACE STRUCTURE
EXAMINER MORTEN LUND · SUPERVISOR DANIEL NORELL · SPRING 2013

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ABSTRACT

By making furniture or interior design, architects have through time been able to experiment and realize their designs at a much faster pace than with buildings. Through close collaboration with the carpentry firm Snöstorps Snickerfabrik, I have been working with real scale prototypes and details through the conception and fabrication of a store interior.

The main purpose for retail architecture is to display products and to assist the interaction between customers and shop assistants. What can architecture do to make the products more attractive and to reduce the visual noise often seen in stores with different kinds of products? How custom-made or similar should the architecture be if the store would multiply into a chain and spread to other cities?

This master thesis is about the making of a telecom store interior, from idea to a finished 1:1 scale "prototype". Intensive investigations regarding product display have been carried out and form-finding studies were conducted regarding display areas, furniture, ceiling and graphics. In order to appreciate the complexity of the realization of a project, these investigations covered the whole production and assembly process.

MAIN QUESTIONS

A PREDEFINED SPACE

-How to add objects to a predefined, unique space in order to create a flow, define spaces and to make a clear and interesting profile for the brand?

DISPLAY

-How to work with the method of display to clarify products and increase the demand to buy them? How do areas like museums and exhibitions use display?

SENSES AND MATERIALS

-How to work with materials to evoke different feelings in customers and to create an experience which is not common in telecom stores at this point of time?

CONSTRUCTION PHASE

-How does complex geometry and site built design affect the production? How can I as an architect affect and learn from the production by being fully involved in it?

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PHOTO THOMAS BERGH

**INVESTIGATIONS
CONCEPT**

DISPLAY

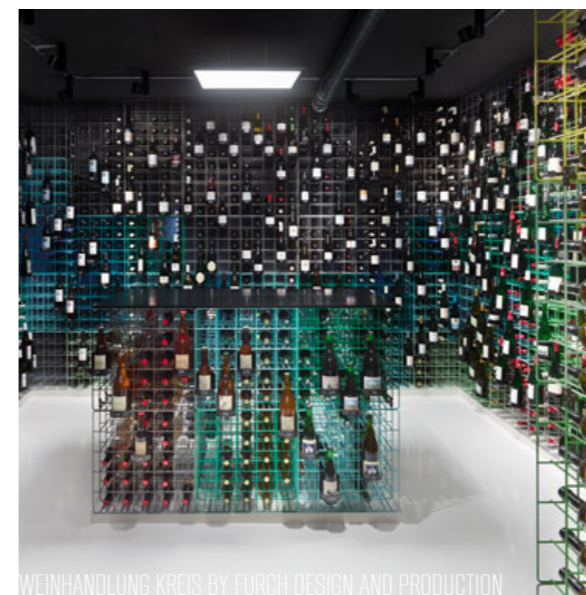
When referring to the word *display* in this master thesis, it is not about the cell phone display, but rather the way of displaying products in stores, art in galleries, objects in museums or even fishes in aquariums. The display can highlight and put focus on one object to make it look precious, or involve many objects which together will create a pattern or a colour scheme, e.g. vegetables in a fruit stand.

Display is also closely linked to the viewers' movement and their experience of the display space, since this might affect the perception of the things being displayed. At the V.C. Morris Gift Shop by Frank Lloyd Wright visitors would see all the sides of the displayed china and glass when entering the shop due to the ascending, spiral ramp leading them down to the store space. In the image at the adjacent page with the aquarium, visitors could both see the fishes (the objects displayed), but also more visitors on the other side of the water tank. The water and the lighting alternates the perception of them, with the result of visitors almost becoming display objects themselves.

The Prada Epicenter in New York by OMA is thought not only as an exclusive boutique, but also as a public space, a gallery, a performance space and a laboratory. The shopping experience is "not one of impoverishment, but of enrichment".¹ Clothes are not the only thing being displayed, but also films, performances and lectures which will make the store seem more "intellectual" and provide visitors with other experiences than just looking at and buying clothes.

To get inspiration and ideas for creating a store interior, I have researched *display* by making study visits to museums, galleries, shops and warehouses. I have also investigated some reference architecture projects and gone to Stockholm Furniture and Light Fair – not only to get inspiration from furniture and interior design, but also to see in what ways the different stands displayed products.

¹ OMA [16 December 2001]. Prada New York: [online]. Available from: <http://www.oma.eu/projects/2001/prada-new-york> [Accessed 25 January 2013].



CLIENTS

MORE THAN PHONES - A TELECOM RETAIL STORE

The telecom market is harsh with high concurrence. Most telecom stores in Sweden are from one network operator with their own subscriptions and deals, but there are also a few offering all operators. Even though there are many actors on the market, my client's business brief states some problems of today's telecom market which they aim to over-bridge.

Firstly, many customers do not feel satisfied when they realize what they actually ended up with after a visit to a cell phone store. The invoices became more expensive than they thought, they call half as much as they have paid for, or they would like to change their subscription but they just do not want to wait in the long customer service telephone line to do it.

This is where "More Than Phones" will find their way into the telecom market. It is not about convincing people into buying something that they do not need, but finding out the need at first hand and to offer a tailored solution to the customer. As a customer, it is not always easy to know what phone you want, how much you call for or how much gigabytes you surf for. More Than Phone's aim is to build an honest and reliable brand where fine service is valid higher than the cheapest price and where professional sellers guide the customer into finding the right equipment for him/her.

Their main objectives are:

- Customer-orientated
- Expertise and extraordinary service
- Professional but still down-to-earth atmosphere
- Reconnection to see if the customer is satisfied after a couple of weeks

They will not be the cheapest on the market, but compared to e.g. Telia, they will provide more network operators and choices, and compared to e.g. The Phone House, they will provide more personal service. I suggest using cross programming to distinguish themselves and live up to the name "More Than Phones".

This project will be the first store in what hopefully will become a new telecom retail chain.

PROGRAM

- Display for 10-20 cell phones, ca 6 high end cell phones
- Display for tablets
- Display for home phone products, broadband, cell phone equipment
- 3 sales counters with 2 computers and possibilities to write

THE ENTREPRENEURS

MIKAEL MICHEL

Has both worked as a seller and been sales manager for Telenor. 28 years old. I have known Mikael since high school, and he was the one asking me if I had any ideas for his and his friends' new business.

VAHID PIRJANI

Has won several sales competitions and been sales manager for a Telenor shop-in-shop. 29 years old.

DANIEL GUSTAFSSON

Manager.

A dedicated entrepreneur who has been regional manager of Telenor for 2,5 years and also runs his own e-business. 25 years old.

The cooperation between me and the three young men has been very fun and interesting. It has been exiting to develop new ideas around the business and they have given me a lot of freedom when it has come to the design, concepts, materials etc. I have gotten input about selling and how they work by talking to them and we have had close contact through informal meetings, phone calls, text messages and emails.



MIKAEL MICHEL, VAHID PIRJANI & DANIEL GUSTAFSSON

STUDY VISITS

TELECOM STORES

I made visits to telecom stores in Gothenburg for inspiration and to be able to compare them through discussions with the clients – in order to get a feeling of what architectural expression they were looking for.

Overall I find the stores quite similar with slatwalls for products along the walls, identity colours through the interior and products divided into themes. Some feel more "high-class" and some feel "cheaper", some more high-tech and some more cozy and home-like with e.g. wood and curtains.

What I found most interesting was the different ways a customer meets the seller. Phone Family has a large table to stand around or sit down at, Telia has small sales counters spread out in the store and Tele2 has one big sales desk where people wait in a line. When discussing with More Than Phones, we all preferred the small desks that feel more personal and allows for having a conversation with the customer and are easy to move around. As for colours, we thought that vivid colours like red or orange gives the impression of "sale" and being cheap. Tactile materials such as wood and textile felt more honest and professional. More Than Phones decided that their brand colour should be the same nuance like a noble metal, i.e. "gold".

We also thought it was important that the customers could move around freely to see and feel the products themselves, not feeling pushed to buy by sellers.



FURNITURE FAIR & MUSEUMS

I also made study visits to other areas where display is used part from retail. At the Furniture and Light Fair in Stockholm I was inspired by materiality, trends and exhibition stands. There were e.g. a lot of pure materials, especially light, raw wood, often in contrast to textiles and plants. I saw some material innovations, like a table made from old skateboards and I was very inspired by a large and welcoming seating furniture with an integrated tree.

At the exhibition "A day in life" at Världskulturmuseet in Gothenburg, some walls were painted orange which gave a nice accentuating colour to the concrete walls. Spotlights illuminated the pictures, in other case it was pretty dark and relaxing in the room. The photos were displayed as large prints on the walls with explaining text, on the floor as a map, on screens looping different pictures and as collages. They were hung on the walls or glued to the floor. I enjoyed the large format of the prints and the many different ways of displaying them.

Fotografiska had dedicated the whole exhibition space to David La Chapelle's photos and movies. The large rooms were scaled down with some U-shaped niches, the photos were mainly hanging side by side in a regular pattern creating a feeling of solemnity and the exhibition continued all the way up and into the restaurant on the top floor. Also here the lighting was spot on leaving the rest of the room calm and intimate.

The spring exhibition at Liljevalchs Arts Museum contained pieces from a lot of different artists. Paintings hung on the wall while sculptures were standing in the middle of the floor. There were many rooms linked together creating a path through the building. Roof top windows and good illumination gave the impression of being in a light and fresh space.

My main conclusion from visiting museums is that the muted colours of the exhibition spaces themselves, together with spot-on lighting let the art works pop out and be the main focus for the visitor.



FOTOGRAFISKA (DAVID LA CHAPELLE EXHIBITION)



VÄRLDSKULTURMUSEET (A DAY IN LIFE EXHIBITION)



LILJEVALCHS KONSTGALLERI (SILVARSALONGEN)



TABLE MADE OF OLD SKATEBOARDS (BY FREDRIK ANDERSSON)



STOCKHOLM FURNITURE FAIR



STOCKHOLM FURNITURE FAIR

MUSEUMS IN DENMARK

I took a trip to Denmark to visit the newly opened aquarium "Den Blå Planet" by 3XN. Here I was especially inspired by lighting and optical effects made from the water, but also from moving around in the rooms that in plan were organized like flower petals in a nautical swirl.

At Louisiana Museum of Modern Art I was fascinated by Tara Donovan's complex structures made from repeating simple elements and how having just one of these sculptures in one room could be breathtaking. I also liked the graphical cleanliness of the signs explaining the art works, and the museum's connection to nature.

When walking around and looking at things, either if it is fishes, paintings or furniture, no matter if you are old or a child, everybody appreciates a place to easily sit down and rest for a while. This somehow obvious conclusion was transformed into one of the main design components in my project.



CONTEXT

SMEDJEGATAN 15, JÖNKÖPING

The locale for the first More Than Phones store is situated at a pedestrian shopping street in the middle of Jönköping, Sweden. It is included in a building with offices and other shops like: Tre, Noa Noa and Stadium. Most surrounding streets are also pedestrian with public functions at street level, together creating a nice atmosphere for strolling around the streets in the city center. It is a five minutes walk to the travel center with trains and buses and there are three parking garages near by.

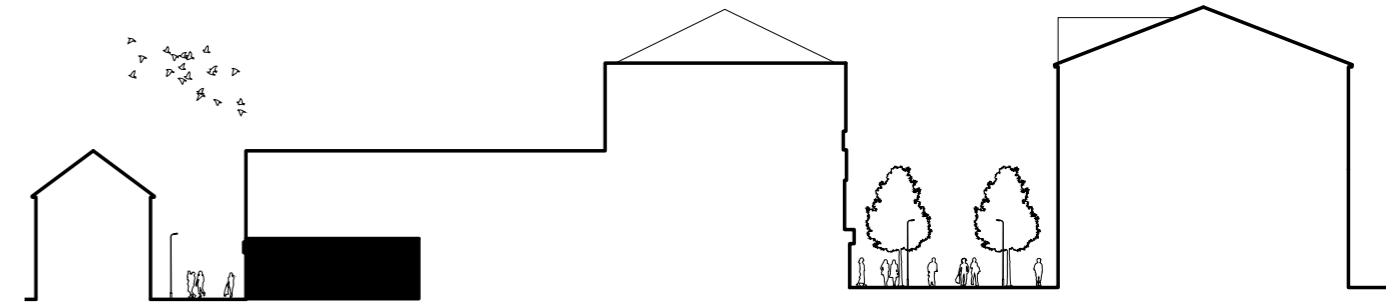
The store contains one space of 45m² at street level with storage and staff spaces in the basement underneath. This project is mainly focused on the entrance floor which is a very long and narrow space with one of the short sides being fully glassed towards the street.

It is not allowed to either stick anything to the shop windows or to place objects on the street outside the store, even though it is common that shops in the neighbourhood to attract customers.

A problem with the city center of Jönköping is that a big shopping mall – A6 – draws a lot of customers from the city center, in spite of the fact that the city center is close to a park, the sea and has a small town scale which is nice for walking. Since Sweden does not have suitable weather for strolling around town all year around, shopping malls can seem practical even though they tend to kill the street life in the city centers.

To be able to attract customers, stores in the city center need to distinguish themselves from the shopping mall and offer something unique and extraordinary!

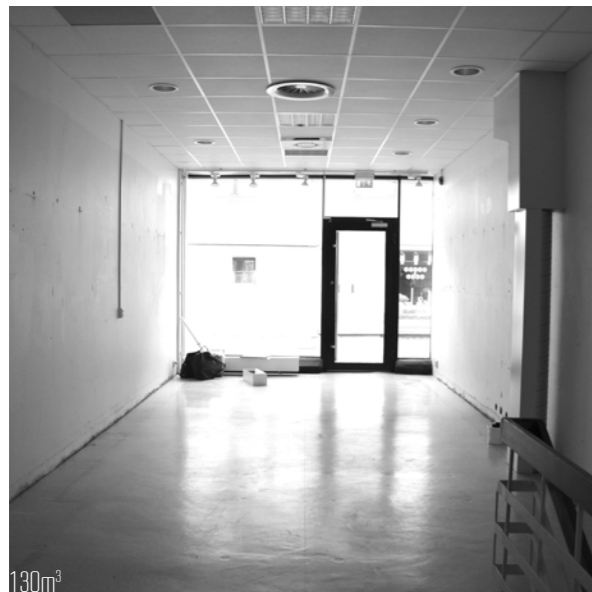
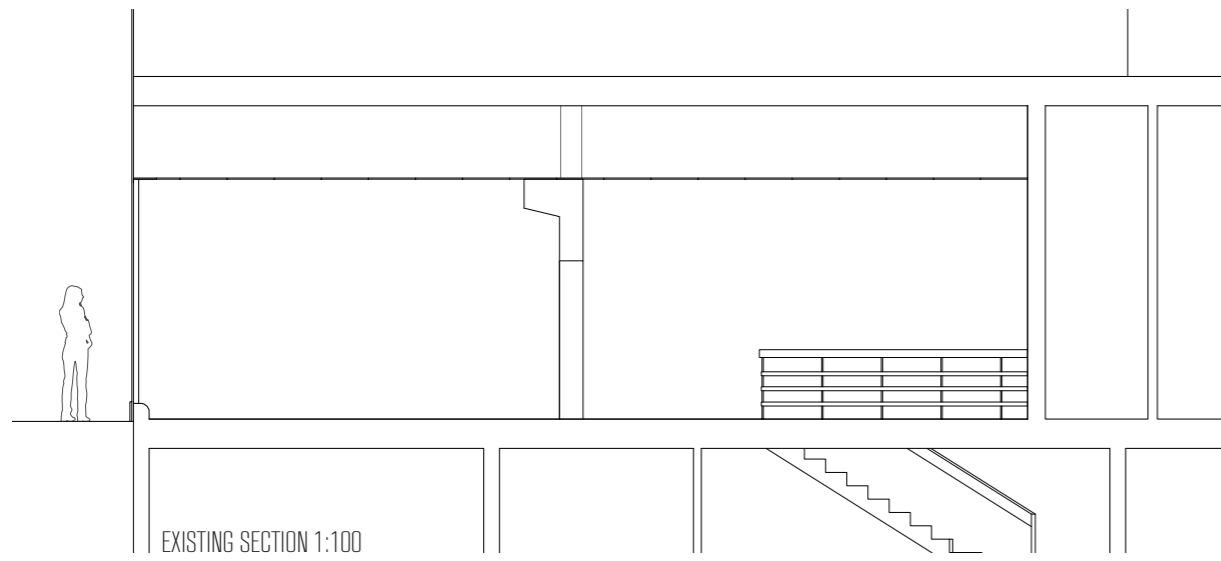
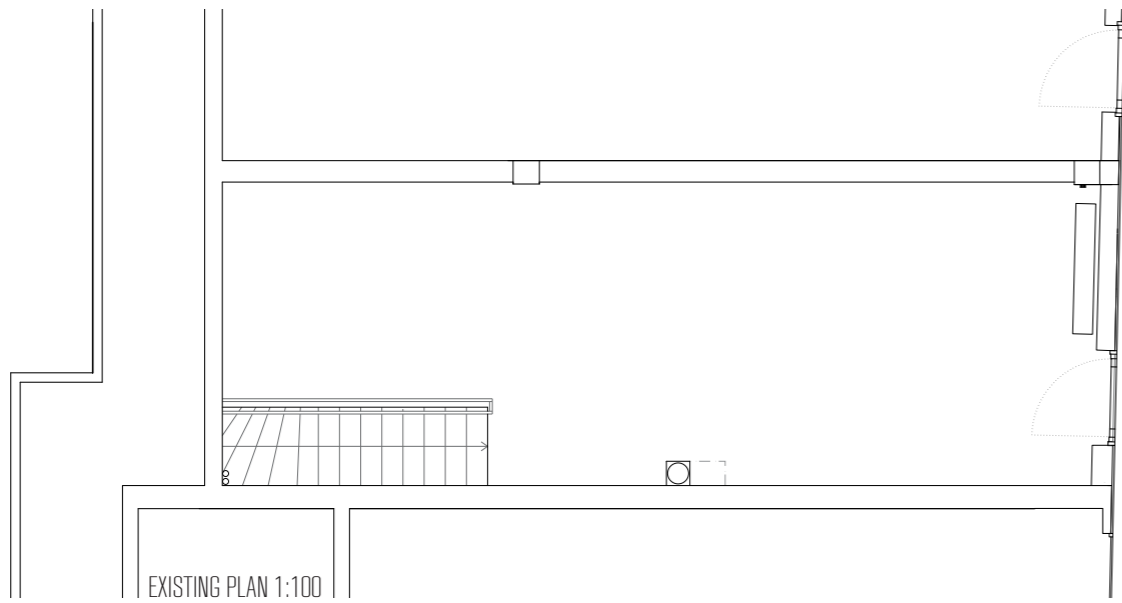




SECTION A-A 1:500



SMEDJEGATAN SEEN FROM BORGMÄSTARGRÄND



FIRST IDEAS

This is a photograph from the site at my first visit when it housed a store for health products. I found it quite visually noisy and tiring since there were no focus points or hierarchy among the products. The hotchpotch of products could give customers a feeling that this is a place where you can buy something cheap and make a good deal, but they probably do not feel very attracted or intrigued to enter by looking through the shop window.

My first thoughts when seeing the space was that instead of placing a sales counter, some shelves and other furniture together and filling them up with products, I wanted to work with pure architecture and one kind of furniture. I also thought about creating a bigger order/whole, lessen the noise and provide for more space in order to create a more professional feeling. Customers should feel intrigued and invited!



CONCEPTS

CUSTOMERS

Telecom retail stores do not just sell products, but also services, which makes the meeting between the seller and the customer a very important and interesting point to direct. For More Than Phones, this meeting is meant to feel relaxed but still professional and trustworthy. It should be more man-to-man than standing in line in front of a sales counter waiting to pay.

From discussions with the client and understanding of how they work, I propose three smaller sales counters with space for a computer screen and a space to write on. It should be possible to stand on different sides of the sales counters while talking to the customer and to walk around in the store showing customers products easily. When it comes to customers, I have taken four different groups into consideration:

1. I KNOW WHAT I WANT AND I WANT IT NOW

This is the person who want to enter the store, directly find what he is looking for and pay for it.

– If the layout of the store is too complicated or if the products are "hidden", he might get restless and go to another store.

2. STROLLING AROUND TOWN

This is a flaneur who is not really out to buy something but wants to look at the city life having all the time in the world.

– With an interesting shop design, he might get curious and enters the store. He would not say "no" to a cup of coffee and could be persuaded into buying something once inside the shop.

3. SHOPPING AS A HOBBY

In the western world of today, most of us do not have any hard core needs, like hunting for food which takes a lot of time to satisfy. So we make up new needs. One of these "needs" is shopping. For many people, buying gives satisfaction and it makes us feel good

since we convince ourselves that we bought something that we could not live without. It is a part of creating our lifestyle, satisfy our egos and showing others who we are or what group we want to belong to. It is about maximizing the value of our existence by making personal choices in a world of goods and services.

– Of course we like cheap prices, but we can also pay more if we believe we get more. Entering a store which speaks to all senses and builds up a lifestyle around the brand can give us an unforgettable experience which we are willing to pay for.

4. WAITING OR HEADING SOMEWHERE

This is the group of indirect shoppers who might want to kill some time while waiting either for the bus or a husband/wife strolling around for ages in a store which is not of the others interest.

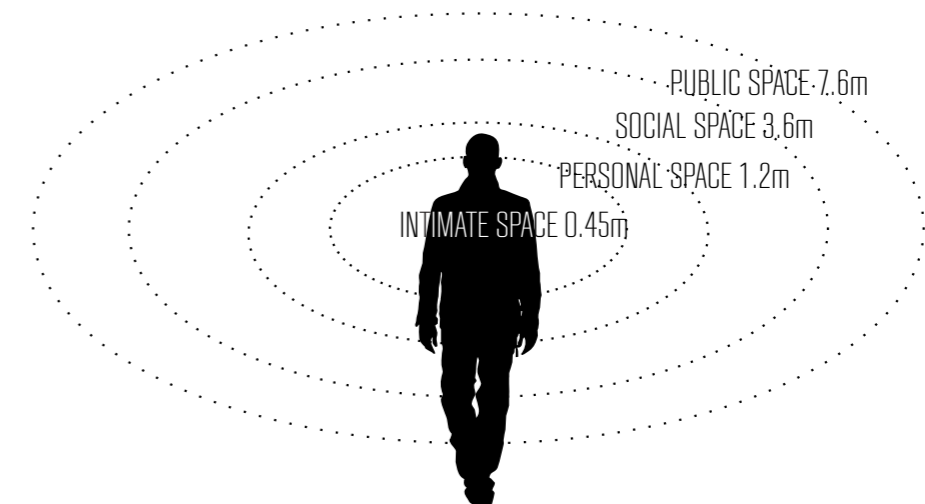
– Get people to enter by e.g. showing todays football game, offer them a cup of coffee, let them try out some new products or inform about what is going on in this town tonight etc.

ENTER AND FEEL COMFORTABLE

What is important is to make people enter the store, once inside the chance that they will buy something is big. Also, people attract people, so having many customers inside the store can enhance selling.

To think about how customers move around in the store is also of big interest. Edward T. Hall's theories about "the hidden dimension" deals with social dimensions/distances to other people and how we experience them. As a customer, you should feel that you have enough space to stroll around the store without being "caught" in any corners or trapped. I suggest that the meeting distance between seller and buyer should be between the "social -" and "personal space" for the customer to feel comfortable.¹

¹ Hall, Edward T. 1990. *The Hidden Dimension*. New York: Anchor Books.



EDWARD T. HALL THEORY ABOUT THE HIDDEN DIMENSION

LIVING ROOM + WHITE SPACE

Customers should dare to step into the store and feel relaxed while inside, not having the feeling that they must buy something, but curious to see what is offered. To distinguish themselves from other telecom stores, More Than Phones ought to provide something unexpected within the shop. I propose a commerce free zone, like a living room, where customers can have a cup of tea or coffee and get the possibility to try products and learn more about the ones they already have without feeling that they have to spend a lot of money.

THE LIVING ROOM

The living room is the place at home for relaxation and meetings between family and friends with stuffed furniture and technology as a link to the other world through radio or television. The cell phones are more than phones today, they are our link connecting us to the Internet and by that news, entertainment, communication etc, just like the phone, the radio and the TV together has done before. A commerce free zone drawing the thoughts to something recognizable as a living room could make customers relaxed and curious about both entering the store and to stay for a while.

THE WHITE SPACE

Instead of trying to catch the attention of the eye by e.g. adding more colour, more information or larger objects in marketing, white space is a way of getting attention by reducing objects in one place leaving blank space behind. By working with contrast the receptor gets time to breathe and process information before continuing to take in more. Many stores are full of signs, commercials and information, what if they would be gathered, leaving more noiseless, harmonic space behind where the customers will get a chance to breathe and possibility to actually take in the information that we want them to understand?

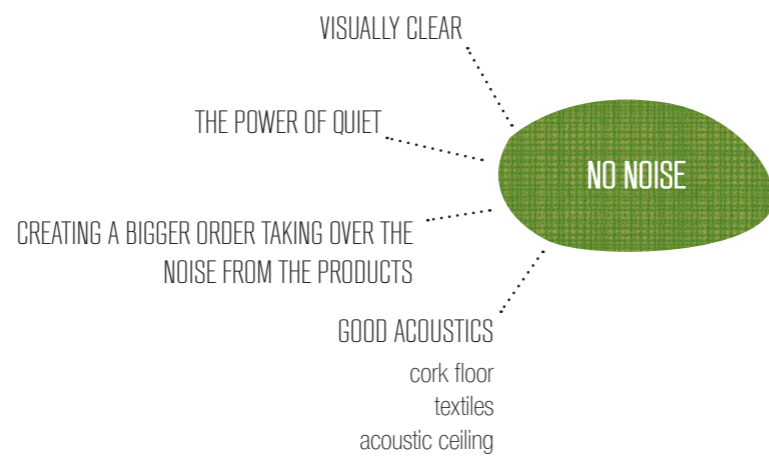
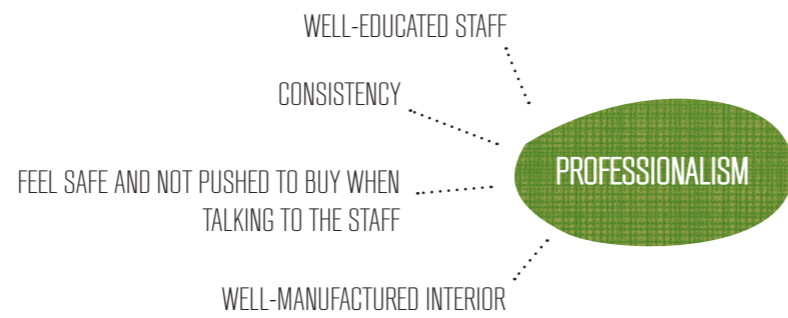
PROBLEM:
PEOPLE DO NOT DARE TO STEP INTO
A TELECOM STORE BECAUSE THEY
FEEL UNEASY AND PUSHED TO BUY
SOMETHING



PROBLEM:
IF YOU ACTUALLY AIM TO BUY SOMETHING IN A
TELECOM STORE, THE WAITING LINE IS OFTEN
LONG AND THERE IS NOTHING TO DO WHILE
WAITING

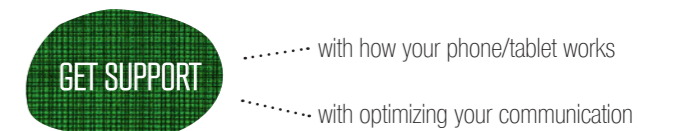
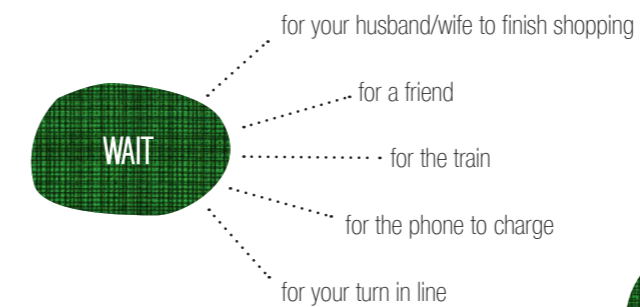
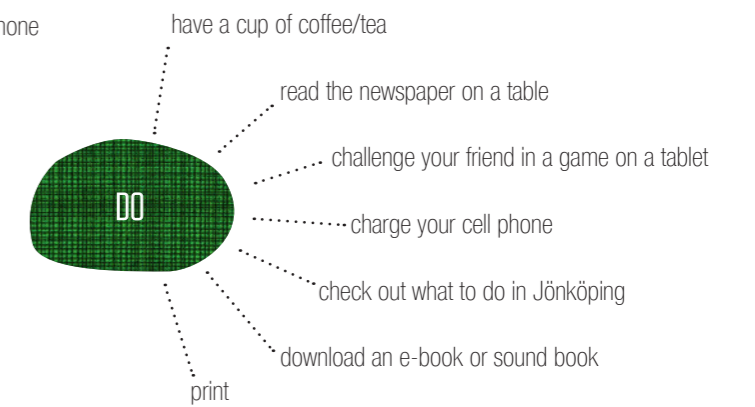
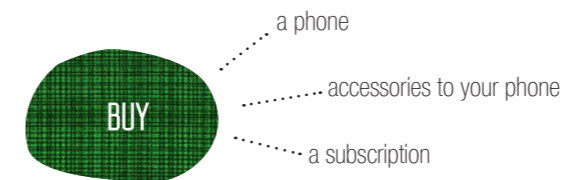
THE LIVING ROOM:
A RELAXED PLACE TO SOCIALIZE AROUND
STUFFED FURNITURE AND TECHNOLOGY.
- SOMETHING TO DO WHILE WAITING
- NOT PUSHED TO BUY





A COZY PLACE WHERE YOU CAN LEARN MORE ABOUT TECHNOLOGY

MANY REASONS FOR PEOPLE TO ENTER THE STORE



ARCHITECTURE + FURNITURE

From the study visits I especially found inspiration in where to put focus, like having soft light where people move and highlight the things displayed. It creates a calm environment and pulls your attention towards the objects.

In most museums the visitor is the one deciding where to go, how fast and for how long to look at what is being exhibited. It is not like a movie where the viewer is a passive spectator, instead the viewer is very active in his or her choices about what to look at. You might follow a path and it is often clear what is part of the exhibition and what is furniture where you can rest or take longer pauses while experiencing the exhibition. By being this clear, visitors can fully focus on the exhibition (or products when translated into a store). If the space does not show everything at once, but contain e.g. a structure that would be interesting to explore, people might walk further into the room wanting to discover more.

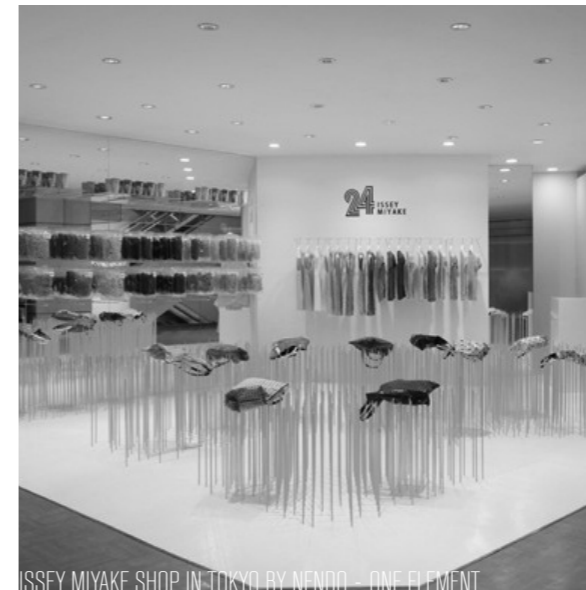
From looking at references of stores with unique, architectural interiors, I drew the conclusions that the ones feeling fresh and attractive often have a simple, clear conceptual idea. The interior is something different than shelves or desks, it is e.g. a coherent structure which is either additive or subtractive. It can be made from modules framing the objects displayed, new freestanding structures within the store, cut-outs from the walls or repeated objects creating a bigger whole. The products become framed and secondary in a way that makes the whole impression of the store clean and visually clear. To get this effect, my aim is to gather products within an architectural experience by working with few architectural elements and one kind of furniture.



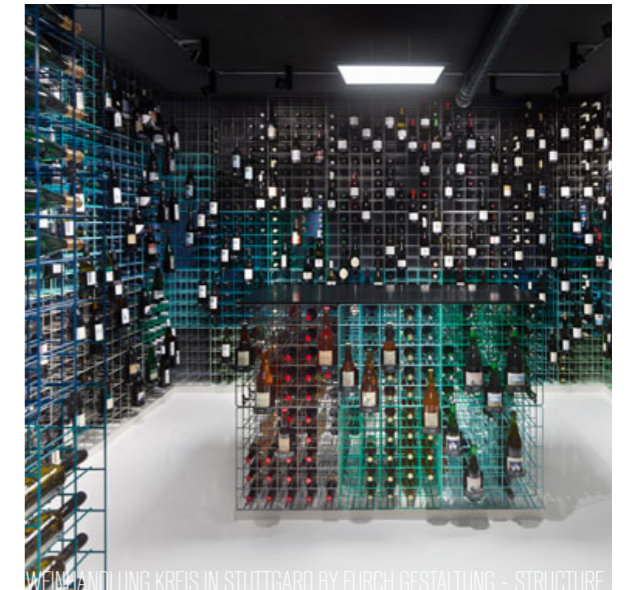
AESOP IN TOKYO BY TORAFU ARCHITECTS - CUT-OUTS



AESOP IN SAN FRANCISCO BY NADAAA - ADDITIVE FRAMING MODULES



ISSEY MIYAKE SHOP IN TOKYO BY NENDO - ONE ELEMENT



WEINHANDLUNG KREIS IN STUTTGART BY FIRCH GESTALTUNG - STRUCTURE

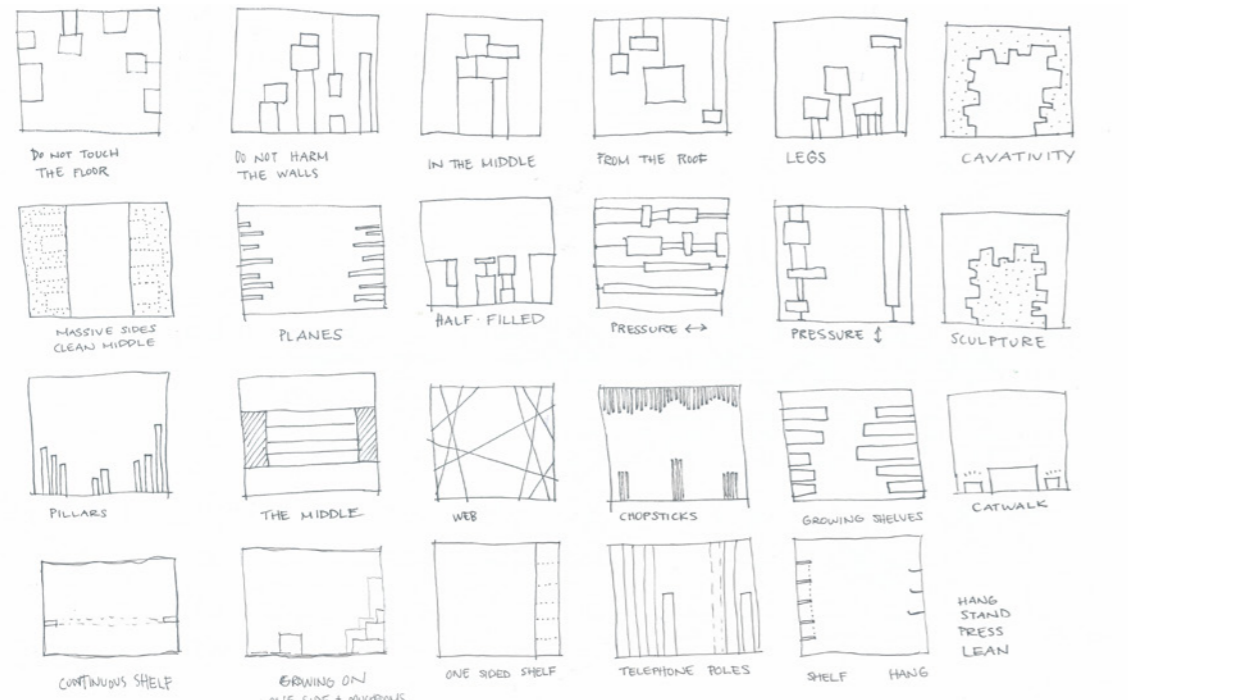


AESOP IN HONG KONG BY PHE UN VOGI - FRAMING ELEMENTS

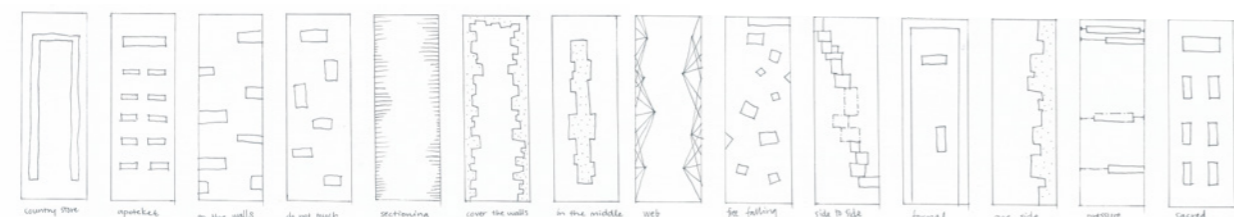


LUCIEN PELLAT-FINET IN OSAKA BY KENGO KUMA - STRUCTURE

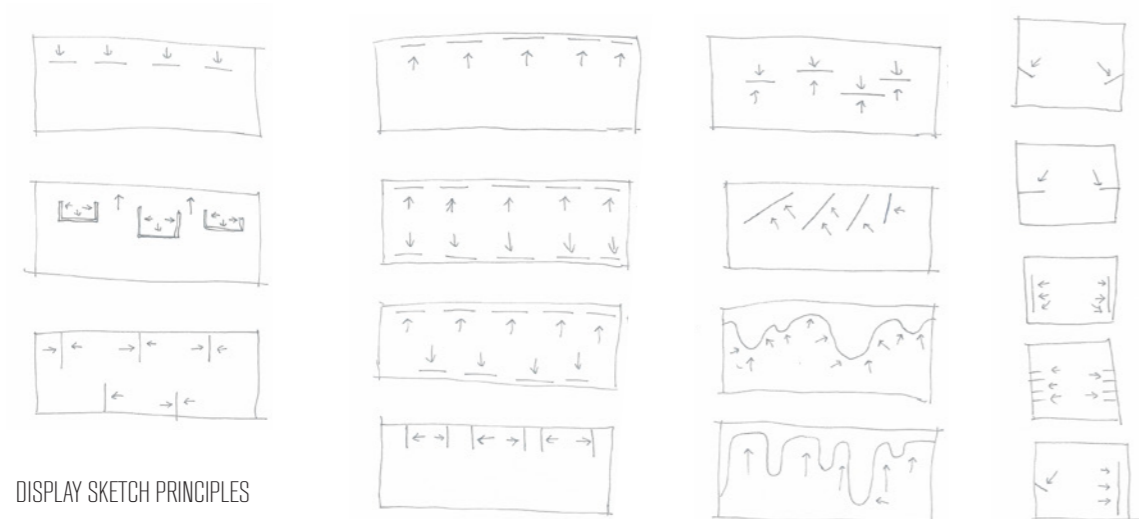
DESIGN PROCESS



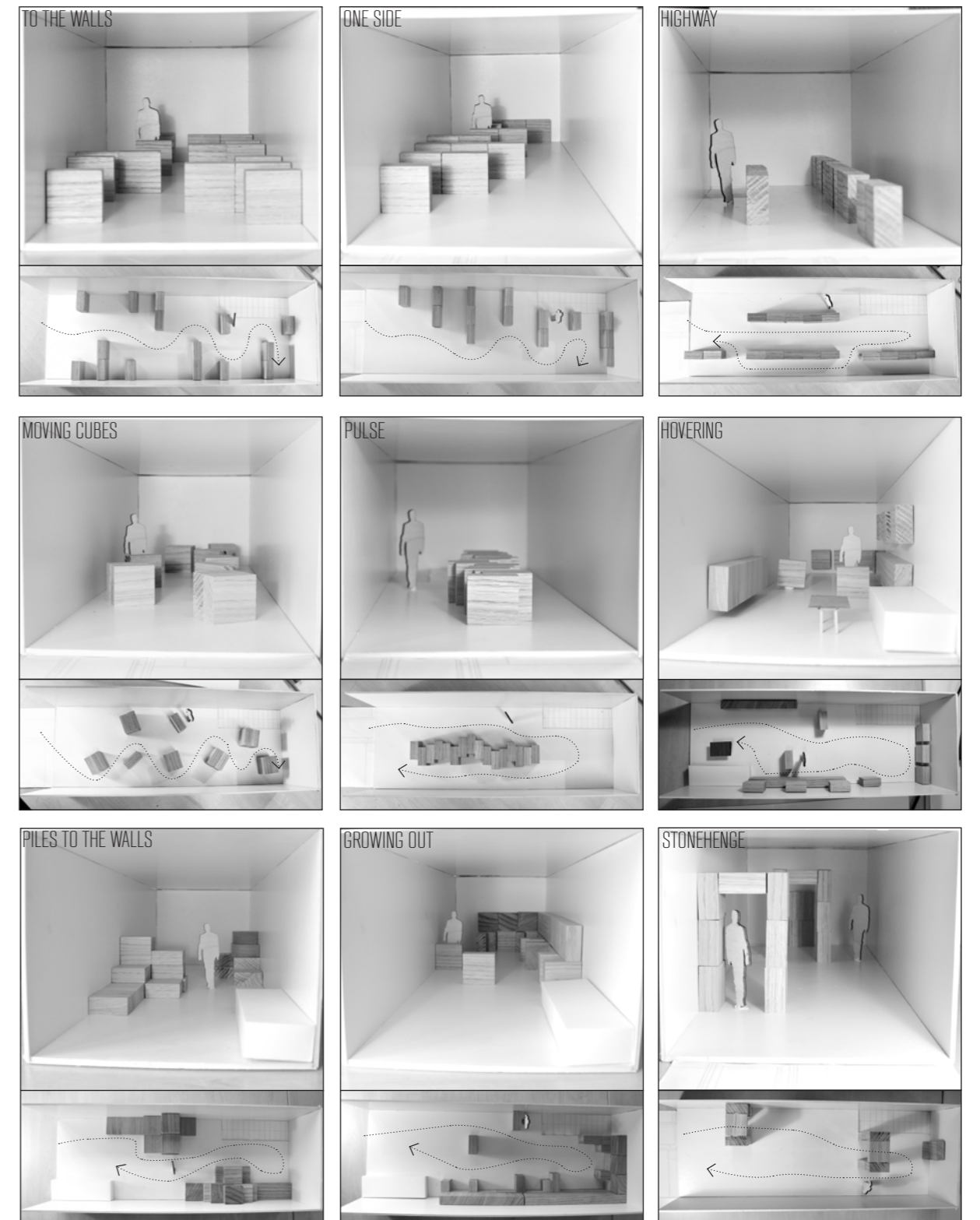
SECTION SKETCH PRINCIPLES



PLAN SKETCH PRINCIPLES



DISPLAY SKETCH PRINCIPLES



EARLY VOLUME STUDIES EXPLORING THE PREEXISTING SPACE

PULSATING BOXES

Boxes that could have shelves or slatwalls within them change in size, filling up two walls of the store. Two sales counters are free-standing. Some boxes can be used as furniture to sit on, others for storage or sales counter.

+
Low furniture at the front and high at the back gives an overview of the store.
The products could easily be divided into themes.

-
The products are small and some of the shelves would probably be too deep to be usable.
The stair down to the storage space is visible.
It's tricky to place the sales desks.
Not much display space for cell phones close to the shop window.

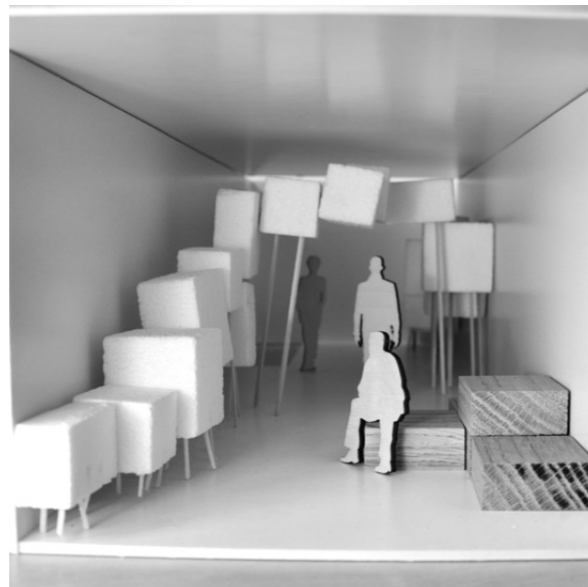


SIDE TO SIDE CENTIPEDE

Cubes with legs containing products or displaying them on top are attached to each other and grows from one side of the store to the other.

+
I like the playful shape of the boxes with "legs".
Customers could feel intrigued to follow the shape further into the room.
The structure could allow for quite much storage and display space.
This is not an usual telecom store.

-
Hard to get the display space in eye-level.
Tricky to construct?
The stair takes up floor space and is a distracting element.

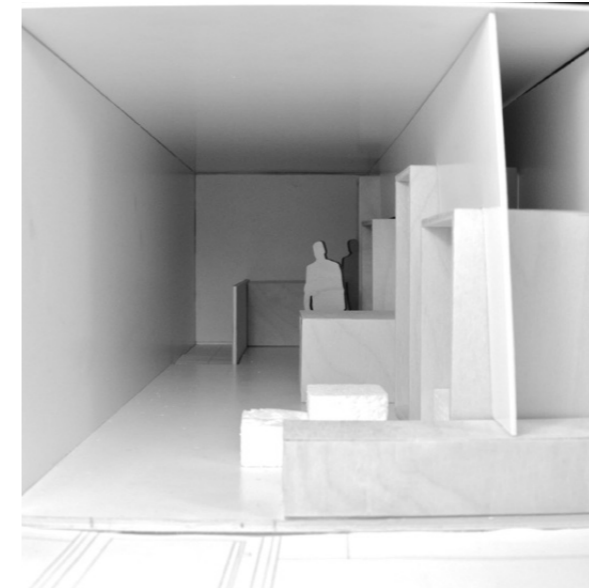


WALL WITH CAVITIES

The idea is to gather all products on one side and "hide" them in boxes that can be entered. A new wall cut the space leaving room for storage or a place to hide electrical connections behind it.

+
The boxes or "caves" should be places to explore and could have different themes or disorder inside, leaving the main space simple and visual clean.
The "section cut" towards the shop window could be developed into an interesting detail.

-
There is not much floor space left over.
The focus point when entering the store will be the stair down to the storage space.
There might be shop lifting problems when customers enters the not so visible "caves".



STRUCTURE WITH SHELVES

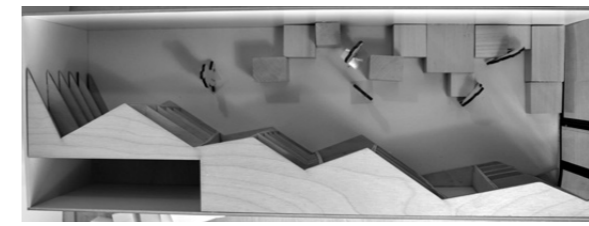
A floor-to-roof-structure covers one wall and hides the stair down to the basement. The structure is divided by V-shapes, which allows shelves of different lengths to be placed in the structure with just the force of gravity and friction holding them steady. I.e. there will not be any holes or holders distracting the eye from the structure itself and it is easy to rearrange the display space.

+
The stair is hidden!
The structure gives interesting view points depending on where customers are standing. It also allows for much display space.
The shop window is not covered and customers get a clear overview of the shop.

-
The shelving system would suit a store with larger products better.
It would be tricky to produce perfectly fitting shelves.
Is the space too narrow at the back of the store?

CONCLUSION

Hide the stair and view down to the basement behind a structure. Cell phones are small and do not need a lot of storage space (since the whole basement is storage). Contrasting objects can create an interesting tension. The space is well suited to have display towards one of the long walls.



DESIGN PROPOSAL

DESIGN

BIGGER ORDER - NO NOISE

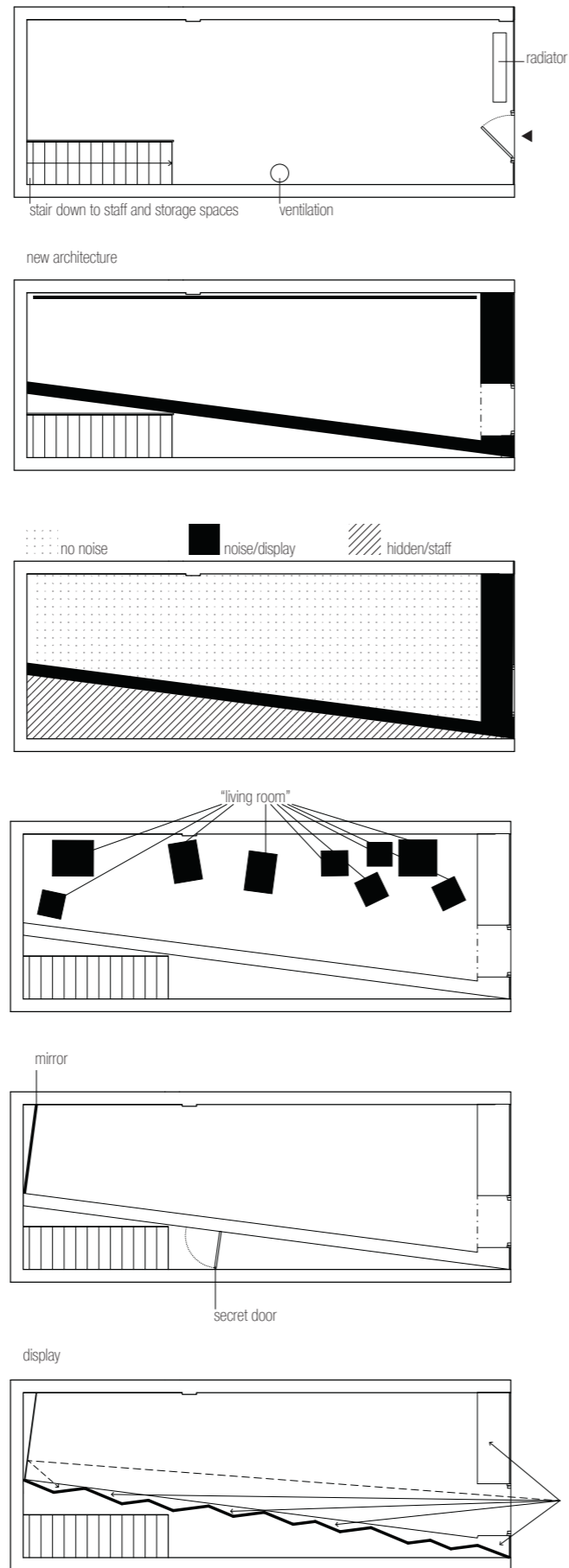
The stair and horizontal ventilation are hidden behind a new WALL cutting the space slightly diagonal. The wall contains a subtractive element – a horizontal GAP – where all products and marketing posters are gathered. The wall bends and becomes a new facade which hides a radiator and provides space for window display. Installations to built-in lights and chargers to cell phones are also hidden within the wall to decrease visual noise. The products are relatively small, so the depth of the wall does not need to be more than 300 mm which fits the narrowest side of the entrance door leaving more space to the LIVING ROOM.

The living room is soft, textile, informal, free-standing furniture contrasting to the sharp wall allowing to sit down and have a conversation, try a tablet or have a cup of coffee. The sales counters are also covered in textile to blend in with the living room and decrease the impression of being forced to buy something. The furniture could easily be rearranged for e.g. events.

The product display has different angles allowing different products being seen from different spots. A mirror at the back of the space makes an optical illusion that the space is longer and that it widens. It also makes it possible to get reflections from the high-end products further back in order to display them well.

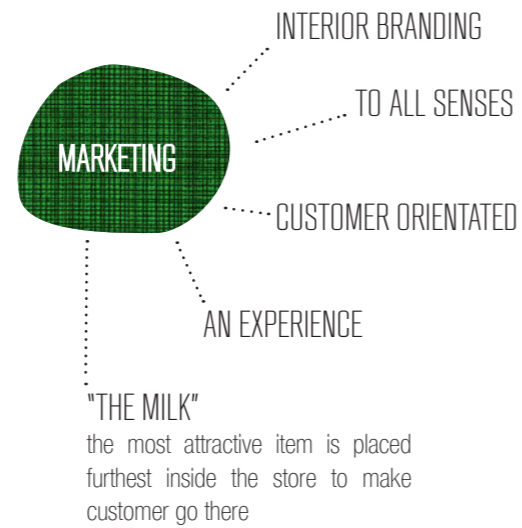
The design is divided into four components:

- ARCHITECTURE
- FURNITURE
- CEILING
- GRAPHICS



SENSES + MATERIALS

Today, a company not only needs to work with visual marketing, in order to be noticed and remember more senses than the sight ought to be attracted. Marketing on many levels and architectural qualities strengthens the company's identity, this can make the consumption experience worth more than the product itself.¹ A visit to More Than Phones should speak to more than the eyes to make the experience stronger and more pleasant.



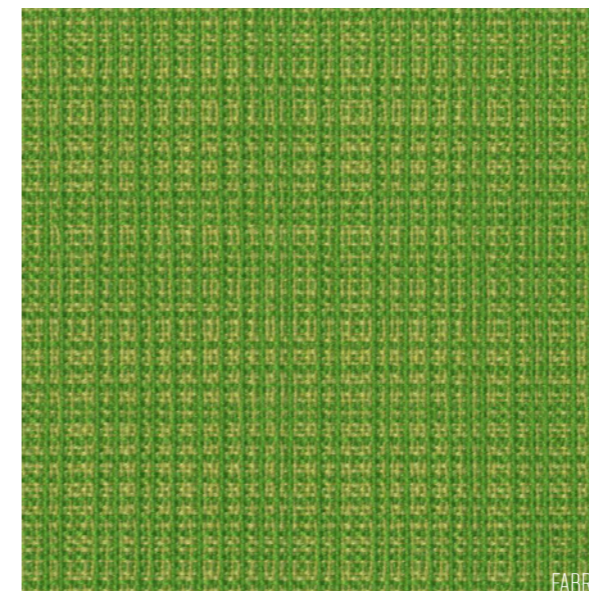
SIGHT A mirror in the store makes an optical illusion that the store is larger and contains more products.
The visual noise is gathered and thereby reduced.
Relaxed lighting.

HEARING The acoustic noise is dampened with cork flooring, fabrics, acoustic ceiling and cavities.
Good sound system for music.
Calm music makes people feel that waiting is shorter than when listening to fast music.

SMELL Natural materials - wood, cork.
Freshly brewed coffee gives a feeling of having a break and being social.
Oxygen from plants.

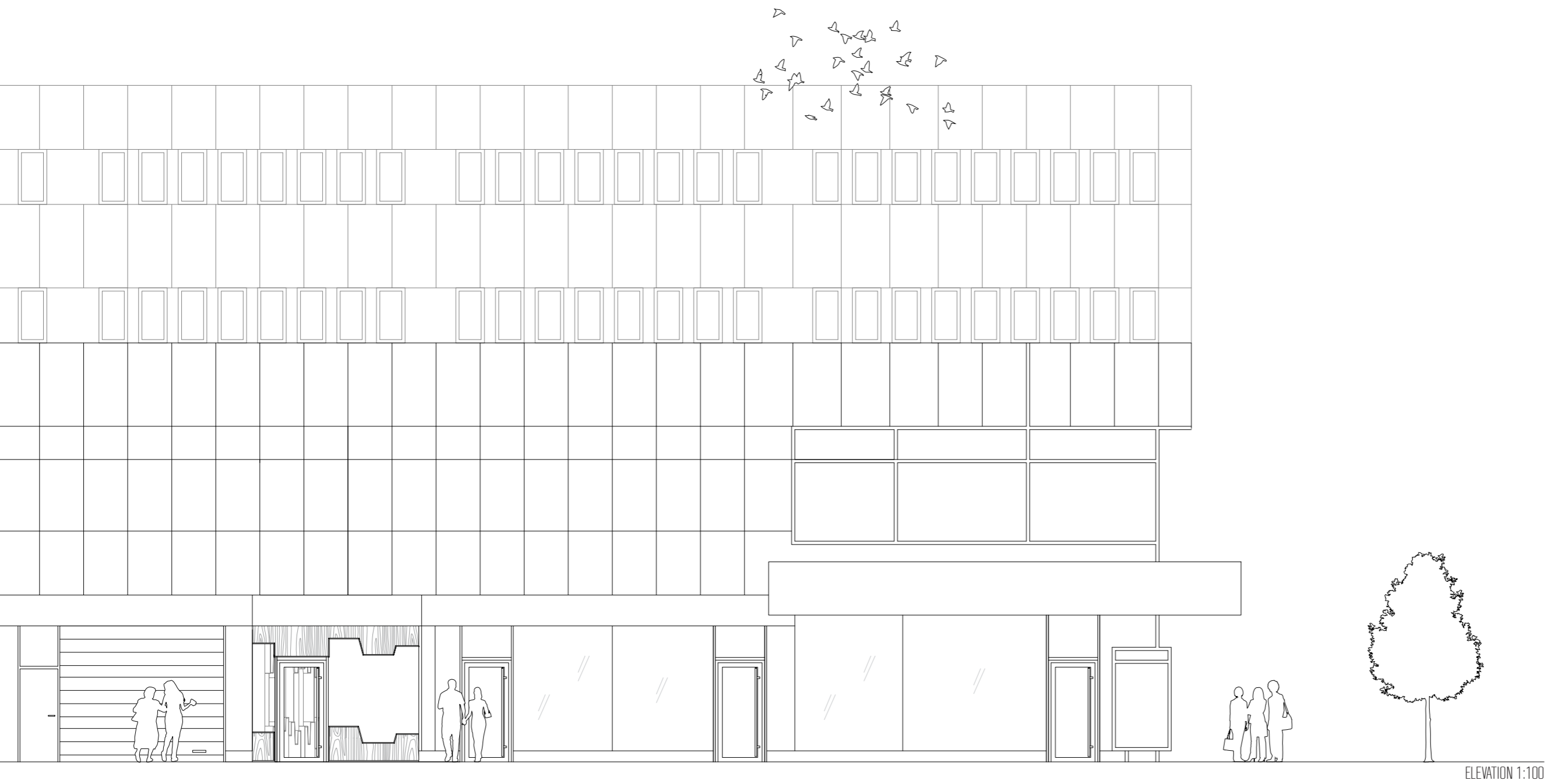
TOUCH Fabrics with texture and soft padding.
Wood with tactility.
Perfect corners and fittings for a professional feeling.
Quality and honesty in the materials.
Feel the products: "Try it before you buy it".
Cork flooring is soft to walk on.

TASTE Coffee/Tea.

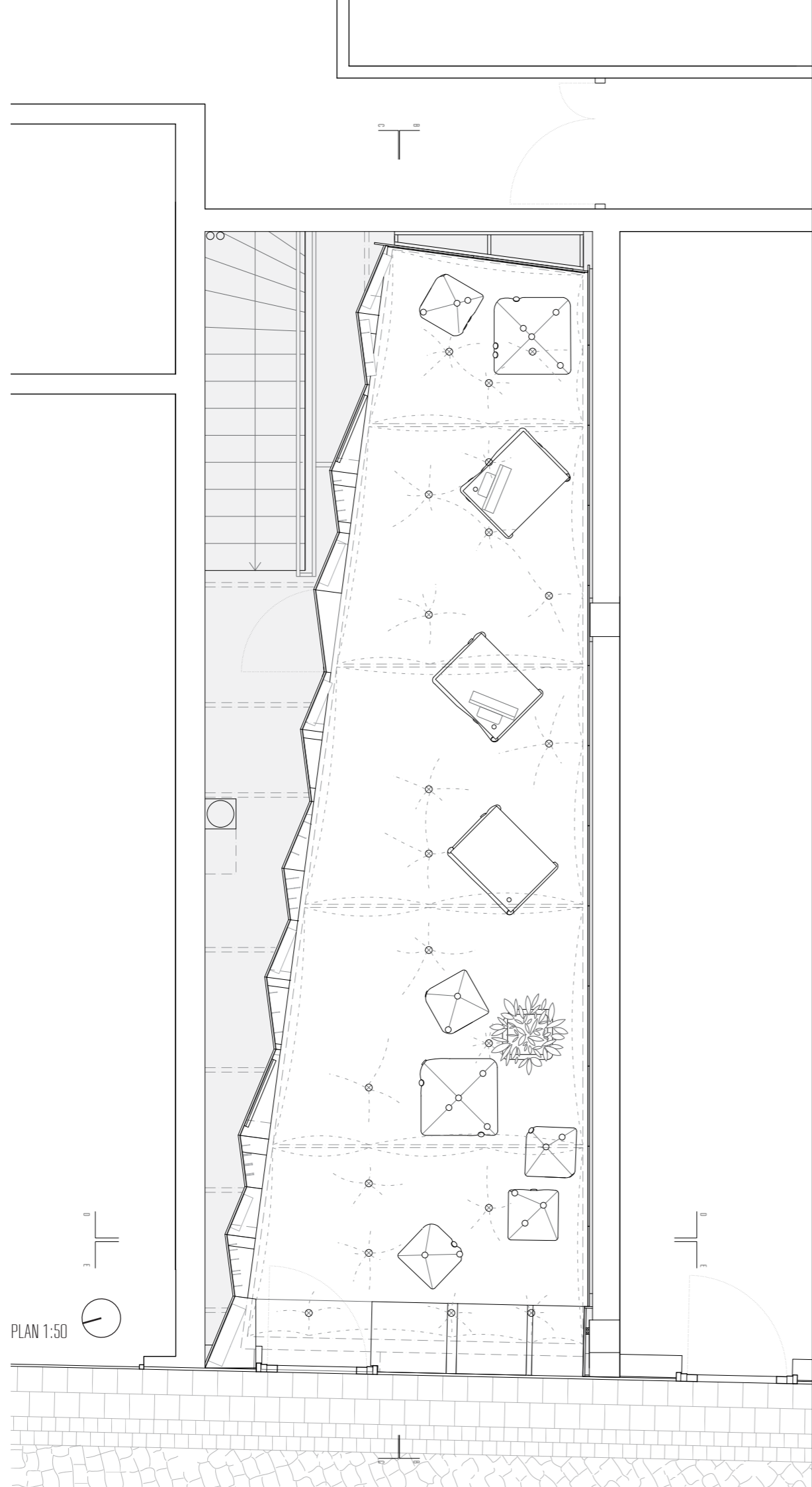


¹ Hultén, Bertil, Broweus, Niklas, van Dijk, Marcus. 2008. *Sinnesmarknadstöring*. Malmö: Liber AB.

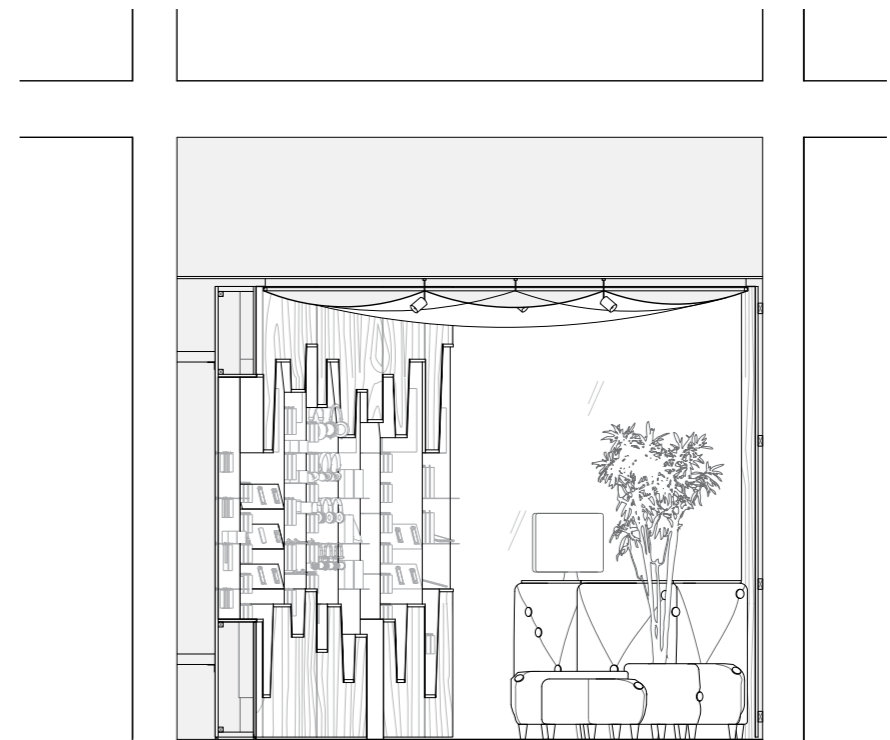
DRAWINGS



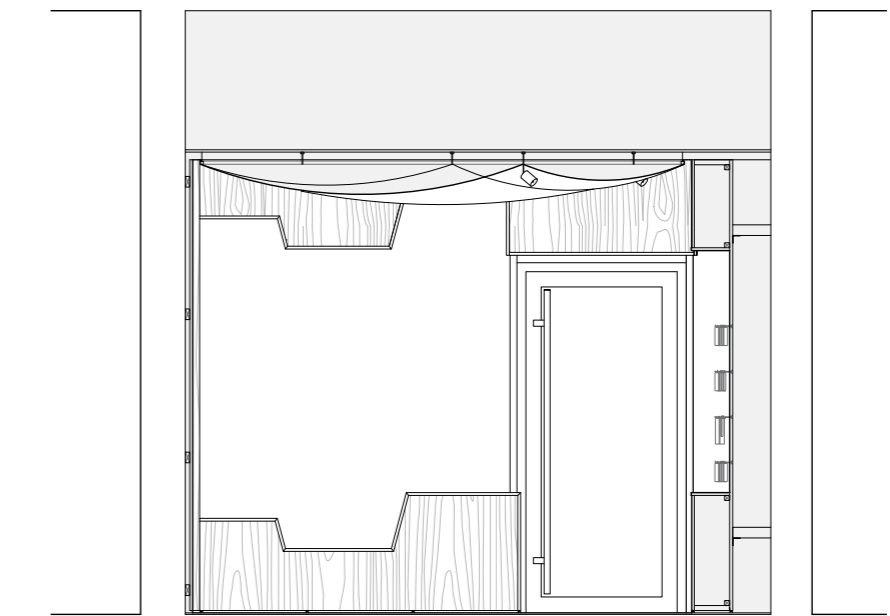
ELEVATION 1:100



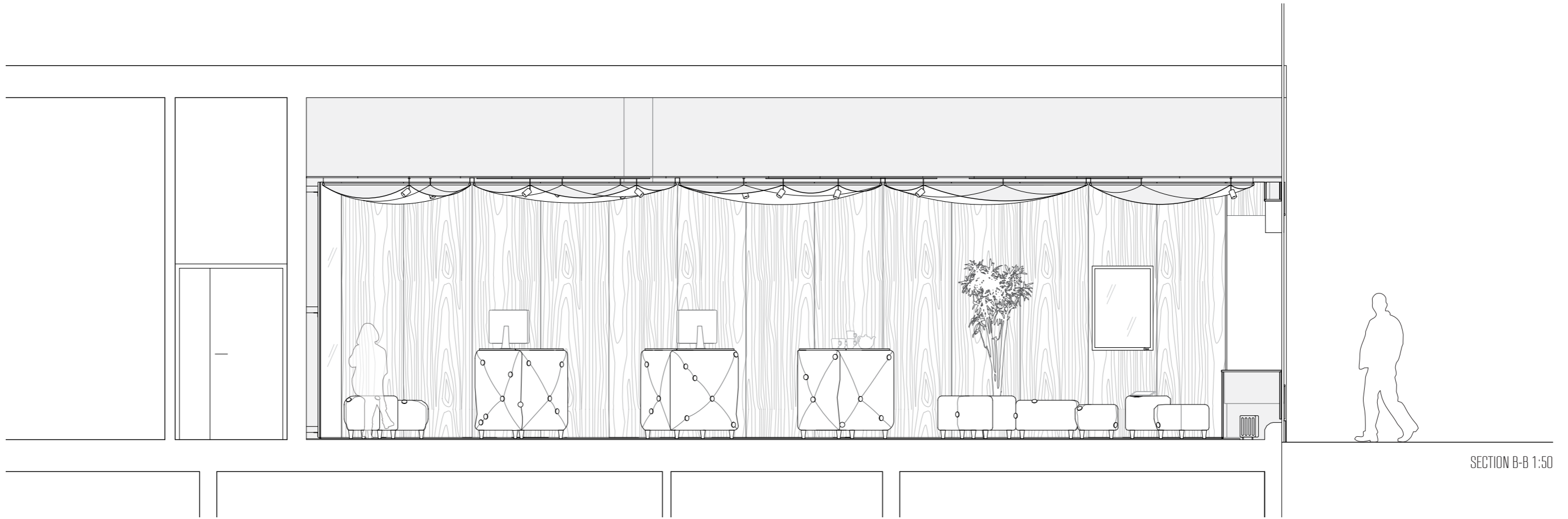
PLAN 1:50



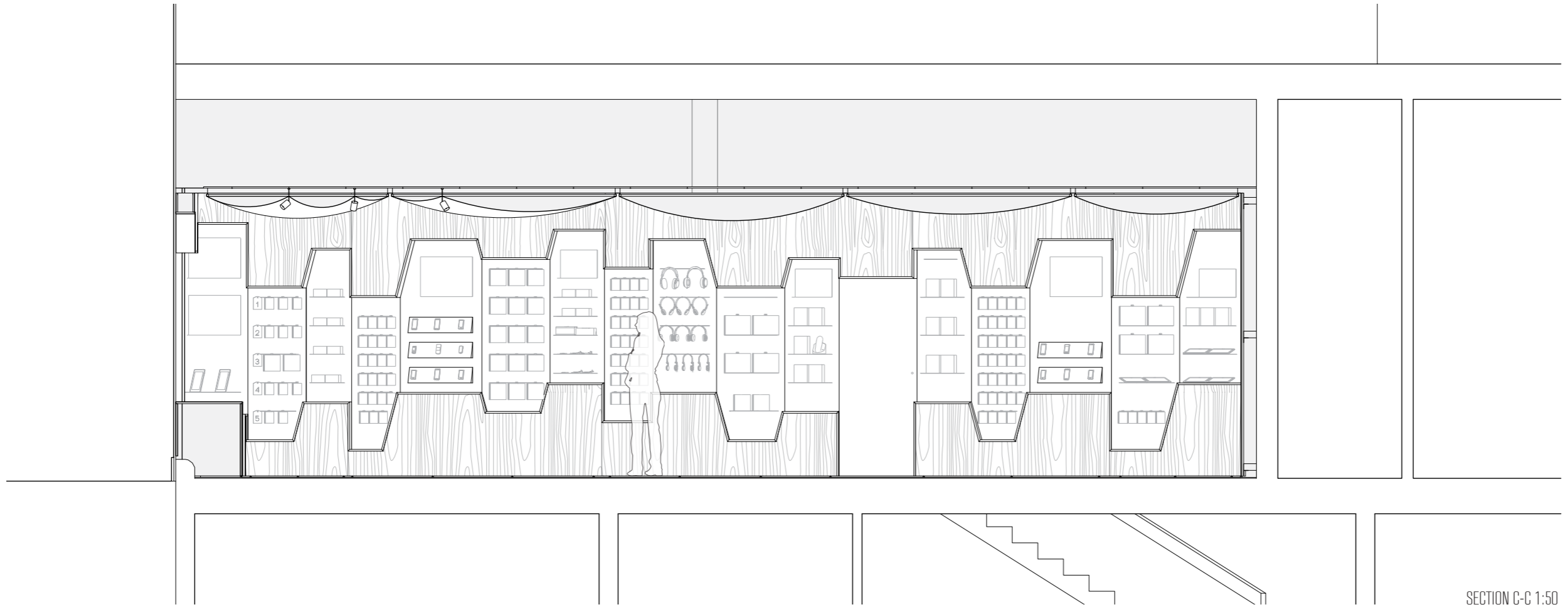
SECTION D-D 1:50



SECTION E-E 1:50



SECTION B-B 1:50



SECTION C-C 1:50

ARCHITECTURE: DISPLAY WALL

CONCEPT

MUSEUMS

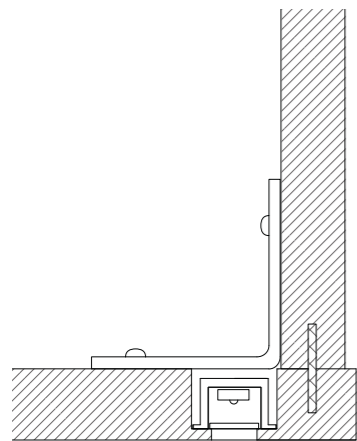
The display wall is meant to accentuate products like a wall in a museum. It is obvious what is exhibition (products) and what is not to create a clear and calm atmosphere. The general lighting is soft but spotlights and LED strips are intense on the objects to show them well.

THE GAP

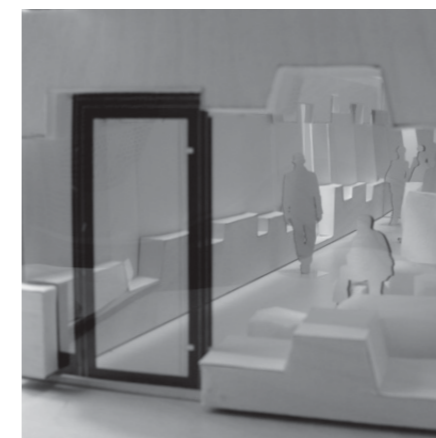
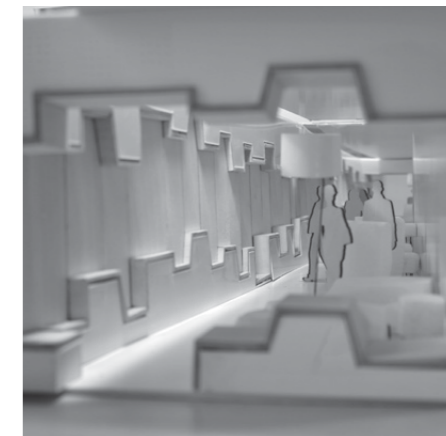
Like a horizontal canyon, the wall opens up to display the products. The opening is like a subtraction within the wall leaving a flat, wooden front towards the store, displaying a zig zag surface inside.

The white, glossy finish inside the gap – for the high tech products – contrasts against the more tactile wood of the walls and the stuffed, soft furniture. The jagged pattern follows a spline creating a dynamic wave with separate cavities for the different products.

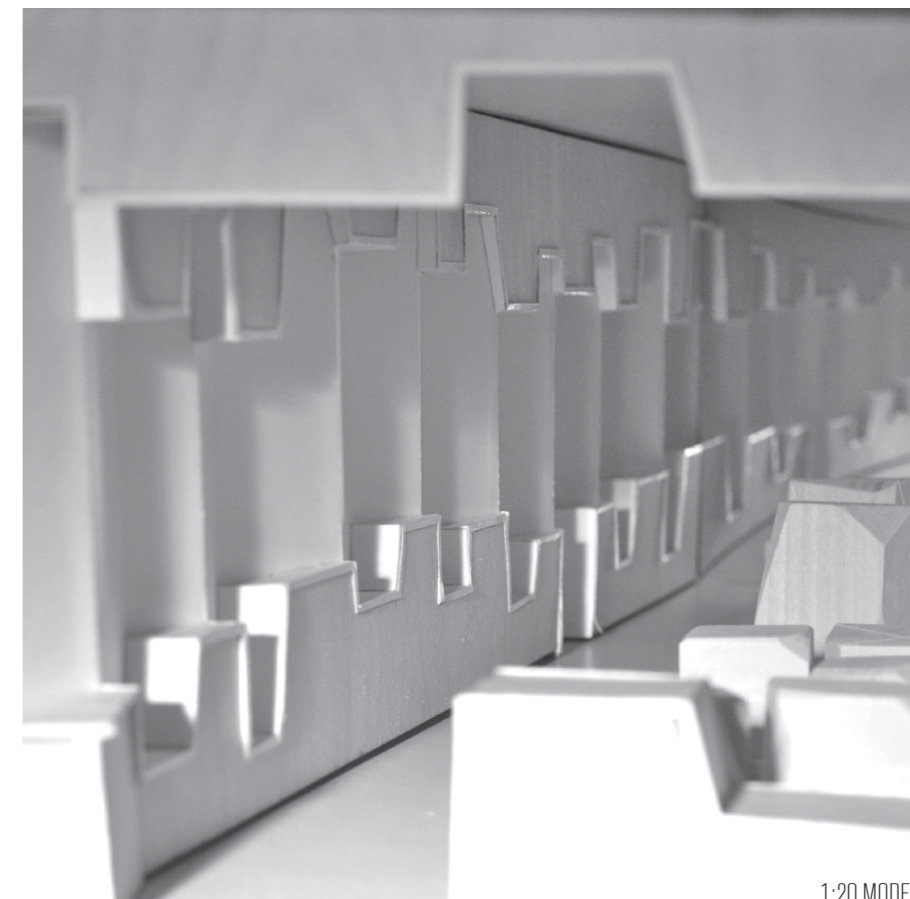
LED lights are integrated in the upper part of the gap to highlight products. They will be the only lights lit at night so that people passing outside the store can see the products and the architecture also at this time of the day.



SECTION DETAIL OF DISPLAY WALL WITH LED LIGHTS SCALE 1:2

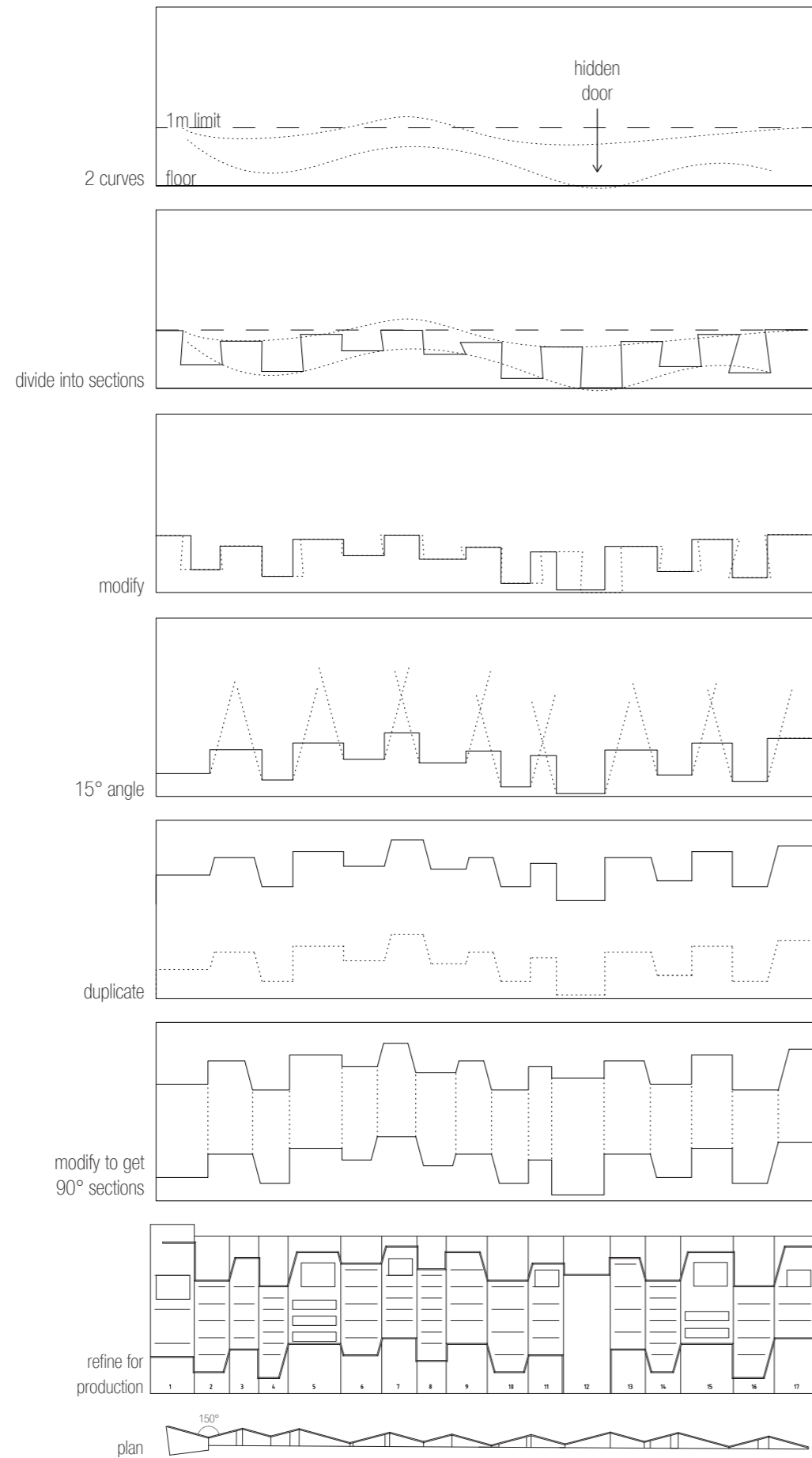


MODELS EXPLORING THE GAP AND ARCHITECTURE



1:20 MODEL

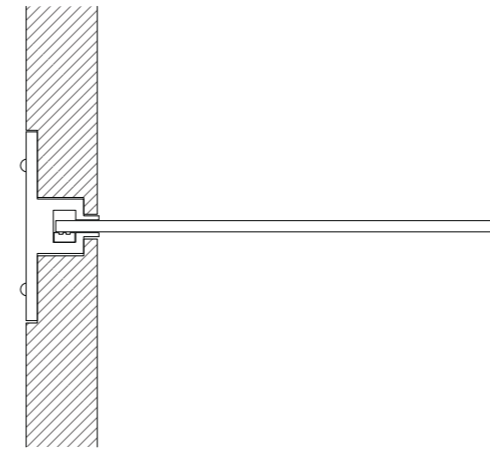
DESIGN



MATERIALS

VISPLAY

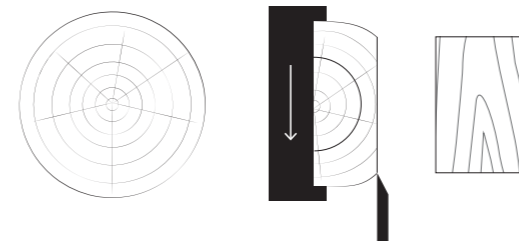
An aluminum track system (Visplay Invisible 3 mm) is used for hanging products on spears for display. Transparent acrylic shelves in different widths are made to fit some of the tracks.



SECTION DETAIL OF DISPLAY WALL WITH VISPLAY TRACK SCALE 1:2

ASH AND LACQUERED MDF

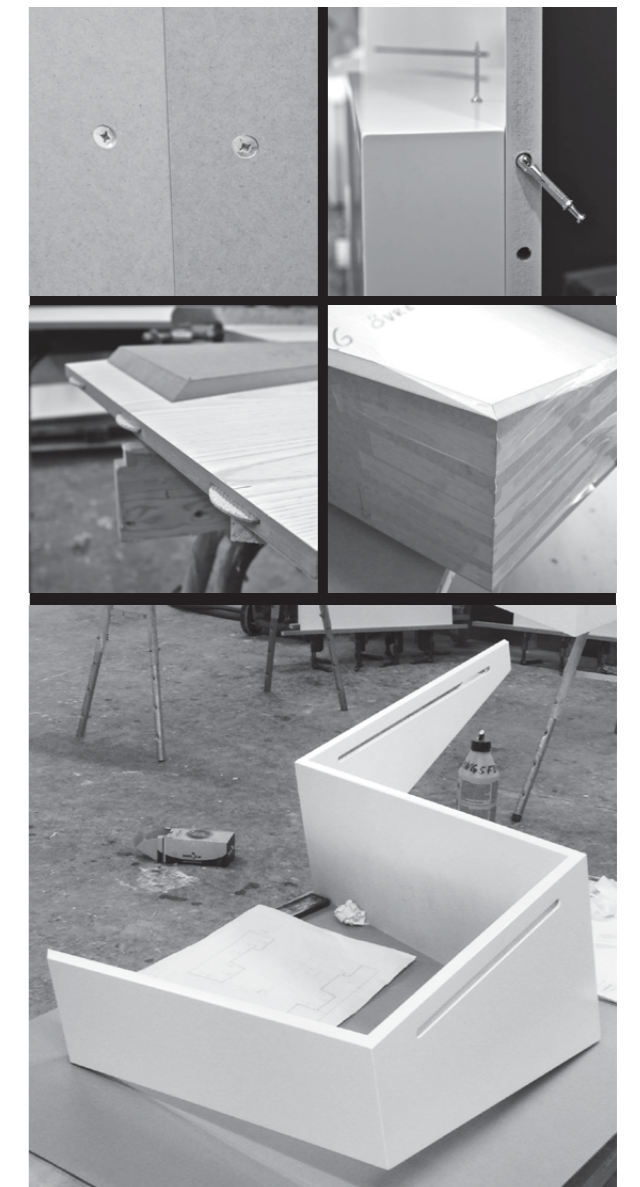
The materials for the display wall are MDF with transparent lacquered (shine 40) ash veneer and white painted (NCS 0500) MDF where the products will be displayed. The other wall is also covered with boards of ash veneer making the walls similar and the white "cut-out" gap stand out. The veneer is plan cut in order to give a distinct wooden pattern.

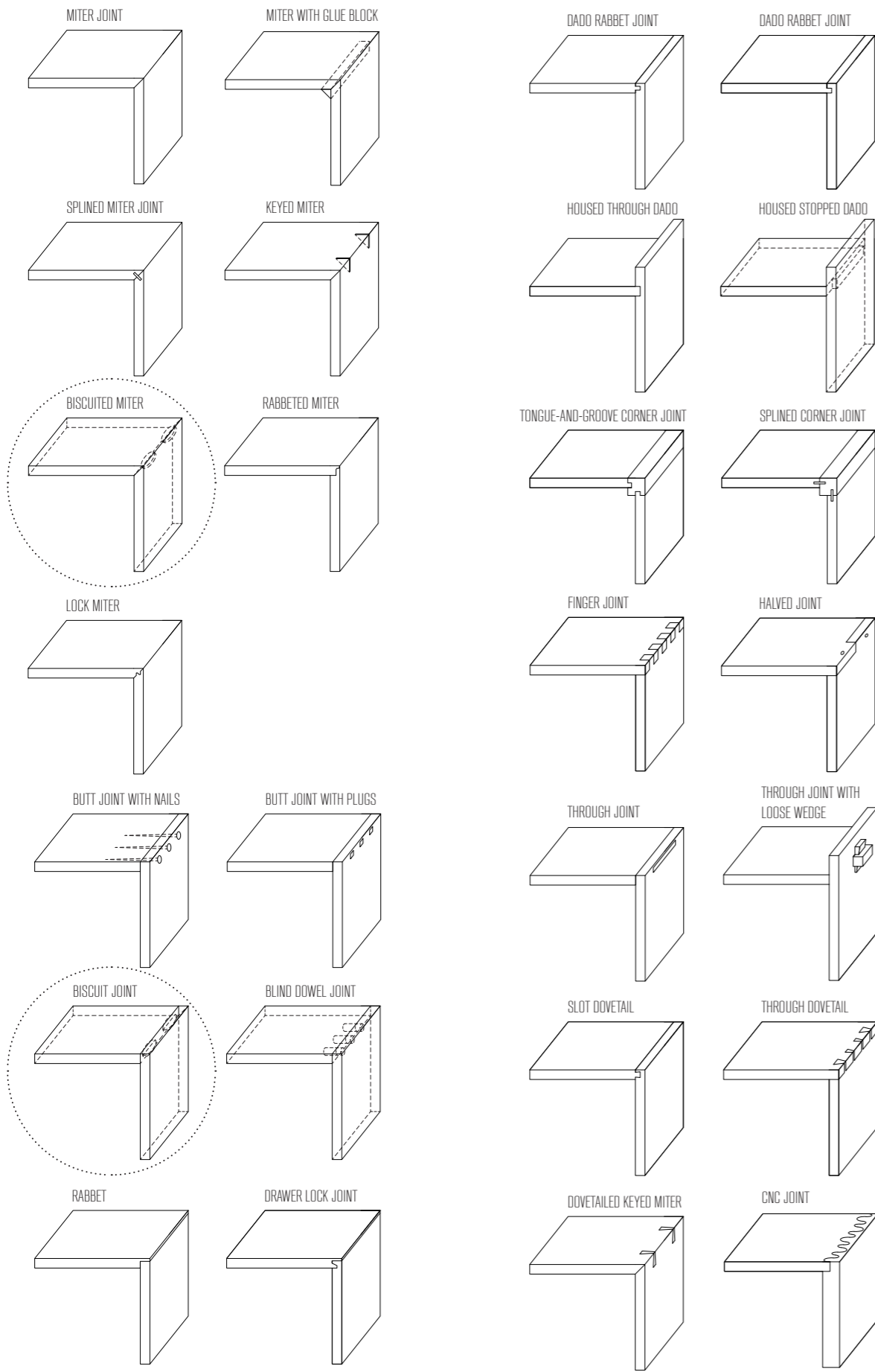


JOINTS

I started to look at wood details early on in the project to find inspiration. For the display wall I finally thought that miter joints with biscuits would be most suitable since they are clean and invisible but still quite strong.

To connect the 17 large back pieces of the wall, miters with these kind of connection fittings were used.





THE DISPLAY WALL WITH INTEGRATED LED LIGHTS AND VISPLAY TRACKS

FURNITURE: CHARACTERS

CONCEPT

LIVING ROOM

The living room is made out of soft, textile, informal, free-standing furniture contrasting to the sharp, fixed wall. The furniture allows customers to sit down and have a conversation, try a tablet or have a cup of coffee in a somehow relaxed, commerce-free zone. The sales counters are also covered in textile to blend in with the living room and decrease the impression of consumption. The furniture could easily be rearranged for e.g. events and some chairs can move out on the street on a sunny day to attract customers.

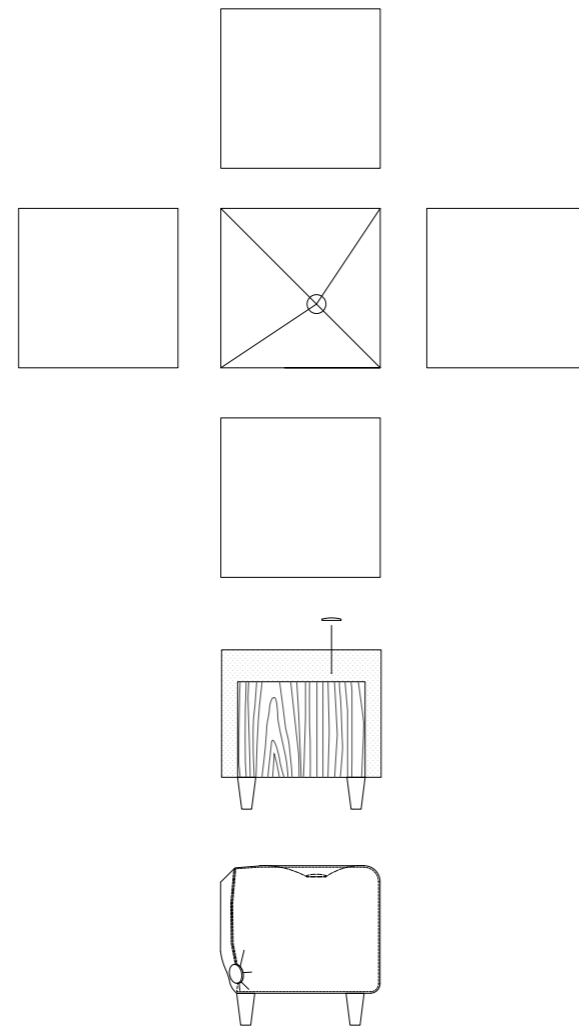
CHARACTERS

The cubic shape of the furniture is deformed by golden buttons. The uneven deformation, different heights and asymmetrical seams make the furniture imperfect and personal. The aim is to give them their own character, just as the different people entering the store, and by that a familiar, playful and relaxed atmosphere.

CONSTRUCTION

The furniture contains an inner box out of MDF which is covered with 5mm and 10mm (at the top) padding, then with fabric. The wooden boxes have holes through them in which the buttons are firmly attached.

DESIGN



SKETCH MODELS

MATERIALS

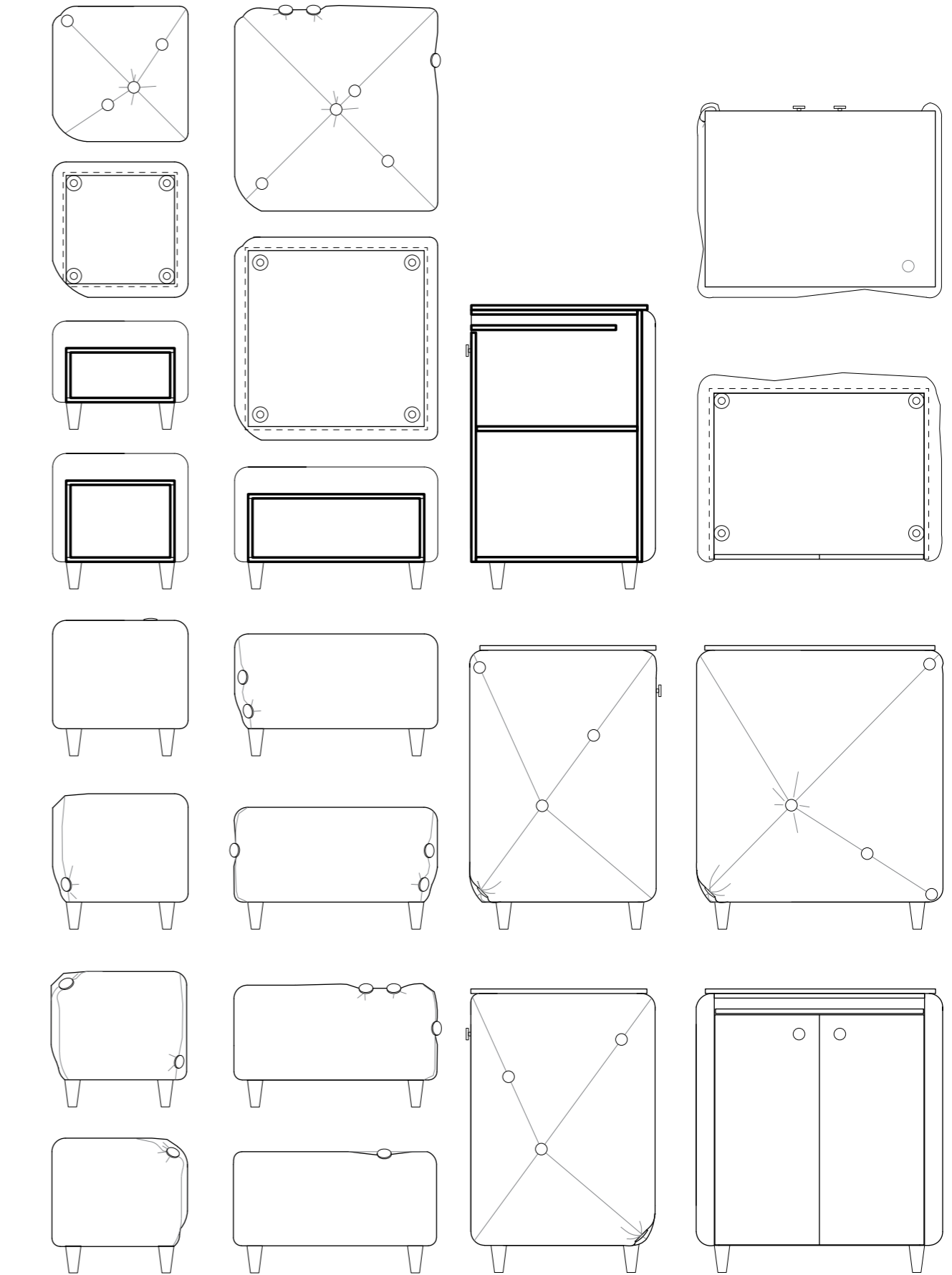
FABRIC

The textile (INK, Svensson Markspelle) gives reminiscence to fabrics from the 50s, just like a sofa at my grandmother's place, but it feels new and fresh with the green, vivid colours. I hope to evoke the feeling of familiarity in customers, and by that memories and smiles.



FEET AND BUTTONS

The feet are conical to give the impression that the furniture stand light on the floor and easily can be moved. The buttons are golden, just like the logotype of More Than Phones and arranged in a playful manner along the seams.



SMALL CHARACTER SCALE 1:20

LARGE CHARACTER SCALE 1:20

SALES DESK SCALE 1:20



PHOTO THOMAS BERGH



PHOTO THOMAS BERGH

CEILING: GRAVITATIONAL SOFTNESS

CONCEPT

LIVING ROOM

A living room often has a lot of textiles creating a nice and cozy atmosphere. Fabrics are good for dampening sound to get a comfortable conversation environment. A thin, light fabric is put on wooden frames to also cover the visual noise from the ventilation and the existing acoustic ceiling. It also covers the top of the display wall and wooden panels in order to give a sleek finish and allow for some fitting space towards the ceiling.



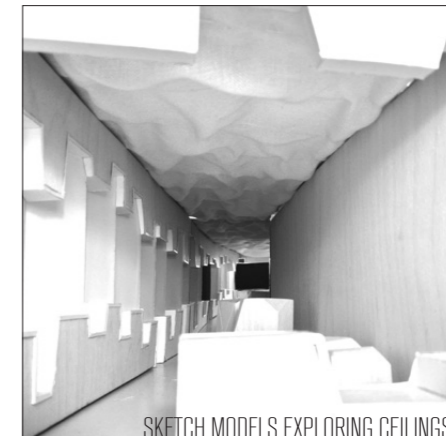
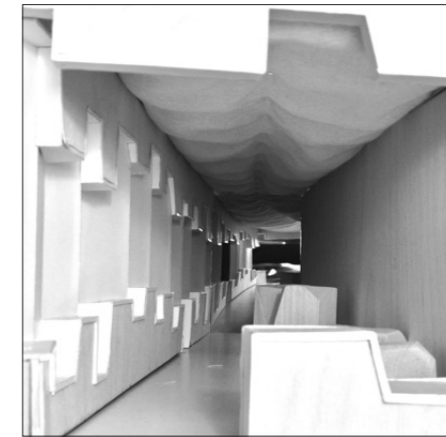
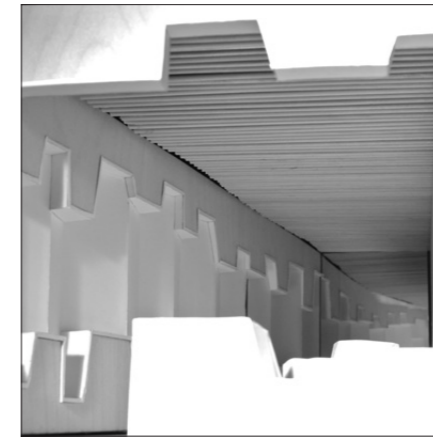
SPOTLIGHTS AS BUTTONS

The asymmetrically spread out spotlights are pressing the cloth upwards to deform the soft arc shapes formed from gravity on the hanging cloth. The spotlights are used just like the buttons on the furniture to enhance the softness of the cloth and to create a new playful geometry.



CONSTRUCTION

The cloth is attached to wooden frames with staples. The frames hang from the preexisting aluminum structure of the acoustic ceiling with hooks and steel wire. The cloth is attached to the spotlights with plastic clamps usually used by electricians for fastening cables.

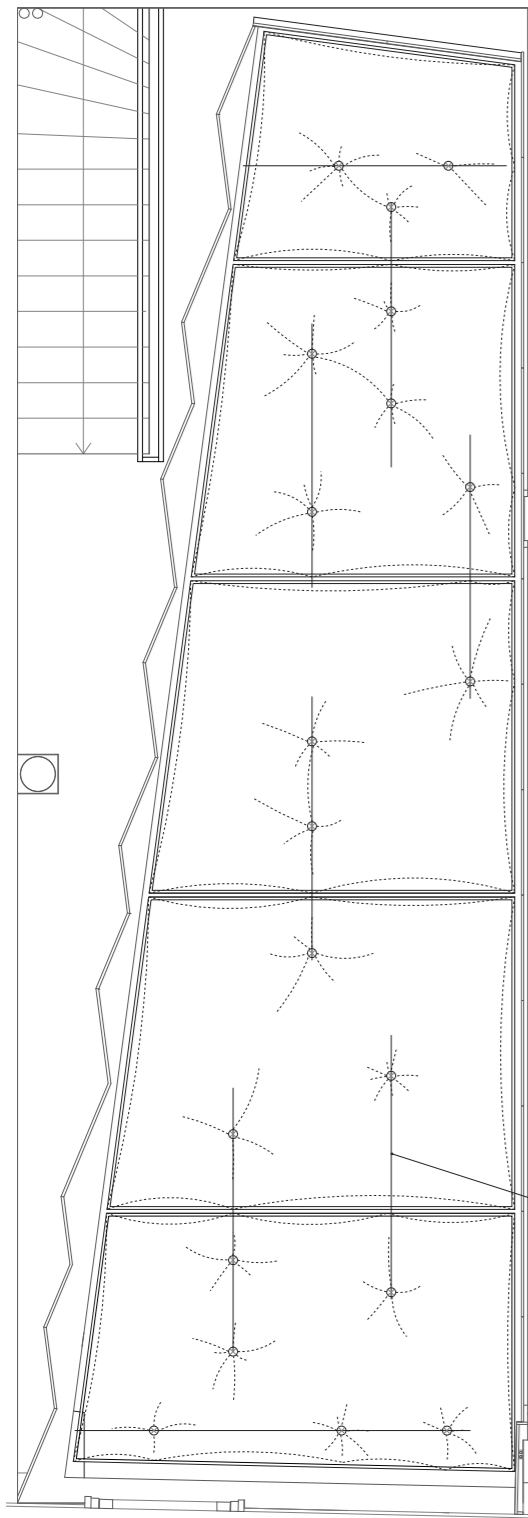


SKETCH MODELS EXPLORING CEILINGS



1:20 MODEL

DESIGN

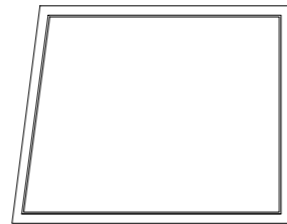
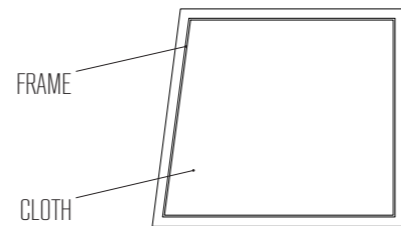
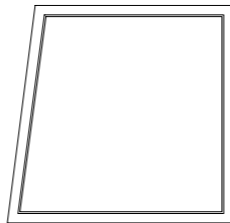
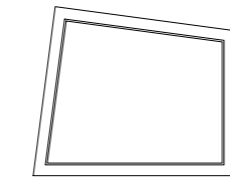
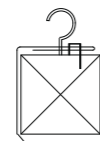


MATERIALS

FABRIC

The cloth is 3m wide, fire proof, in a white colour with a slight nuance of yellow to relate to the wooden walls and give a light, warm atmosphere. Since the space, and therefore the wooden frames, are not angular in all corners the cloth had to be asymmetrical cut compared to the frames to keep it hanging down 300mm in the middle of the frame before the spotlights were attached.

SECTION DETAIL OF CLOTH ON FRAME SCALE 1:2



LIGHT TRACKS

CEILING



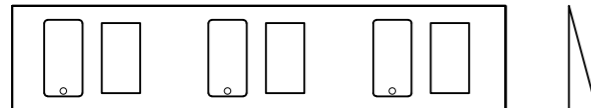
GRAPHICS: AT THE MUSEUM

CONCEPT

ART SIGNS

As in a museum of art, the price tags and information boards are often kept simple and clean with a white background and black text with changing emphasis on information depending on if the text is normal, bold or cursive. The price tags are meant to be like the sign explaining which painter (which production company), what **name** (the product) and what year made (the price) underneath a painting. Further explaining *information* is cursive.

The text for larger posters follow the inclined angle of the cogwheel shaped gap of the wall, and graphical lines are used as a continuum of the horizontal Visplay tracks.



CELL PHONE HOLDER



INSPIRATION FROM LOUISIANA MUSEUM

DESIGN

iPhone 5

Apple

- *X aigabyte minne*
hskärm
- *Microsim*
- *Minneskortspats*
- *etc*

Tre
Snackis 24 mån 249:-/mån

Tele 2
Voly m Mellan 339:-/mån

Telenor
Pott med surf 24 mån 299:-/mån

Kontantpris 6999:-

Product

Company

Information...

299:-

FÖR VARJE SÅLT
ABONNEMANG
PLANTERAR VI ETT
TRÄD PÅ BORNEO

ÖPPNINGSERBJUDANDE

TECKNA
ABONNEMANG,
FÅ EN **SURFPLATTA**



GRÄN TILL 5 MÅL ELLER 5 ÅRST LÅNDET PÅKÖR. FÖR ABONNEMANG MED 24 MÅNADERS ÖPPNINGSTID

MATERIALS

KAPA BOARD

The graphic signs are attached to 5mm kapa board to get a distance from the wall in order to create a soft shadow and stand out. The white paper should have a similar nuance as the white lacquered wall.

BINDER CLIPS

Small signs are attached to wall with adhesive scotch. Larger posters are hung on nails with binder clips.

FONT

The fonts used are mainly Nexa and Code for their thin and airy expression.



INSTALLATIONS FOR THE CELL PHONES ARE HIDDEN BEHIND THE WALL



LED LIGHTS ILLUMINATE POSTERS





PHOTO THOMAS BERGH



PHOTO THOMAS BERGH

**PRODUCTION
CONSTRUCTION
REFLECTION**

PRODUCTION PROCESS

20 WEEKS

A big part of this master's thesis has been about the way of conducting a project in reality. I have not only been developing architectural ideas, making drawings and models, I have also dealt with questions such as: how to solve everything in the 20 weeks time span? How to transport it, build it, paint it, find it? We can not make a 11 m long wall in one piece in the factory and then transport it to Jönköping, so it has to be divided in parts, how large can they be to still be lift-able and to go through the entrance door? Where do I find fabrics, can I get samples, and what is the delivery time for materials and how sustainable are they?

To build the interior for real has been very interesting, fun and challenging, but it has also brought a lot of things to take into consideration compared to making a theoretical project as master's thesis. I have had a lot of good discussions with producers and craftsmen like Snöstorps Snickerifabrik, Bennets Tapetserarverkstad, Fagerhults, Elektroteam, Golvabia and Happy Homes, who all have helped me on the way. But there has also been problems to solve: you choose something and want to order it, but then it is out of stock or the delivery will take too long, so you have to think again and make a new decision. I have understood that many factors can affect the decisions and the design when the time schedule is limited. I have been lucky and gotten most of the materials I wanted in time, but next time I will conduct a real project, I will try to order things early on in the project and make sure that products e.g. have not been deleted from the assortment.

PROCESS

My process schedule did not really turn out as planned, the final drawings to the carpentry were for example finished in April and not in March. One reason was though that the carpentry had many other projects to finish at this time which allowed me to develop my project a bit further. The assembly at site took one week and not three days as I had imagined.

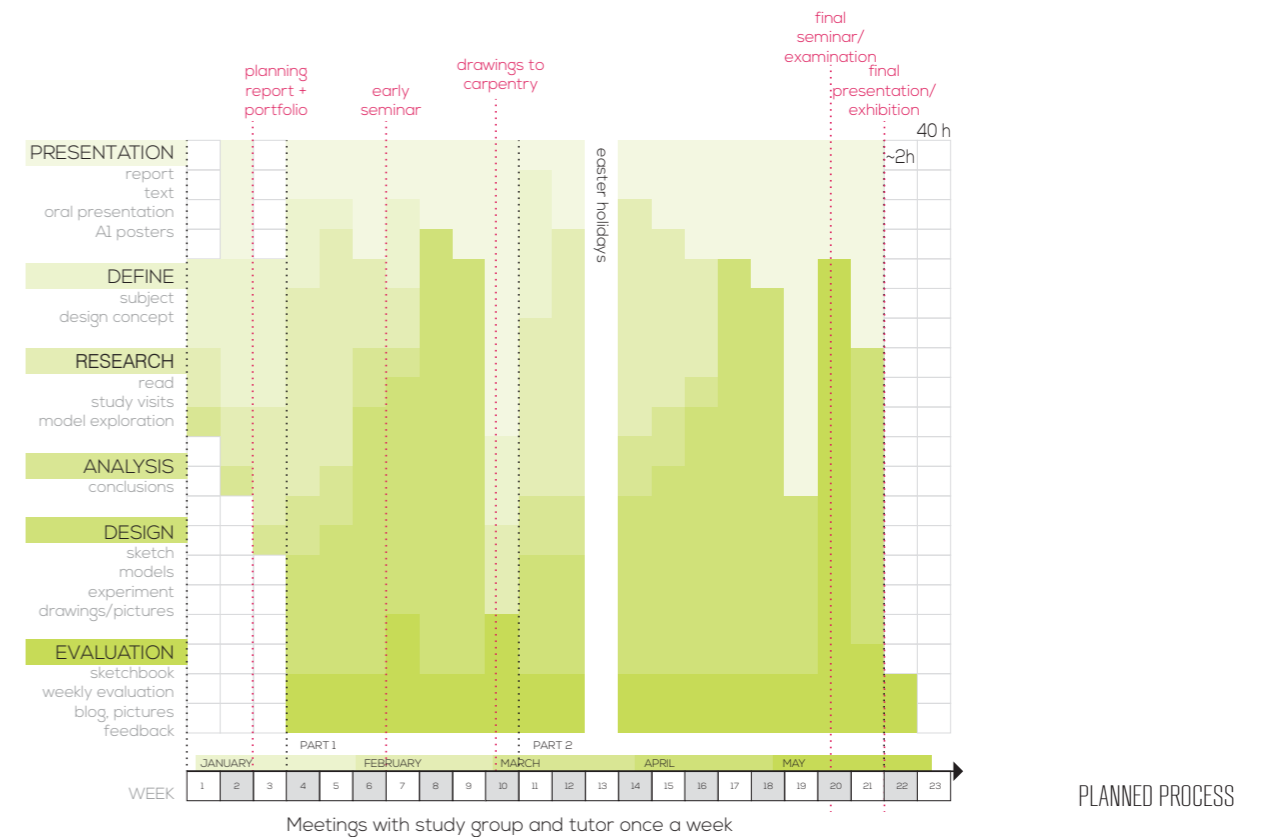


ME GIVING A HELPING HAND IN THE CARPENTRY



MY UNCLE AND MY FATHER IN THE CARPENTRY

Carpentry: Snöstorps Snickerifabrik, Halmstad
Upholstery: Bennets Tapetserarverkstad, Halmstad



WEEK	ACTUAL PROCESS
3	Site visit. Measurements.
4	Meeting with clients. 1:20 model. References. Study visits. Situation sketches. Volume studies in model.
5	Wooden joints. Strategies. Volume studies in model.
6	Computer 3D model studies. Poster layout. Furniture Fair in Stockholm. Study visits to Liljevalch's Art museum and to Stockholm's Photography museum.
7	Senses marketing research. Define architectural strategies. Personal space research. 1:20 models. Mock-up Seminar. No noise research. Build both digital and physical models. Choose flooring.
8	Target groups? Digital models and physical models. Choose one idea to develop further. Research The Hidden Dimension.
9	Meeting with clients. Model sketches of furniture. Early drawings to carpentry.
10	Draft seminar with 1:20 models of display wall. Meeting with clients. Material try outs and renders.
11	Work in the carpentry the whole week to get inspiration, look at materials and discuss construction.
12	Physical model and detailed 3D CAD of final design.
13	"Easter holidays". Visited the carpentry. Sketch models of ceiling. Construction drawings. Study visit to Denmark.
14	Physical models of stuffed furniture. Site visit and new measurements. Presentation layout. CAD drawings.
15	Furniture drawings. Contact with the upholstery. Physical models and drawings. Point-of-no-return-seminar. Material try-outs for stuffed furniture. The floor arrives in Jönköping! Lighting research. Order materials.
16	Drawings to the carpentry. Decide ceiling. Work in the carpentry. Try LED lights. Manufacture boxes to the stuffed furniture and deliver to the upholstery. Drawings of ceiling.
17	Construction in the carpentry. Order textile to the ceiling. CAD of sales desks, construction and delivery to the upholstery. Order spotlights.
18	Assembly in Jönköping and construction of ceiling at site.
19	More Than Phones grand opening. Work with final presentation.
20	Exam
21	Develop the presentation for the public presentation
22	Public presentation and exhibition

DIGITAL & PHYSICAL MODELS

In this project I have been working a lot with physical models, especially in scale 1:20. They have been very important for my design process since many ideas have come by building, pushing, pulling materials and being able to work with gravity in a way that is not so easily done with digital models. For example, I got the idea for my stuffed furniture from pushing steel wires into squared foam pieces for one of the early spatial exploration models. The meant furniture legs suddenly looked like the legs of an animal and the object got a character which seemed relaxed and fun. This was one of the feelings I aimed to evoke in customer, so I continued to work with the idea of furniture being small "characters". The idea was a result from the model and not the other way around. Making prototypes is an important part of the design process, just as Michael Speaks from SHoP puts it:

"The product is not so much the prototype as it is the innovations that occur as a result of thinking with and through the prototype"¹

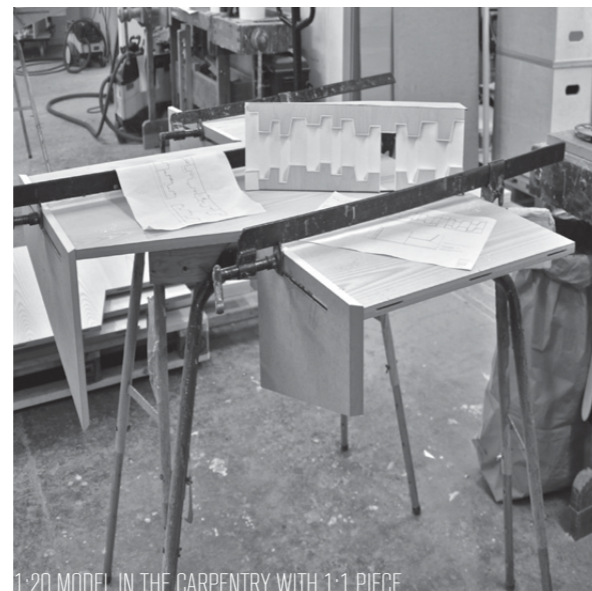
¹ SHoP/Sharples, Holden, Pasquarelli. 2002. Versioning: Evolutionary Techniques in Architecture. In *Architectural Design*. Vol 72. No 5 Sep/Oct 2002. West Sussex: Wiley-academy.

I do not think that an architect should put the whole design process into a computer – to visualize the space with the right material in hand gives something more than adding a texture in a 3D program. It is great having the possibility to quickly make several versions of a similar design with programs and parametric design, but I think that physical and digital models should work side by side. Making real prototypes together with digital design softwares helped me bring the project forward this time and the size of the project was also very well suited for building many sketch models in wood.

Through the physical models it has been easy to show my ideas to supervisors and to discuss with the clients. Having my 1:20 physical model at the site of production was a great help for understanding the geometry and explaining the project to the producers. It was good to be a part of the whole production process and being at site both in the factory and in Jönköping. Because of that I could really take part of discussions of simplifications and construction solutions: me and the craftsmen could compare their production ideas to my concepts and explore it through computer models, physical model and drawings. Together we could develop the project in a direction that well would suit both design, construction and fabrication.



SKETCH MODELS



1:20 MODEL IN THE CARPENTRY WITH 1:1 PIECE





SITE VISIT WITH 1:20 MODEL



1:20 MODEL IN THE CARPENTRY WITH 1:1 WALL

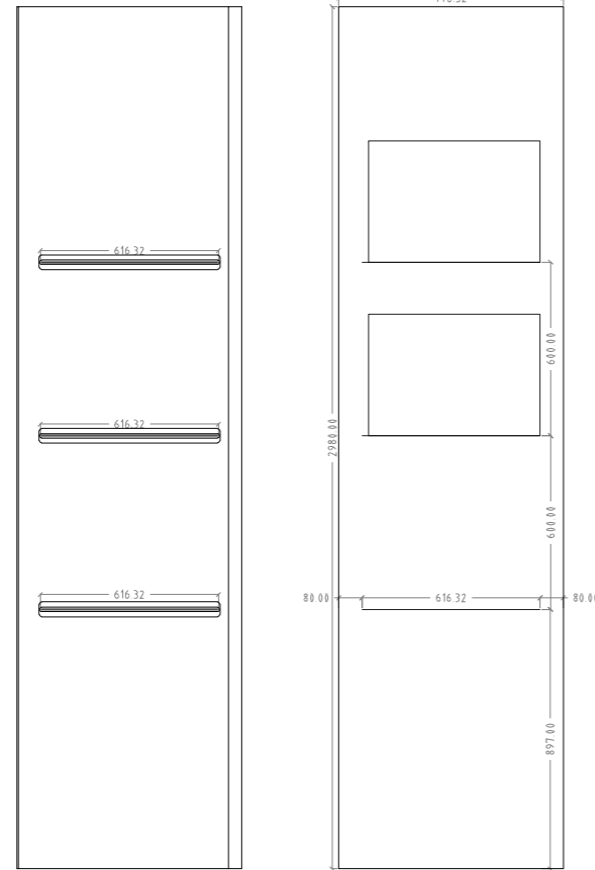
CONSTRUCTION

UNIQUE OR SIMPLIFIED?

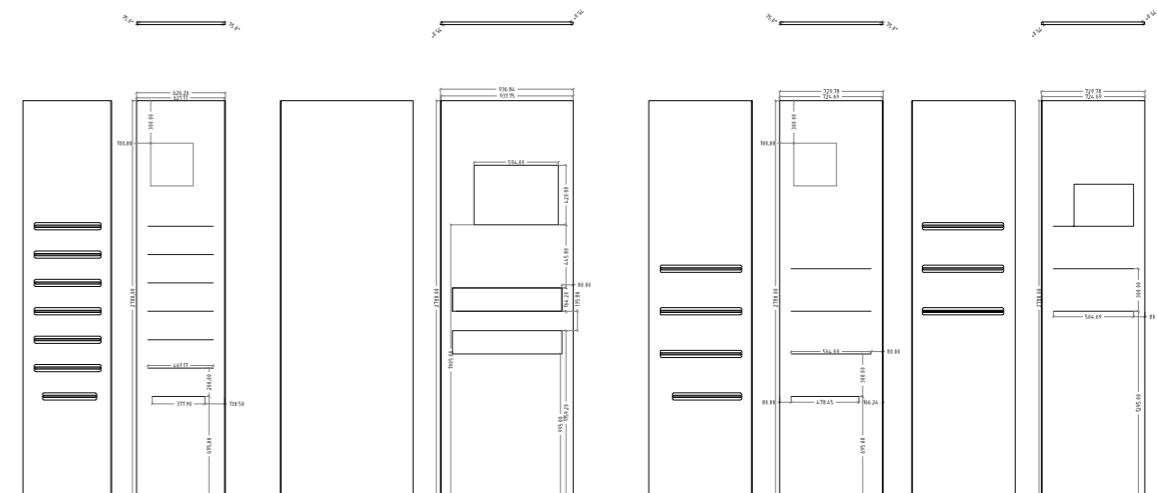
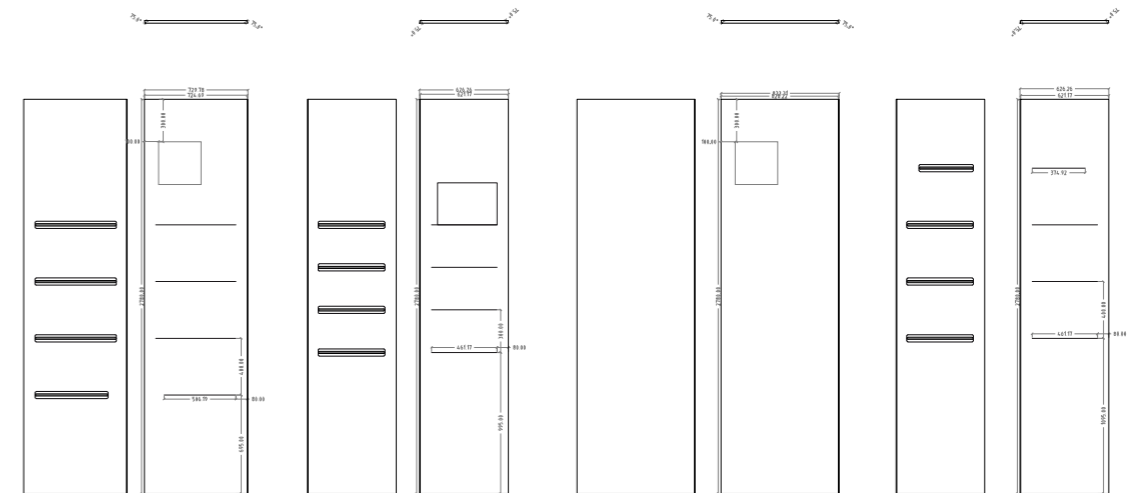
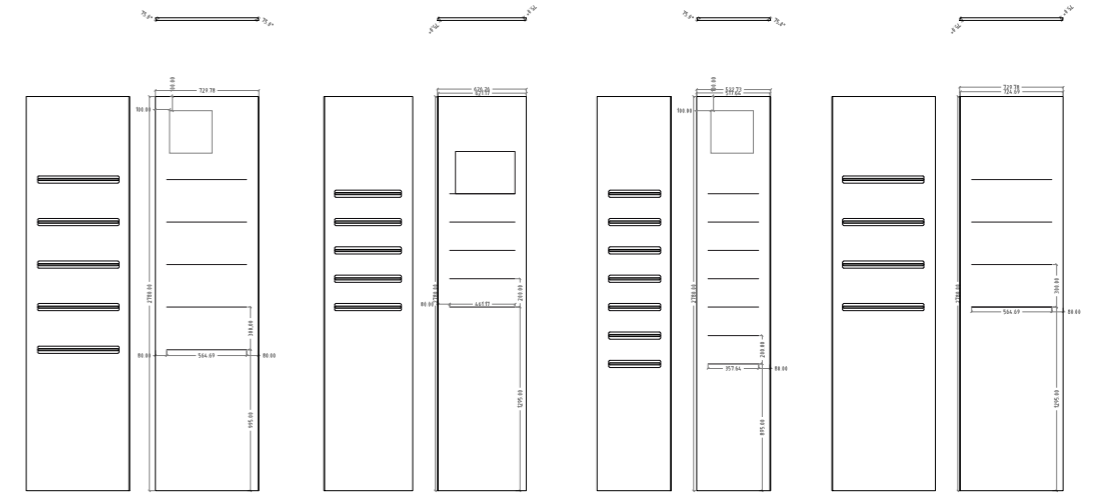
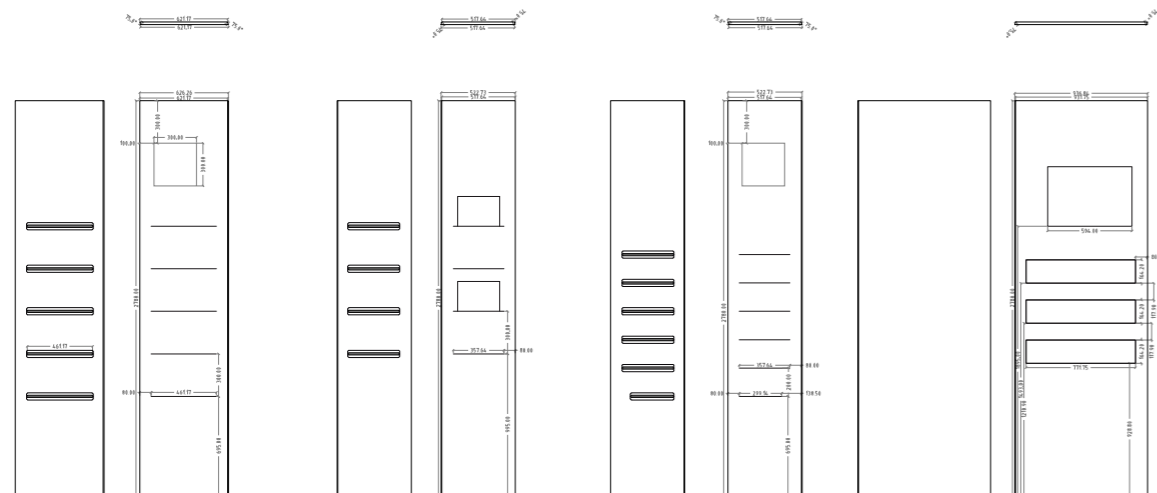
Taking part of the whole building process, from design to work in the carpentry and assemble it all in Jönköping, has helped me to further understand the complexity of realizing a project. One of the main issues that I would develop further if making the same project again would be the question of having many unique pieces, because so far, the design is not directly translatable from the computer to the CNC machine... By having 17 different backs within the display wall, several steps of the production became more complicated and time consuming than if they would be the same or out of e.g. three different modules. Now we had to:

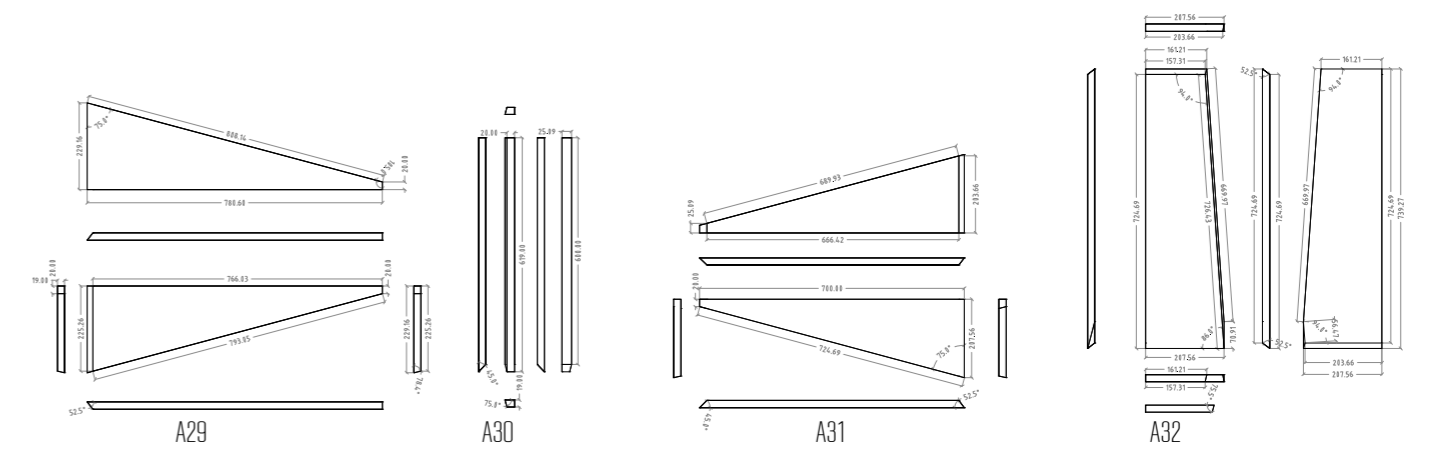
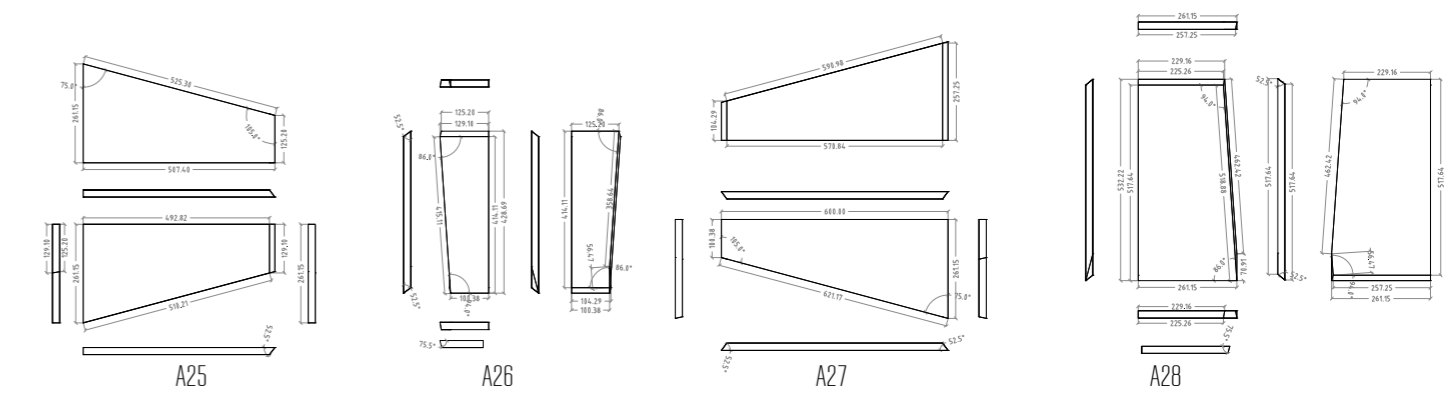
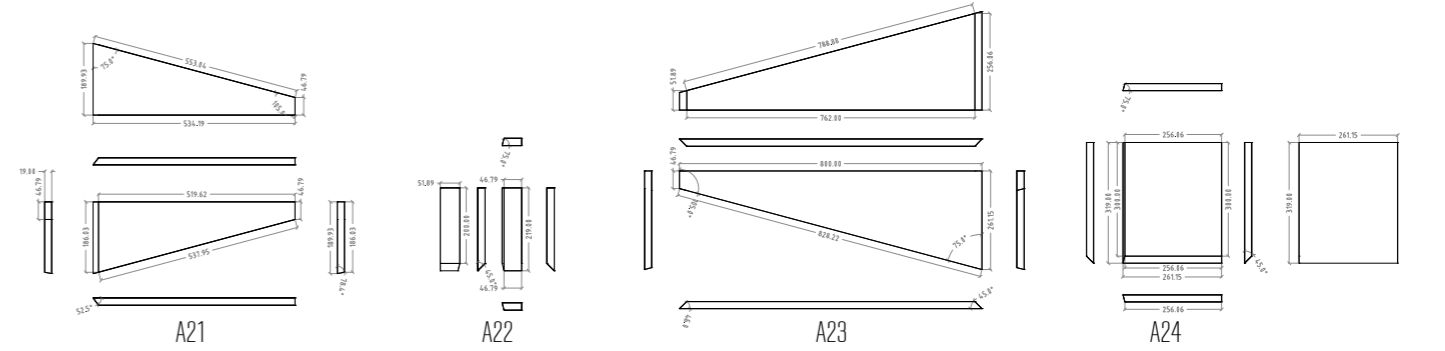
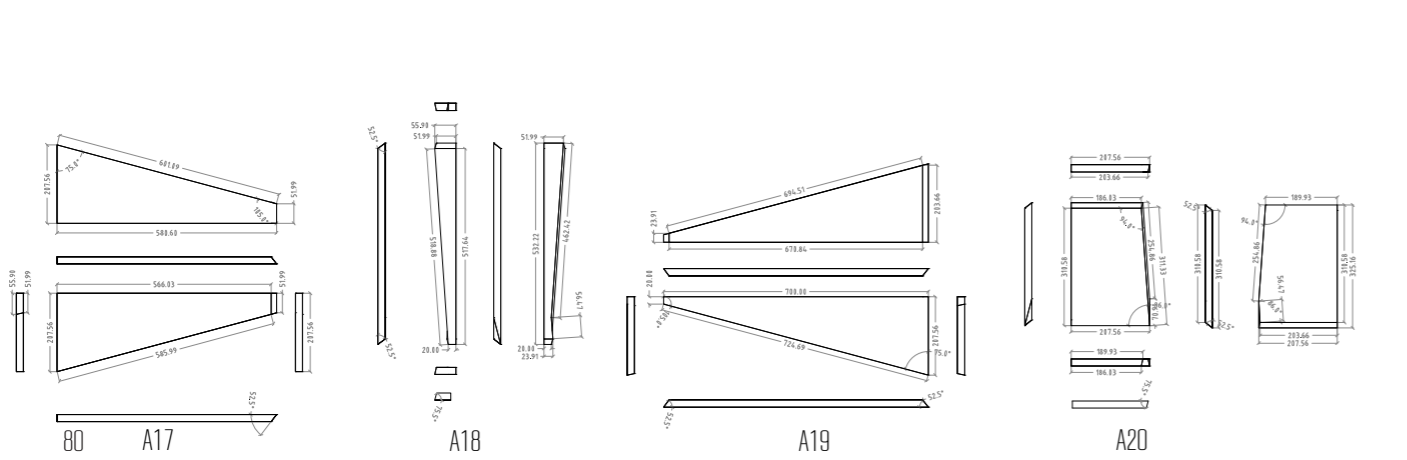
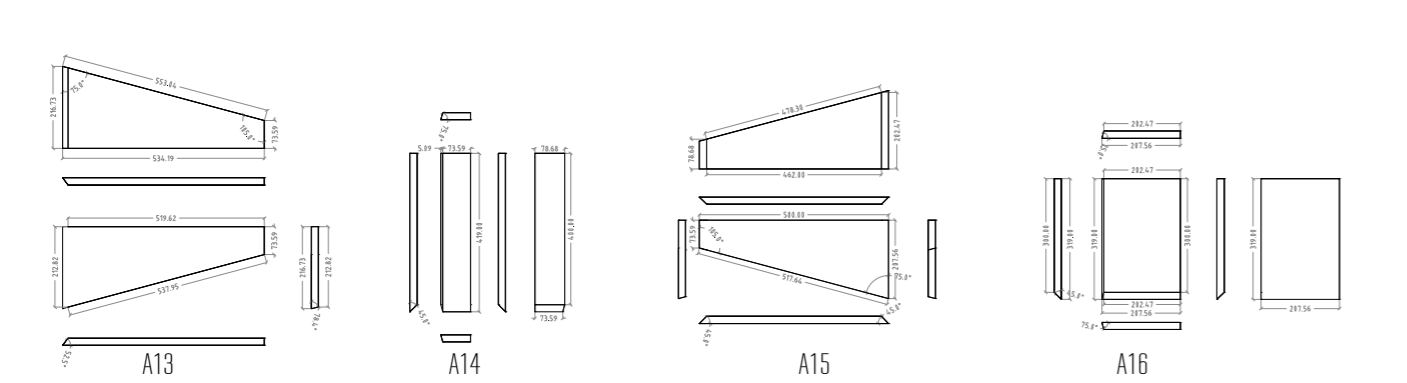
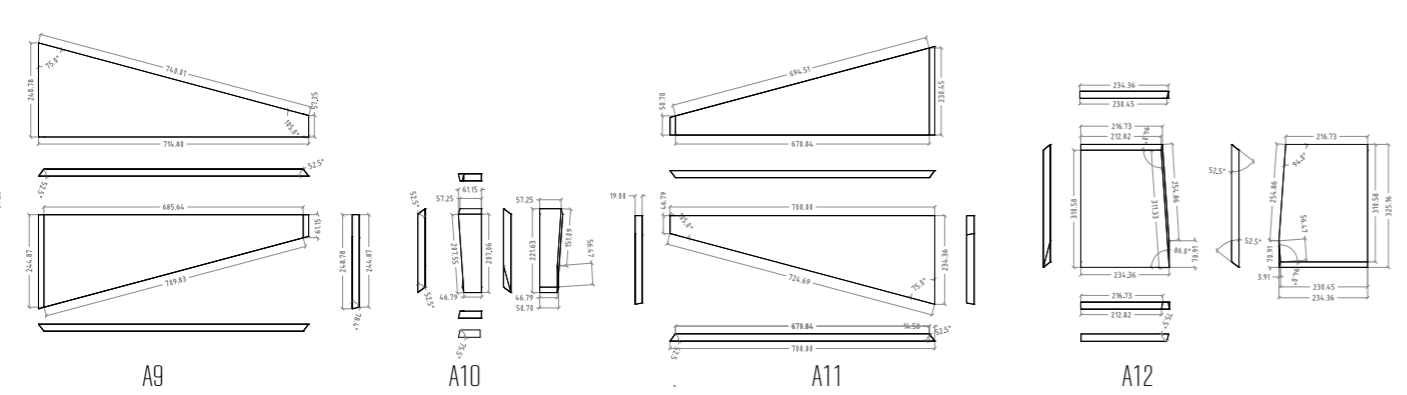
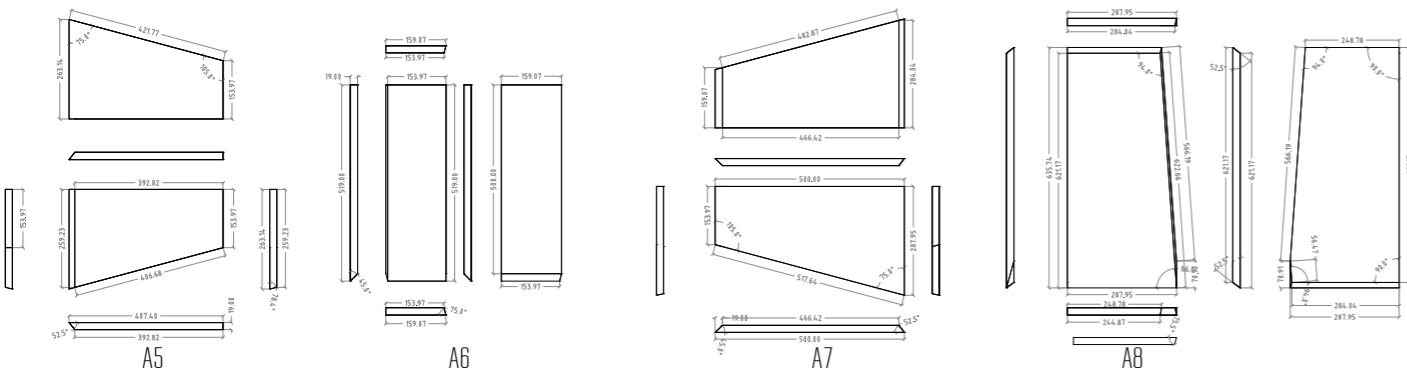
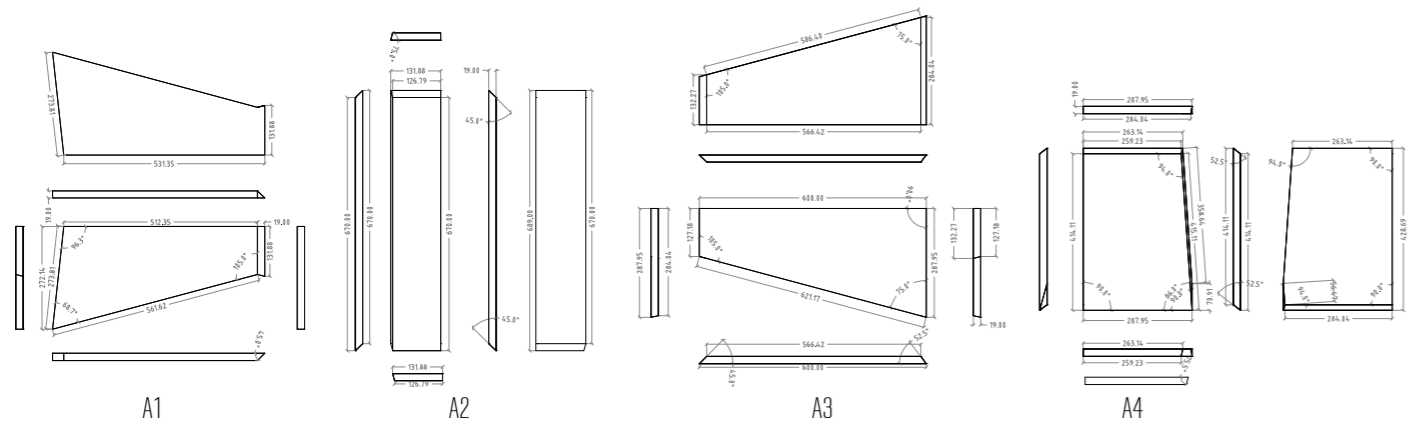
- making long lists for cutting the MDF boards differently
- cutting them (changing the saw for each one)
- making CNC-programs for each one of them
- keeping track of the different ones during CNC milling
- cutting different lengths of LED-lights (both aluminum profiles and lights)
- cutting the Visplay tracks differently
- keeping track of the right pieces when mounting

Is the design-effect gained worth the amount of extra work or extra money needed, or could you simplify it to be able to put that time or money into something else? We had to make a test-assembly with all of the backs to see that they would fit together, if they would have been a couple of modules, that process could have been done with just a few of them.

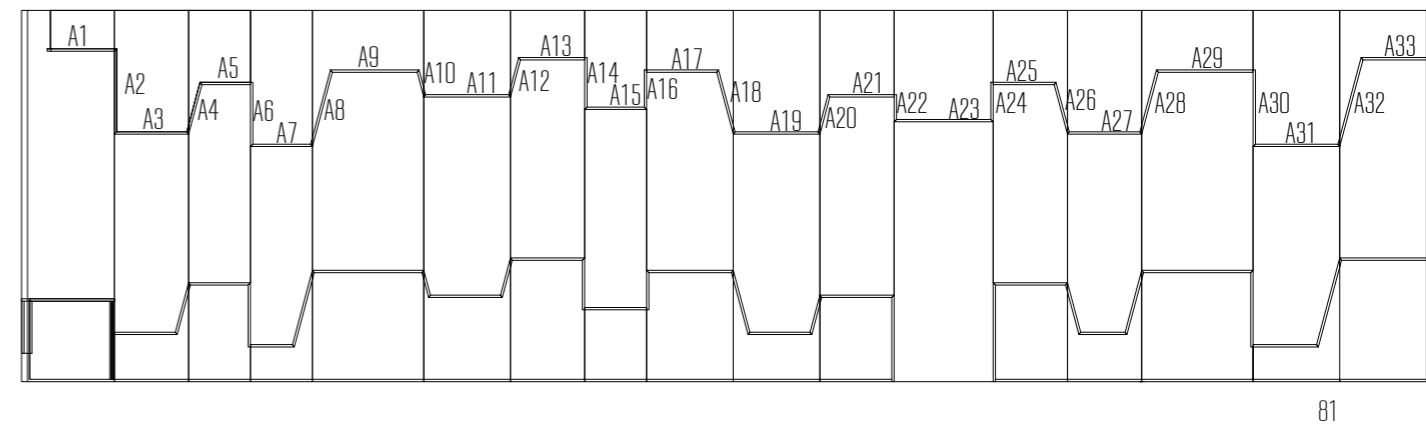


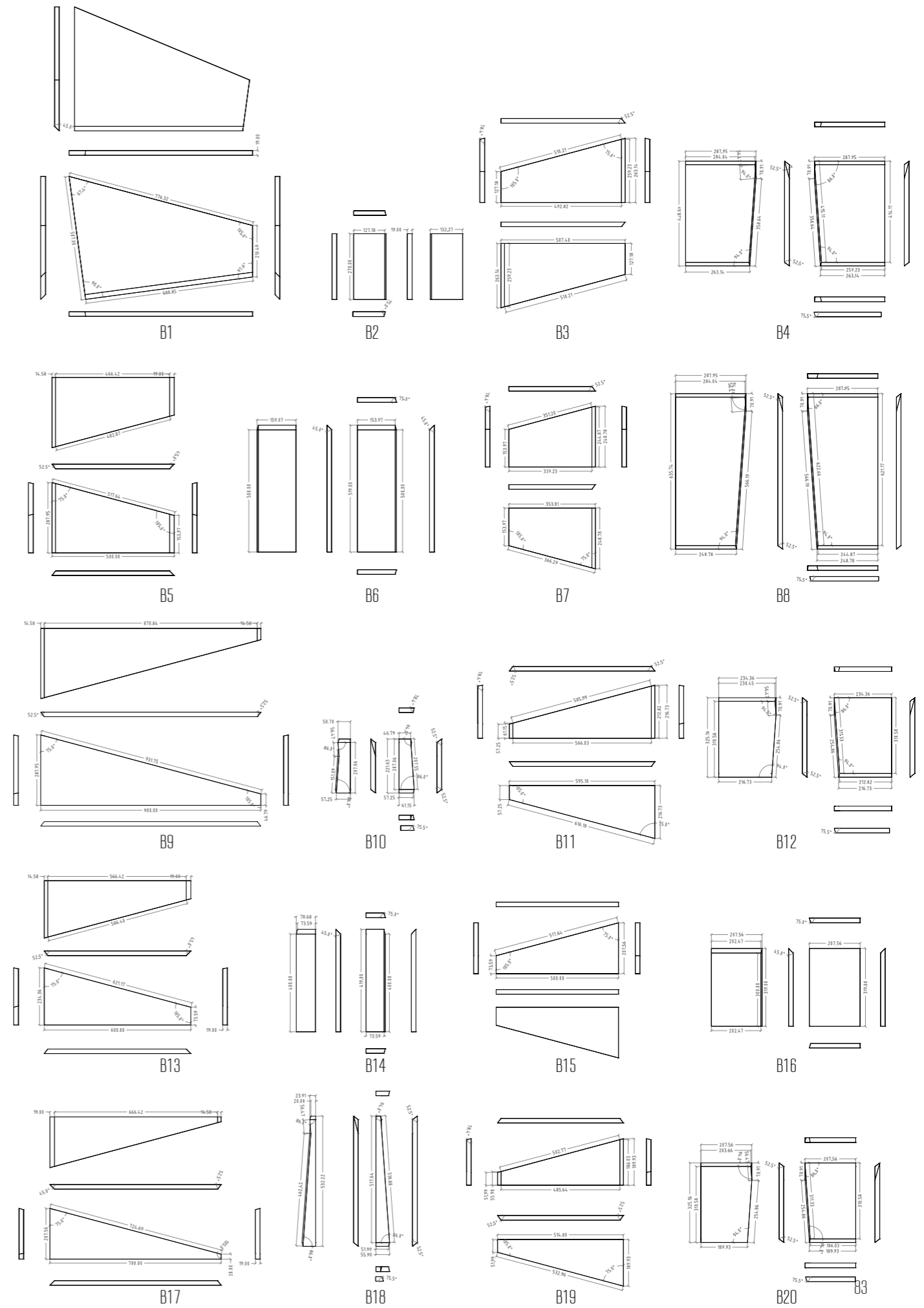
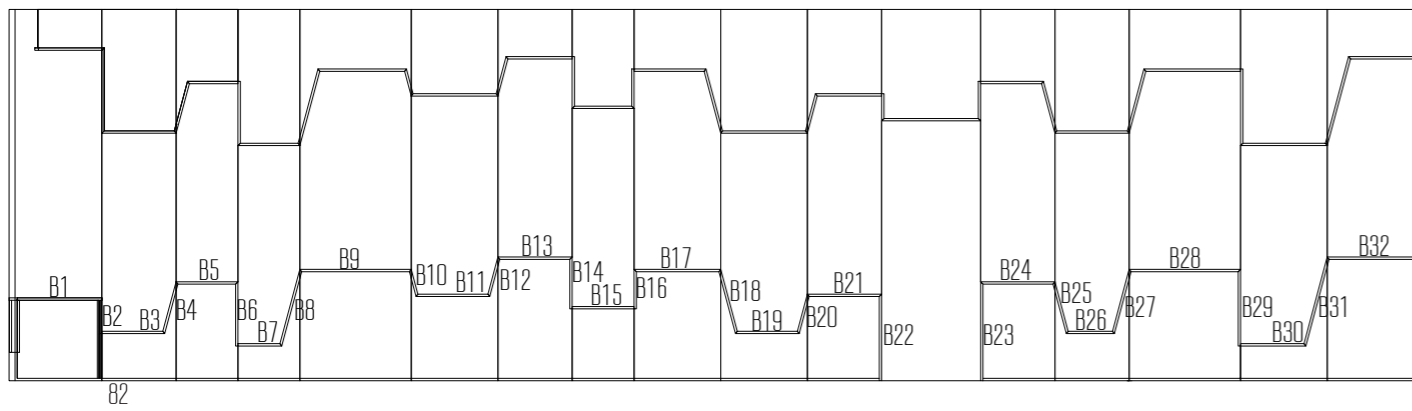
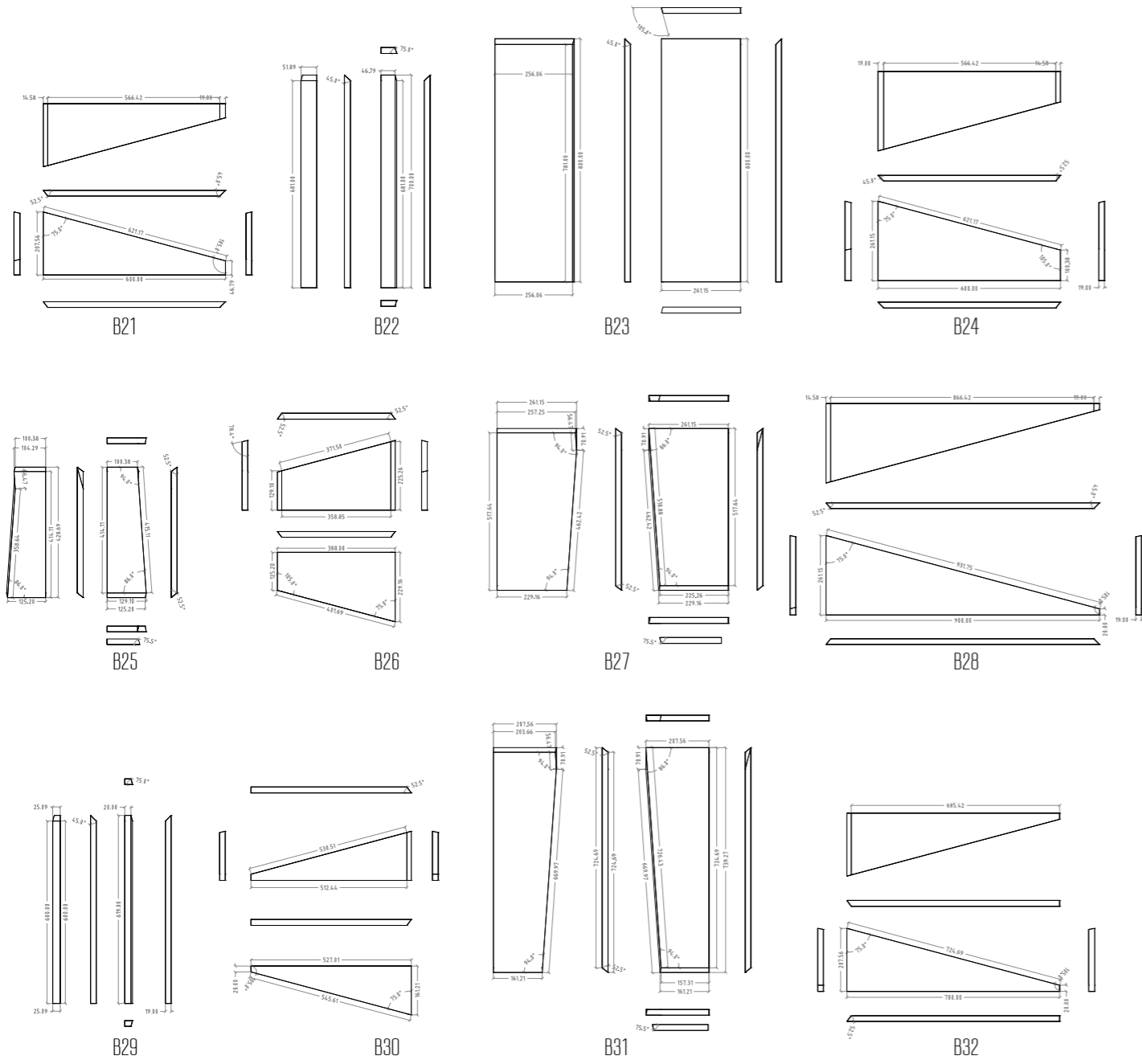
BACKS OF THE DISPLAY WALL

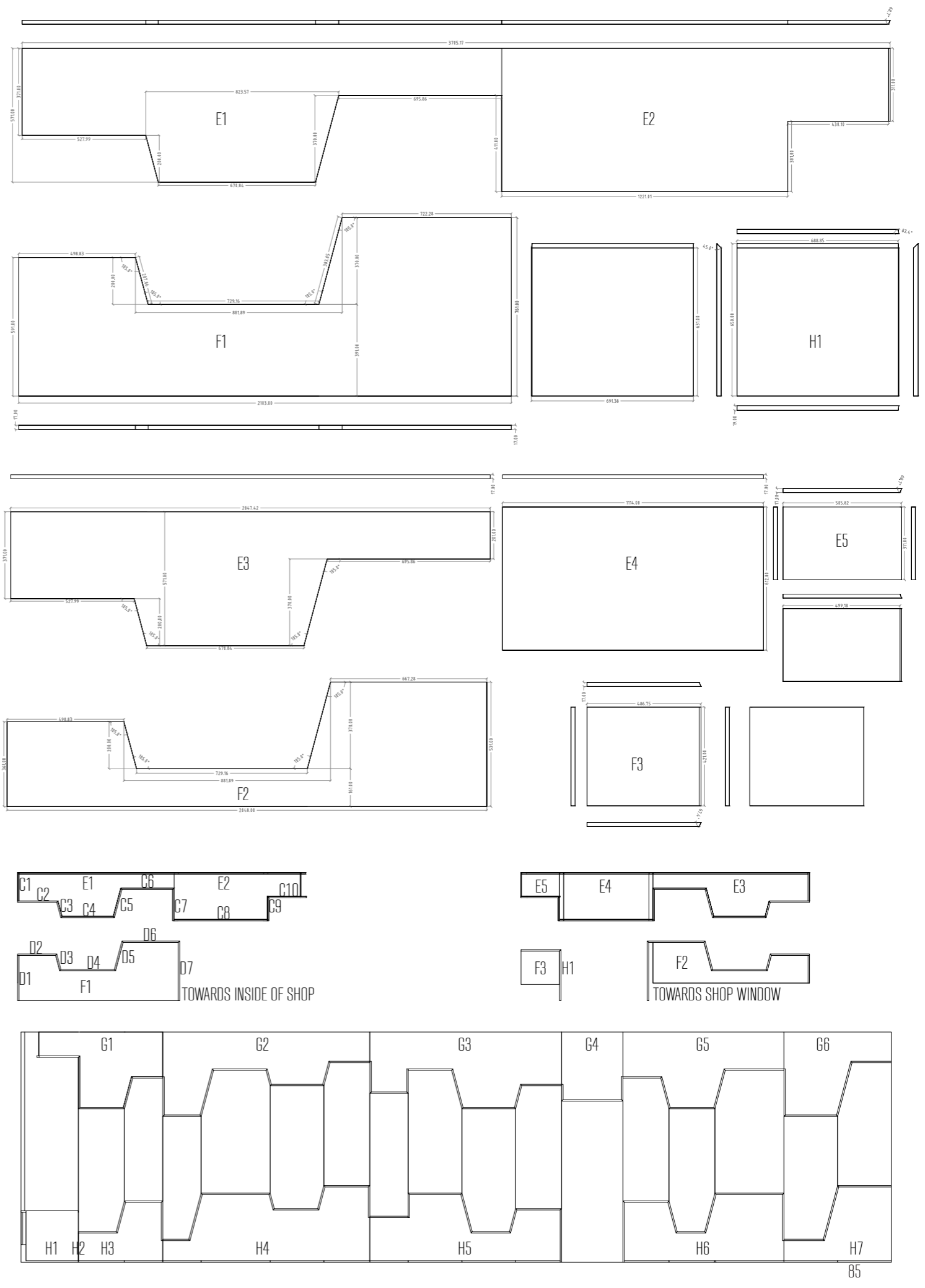
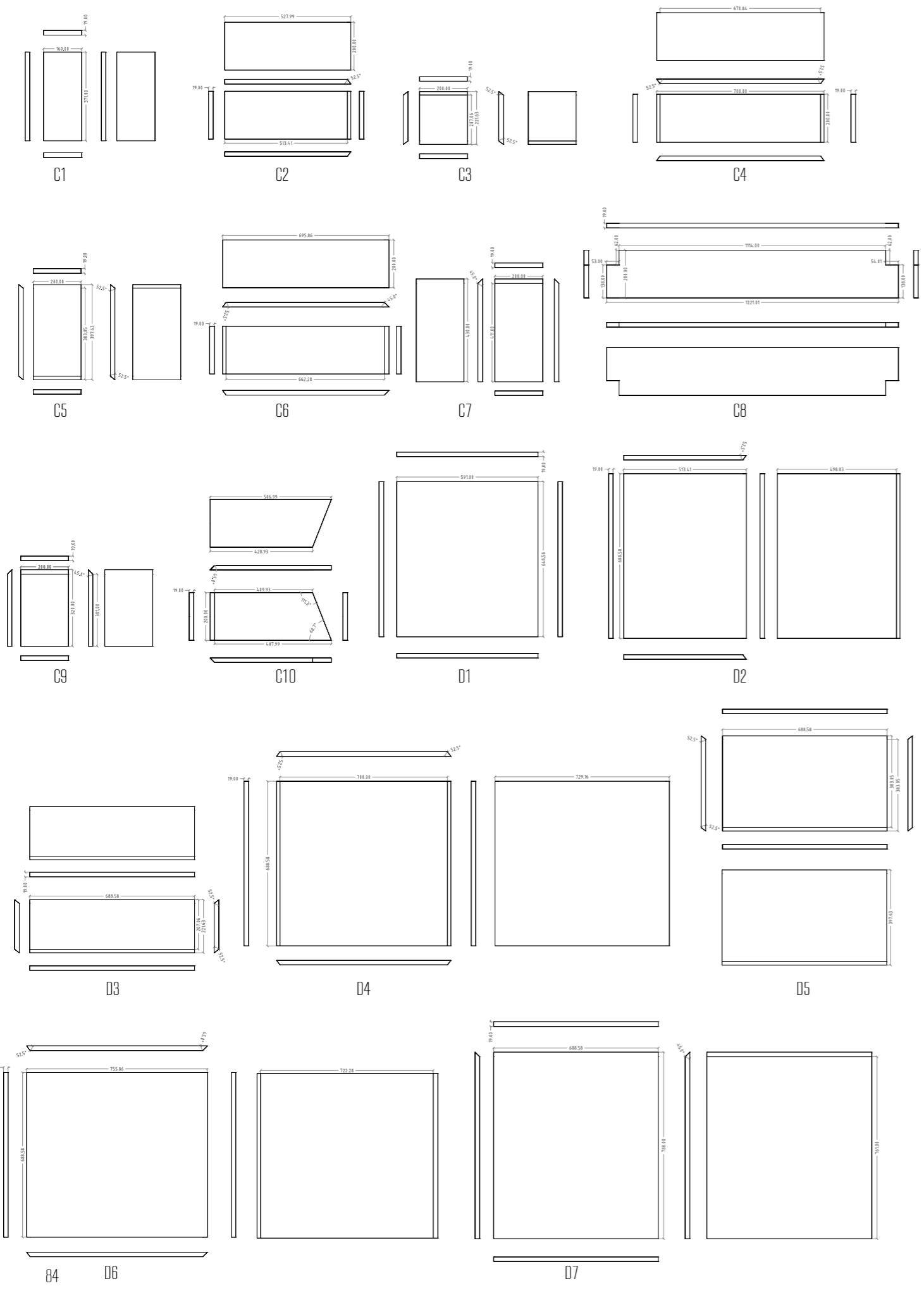


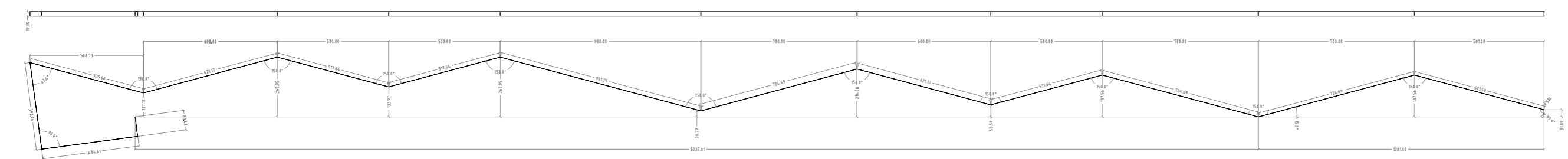
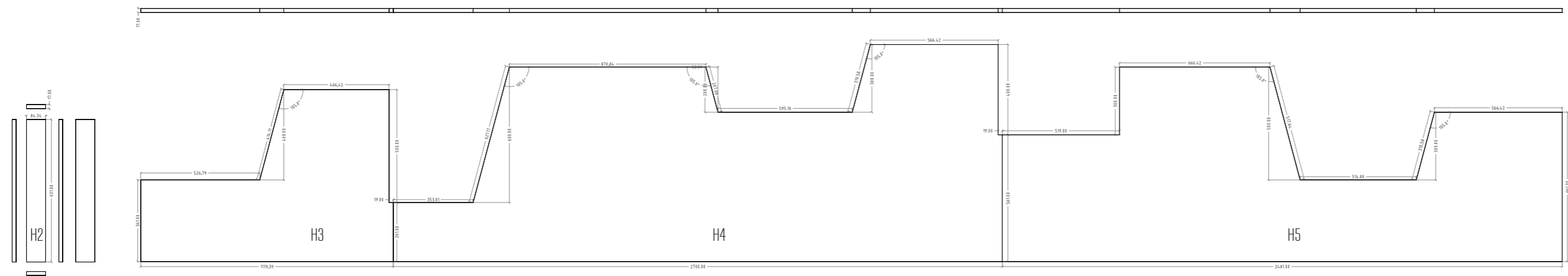
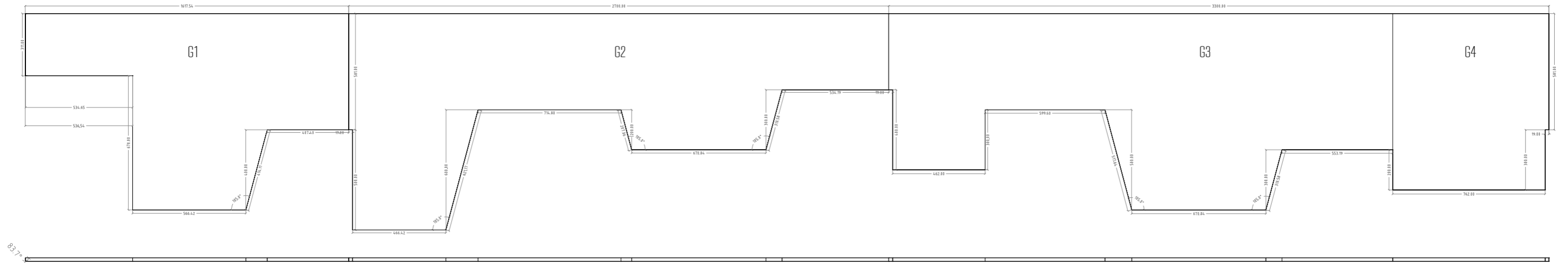
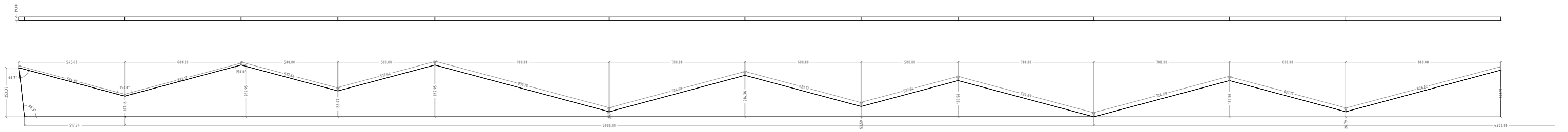


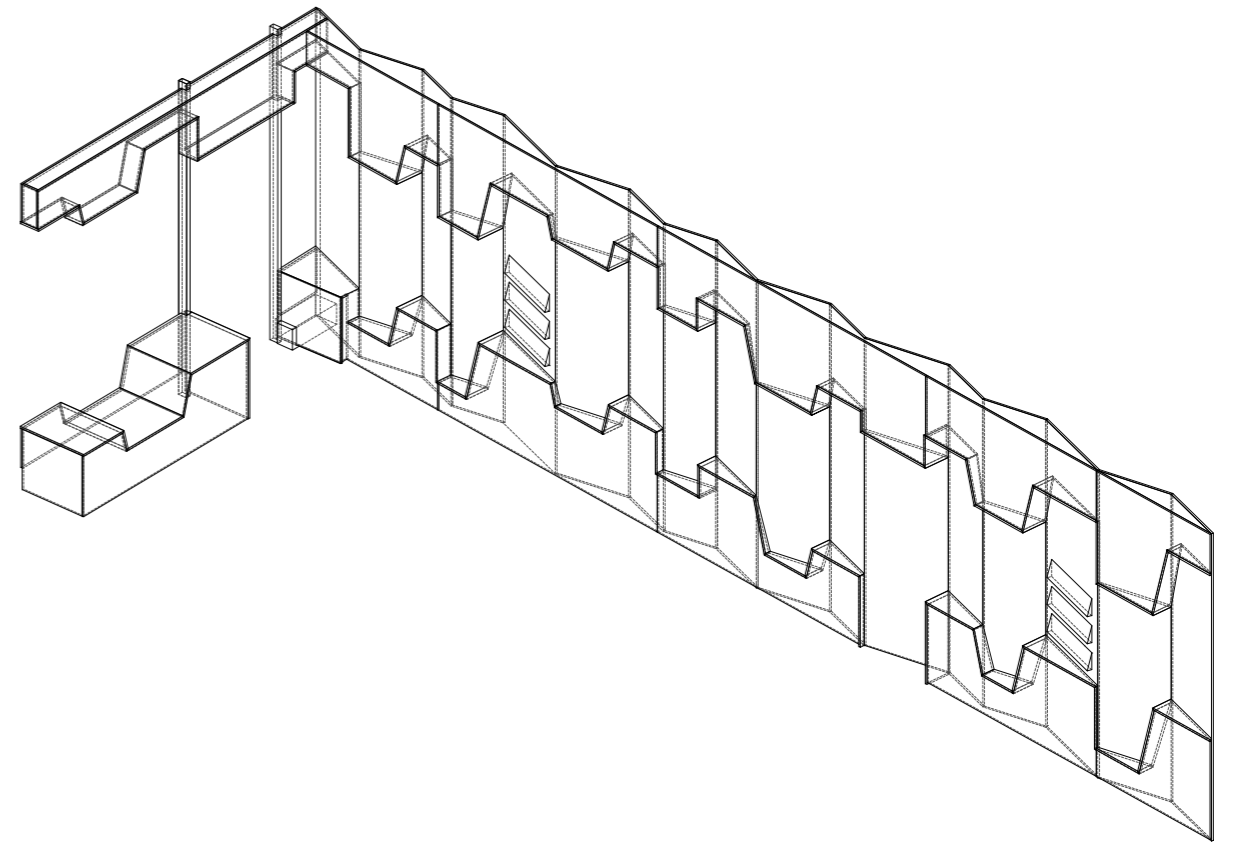
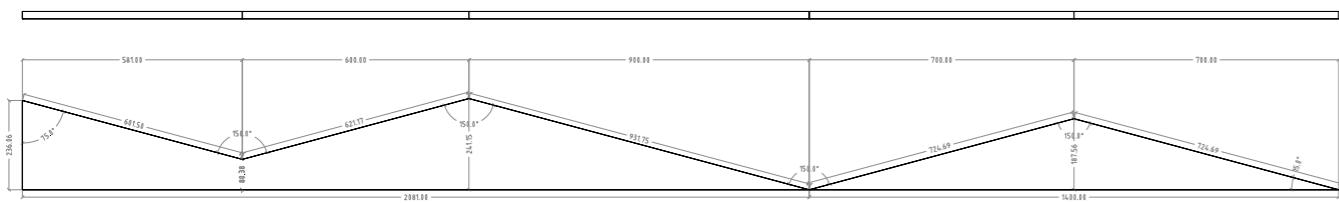
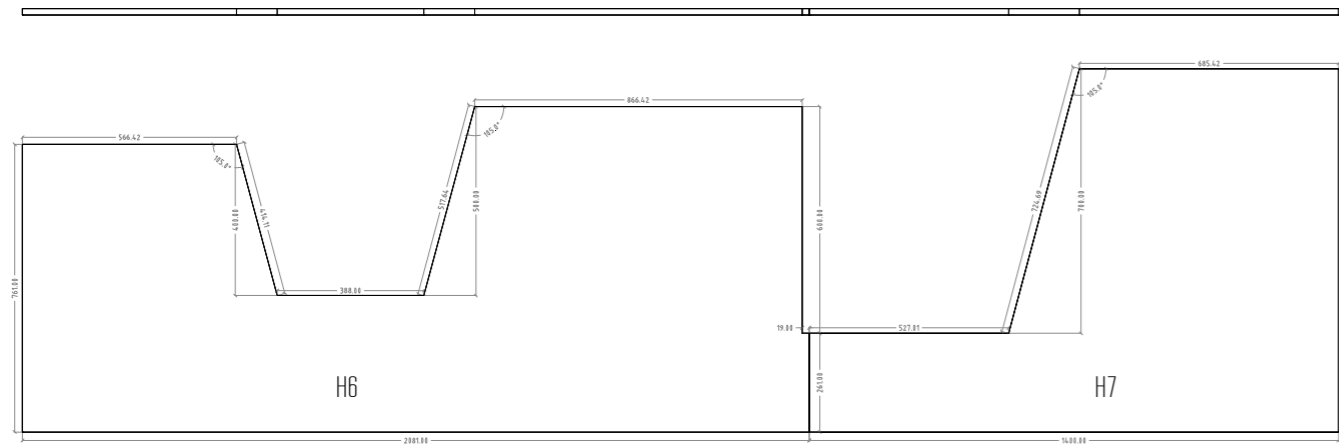
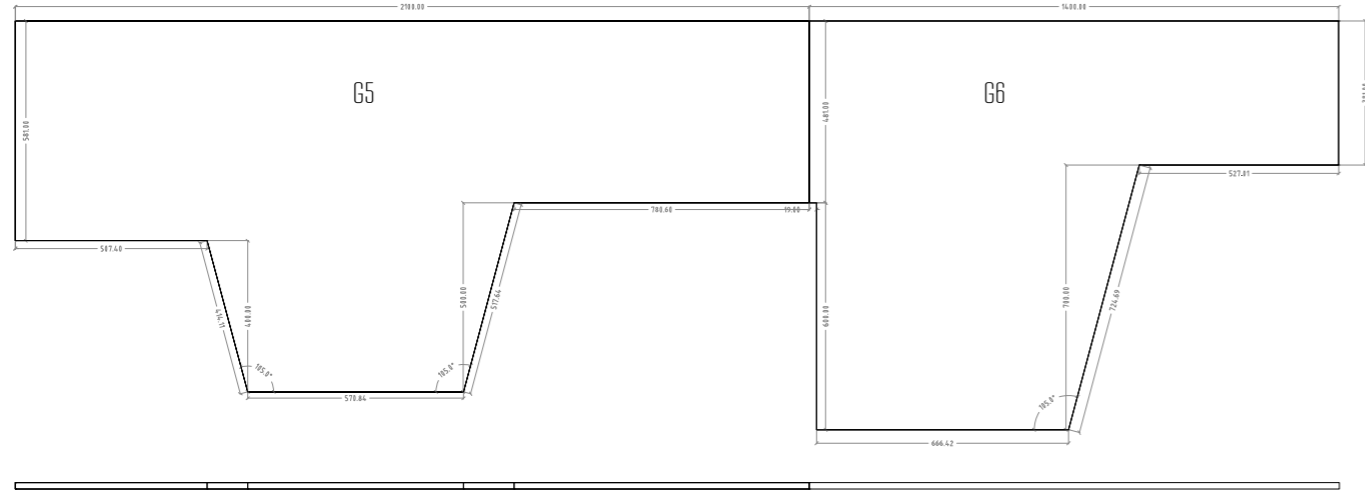
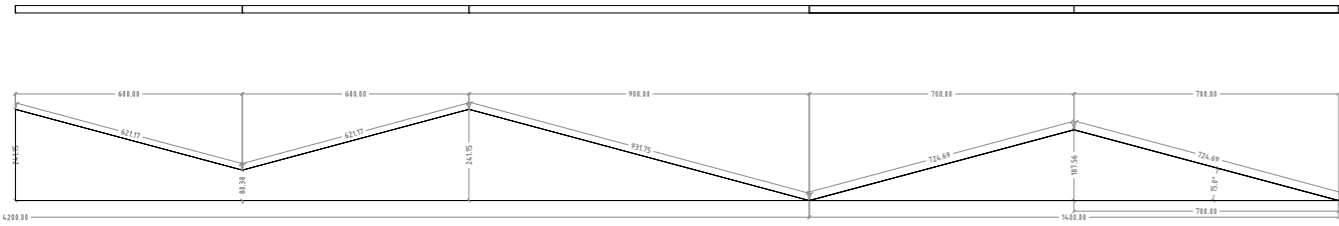
DISPLAY WALL PIECES SCALE 1:20











FULL INVOLVEMENT

I have been working as architect, project manager, craftsman, "electrician" connecting the LED strips, I have been making construction drawings at the carpentry, prepared drawings to put into CNC programs with drill size and drill path, transporting stuff, thinking about marketing, graphics, clothing, shaping the business profile, and at site I have helped the carpenters assemble it all and fit it on site to finally be the one cutting the fabric to the roof, nail it to the wooden frames and solving small problems like how to attach it to the spotlights. It has been a lot of hard work but also very fun and instructive! I now have better understanding of the production process and how much time it takes to solve and precisely adapt the design to the physical space so that it can be built.

I really enjoyed being a part of it all, being able to have discussions with the carpenters, electricians etc. at site, solving upcoming problems during the building process and have my say in it all. It is hard to imagine everything through a digital or 1:20 model, and if I only would have handed my drawings to the carpentry, and then visited the site when everything was done, I would not have realized the real complexity in production, especially when not everything is 90° angles. We made some minor changes on the drawings in the carpentry due to construction, but it did not affect the visual design. A detailed AutoCAD 3D model was very helpful when creating construction drawings and CNC programs.



TOOLS & EFFICIENCY

When designing the architecture, it is good to think about how the machines work, like that drill from the CNC will leave a radius on inner corners since the drill is round, and that each piece in the CNC needs to be lifted and placed into it. If one man can do that work because the pieces are small, time and money can be saved compared to being two persons lifting.

Just because you have a CNC does not make the computer drawings directly translatable into real matter. Programs have to be made, and sometimes it goes faster to cut things by hand at the circular saw than with the CNC.

Since I had the opportunity to work at the carpentry I did not have to make an exact drawing of where the buttons on the furniture should go, I took the drill and drilled them myself because at that point of time, I felt like that would be the fastest way, but that would not work when putting a larger amount of furniture into production. Then, precise drawings are very valuable.

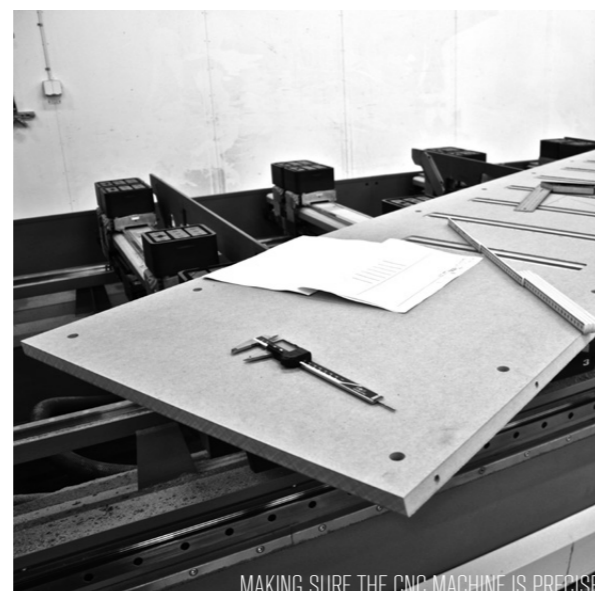
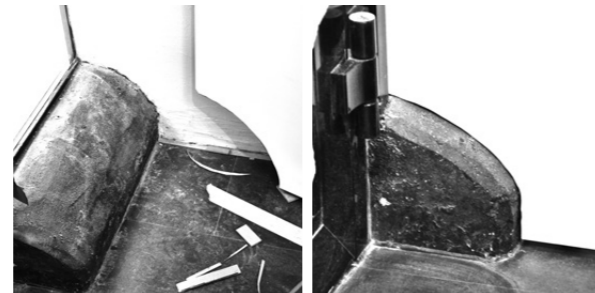


TOLERANCE AND PRECISION

I have learned that it is wise to allow for tolerance and have fitting pieces in several places of the design, because the floor is never completely flat and the walls are not completely straight. A lot of work can be saved by making real precise measurements at the site from the beginning, and even come back half-way through the project to test and measure if the objects will fit.

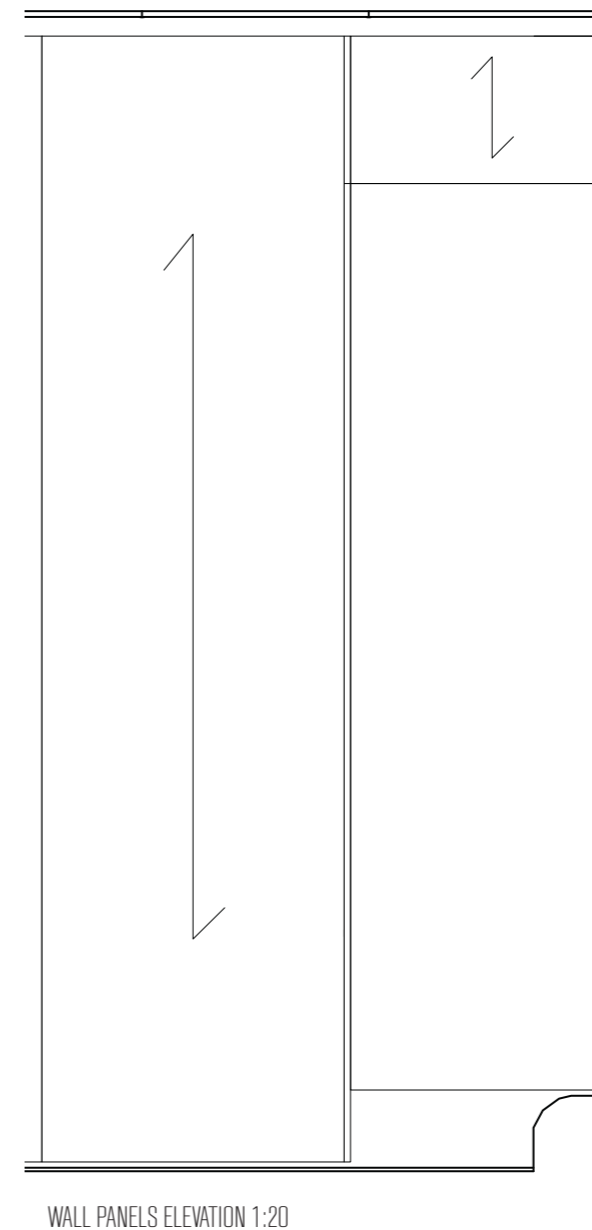
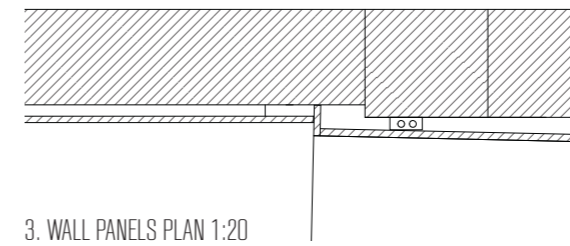
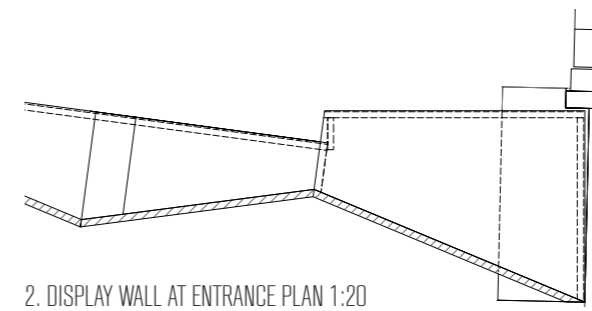
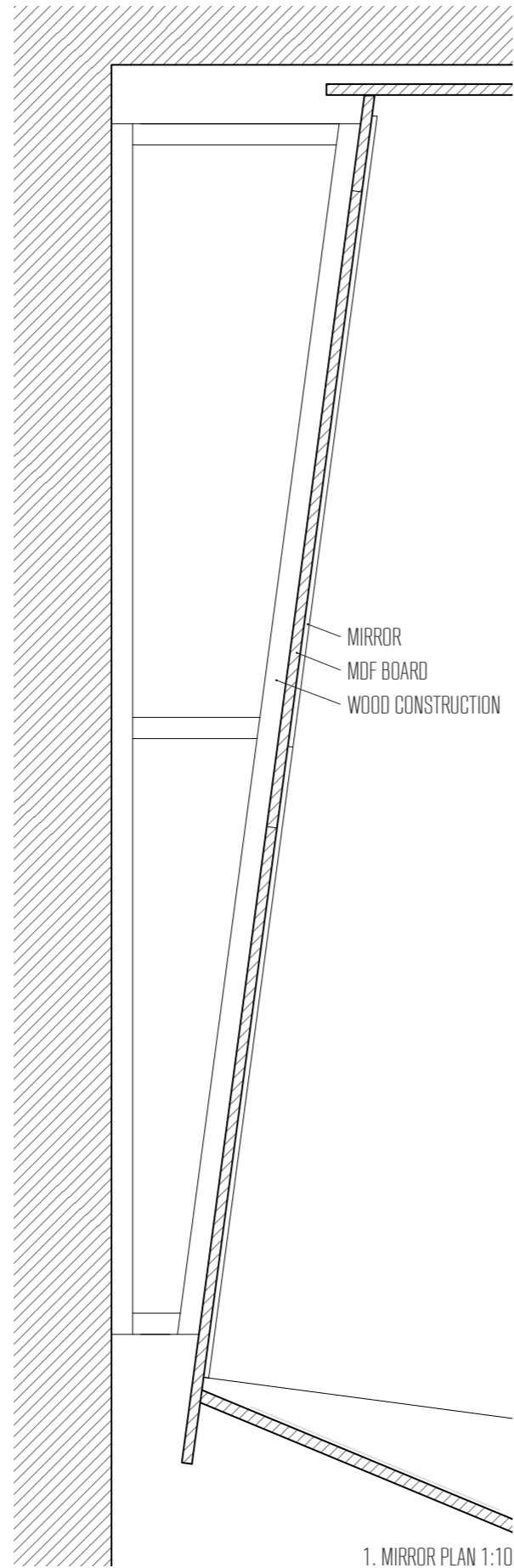
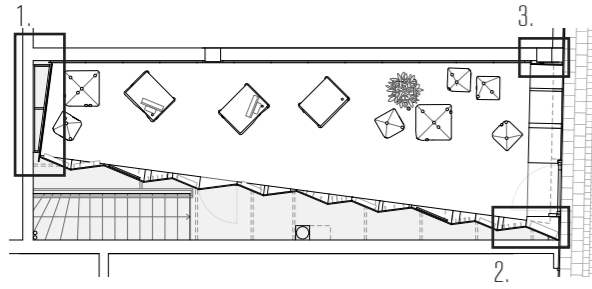
I visited Jönköping again in April and realized that the walls were not 90° angular to each other as I first had estimated. I had to change a lot of drawings and models, but it was worth it because the final assembly worked out fine. I also understood that it is better to make things a little too big if they are supposed to fit exactly, and then saw them on site, than to make them smaller or exact in the production and then get gaps when assembled.

For this project, it has been very important with a millimeter preciseness and to have good furniture carpenters for the assembly on site to get the "it-fits-like-a-glove"-result which was sought for. Making something fit like that sure takes some time and effort, but by being precise from the beginning, we did not have to use any sealant to fill up seams when it all was assembled – it all fitted perfectly thanks to good craftsman skills.



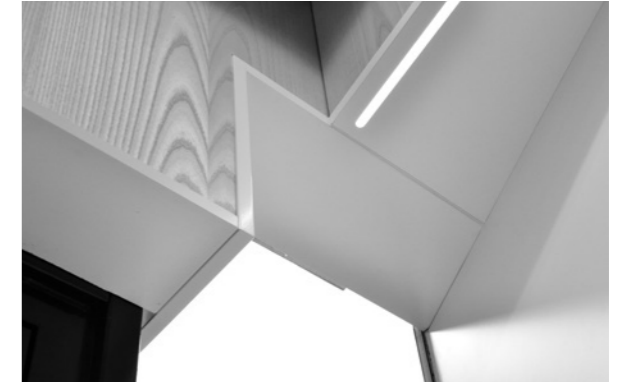
FIT THE MIRROR

To gain some fitting space for the mirror, it was attached to a MDF board with one end having ash veneer just like the adjacent wall. The mirror were supposed to be as close as possible to the display wall to obtain the optical illusion that the room is twice as big and that the display wall continues, so it was better pushing the mirror to the display wall side, leaving some fitting space on the other side.

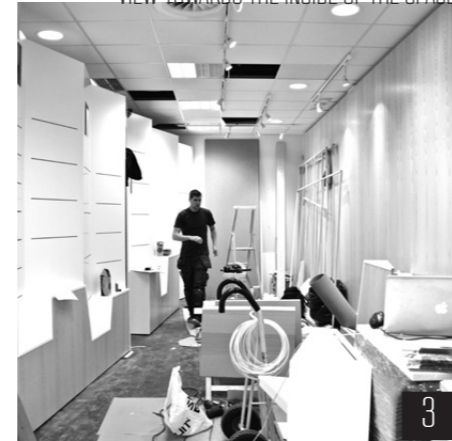


BETWEEN TWO WALLS

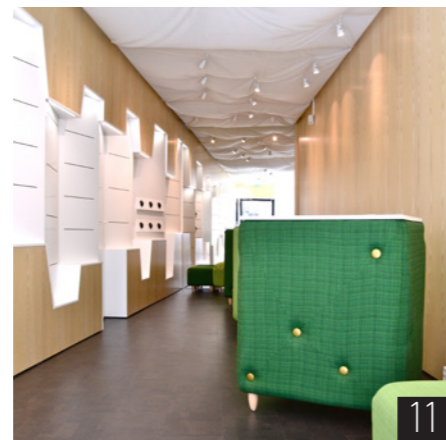
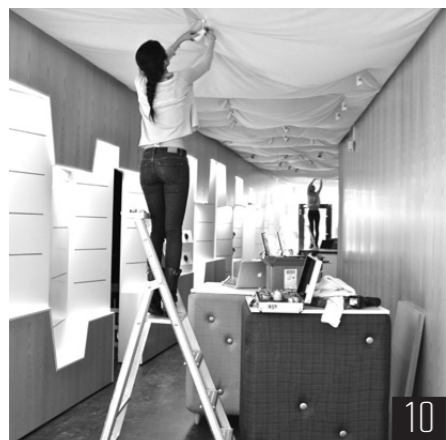
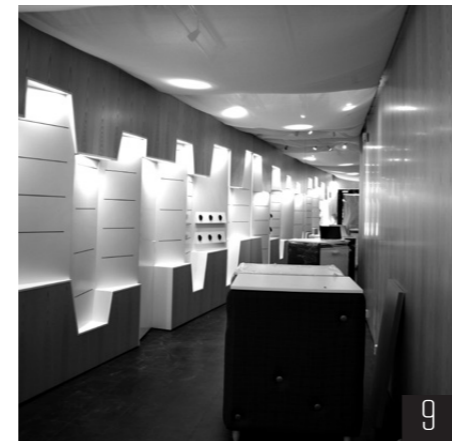
The wall piece over the entrance door was made too long at the factory and was then cut at site to fit perfectly. In theory, a similar piece was also meant to be stuck onto the outside of the window to let the structure continue out on the street, but in the end we had to let the interior stay within the shop.



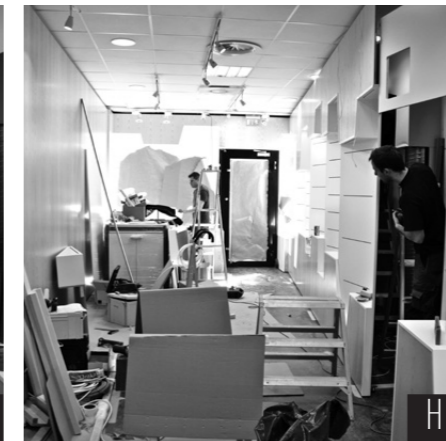
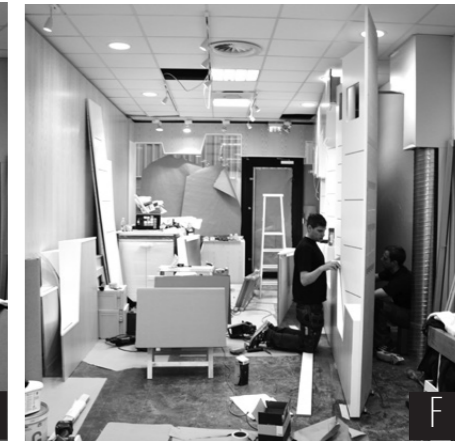
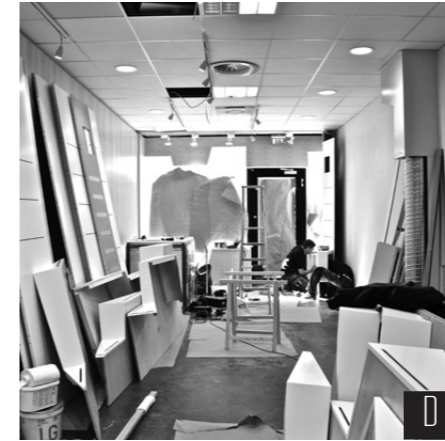
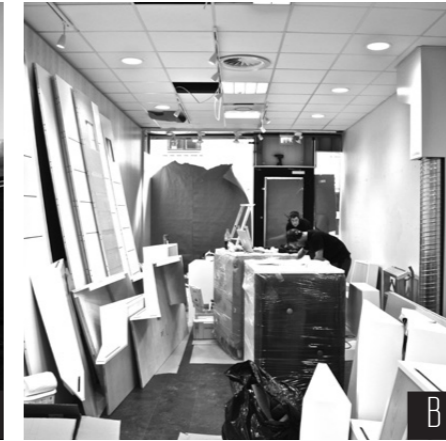
STEP BY STEP



VIEW TOWARDS THE INSIDE OF THE SPACE



VIEW TOWARDS THE SHOP WINDOW



EVALUATION

TRANSFORMATION

A CHAIN

EACH SHOP UNIQUE?

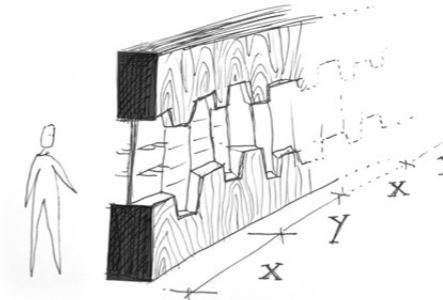
When not having unique packaging design or branded products, a business could strengthen the identity and quickly be recognized by keeping a similar design for all the stores in the chain. Money and time can be saved by making one store as a prototype. Then drawings, CNC-programs or texture samples can be kept for coming stores which can become more and more refined and improved. The schedule could become more realistic which could lessen the stress on all people involved and production could be optimized to leave less material waste. To make several stores similar and by that save money and time in the long run could also justify to work with more complex design that would take longer time to develop for the first store.

At the same time, cities and spaces are different so one solution might not fit everywhere, and should architecture be a repeated product or a unique piece of art? A shop design could be repeated in another way than a building could, but maybe not for More Than Phones. My design for the shop in Jönköping was to a great extent the result from the uniquely long and narrow space with windows at one end and a stair that I wanted to hide. How would the display wall fit in another space?

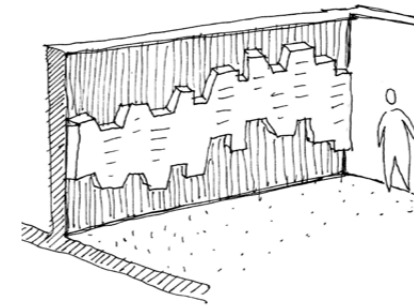
The skin care brand Aesop do have their unique packaging and they let different architects from different cities design their stores, each one having its unique soul and expression but still following the "pureness" of the brand. I think this way of taking context into consideration feels honest and the different designs intrigues one into visiting all stores.

If More Than Phones would develop into a chain, I imagine to keep concepts such as the commerce free Living Room, White Space, Senses and the Architectural Structure. The Living Room could be developed further and with a larger store, it could be more of a café or meeting place where people could sit and study or work, and hopefully attract more people entering the store that would result in up-selling. It could be the place to connect people, both physically on site but also interactive. If the cogwheel shape should be kept, it could be developed to be used as seams or wooden joints, but I think that next store is up for a new design... Or at least to keep the furniture but change the architecture.

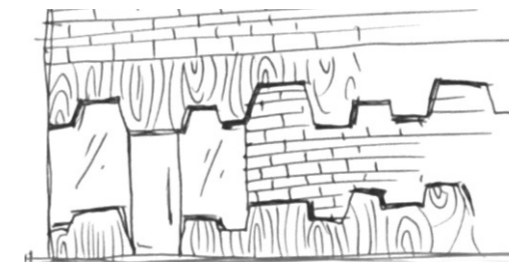
DEVELOPMENT IDEAS IF THE COGWHEEL SHAPE SHOULD BE KEPT:



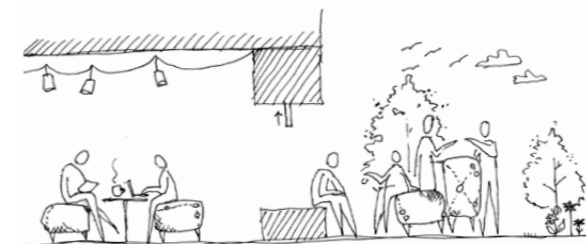
SIMPLIFY INTO MODULE SECTIONS
WHITE SPACE/NO NOISE/GATHER PRODUCTS
DIVIDE LARGE SPACES WITH A DISPLAY WALL



ADDITIVE INSTEAD OF SUBRACTIVE?



EXPAND THE INTERIOR ONTO THE FACADE
- SHOP WINDOW AS A CONTINUING STRUCTURE



CAMOUFLAGE SALES DESKS
EXPAND AND ACTIVATE THE LIVING ROOM
DEVELOP THE FURNITURE DESIGN



AFTERMATH

When I visited the store in June 2013 it was definitely up and running. Vahid was talking to potential customers out on the street and Daniel was selling subscriptions inside the store while serving coffee from a big thermos (the espresso machine is coming soon). The Living Room was not so much used as a "hang-out" space, because tablets to try out had not been installed yet, but it was used by people waiting in line or by family or friends to customers who were buying something.

I think that the Living Room needs some more programmed activities if it should keep people to stay for a while. I also think that the store space is a little too small to have a completely relaxed corner for hang-out, and that the store in Jönköping might not be the right one for that. Anyhow, the clients are satisfied, customers comment on the design and especially on the ceiling which they either love or hate, and the space all in all works well as a professional, up-and-coming telecom store!



THANKS FOR READING!



DANIEL SELLING A SUBSCRIPTION TO A WOMAN IN LOVELY, GREEN PANTS. SUMMER 2013

REFERENCES

Blom, Edward. 2008. *Handelsbilder, 125 år med Svensk Handel*. Bromma: Alfa Print.

Dallo, Eva. 2005. *Shop Design*. Köln: daab.

Hultén, Bertil, Broweus, Niklas, van Dijk, Marcus. 2008. *Sinnesmarknadsföring*. Malmö: Liber AB.

Hall, Edward T. 1990. *The Hidden Dimension*. New York: Anchor Books.

Koch, Daniel. 2007. *Structuring Fashion - Department Stores as Situating Spatial Practice*. Stockholm: Axl Books.

Peter, J. Paul, Olsson, Jerry C., Grunert, Klaus G. 1999. *Consumer Behaviour and Marketing Strategy*. Berkshire: McGraw-Hill Publishing Company.

Rogowski, Gary. 2002. *The Complete Illustrated Guide to Joinery*. Newtown: The Taunton Press.

Schittich, Christian. 2009. *InDetail: Exhibitions and Displays*. Basel, Boston, Berlin: Birkhäuser Architecture.

SHoP/Sharples, Holden, Pasquarelli. 2002. *Versioning: Evolutionary Techniques in Architecture*. In *Architectural Design*. Vol 72. No 5 Sep/Oct 2002. West Sussex: Wiley-academy.

Powershop - New Japanese Retail Design. Edited by van Tilburg, Carolien. 2002. Amsterdam: Frame Publishers.

Fairs, Marcus [10 December 2012]. "I was horrified at the thought of a soulless chain"-Aesop founder: interview [online]. Available from: <http://www.dezeen.com/2012/12/10/dennis-paphitis-aesop-interview/> [Accessed 30 January 2013].

OMA [16 December 2001]. Prada New York: [online]. Available from: <http://www.oma.eu/projects/2001/prada-new-york> [Accessed 25 January 2013].

PICTURES

All pictures taken by me or Thomas Bergh except for:

p. 7, 27 17 December 2012. *Kreis Wine Shop*, photograph. Viewed 30 January 2013. Available from: <http://www.dezeen.com/2012/12/17/weinhandlung-kreis-wine-shop-by-furch-design-production/>

p. 7 Gach, Sam. 24 July 2013. *Whole Foods*, photograph. Viewed 1 August 2013. Available from: <http://blog.amplifinity.com/blog-0/bid/100418/How-a-Whole-Foods-Power-Outage-Created-Brand-Advocacy>

p. 7 16 December 2001. *Prada New York*, photograph. Viewed 25 January 2013. Available from: <http://www.oma.eu/projects/2001/prada-new-york>

p. 7 Bleue, Chimay. 6 June 2009. *V.C. Morris Gift Shop, Frank Lloyd Wright, Architect, 1948*, photograph. Viewed 25 January 2013. Available from: <http://www.flickr.com/photos/88017382@N00/3598883067/>

p. 11 Google Maps

p. 23 Baumgardner, Evert F. ca 1958. *Family watching television*, photograph. Viewed 5 April 2013. Available from: http://web.archive.org/web/20071226081329/teachpol.tcnj.edu/amer_pol_hist/thumbnaill427.html

p. 23 *Old Living Room*, n.d. photography. Viewed on 26 May 2013. Available from: http://fs.njit.edu/competition/Group111_Cat1Second/group111/Living_Room2.htm

p. 27 1 January 2013. *Aesop Fillmore Street by Nadaaa*, photograph. Viewed 20 January 2013. Available from: <http://www.dezeen.com/2013/01/05/aesop-fillmore-street-by-nadaaa/>

p. 27 4 July 2012. *Aesop Shin Marunouchi by Torafu Architects*, photograph. Viewed 22 January 2013. Available from: <http://www.dezeen.com/2012/07/04/aesop-shin-marunouchi-by-torafu-architects/>

p. 27 Ano, Daici. 23 September 2011. *Issey Miyake Store by Nendo*, photograph. Viewed 27 25 January 2013. Available from: <http://retaildesignblog.net/2011/09/23/24-issey-miyake-store-by-nendo-tokyo-shibuya/>

p. 27 11 December 2011. *Aesop at IT Hysan One*, photograph. Viewed 27 January 2013. Available from: <http://www.dezeen.com/2011/12/11/aesop-at-i-t-hysan-one-by-cheungvog/>

p. 27 2010. *Lucien Pellat-Finet*, photograph. Viewed 27 January 2013. Available from: <http://www.wallpaper.com/directory/retail/2010/lucien-pellat-finet/2079>

p. 91 11 December 2011. *Aesop at IT hysan One by cheungvog*, photograph. Viewed 30 January 2013. Available from: <http://www.dezeen.com/2011/12/11/aesop-at-i-t-hysan-one-by-cheungvog/>

p. 91 4 October 2012. *Aesop at Tiquetonne by Cigue*, photograph. Viewed 22 January 2013. Available from: <http://www.dezeen.com/2012/10/04/aesop-tiquetonne-by-cigue/>

p. 91 4 January 2011. *Aesop at Merci by March Studio*, photograph. Viewed 20 January 2013. Available from: <http://www.dezeen.com/2011/01/04/aesop-at-merci-by-march-studio/>