A good chair

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An Industrial Design Diploma

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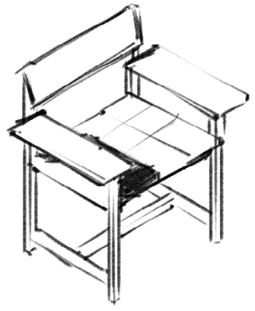
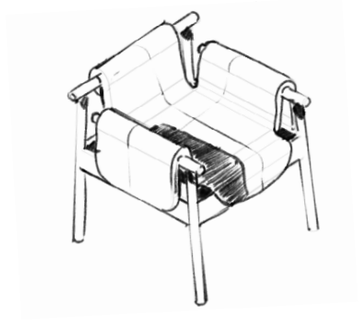
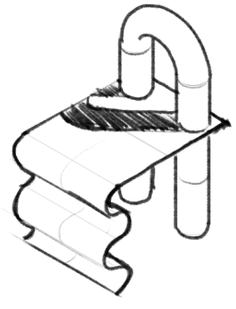
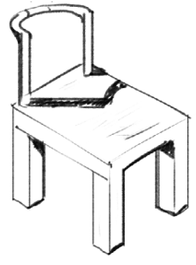
“The good chair is a task one is never completely done with.”

— Hans Wegner - 1952





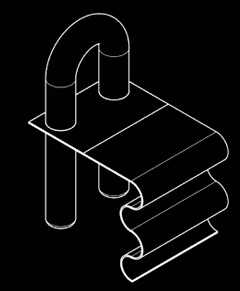




Abstract

“A good chair” is an experimental diploma project aiming to explore the role of practice and experience within design, more specifically in furniture design.

Through a continuous creation process called “One Week, One Chair” — a process where one chair is made every week for ten consecutive weeks — I explore different qualities of the chair in order to gain greater knowledge. The “One Week, One Chair” process and the insights it accumulates builds the foundation for creating one last chair, which in itself materializes and demonstrates the findings that were made throughout the process. “A good chair” aims to tackle the complex task of creating a “good” chair by going in head first with a practice based research method and learning by doing mentality. The diploma explores different aspects of learning through action and practice, with the end goal of creating a good chair.



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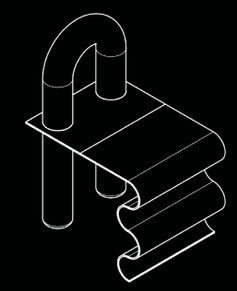
Introduction



Why the chair?

1.1

“The chair is a very difficult object. A skyscraper is almost easier. That is why Chippendale* is famous.”

— Ludwig Mies van der Rohe
February 1957 Time magazine

The chair is possibly the most iconic of all furniture. Described in the dictionary as “a type of seat, its primary features are two pieces of a durable material, attached as back and seat to one another at a 90° or slightly greater angle, with usually the four corners of the horizontal seat attached in turn to four legs. Strong enough to support the weight of a person who sits on the seat” . However, as a design object it is so much more.

The chair has always been a testing piece or a sort of rite of passage for designers and architects. From the first industrially mass-produced “No. 14 chair” by Michael Thonet to Marcel Breuer’s “Wassily chair”, Ludwig Mies van der Rohe’s “Barcelona chair”, to more modern designs like Alvar Aalto’s “Paimio chair”, Arne Jacobson’s “series 7 chair” and Charles and Ray Eames’ many well known pieces. The chair has long been a catalyst used by design icons of the time to showcase their skill and for them to explore shape and function in a relatable way. As a typology, the chair mixes form and function beautifully. One can often see how a piece is constructed and how form is used to cooperate and blend with its functions. You often hear as a student, wanting to become a furniture designer that the chair is off limit. Not until you are comfortable with the medium and command form, shape and function should you embark on the journey of making a chair. It’s simply too difficult a task for a new designer. I believe that this makes it even more important to practice exactly that typology. The harder it is, the more crucial it is to start learning early.

* Referring to the famous 18th-century English cabinet maker Thomas Chippendale

Personal interest

1.2

Photo from Studio Sløyd´s latest collection and exhibit (2020).

For the last three years I have spent most of my spare time working on, drawing and creating furniture. Together with designers Tim Knutsen and Herman Ødegaard I have established a small furniture design studio Called Studio Sløyd. We have created full collections of furniture with a focus on materiality and form, worked with Norwegian producers and done different design jobs around the country. I have also worked under one of Norway's most known designers, Andreas Engesvik. I have geared myself towards working within the furniture sphere. I want to shape and create functional objects that will live alongside its user for their entire life, and might even be inherited. I consider this diploma a wonderful opportunity to both mature and showcase the different abilities and skills that I have acquired throughout my masters studies. With this project I hope to challenge myself, by experimenting within a field that I am passionate and curious about. I hope and believe that this can help me better understand my own practice, and strengthen my abilities as a designer.

Inspiration 1.3

There is often a focus on the end goal or product when you start a larger project like a diploma. This time I was interested in turning that way of thinking on its head and focus on the method of reaching a goal more than the goal itself. The idea for this diploma was initially inspired by “Exercises in seating” by designer and Artist Max Lamb (2015). The project shows all of the works in seating he has done over a span of more than 10 years. The sheer variety in forms, materials and functions made me realise how vast the world of seating can be.

Another project which sparked my interest was the project called “Daily Spoon — 365 wooden spoons” (2015), a project by designer and artist Stian Korntvedt Ruud which consist of 365 wooden spoons. Through the practice of creating a spoon every day he delved into the form language and functions of the spoon and gained knowledge through continuous practice.

The third inspiration was a book called “Now I Sit Me Down: From Klismos to Plastic Chair: A Natural History”. The distinguished architect and writer Witold Rybczynski writes about the history of the chair through interesting stories that show the cultural meaning of sitting and the objects that allow us to do so.

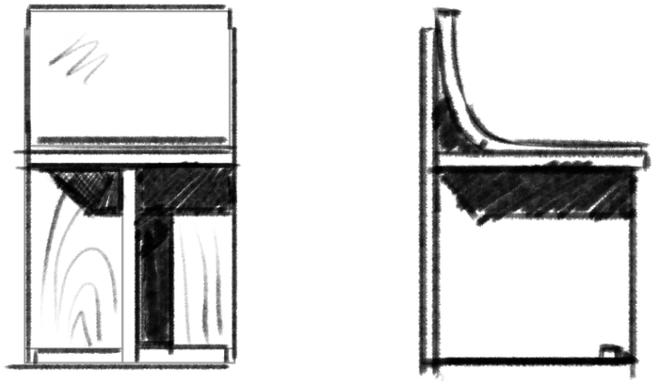
Second to last, a diploma project done at the Oslo School of Architecture and Design by designer Erlend Søderlund called; “ A form and material study of solid bent wood in combination with porcelain.” His approach and playful way of looking at design inspired me to explore design from a personal and new perspective. Lastly a diploma project done at the Oslo Metropolitan University by Vilde Hagelund called “Objectum” Where she used a practice-led design method to explore a material and its qualities.

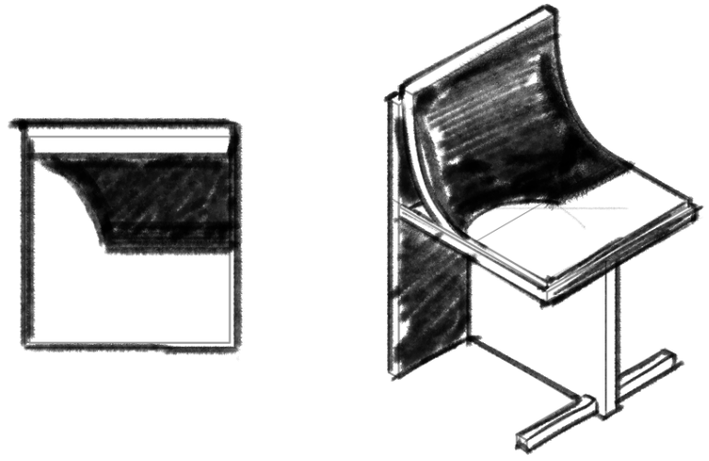
These five projects were the foundational inspiration for my project. Using practice as a way to explore a subject came from the practice like method of Stian Korntvedt Ruuds project, My interest in the Chair as a medium came from the huge form-library Max lamb had created, the book “Now I Sit Me Down: From Klismos to Plastic Chair: A Natural History” thought me the meaning and significance of the chair as a cultural object and the playful approach of Erlend Søderlunds project gave me the foundation for doing something a little outside the norm. Like these projects I have — some 5 years ago— undergone a practice like project where I made one drawing each day for one whole year which gave me the confidence to know that I might pull through a labor intensive project like this.

Max Lamb —
Exercises in seating Milan (2015)
Photo: Max Lamb

Stian Korntvedt Ruud —
“Daily Spoon” (2015)
Photo: Stian Korntvedt Ruud

One more chair 1.4





As designers we have many responsibilities. Possibly the most pressing responsibility of designers today is the environmental impact of what we make - we need to be held accountable for our projects. At the same time, we need to meet the demands of our users. Human consumption and the demand for design and objects will not suddenly stop. Accordingly, designers today are facing the challenge of creating objects that are sustainable, that can —and hopefully will— replace harmful products. As an aspiring furniture designer it is vital to design objects that are long lasting and environmentally friendly. Objects that are in either recyclable or green materials or leaves a minimal imprint on the environment. Whats interesting about the chair is that its functions never stops, its function is never outdated. Unlike other products of our time, like a phone or computer. These objects have a lifespan of a few years because of the rapid improvement of technology. The chair's function on the other hand, will virtually never change. As long as the chair stands, its function will still be present. Therefore it's important to create good chairs that last a lifetime.

What is 1.5

‘good’?

There are certain chairs that are somehow commonly and exclusively perceived as “good” chairs. Like Hans J Wegner’s “The Chair” or Arne Jacobsens “Series 7 chair”. But what is the intangible quality of these icons that qualify them to be considered *good* or even *great*? Is it experience, or simply genius? It can be quite easy to fall into a theoretical approach in exploring notions of *good*. Through this diploma I want to develop an active and physical approach in exploring different notions of *good* and what this might mean for me as a designer.

Series 7 chair
Arne Jacobsen
Photo: Sarah Blais

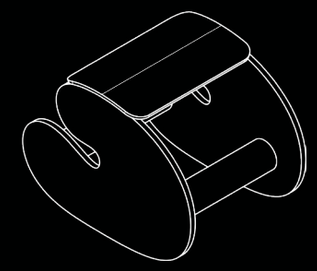
The Chair (The Round chair)
Hans Wegner
Photo: Katja Kejser & Kasper Holst Pedersen

Goal

1.6

The goal of this diploma was simply to learn as much as possible about the chair as an object and how to make one. Through a practical and hands on approach, I wanted to see if I was able to produce something of quality. I wanted to create the groundwork necessary for me to enter the world as a furniture designer. To do that I needed to create a library of knowledge and experience.

2.
Methods



In this chapter I will go through the methods I used to gain knowledge and insight and explain their relevance for this project

Practice-based research

2.1

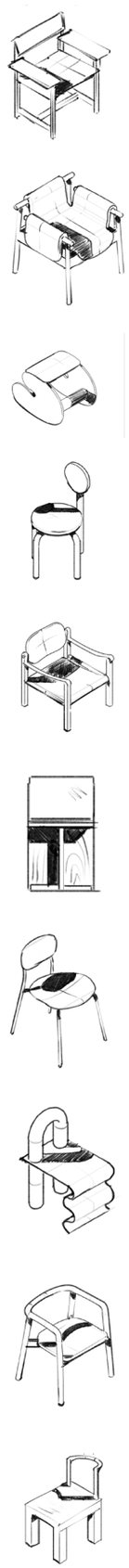
“Stated simply, practice-based research is an original investigation undertaken in order to gain new knowledge, partly by means of practice and the outcomes of that practice.” Candy and Edmonds writes in the MIT Press in a paper called “Practice-Based Research in the Creative Art.” .(Candy, Edmonds 2018, p 63)
To clarify, practice-based research is a form of academic research where the practice itself is part of the research along with the outcome, which in this case is a physical object. The artefact that the practitioner creates is an integral part of the practice. The process of making provides opportunities for exploration, reflection and evaluation and the findings might even be fed back directly into the artefact itself.
“Practice-based research is different from other types of research in the sense that the creative works developed throughout the research process are included in the final delivery. A full understanding of the significance and context of the research can only be obtained by experiencing the actual works instead of simply having it explained”. Candy and Edmonds continue to write.
As context is crucial to fully understanding the work, it is important to provide a context for the artefact to be seen or critiqued in. Therefore the artefact must be accompanied by a textual analysis, explanation or something similar to demonstrate reflection and learning outcomes. In this case that textual analysis would be this document.

Its important to create guidelines for a project that uses a practice-based research method. The guidelines or structure helps to quantify and structure the learning outcome. In my case I have used the method to practice and learn through the making of chairs. The structure is a weekly creation cycle, which allowed me to reflect and work continuously in a given time frame. Every chair, after it has been made, was tested, all important data was filed and the learning outcomes logged. These findings were the foundation for creating the final chair where all the things I learned from the cyclical period was fed back into the last chair.

One week, one chair

2.2

Maybe the most important aspect of my diploma is how I have chosen to manifest the practice based research. It's called the "One week One chair" process. During this process, as the name implies I have created one chair each week. Starting on Saturdays with sketches and ideation, Sundays will be 3Dmodeling and planning. Mondays is mock up day, then Tuesday and Wednesday is building day. Thursday is testing and lastly Friday is fixing, iterating and finishing. This cycle continued for ten weeks becoming — along with the learning outcomes — the largest deliverance of my diploma, but not the only one. After going through this process I have quantified all the learning and insights I have gathered during the process to create one final chair. This chair represents what I have learned and all my work as a punctuation on a very labor intensive project. The reason I have chose to create such a method was for me to learn trough research by design and a hands on methodology learn what a "good" chair really is.



Giga mapping 2.3

“Giga-mapping is super extensive mapping across multiple layers and scales, investigating relations between seemingly separated categories and so implementing boundary critique to the conception and framing of systems.” (Sevaldson 2011) Mapping has been a very important way of communicating to myself, and to others the findings I have made during the practice-based research method. Mapping is often used to understand complex structures. In this diploma it is used to collect information and to find commonalities in qualities that are “good” and “bad” shedding light on what works and what doesn’t and thus making that information available.

Live mapping 2.4

During these months I have been using the Giga map Method in an unorthodox way. Every week I have update the giga map with the findings of that specific week and drawn lines and similarities between the weeks as they went by. This approach helped me quantify my findings, therefore made it easy to learn and integrate that knowledge quickly.

Expert Interviews

2.5

In-between the process of creating and quantifying the information, I have interviewed Andreas Engesvik and other people in the industry to learn more about the chair as an object.

Diary

2.6

As part of the practice based research method it is important to communicate the process. How it feels, the details of the work and allow for some more personal insights, so that others that might want to try something similar in the future will have a reference point. I chose to incorporate a diary. Everyday I wrote down what had been done that specific day and some of my thoughts. This is also where most of the process and developmental work and photos will be shown.

The diary and process can be found in the attached file (attachment 1) or at;

→ www.agoodchair2020.com/diary

Workshop

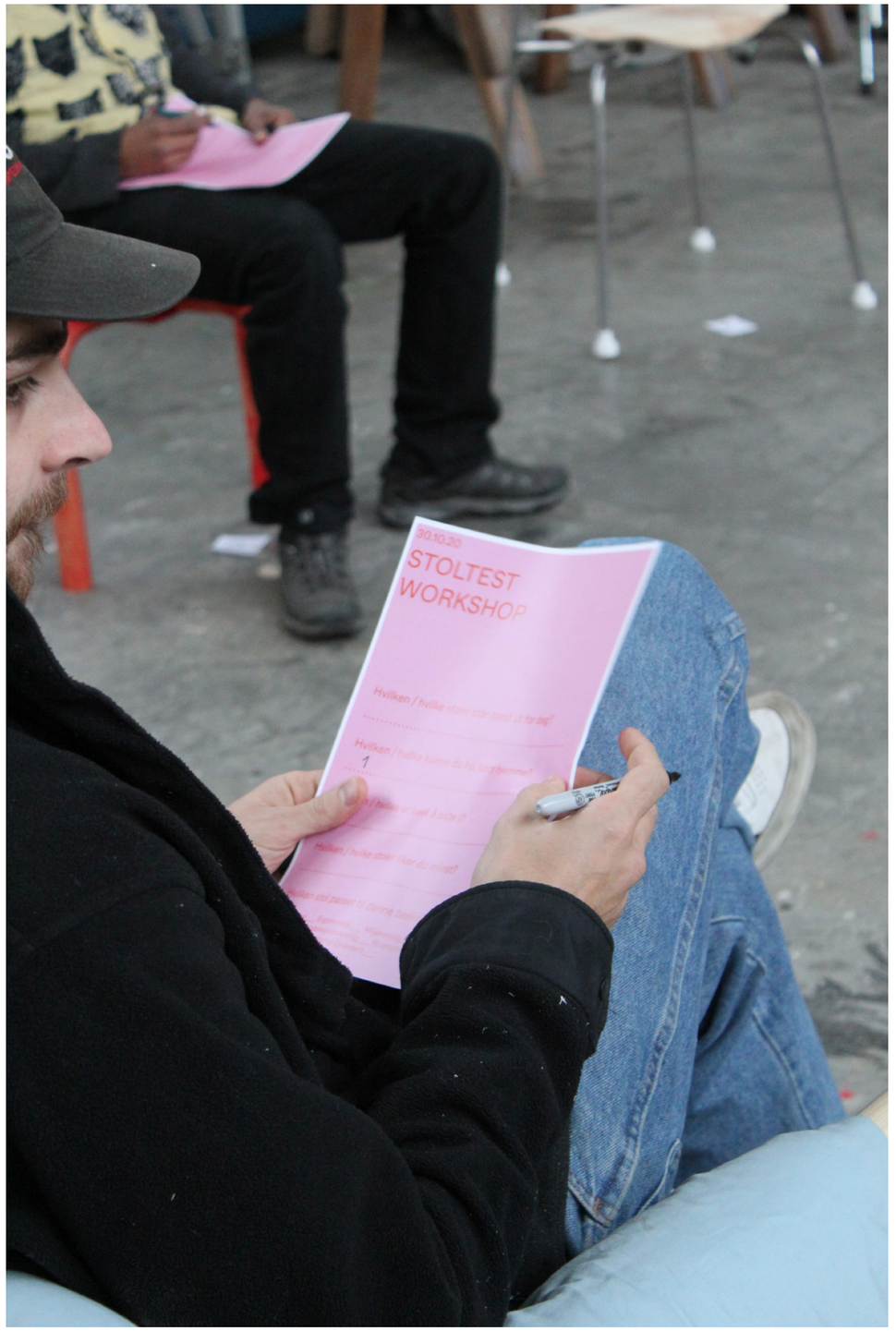
2.7

Workshops are a way to test and understand the user and their needs. “Workshops are often used in the information systems and design fields to evaluate artifacts or to co-create business innovations” (Thoring, Mueller, Badke-Schaub 2020). In relation to my project there are many things I overlooked as I made the chairs. Creating a space and a setting for discussing the objects and their qualities greatly helped me see my project from other perspectives and gain new insights. This ended up being valuable to the project and allowed me to fill in information in places I had overlooked.

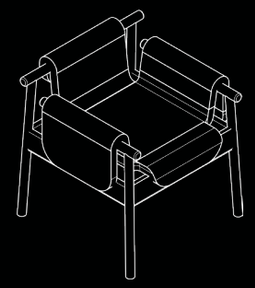
User testing

2.8

“User-based evaluations (or user testing) are usability evaluation methods in which users directly participate. Users are invited to do typical tasks with a product, or simply asked to explore it freely, while their behaviors are observed and recorded in order to identify design flaws that cause user errors or difficulties” (Bastien 2009). An integral part of design work is testing your designs against its users. In this project I have tested and iterated with users of all ages and sizes who were willing (and allowed) to test the objects and filed the feedback.



3.
One Week, One Chair



In this chapter I will go through the ten chairs that were made during the “One Week, One Chair” process and explain the choices that were made for each one. This will all accumulate into the general findings of the practice and what I have learned during it.

10 qualities

3.1

Before the project started it was important to develop some ground-rules and guidelines before the practice could start. So before the semester began I sat down with furniture designer, Fredrik Wærnes and later Andreas Engesvik. I wanted to hear their take on what a good chair is and what qualities or adjectives could be used to describe such a thing. These qualities would become the backbone for the “ One week, One chair” process, where every week I would explore a quality and learn as much as possible by delving into it specifically. In discussion with Fredrik Wærnes and later Andreas Engesvik we came up with a list of 10 qualities that could describe a “good” chair.
From production friendly to material oriented, the qualities span a broad landscape, and some — like the timeless and contemporary qualities— even contradict themselves. A good chair does not need to have all of these qualities, but, some of these qualities will be present in a good chair. This list is not the definitive list of what qualities needs to be present for a chair to be considered good, but a starting point for the practice and a reference point for critique, feedback and learning.

01 Production friendly

02 Conceptual

03 Timeless

04 Contemporary

05 Material oriented

06 Sustainable

07 Aesthetic

08 Universal

09 Ergonomic

10 Comfortable

Rules and goals 3.2

It’s crucial to lay down some rules and goals for what I wish to achieve by these ten chairs. Most importantly it’s a method for learning. I wish to use this method as a way for me to understand the chair as an object and be able to gather knowledge through the effort of making them. This is an exercise that will hopefully yield insights into the chair and its qualities, not an answer to any of the categories set forth during this process. I am not trying to create the perfect chair, for instance I know I will not create an Aesthetic chair in a week. But by diving into the material and trying my best to explore and create my own interpretation of “aesthetic”, I will learn from it and most importantly I will be able to bring that knowledge with me further. I am not trying to find the ultimate answer or representation of each quality, but rather, my own interpretation of what this quality might be.

Archetypes 3.3

When it comes to these ten weeks it’s also important to note that I am not trying to design and make the archetypal answer to any of the qualities or categories I have laid out. There are a thousand ways so solve and design all of the categories I’m working within and a category itself could be a whole diploma project. I am merely highlighting elements to exemplify for myself and for others how my definitions shaped my process and what I can learn from them.

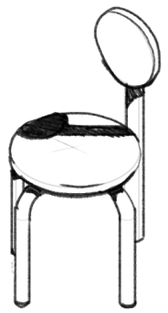
Approach for learning

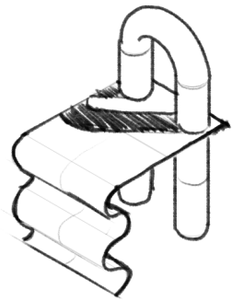
3.4

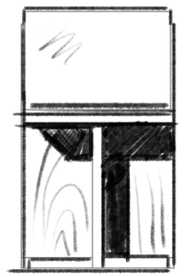
As an exercise there are two ways to approach the One week, One chair process. One, is that I analyze all the information gained from the chairs and use that information actively in making the chairs the following weeks. This will help me improve and implement the insights I have gained quickly. The other way is to start fresh each week, to explore as much as possible without holding previous biases on how a chair should be. This approach will create a larger span of different chairs and will allow for creativity and exploration to flourish. I have chosen to explore a combination of the two. There is some information that I have learned that was too important or crucial for a specific type of chair to let go, but still, I tried to start each week as fresh as possible in the hopes of exploring as much as I could during these ten weeks.

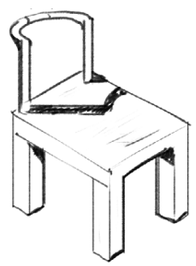
The 10 chairs

3.5









01 Production friendly

Production friendly is a wide term that spans over different production methods and facilities. A rotation moulded chair might be as production friendly as a straight four legged chair depending on the context. I have chosen to work with traditional Norwegian wood and the standard sizes the industry works within and how to design within those perimeters.

For any chair to become produced or made in any scale larger than a few, it needs to fit into a the specifications of a production facility. This will vary from producer to producer. Some have 5 axis CNC mills, while others have a table saw and some quality woodworkers. I wanted to draw a chair that any facility, big or small would consider easy and effortless to produce.

The chair is made with consideration of the standard sized lumber called the “two by four” which is roughly a piece of wood, 50mm across the end grain and 100mm along it. The measurements of the chair is made to fit the specifics of the “two by four” as well as possible. From 1 piece of wood 2000 mm long you can get four of the flat volumes of the chair or eight of the support beams or legs. The joinery is made easy by using a domino machine. The domino machine is a standard woodworking tool that creates holes in both pieces you want to join and inserts a chip of compressed wood into the holes. Once glued the chip will expand and create a tight and invisible joint. If the facility does not have a domino machine, the technique can easily be replicated using wooden plugs of any kind. The angle of the chair seat is made from the fall angle between the front support beam and the back. The pieces of wood that compose the seat are aligned along the length of the chair so that the wood does not need to be glued together just separated with a simple wooden plug. This will remove the operation of gluing boards and simplify the production further. There is only one detail on the chair that will need further handling, and that is the angle of the back piece. To achieve a solid and sturdy chair the design greatly improved with a slight angle in the back legs where they meet the back for increased comfort.

Shape

The shape of the production friendly chair arrived from the goal of creating a chair that is just that. Friendly for the producers, but rich in shape. The shape has an architectural feel with the overlapping volumes that creates positive and negative spaces. The flat boards create a large surface for the material to shine while the beams create structure and order. The construction is clear and simple, creating a form language that is accessible for anyone.

02 Conceptual

Conceptual is a category with many possibilities, I have chosen to work within material exploration and novelty to create a somewhat new and interesting juxtaposition of materials and their shape.

A good chair can be conceptual, breaking with the norms of what a traditional chair is. Making way for new thoughts, shapes and functions. The history of furniture design has been shaped by eras, these eras shift gradually, but for a change to happen, conceptual and thought provoking pieces must be made to change the status quo. The conceptual chair aims to introduce to materials together that are highly unlikely to be seen in a chair together, namely; coloured gypsum and plywood. The chair explores contrasts trough the rigid lines of the plywood and the flowy nature of moulded gypsum. Together they create an unusual synergy and a new shape language. Gypsum as a functional building material is rarely used. But as a material it has an abundance of potential. It is often considered quite heavy, but if you adjust the ratio of water to dry gypsum and add a fiber like substance that fills space the material can become quite light and sturdy. Liquid molded parts are not common in furniture and makes for an interesting piece that grabs the eye.

Shape

The angular plywood shape is drawn in contrast to the flowing shape of the gypsum with the goal of highlighting each others presence. The gypsum flows in an unnatural way with its sharp edges that gives the chair some mystery as to how it’s built and the functionality of the bent material. The plywood supports the gypsum and places itself in a secondary position, allowing the gypsum to receive most of the viewers attention.

03 Timeless

A timeless object comes in many shapes and sizes, finding out what that term even means is something to study. For this chair I have chosen to approach the topic through the lens of existing, well known, timeless objects to see if there is something to learn from studying their shape, typology and production method.

Timeless was the category I dreaded the most making. Ideating, drawing, modeling and creating a timeless piece of furniture is the work of a lifetime, and to do it in a week feels almost blasphemous. The chair I have made takes cues from the modernist chairs of Arne Jacobsen, with a laminated seat that uses the veneer in a 3D like way and steel legs that forms the bearing for the chair itself. It is light, clean and understandable. To lift the seat and secure the veneer I have made simple plastic holders that work both as support and as a lifting mechanism for the seat and back. The shape is influenced by the technology that was used by the now famous modernists called laminating. A process where you apply pieces of thin wood called veneer on top of each other with a special glue. These pieces are then put into a two part mold, secured and put under a huge amount of pressure, most often by a hydraulic press. After you let it sit for a while the form is imprinted on the thin layers of wood, now in one solid strong piece. All that is left is to shape the piece any way you desire. This process was done on both the back and the seat pieces. Re-using the same mould to save material and costs.

Shape

Inspired by the modernist chairs of the 1950, specifically the “Series 7” chair by Arne Jacobsen. The shape alludes a form that is “impossible”, the two way bent wood. The metal and wood are treated with a simple finishing oil and the wood is sanded down to about 500 grid sandpaper. This allows the materials to represent itself in its most clean and lasting form. The shaped seat and back uses the same curvature and creates a gentle flow through the chair that is supported by the traditional steel legs that point towards the center of the seat, giving the chair a sense of reliability

04 Contemporary

Contemporary is the category/quality I was least known to. In and of itself its a quite lofty term. In different contexts the word means different things, but the way I have approached it here is leaning towards the topic of trendiness. What is going on in the zeitgeist of the furniture industry. What shapes and form language is used and so on.

The contemporary chair follows the trend of blending the genre of art and functional objects. An example of such work is the Norwegian designer and artist Sigve Knutson who works in the thin line between art and designed objects. The chair tries to merge different contemporary shapes, like the rounded “fat” wooden pipes and the wavy colored metal to create a “new” and novel composition. The lack of function pushes the chair into context more like art and sculpture but retains some of its “usefulness” and functions.

Shape

The shape works with graphic and illustrative shapes. The strange shapes juxtaposes a graphic approach with three dimensional shapes to create something interesting. The rounded wooden structure works as the main element while the traditionally harder material, the steel, flows and contrasts its normal uses. The pillow is a soft material that mimics hard terrazzo stone creating yet another contrast.

05

Material oriented

A product being material oriented can mean many things. Using the perfect material for a specific job or how materials work together etc. I have focused on what you could call mono material oriented, focusing on one material and seeing how to communicate its latent qualities and mannerisms.

This chair focused on creating shapes and mechanisms that takes queues from the material itself. The chair uses the intrinsic properties of a material called Valchromat. Valchromat is a wood fiber panel, coloured through with eco-friendly organic dyes. The material is moisture resistant, designed for a high physical performance, ideal for machining and 3D routing. I was interested in using its homogeneity and directional strength to create an eye catching chair. The seat is drawn as a straight profile in the front that slowly dippes into a curved profile, with the material being homogeneous the slope and soft shapes goes almost unnoticed and creates smooth and soft details. The rounded arms and back work with the softness of the material and the joinery lets the material blend with itself. There has been some coloration from the material meeting the saw and generating heat, but other than that the material itself seems to blend well.

Shape

The shape is inspired by the classic modernist dining chairs with fluid armrests that glide into a back. Constructed on well known proportions. The solid pipes give a gentle feel to the chair while the colour pops and pulls it into a contemporary setting. The seat slopes down from a horizontal position into a curved comfortable seat which guides the eye down along the chairs solid lines.

06 Sustainable

There are many ways of approaching the topic of sustainability when it comes to furniture. You could create a novel idea, you can focus on manufacturing or material use, or like I have here in this chair, use waste materials to try to shape something new.

From working in the workshop this semester I have seen how much material gets wasted. Not only cut off pieces that no one uses, But even the saw dust and other debris that fill large sacks from the suction vents. I wanted to take a look at that accumulated waste material and see if I could make use of it somehow. The idea was to use the waste material as a filling agent in a curing mixture. Like concrete, plaster or gypsum. I did some small tests and was quite successful. I saw there was some merit to the idea but the mixture seemed to need up to 6x times as much water to become liquid because of the waste material sucking it all up. I “perfected” the mixture and found the right measurements and started to form something out of the material. For the first time I worked intuitively instead of planned because the material came to by itself in block form and it felt freeing to form it like they where, building with the new material.

Shape

The shape of the chair uses the block material to create a structurally sound chair that feels and looks reliable. Since the material is experimental and to some, it might look strange and uncertain, it’s important to contrast that with a shape that gives off a sense of calm. The wooden elements contrast the straight lines of the new material and rounds out the shape while giving structural support.

07 Aesthetic

The topic of aesthetics in design is a widely debated and subjective area. For someone the wishbone chair by Wegner might look ugly, while others adore it. I have by no means created an answer of any sorts to this category, but I have chosen to approach this topic in a rather new way for myself. Through mimicry. To learn from the past in a hands on way by "recreating" a masterpiece and put my own spin on it.

This chair is inspired by the modernist chairs that have stood the test of time, adding a modern twist. The veneers seat and armrest create new and interesting shapes out of wood which gives the chair a soft and flowing silhouette. The flexible back works to adjust to the users in a low sitting position. The shape is heavily inspired by Kaare Klint's Safari chair. The underlying proportions mimic the iconic chair, while the seat, armrest and back tries to bring a modern and unexpected use of wood instead of leather. The back has a curved pillow like shape to break off the hard lines of the wood. By mimicking a famous chair, that is almost unanimously considered aesthetically pleasing, is an interesting way of learning and understanding form and function and how they interact with each other.

Shape

The shape is inspired by Kaare Klints Safari chair. The underlying proportions mimic the iconic chair, while the seat, armrest and back tries to bring a modern and unexpected twist by using wood instead of leather. The back has a curved pillow like shape to break off the hard lines of the wood. The material is indented into itself in a quite unnatural way, which is seldom seen in woodworking, making it look more like leather. The joinery for the movable back is exposed as to tell the user how it works and communicate its comfort and usability

08 Universal

Universality is a quality most objects want to achieve, and there are many ways of going about achieving it. In this chair I have chosen to approach it with a “less is more” ideology.

The chair works with the design principle of nothingness. Designing for the user to imprint the way they want the object to be used on the object itself, in contrast to the overly designed ergonomically designs, the chair proposes no specific way of using it. This allows all users to feel welcome and accepted. The legs are turned in a way that invites it to be used from all angles, the rounded seat emphasises this trait as well. The soft round shapes are friendly and with a low and quite large seating area this chair is for everyone.

A mistake was made while applying the colour, bright red is not the most universal colour, what started off as a test went too far and the red became brighter than It should have.

Shape

The shape invites the user to sit however they feel comfortable. The abnormally placed legs suggests that the user to test the chair out in different ways than they would normally do. The back and seat leaves it up to the user how they would like to feel and act in the chair. The seating is large and circular to accommodate a wide range of users. The bright red colour stands out and introduces itself in any room it is in.

09 Ergonomic

An ergonomic chair can be perfectly shaped after the human body or maybe force some good behaviours on the users. The main point is that objects that focuses on ergonomics needs to interact with the human body in a positive way to ease the stresses the body endures through-out a day. One way to do that is by inspiring the user to move through playful design which is what I have tried to achieve with this weird little chair

The chair takes cues from the famous Norwegian designer Peter Opsvik´s work on ergonomics (Rethinking Sitting, 2009)The principle of his findings where simple. “The next position is always the best” is a well known quote from Opsvik himself. Movement and correct posture for the modern workspace was important. I wanted to design a chair with those principles in mind, but also add to them a little. I drew a chair with no back rest, which doesn’t let you relax. In doing so it forces you to move and stay active in your core and lower back. The chair has a sloping seat facing both ways. This allows the user to sit whichever way they want, either the more aggressive seat or the more relaxed one. The large wooden beams that work as a structural element in the chair doubles as footrests, they are in different height on either side to create a different seating experience.

Shape

The Ergonomic chair takes its form inspiration from the work of Peter Opsvik, and especially the idea of movement. I wanted to draw a chair where the shape invites the user to play while it still retains its functionality. The shape invites the user to sit either way and the flow of the shape reminds the user that it is okay to rock back and forth and be playful

10 Comfortable

The archetypal comfortable chair for many would be the recliner or a padded chair with an ottoman, or maybe a bean-bag of sorts. Comfort comes in many shapes, I have chosen to work with a specific feeling of comfort as a starting point to see if that feeling could be re-created through form

As a standard, this quality could be considered one of the most important ones. There is a fine balance of overemphasising the comfort of a chair. An example would be a bean bag. I wanted to draw a chair that was modern in its structure but with a heavy focus on the comfort and materials. I wanted to recreate the feeling of cozying up in your sofa or favourite chair with a blanket or duvet. The strict and designed construction contrasts the soft and flowing shapes of the pillows that flow gently over the wood.

Shape

Inspired by the feeling of bringing a blanket into a nice chair “The comfortable chair” is the first in the series that uses soft materials. The shape is designed to create hard contrasts. It’s easy to see the difference between the hard material and the soft. But the angular structure stands proud while the soft ones fall down towards the ground only to be lifted into shape by the wood. The angles of the chair are all the same, 3 degrees towards the center. This creates a shape that feels and look safe witch is important if you are to feel comfortable. The pillow embraces you and becomes one with the user.

Process & Diary

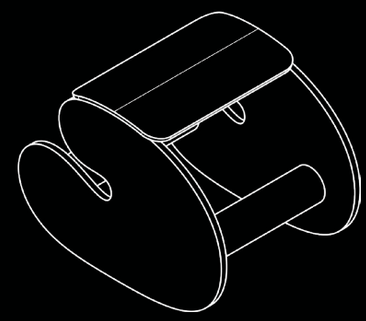
3.6

An important part of my learning going through the One week, One chair process, has been to use writing as a tool for reflection. During the whole process i have continuously written a diary.

The diary and process can be found as an attachment (attachment 1 diary) or at;

→ www.agoodchair2020.com/diary

4.
Testing & learning



In this chapter we will go through the methods used to quantify what I learned from the “One week, one chair” exercise as well as other means of learning about the chair as an object.

Learning outcome

4.1

From the start of the “One week One chair process” I have been making what I have dubbed a “live map”. Its essentially a giga map made from all the insights I have gained from each week gather into one large document. The map was updated with angles, heights, material, construction, shape of every chair after it was done, creating a full library of information about the different chairs. This helped me document my findings as well as communicating what I had found and learned

In the map below you will see a square for each chair, and what quality they represent, along with a short text about the chair, how it was constructed, the angles that were in use, the measurements and comments on the form of the chair. All along the map there are small independent bubbles connected to certain parts of the map, These are my personal comments for clarifications or just supplementary knowledge.

The black line that runs trough the map represents my journey through the chairs as well as my general thoughts, insights and key findings. The different colours that connect the chairs represent findings that were brought from one chair over to another.

At the end of the giga-map there will be a written conclusion on how the ten weeks went and what I learned from the method.

The map will also be attached as a separate document for an easier viewing experience. (Attachment 2 gigamap)

Map of findings
One week, one chair

A map of the "One week, One chair" process. Every chair / week will be logged with all the necessary details and comments as to quantify and communicate the findings that have been made. Most importantly the actual physical stats but also my personal journey through these ten chairs. Every week I will logg the construction of the chair, the dimensions, the angles and comment on the shape language. The white outlined boxes will be what this week has taught me and what I will take with me further into the process. The black circles represent my thoughts on the week or project in general. I added this because I want to remember what I thought at the end of every week. This also makes this a time capsule of sorts, which helps me bring myself back to the feeling of making each chair. The coloured lines that run thought the map shows, similarities in a quality or something that was learned through one chair and represented in the other.

10 WEEKS CONCLUSION

These past ten weeks have been really interesting. I had some idea of how it was going to work and what I hoped to learn, but the reality was quite different. The specifics of what I have learned, like the dimensions, angles and shapes, construction, material choices and ideas are all listed in the map, here in this conclusion I will be writing about what I learned through this type of practice.

The first thing I noticed was how much I can manage to do, during the span I had set for myself (seven days per chair). If you allow yourself to focus on a subject like I have, the amount of work you can do was surprising. As the weeks went by, my ability to create something in that time frame also rose. The first weeks I struggled to draw, ideate, mock up, and make a pretty simple chair. It took me the whole first week to make it. But once I had gotten trough the first 5, the speed of which I was producing was quite a lot faster. I believe that the reason for that is the familiarity with the subject, like the shapes and sizes, the construction method mostly used to create chairs and other simple skills that will come just by doing. Another reason could also be that I became more comfortable with the level of finish that was needed for my project. The idea was never to create a perfect chair every week with wood, sanded down to 600 grid paper that feels smoother than silk, but rather communicate the idea of the chair and make something that is possible to test and discuss. Realising that made me relax a bit more and allowed me to create more freely.
Secondly, what I found maybe the most important, was the fluid relationship between dimensions and angles in a chair. Starting this project I had researched some standard forms and well known chairs to have a grasp on the traditional angles and heights that have created successful chairs in the past. I sometimes used those as a starting point for my own chairs, for instance; the world famous "The Chair" or "The Round Chair" as Hans Wegner called it himself, has a seat height of 450 mm with about a 2-3 degree slope towards the back with a slight curvature. While the back is located 240 mm above the seat. I tried to use these measurements once but adjusted them more towards my intended use. And just by lowering the seat and tilting the angle of the seat slightly more forward the chair i made (or mock up) felt horrible. I then tried to correct it by adjusting the back compared to the angle of the seat but again, it felt awkward. Thats when I understood that the angles, heights and dimensions all work together. There isn't a single rule that creates a perfect chair, Its how the different attributes of the chair combine and flow with each other that creates a quality feeling of comfort, and the feeling of a good chair. To learn that there isn't a single way for a chair to be "good" and that any angle or height — within reason— could be suitable for a good chair if you can find the dimension, heights and angles that would suit it. This insight has been crucial for this project

The third thing I learned — which is kind of obvious, but I have to include it — was the importance of mock ups. Either full scale or small scale. It's no shock that testing and seeing is important, but even more so for an object that communicates so closely with the body. There are few objects thats sole purpose is to ease the strain of the body, and support it. People can instantaneously feel if a chair is good or not, and even how to improve it. The backs too high, the seat is too shallow, its too hard etc. By mocking up, mostly in full scale I got people to test the chairs and got honest feedback quickly. This resulted in some quick learning and understanding of the usage of the chair.

Logging was a highly important part of these weeks, After every week I wrote down every detail about the chair I had made and found out what I had learned and what pieces of information was important to bring with me going forward. I put these thoughts into the diary and this map. I would often come back and visit this map while I was drawing new chairs to double check angles, heights and other interesting aspects of chairs I had made before. It became a form / function library for me to use where I had full knowledge of how to use the information that was written. I really think I will bring with me this technique in the future and something I can use in other areas of my design practice in general.
The last thing I learned, which is quite important is to find a context for the object you are making. Different contexts or situations creates different needs, and the object you design needs to reflect that. Through these weeks I have worked with different qualities as the context, but for future projects I believe it would be beneficial to include a context as well. This could force the dimensions and mechanisms in a way that a quality can not, and will require more testing. In line with the use of a context, I believe working with a more specific user group would also prove beneficial.

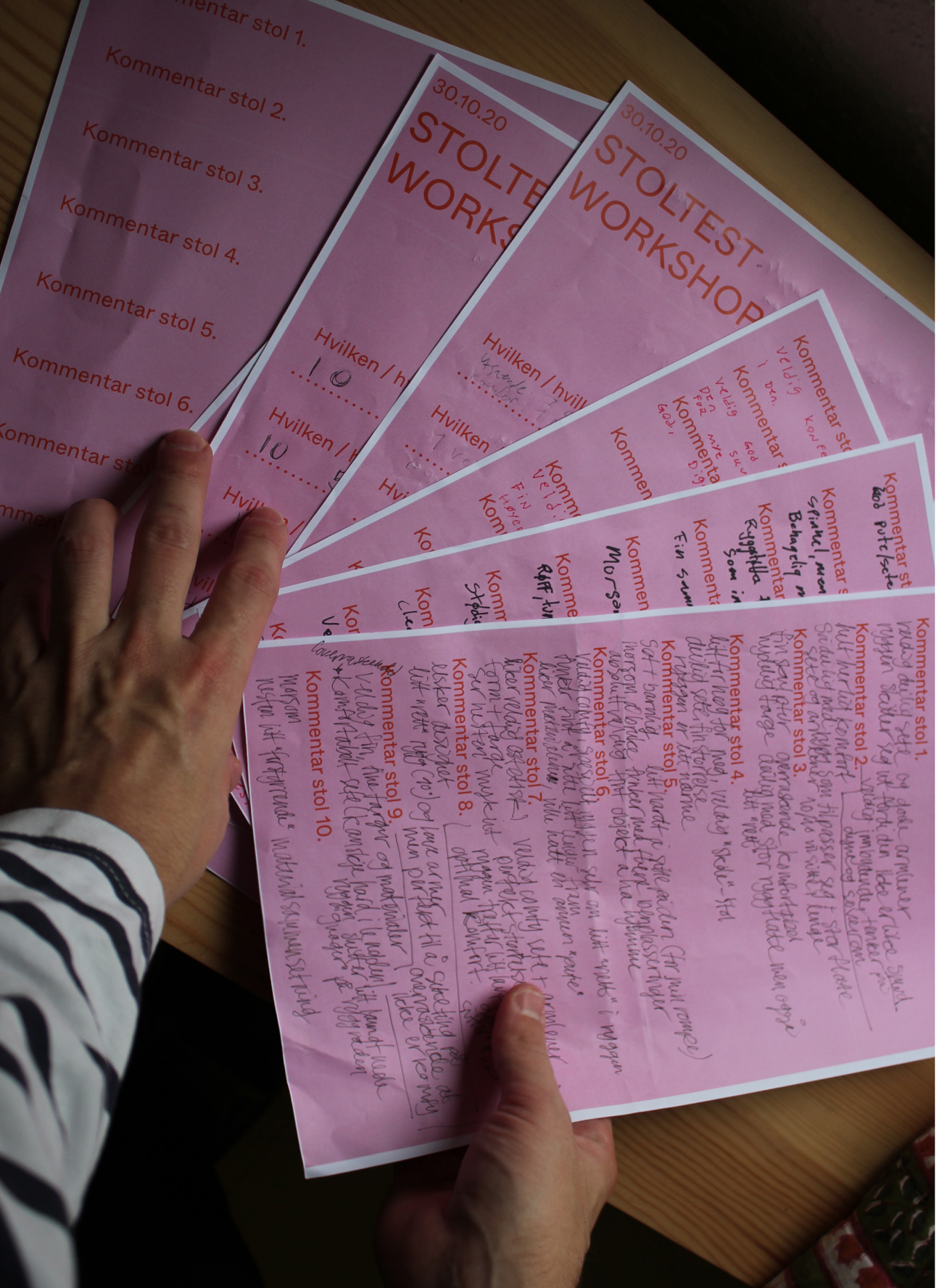
It's been incredibly fun to make these ten chairs. I do believe I have gotten further on my journey of creating a "good" chair by doing this exercise and getting a grasp of the intangible qualities it entails.

General thoughts | Things learned | Construction | Angles | Measurements | Shape | Comment

Workshop 4.3

The 30th of November, right after the new restrictions were put into place to slow the spread of the Corona virus I held a workshop and testing session with some users. The guidelines for how many people you can socialise and be with was restricted so I only had the opportunity to test with 5 people. But, we did the best with what we had, followed the rules and created a safe workshop.

The structure of the workshop was quite simple, a few questions about the ten chairs, like; which one stands out the most to you? Which chair is the most comfortable? Which could you own and have in your house? And what chairs did you not like?
These questions were made to ease the mood and lower the threshold for critique. The attendees tested the chairs while answering the first questions. After doing that I asked them to assign a quality from the list I had created to each of the chairs to see if the thoughts and intentions of the chairs communicated well or not. This started some conversations on how each chair was perceived and how they communicated their categories (or didn't). On the back of the questionnaire I had made there was space for commenting on all the chair, which, in my opinion something they could use if there was anything special that stood out, but instead the users spent 20-30 minutes writing and critiquing each chair which ended in a whole lot of feedback which will be helpful in the future where I will be making the last chair.
The following pages will be photos from the event.



30.10.20

STOLTEST WORKSHOP

Hvilken / hvilke stoler står mest ut for deg?

. . . . . .

Hvilken / hvilke kunne du ha hatt hjemme?

. . . . . .

Hvilken / hvilke er best å sitte i?

. . . . . .

Hvilken / hvilke stoler liker du minst?

. . . . . .

Hvilken stol passer til denne beskrivelsen?

Komfortabel___ Ergonomisk___ Miljøvennlig___
Universal___ Produksjonsvennlig___ Konseptuell___ Tidløs___
Kontemporær___ Material Orientert___


20
GRUPPE
11


GRUPPE
11


STUSSY


Nederman


Har du ryddet?

4.4 Output

From the workshop there was some really interesting feedback that I had not taken into account. Each user had their own opinion and it worked well with the theme of having an open discussion type workshop. The first thing to highlight from the event was the way the users sat in the chairs and which chairs they decided to sit in for a longer time to fill out the questionnaire. I asked them if the chairs they sat in was a deliberate choice and they all said yes. Furthermore, the chairs that most people selected as their favourite, or the one they would have like to have at home, they often tried many times as if to make sure that what they had written down was correct.

When it comes to the more quantitative information it was clear that the comfortable chair, the aesthetic chair and the ergonomic chair as well as the material oriented one was the most loved. They have in common a framework that is angled towards the center of the chair with armrest and a deep and wide seating area. The ergonomic chair was described as fun and uplifting and good for your posture. The most disliked chairs on the other hand was the timeless, conceptual and contemporary chairs.

The latter two don't hold much water when it comes to function and were considered less interesting even though they might have a flashy appearance. The timeless chair was seen as boring and not very attractive even though the way it fit the body was not bad. The chairs that haven't been mentioned here also had their qualities that is worth taking note of and bring further into the process of creating the last chair.

01 The production friendly chair was described as; lovely and thought through, the back is to upright and the armrests are to low. Perfect for placing things on. Surprisingly not comfortable. Clean, tight and sturdy.

02 The conceptual chair was described as; Nice material, the shape doest work well for the back, nice contrasts, comfortable seat, back is to low.

03 The timeless chair was described as; a tad tall, school like chair, nice seat, perfect size, good composition of materials. Back is to close for comfort, a classic chair.

04 The contemporary chair was described as; funny, an almost disturbing concoction of materials, fresh forms and colors, it grows on you, Reminds me of an adult playground, I felt scared sitting on it.

05 The Material oriented chair was described as; a Nice shape, sturdy and trustworthy, The angles are nice, the back is a tad to low and the armrests to high. Lovely aesthetics and color, seat is really comfy. Perfect size and height.

06 The sustainable chair was described as; Comfy back (caused by the material breaking, making the angle better) interesting materials, but they are making me question them, Rough and fun, warm and interesting. The back embraces you

07 The aesthetic chair was described as; very comfortable back and arms, a little scary to sit down (I told them to be careful) Skinny, but the most comfortable, very comfortable, fun use of wood, perfect to sit in, perfect with a back that adjusts itself, nice big surface in the back, 10/10

08 The universal chair was described as; nice sculpture, surprisingly comfortable, beautiful color, a little to up right, cute, hit a high point in the back, in a good way, high back is nice, a little low in the seat.

09 The ergonomic chair was described as; cool, to sharp of a stop in the movements, very good both ways, nice details, could have been higher, cute and childish, a little hard, fun to use, multi functional, would want it at my house.

10 The comfortable chair was described as; good seat, good arms, back is a little hard, nice pillow, precise work, feels safe, beautiful, would like to own.

Interview with furniture designer Andreas Engesvik

4.5

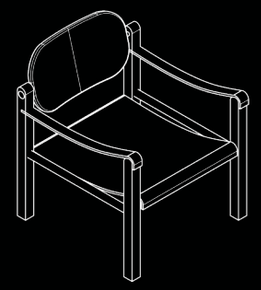
“The hand explores the chair”

— Andreas Engesvik

In the beginning of the project I conducted an interview with furniture designer Andreas Engesvik. We focused on the chair as an object and how he — who has created many “good” chairs— approached the topic. A full transcript of the interview can be found as an attachment (Attachment 3 Interview).

The key findings from the interview was to think about the chair as a communication platform. That different chairs and different context needs to communicate differently and a good designer knows how to do that. Secondly to focus on the hand as a communication point for the chair.

5.
From 10 to 1



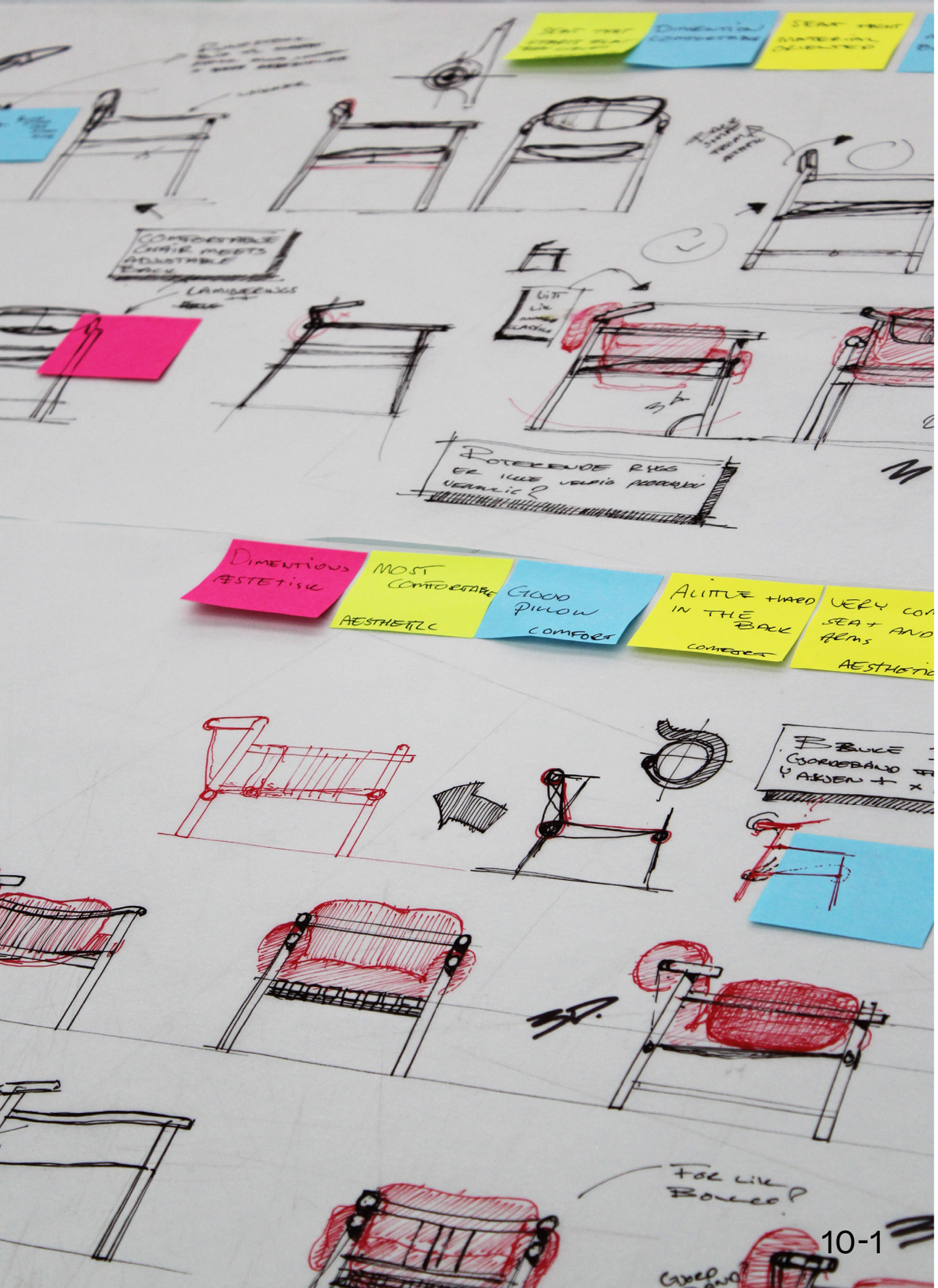
In this chapter we will look at the process of taking all the findings of the 10 weeks and others methods and turning them into one chair that communicates the insights that were found.

From ten

5.1

to one

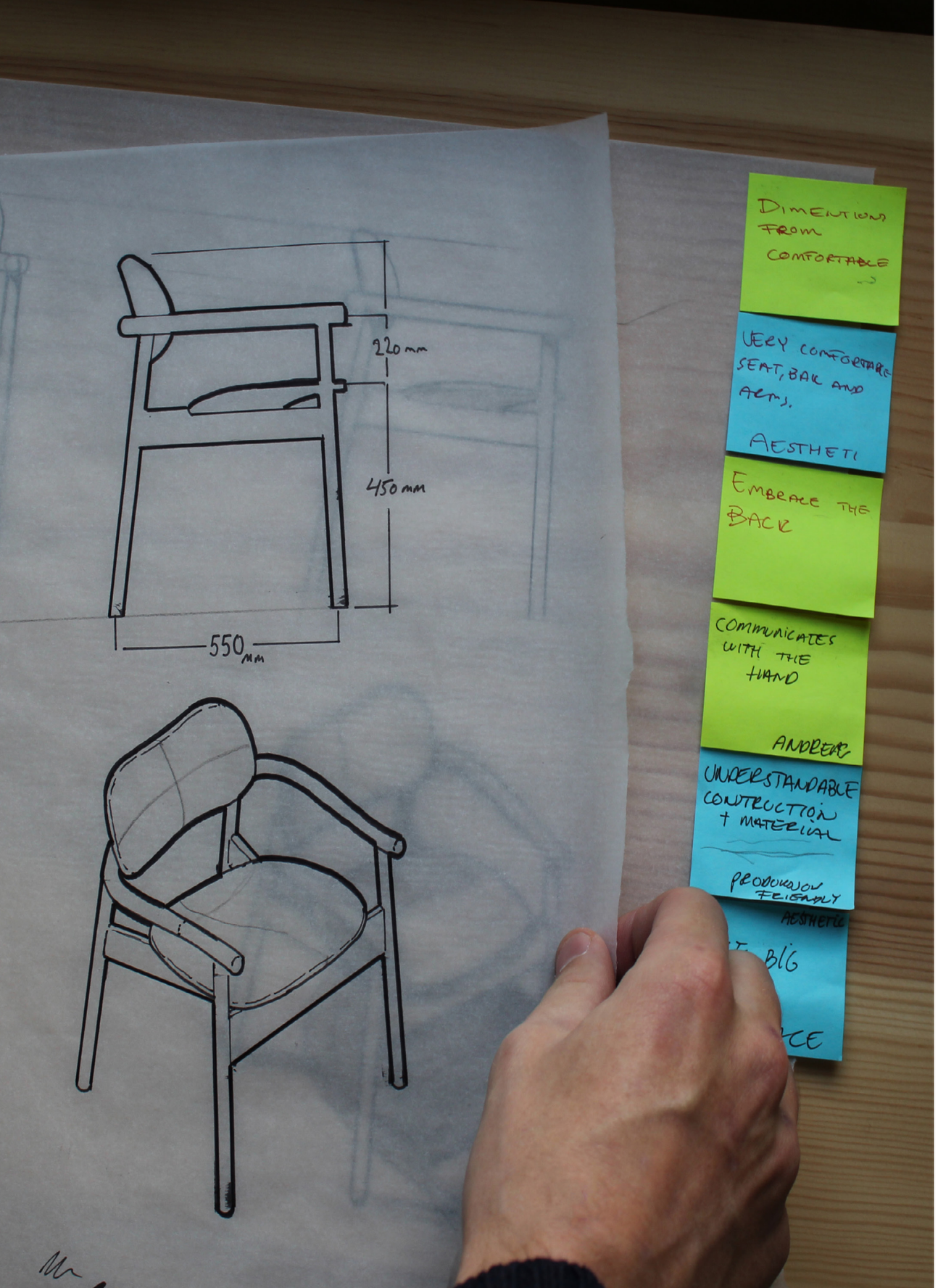
Going from creating something each week, to having more time to think about the chair was surprisingly hard. I had so much information and feedback to go on that It felt overwhelming and in some ways I went into a kind off analysis paralysis. I didn't know where to start or where to go.
After a day or two struggling, I decided to extract all the positive qualities from the chairs as well as the negative qualities that was worth mentioning and put them down on each of their own post-it note and I hung them up on the wall. By making the qualities —that I had a hard time working with— physical, I could easier approach and arrange them. By sampling from the wall of qualities I could create new juxtapositions and new ideas quickly and effortlessly.



Sketches

5.2

Sketching has been an integral part of my creative process through this whole diploma. Drawing for the final chair was something else entirely. Much like the “Tjalve” method Eskild Tjalve wrote about in his book “Systematic design of Industrial Products (Tjalve 1979) where you deconstruct an object, with the goal of creating new compositions. I pulled down different qualities from the wall of post it’s seemingly at random and started drawing. An example could be; The dimensions from the material oriented chair, rotating back and a seat that starts flat then curves I would then draw out ideas and forms based on these simple qualities. They say that restrictions can birth creativity and that is really what happened here. From different compositions of qualities (post-its) I could draw different chairs with confidence that they had some good qualities. This game of pulling down qualities and drawing continued for a while until I found a combination of qualities I really enjoyed and found to be in-line with the things I had learned through the process. Those qualities were; Dimensions and stability from the comfortable chair, the seat height from the material oriented chair, the seat and back composition from the aesthetic chair the novelty of the material oriented chair and the angles of the comfortable chair. These qualities made drawing easy and fluid. After drawing for a while with these ideas I finally found a shape and design that communicated what I had learned. What I found interesting was how different the things I drew became depending on what qualities I pulled down from the wall. Just because I found a combination I liked this time, doesn’t mean there aren’t many more combinations that are waiting to be explored.



5.3 Combining qualities

Having a library of good qualities to pick from turned out to be a great way for me to feel creative and to draw something I felt to be “original”, but just smashing good qualities together wasn’t going to make a good chair. I was forced to think of ways for these qualities to work together and through that process ended up creating new shapes and forms that were not necessarily present in previous chairs but combined their qualities into something new entirely.

6.
Chair 11

6.2 Chair 11

The culmination of all of this work is represented through this final chair that I have called “Chair 11”. This chair takes the information gained from the “One week, one chair” method as well as other insights I have gained these last five months and tries to communicate them through form and function.

“The 11th chair” is a single material dining chair made in solid Norwegian pine. The chair comes either in natural pine or in a pigment and linseed oil finish. The flowing and tactile armrest works as the center piece of the chair. Through the armrest and its function all the pieces of the chair can be assembled. The chair uses simple and understandable construction principles that allows the users to fully comprehend the chair and how it’s put together, but at the same time invites a form of questioning as to how the flowing shape of the wood has been formed. The central back pieces has a distinctive look, it’s large surface creates a platform for the material to show its natural marbling and softens the hardness of the wood. Around the back flows the armrest. With a slight bend and curvature the armrest “hugs” the user and creates an inviting atmosphere. As the arms close in towards the front of the chair it overlaps with the front legs creating a natural space for the hand to rest and explore the material. The laminated seat lays gently on the structural beam of the front legs and from there it softly slopes into the crossing support beams that protrude from the back legs. The seat falls into place by small notches indented into the support beams. The angles of the legs are slightly different from the front and the back creating a sense of action and liveliness to the chair, this also allows for the back legs to be moved slightly more toward the center to create a strong structure for the back to connect to. Using a single material makes the chair easy to deconstruct and recycle, but the quality and sturdiness of the chair will allow the chair to last a lifetime. As a whole, the chair feels reliable, comfortable and fresh. It combines traditional and recognised shapes with bold forms and structural principles which together creates something new and exciting

6.3 Construction

The prototypes of the "Chair 11" was made using the methods and tools available at the Oslo School of Architecture and Design workshop. There could be easier or better ways to create this chair, but with what was available these steps made it possible.

First of all, whole pine was planed and made ready for work. After that, the pieces were portioned out into different sizes that would later become legs, structural beams etc. First off, the legs were machine turned to get the precise diameter (35 mm). From there I hand milled the slots where the structural elements would be inserted. This needed to be done as tight as possible to make a seamless joint. The structural pieces was then worked down into their rightful dimensions and inserted into the front and back legs. Once the foundation was done I started working on the arm-rests. This was one of the most challenging parts of the construction. After trying and failing I came up with the idea of milling half of the cylindrical shape at the time, in three pieces with designed joints. After milling this out, there was a lot of time consuming work to get the pieces to the exact proportions I wanted, then glue and connect the puzzle to create the one piece arm-rest. Once that was done the chair could be connected from the arm-rest down to the legs. All that was left was the back and seat. Which were both laminated. There was a tremendous amount of work put into the moulding shapes for laminating both the seat and the back. I had wanted the shapes to be bent two way, which is very hard to do, but failed over and over. I had to reshape the moulding parts 4 times before the exact point where the material could withstand the pressure was reached. Once they were laminated the shapes were cut out and the seat was placed down into simple slots in the structural beams and the back was connected using 20 mm plugs in a triangular shape for maximum structural integrity. Then the whole chair was sanded down to 500 grid sandpaper and then glued together using straps and clamps.

After the first chair was done I had spent so much time creating the moulds and rigs that creating one more chair was quite easy. So I simply followed the steps and created one more chair that I finished up with a mixture of green pigment and linseed oil.

- Picture of the many molds and shapes from the process of creating the laminated seat and back.

Production 6.4

With help from designer and long time worker in the Industry Geir Jarle Jensen I designed the chair to match well known and common production techniques that most if not all furniture production facilities would have.

The hardest part, production wise to make the “Chair 11” is the organic arm-rests. There are three ways of going about solving how to make it. The first method is called a copying lathe. A copying lathe uses a template that enables one to duplicate a three dimensional part as many times as desired. Most modernist chairs with a “shaped” back piece have been made using this technique. Second method would be bending the wood using either steam, or heat to soften the fibers of the wood before applying force and bending the wood. The last method would be to simply use a 5 axis CNC machine. This is a quite modern solution and not all facilities will have this at hand but would make the production of the arm-rest quite an easy task. A 3 axis CNC would suffice as well, but would require some further handling .The legs would either be bought in the desired dimensions or turned on sight. The joinery would then be machined into the legs. The seat and back would both be laminated using a two part mold, then cut out into shape and connected to the chair. Then the whole chair would be put under pressure using special made mold to get an even pressure around the whole chair creating a sturdy structure.

6.5 Material choices

“Chair 11” was made in Norwegian Pine using both whole wood and pine laminate. Pine is the most common tree here in Norway along with the Birch. But in contrast the Birch, the Pine is a quite under-used material in Scandinavian design. It has had a bad reputation since its overuse in the 70s. But it is a beautiful material, with a lot of marbling and expression. Instead of importing wood from other locations, it would be beneficial if we started using the local and strong material more in the Scandinavian design expression. “Chair 11” is also drawn to be able to be upholstered. The large surface of the seat and back allows for padding and textile to be added quite easily.

10 - 1 Selected qualities

6.6

In the final chair I have chosen to utilize the findings from the ten previous chairs, both quite literally by implementing shapes and angles directly and more figuratively by taking ideas and concepts into the final chair. Here I will list the qualities that I chose to be implemented in the final chair and show how and where they were used and for what purpose they were chosen.

01 *“Seat - from flat to shaped”* from the material oriented chair I had the Idea of creating a seat that started out flat then would slightly curve into a comfortable shape, this would create both an interesting shape while making the construction quite easy. I chose to implement this in the final chair because of its constructional flexibility and novelty. It also gave quite a lot of shape to a hard to shape area of a chair.

02 *“Embraces the back”* was something that was often given as positive feedback, mostly on the sustainable chair but also the Aesthetic chair. By shaping the back to lift and hold you in some way gave a big rise in comfort and seat flexibility. I implemented this and made it a key element in the overall shape of the design and concept.

03 *“Dimensions”* were picked from a combination of the aesthetic chair and the comfortable chair, creating a new composition with a quality feel.

04 *“Two way shaped laminate”* From the Timeless chair I learned how to shape a laminated piece of wood into something “impossible” a two way curved wood. This is a highly technical and difficult thing to do, but can give an abundance of shape. In the final chair I manifested this technique in the form of the back, creating a shape that follows the armrest and creates a better seating experience and supports the visual flow of the chair as well as the lumbar region of the back.

05 *“Converging angles”* From the comfortable chair I have incorporated the converging angles that “fall” toward the center of the chair creating a strong structure that feels reliable. But to design the constructional principle further I have added more angle to the back legs to create a more dynamic composition that works well with the aesthetic of the chair.

06 *“The hand explores the chair”* was something I was taught by Andreas Engesvik during the interview I had with him and from the Material oriented chair. As you sit down most users will explore and feel the chair using their hands, so Its important to design for that fact. In the comfortable chair I tried to do that using overlapping cylindrical beams of wood and found that it had the effect I wanted. Therefore I wanted to incorporate that into the final design.

07 *“Understandable material and construction”* From the production friendly chair I learned that creating something that is understandable can create a big difference in the overall aesthetics. Therefore I wanted to design something that had simple construction principles that were easy to recognize and maybe the user could fix it if its needed.

08 *“Triangular connections”* From the Timeless chair I learned how to create secure connections and how to place those connections for most effect. Positioning the connections in a triangle shape will create structural stability and strength.

09 *“Seat to back angle”* Was created from the flexibility of the aesthetic chair and the height of the comfortable chair. The rotational chair gave me a chance to measure exactly where and at what angle the chair feels the most comfortable and through measuring that I came up with a new angle that worked well with a back that embraces you.

10 *“Marbled colour”* After more people saw the design I had made, many commented that they loved the colour on the Universal chair — which had been an accident— but maybe you can learn something from accidents? I chose to try to implement colour in the final chair If I was able to make 2 prototypes.

01

“Seat - from flat to shaped”

02

“Embraces the back”

03

“Dimensions (Aesthetic and Comfortable)”

04

“Two way shaped laminate”

05

“Converging angles”

06

“The hand explores the chair”

07

“Understandable material and construction”

08

“Triangular connection”

09

“Seat to back angle”

6.7 Colour choices

Inspired by the coloration of the Universal chair (the red one), I wanted to see if it was possible to move the aesthetic of the chair into a more contemporary setting. After the feedback I had gotten from the colour on the Universal chair I wanted to test and see if the final chair would be interesting with some colour. So after creating an extra prototype I had the possibility to test out my hypothesis. I chose a dark green as a contrast to the warm red tones of the pine and to strengthen the silhouette of the chair while at the same time emphasize the marbling of the wood. I wanted the applied colour to be translucent enough to differ in tones with the marbling of the wood which worked really well.

10 *“Marbled colour”*

6.8 Shape

“Chair 11” is a dining chair in typology but much like Hans Wegner’s “ Round chair” or the Eames “Plastic Chair”, offers more than just comfortable seating around a table. The chair is centered around a shaped semi-circle armrest that surrounds and embraces the users, with the rounded soft finish of the marbled pine it creates a tactile meeting between the user and the chair. The bold shape of the back emphasises the roundness of the chair and softens the hardness of the material while continuing to be an eye-catching element. Through-out the chair the flowing shapes re-emerge to create a gentle flow from the arms down to the end of the seat that communicates comfort and structural integrity. This chair can either be placed around a table, a desk or simply stand alone as a statement piece in any room.

7.
Reflections

A good chair?

7.1

Now that this diploma project has come to an end, I want to return to where I started and ask: have I actually created a good chair? This is a question that is difficult to answer - as I have learned throughout the project. What defines a good chair can be a set of very different qualities and it is often hard to articulate or put into words what those are. To be able to answer the question, —I believe— the chair will need time to grow and age in order for us to see if it's an object people could love. During the course of this diploma I have gained a wealth of knowledge about the chair as an object. From how a chair "should" feel, what does or doesn't work, how a tiny change in angles can make or break the seating experience, too just how much fun it is to make objects that people can try out. In this learning process, I have created a chair that is made on solid, well researched proportions and is very comfortable to sit in. However, is that enough to qualify the object I have made as a "good"chair? That is difficult to say with any certainty. All I can say is that I am happy with how the final chair turned out and the method it came from.

I have tried many different things and failed a lot during the making of these chair and I think the project and the final chair reflects the journey I have been on and the experience I have gained.

Did the method work? 7.2

Even though the project revolves around the chairs I have made with some extra focus on the last and final chair, the project itself is — and has always been — the method I used. The practice based approach to learning and creating. The goal was to see if I could become a better designer and maybe design a "good" chair through a practice like method. So inevitably I have to reflect on whether or not the method actually worked, and if it did - how did it work?

To start with the positives, I truly think this approach has taught me how to design a better chair. By simply diving into the typology of the chair I started to see connections and shapes I had never seen before. I understood the medium better and felt freer creatively than I have ever before. By continuously stacking new knowledge every week I could not stop thinking about the new chairs I wanted to draw with the new information I had gained through the process. I think this approach could be used on any subject, and it would work the same way if the user has the stamina to go through with it. On the other hand, there are a few things I would have liked to have done differently and some things for those seeking to try a similar method should be vary off.

First of all, the method is incredibly time consuming. A creation cycle like the one I made, might be a bit over the top. If I could do it again I would have liked to have toned it down a little and created a process that was a little softer. Which in return would give me more time to reflect. Secondly, I wish I had created more of a context for each piece. I was using the categories and qualities as a starting point for the process and that was a fine way of approaching it, but having a context (like a place or a person) could help create more distinct shapes and functions that in the end could help me learn more from each object. Lastly, and maybe the most important thing I would change was my own expectations of the process. I wanted each chair to be somewhat good and interesting on its own. I should have focused more on what I was learning than trying to create something interesting each week. I was too focused on the end result that I spent too much time trying to create "good" models. This was very time consuming and cost me more than I had budgeted for. After a few weeks I understood more of what I wanted to achieve by the method and started to work with that in mind, but I should have seen it sooner.

Overall I think the "One week, One chair" process has been a success. There are definitely things I could have done better, but I believe I have come further on my way to knowing what a good chair is and how to make one. With this library of shapes, mechanisms and combinations as a foundation, I feel quite equipped to draw more chairs in the future.

Future changes 7.3

Even though the project is now done, there are still quite a lot of changes I would like to implement in the final chair. One main problem is my model making skills. While I am quite sufficient in the workshop and can create objects to a reasonably high standard. I am no professional woodworker or carpenter. Even though the shapes are as I wanted them to be, there are slight deviances from the original plan due to my inability to create an exact replica from the blueprint. An example is that the left back leg (the natural finished chair) of the model deviates by about half a degree outwards. But when it comes to other changes that do not stem from my model-making skills —or lack there off— there are a few I would like to mention. Firstly, I would change the meeting between the legs and arm-rest. Instead of drilling into the armrest I would instead use the CNC to mill an extruded connection for the legs. This would reduce the risk of the material breaking and the problem of tight dimension between the arms and legs would also be solved. Secondly, the height of the support-beam in the front. When I designed the chair I was afraid of its structural integrity. I know now that it might have been overkill to use that much material since the chair feels very solid. I would like to explore the shape language of a smaller beam holding up the seat and see if it could free up the chairs expression. Another important factor I would like to change is to put spring-back of the laminated pieces into consideration while drawing the chair. Depending on what material and glue you use for laminating, the material will “spring-back” towards its original shape. This will soften the curvature of the design. Both the seat and the back had some spring-back and I wish I had a larger understanding of how to negate or work with the movement of the material. Lastly, I would have liked for both the seat and the back to be thicker. As they are now (about 10 mm) they work as intended, but in contrast to the other dimensions of the chair they feel whimsical and almost weak in comparison. The reasons I chose a to do so was strictly financial, since the material for laminating is quite expensive and I had to try many times before I finally got it right.

7.4 The last chair?

The wanted end result from this process was one last chair that represented all of the findings and worked to communicate them perfectly, but the reality is that there were just too many insights that were found during the process to be represented in one object. Many of the findings are contradictory, making it impossible to implement them into “one” chair. But, as I have learned, this process and method isn’t done here. From the ten chairs and their findings I can keep drawing chairs, the possibilities of combining the qualities is almost endless and I have only started to dip my finger into the possible outcomes of this project. The final chair I have made represent one way to interpret the findings, but there are many more chairs to be found and drawn from all the information I have gathered during these 5 months.

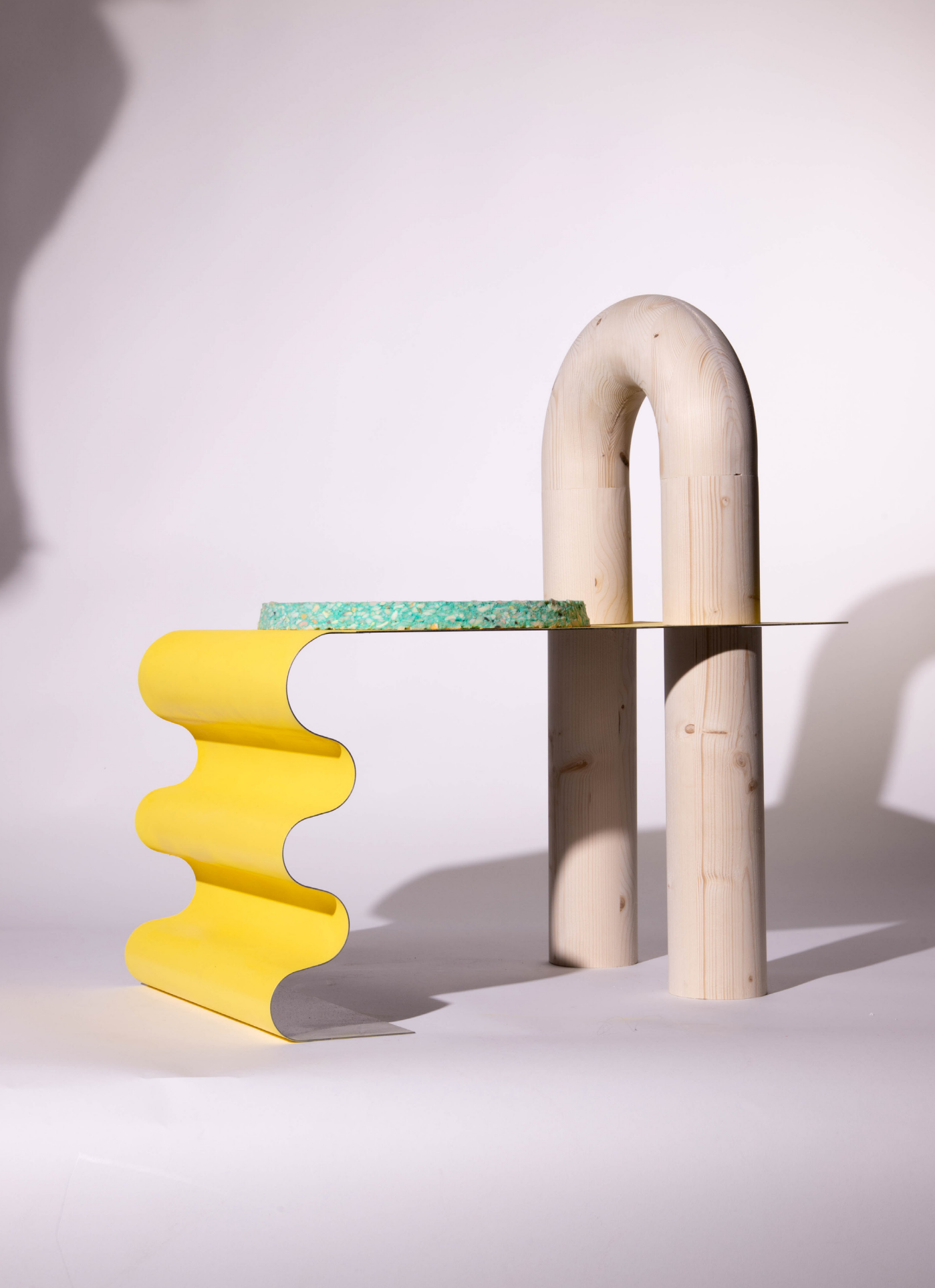
Corona Virus 7.5

Due to the Pandemic we have all been going through, there has been some restrictions imposed on us. From how many people we have been able to meet too simply testing the objects with more than just your closest cohort. This has had some repercussions for the project, but nothing more then an inconvenience and has had little effect on the overall project.

What’s next?

7.6

The next step is for me to bring my design out into the world and receive feedback and critique for the work, so that I can improve the design even further. After that I will reach out to producers to see if there is a chance for a collaboration to get this chair to market. As for the ten models, I have gotten request, — mostly from other students, but also from interested buyers— who wants to bring them home. So I am making sure that all the models will find a place to call home once the semester is over.



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7.7

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“Series 7 chair” by Arne jacobsen, Produced by Fritz Hansen
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This project has been approved by NSD, The Norwegian Center for Research Data
All photos are personally owned if not stated otherwise.