



# **THE IMAGINATIVE CHILD**

*- development of creativity in children*

*Frida Fuchs 2017*

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*- development of creativity in children*

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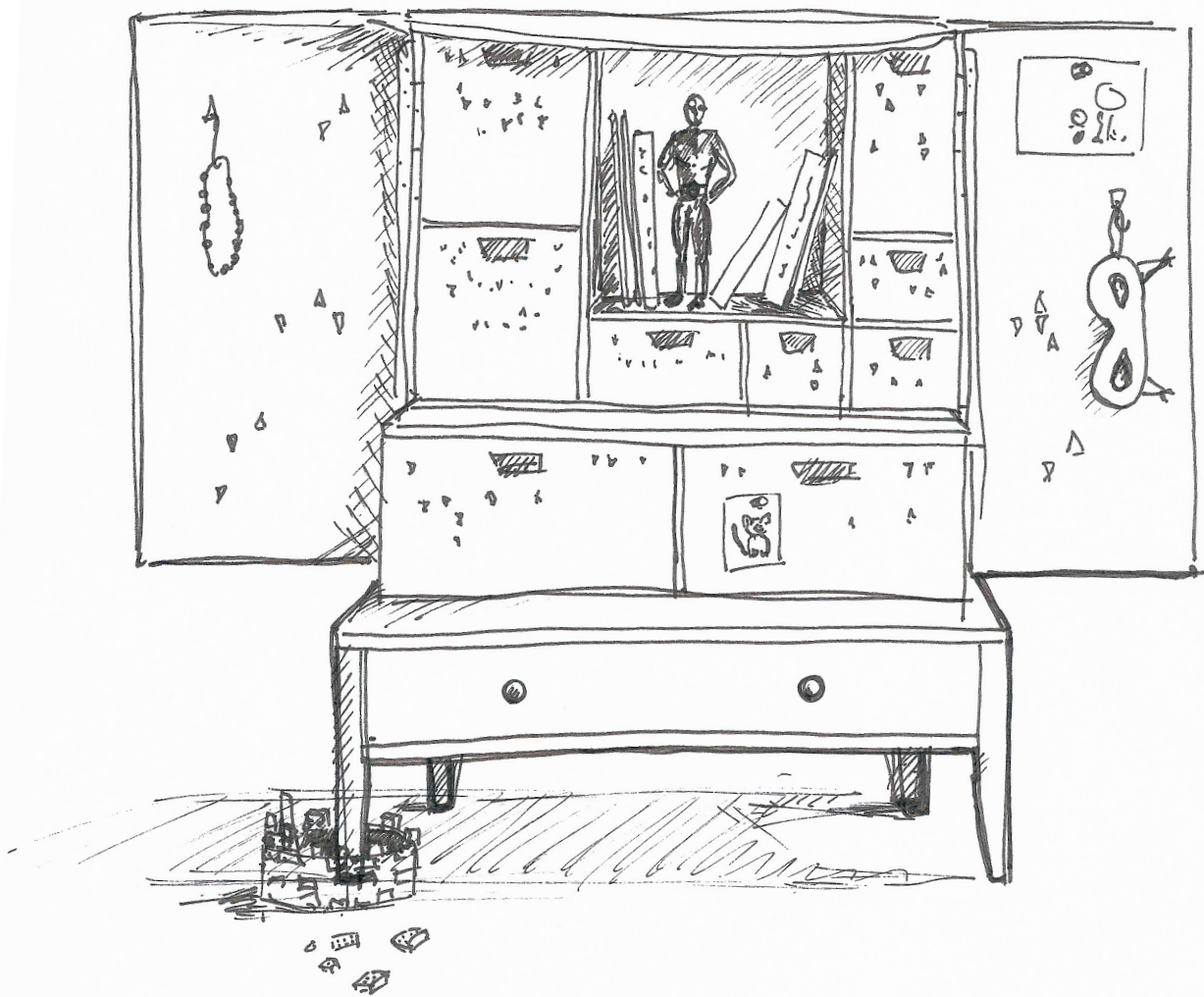
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# ABSTRACT

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The constant flow of new products and information we are faced with today demands us to be prepared for rapid changes. To have creative skills becomes more and more important in multiple areas of our lives, from solving everyday problems to providing ideas and associational thinking at work.

Some of our most important tools of creative thinking are collected at an early age, when we develop in relation to our surrounding conditions such as relationships, education, society and products. To give children the opportunity of evolving their creative skills is to give them essential tools for the future.

Due to the structure of the school system, Swedish children does today have a larger possibility to develop their creative skills in their home environment, according to Eva Hoff (adjunct lector in psychology at Lund university). (1) The first years of school (starting at the age of 6) is often a big transformation in life. Although, this time is also very important for the individual development and can for some serve as a template for the next-coming years of education. During the first years of elementary school it's important to provide children with a base for creative recreation and source of inspiration which is constant.

*"If children have the freedom to deciding what knowledge they want, and what to do with it, the creative ability is strengthened". (2)*

Matti Bergström (professor in physics and researcher in brain science at Helsingfors university)

Since the products and situations triggering a child's imaginary creativity is individual and sometimes varied from day to day, it's important to provide children the opportunity of choosing what things to interact with. To inform the user of what possessions and opportunities to activity that are available it's also important to have

them visually displayed. This due to children often forgetting about things in hidden drawers.

The final result is a peepshow cabinet providing the child the possibility of storing his/her belongings is shelves and boxes and offering visual display of both 2D and 3D belongings. The possibility is given to the child to interact with his/her possessions, rearrange them, but favourites in focus but also to bring them else where as boxes can easily be taken out and carried.

The doors of the cabinet gives the child the choice to close of impressions. The perforations in the doors gives a glimpse of what's inside and can inspire the child to open up for creative stimulation.

The peepshow cabinet combines these features in one furniture, providing the child a possibility of finding inspiration, privacy and access to belongings within the doors of his/her personal space. The expectation with this product is that the child shall find inspiration from his/her own products and projects to develop new ideas, or to alter already existing ones.

The goal is also to, with the design, give a feeling of personal space within the doors. A place where the child feels that he/she can close off the world around and go into his/her own world of products, ideas and inspiration. A personal creative get away and imaginary world hidden behind two doors.

*The main part of this project was made during spring 2012. It was finalized during spring 2017.*

1.[http://www.academia.edu/2154917/Hoff\\_E.\\_2010\\_-\\_Lekfulla\\_barn\\_bilir\\_kreativa\\_vuxna.\\_Tvärsnitt\\_3\\_14-17](http://www.academia.edu/2154917/Hoff_E._2010_-_Lekfulla_barn_bilir_kreativa_vuxna._Tvärsnitt_3_14-17)

2.<http://www.lararnasnyheter.se/pedagogiska-magasinet/2010/05/07/kreativt-kaos>

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*“Har barn friheten att bestämma den kunskap de vill ha, och göra med den vad de vill, så stärks den kreativa förmågan.”*

*Matti Bergström*

*“If children have the freedom to deciding what knowledge they want, and what to do with it, the creative ability is strengthened”.*

<http://www.lararnasnyheter.se/pedagogiska-magasinet/2010/05/07/kreativt-kaos>



# INTRODUCTION

*Starting point*



# PERSONAL MOTIVATION

## *picking a theme*

---

For as long as I can remember I have been creating, developing and testing ideas. With good results and bad. At some times more intense than other. Different methods of handicraft, artistry and smart product solutions has been a constant source of inspiration for my development as a person and as a designer. I've been described since childhood as a "creative person", both by others and myself, without giving it much reflection. What makes me creative? Why would I be described as more creative than others? Is the word creativity commonly connected to the ability to create physical objects and/or visual creations?

The development of my own creativity probably base in a longterm encouragement and support from persons in my surrounding, trial and error processes, imagination and an urge to learn. I was given the opportunity to test my ideas and to focus on the subjects that interested me the most. Although, has the creative thinking I developed from years of drawing, organizing books in colour scale, refurbishing rooms and making clothes out of plastic bags actually helped me in other situations of my life? Of course. For example I've learned to look at problems from new angles and I learned how to develop original ideas into reality, from testing, failing and testing again.

Herby, I come to ask myself how other people has developed their creative thinking, and why some are more creative than others?

What factors affects a person in their creative development? Family, education, genetics, opportunities? Is there a guide for creative stimulation? If so, is it available for everyone?

**Matti Bergström**, professor in physics and researcher in brain science at Helsingfors university, describes the child brain as being the one using and developing creative thinking. He highlights the importance of taking care of the child brain, since we'll take advantage of it for our entire lives.<sup>(1)</sup> With a good starting point, one has a larger possibility to develop useful tools for the future. Given this, the importance of developing creative individuals lies in stimulating creativity from the very beginning – childhood.

Since I was a child myself I cared for the persons younger than me. Working in kindergarten, on summer camps, having a mother working as a elementary school teacher and now being an aunt of two girls the fascination for these young minds grown during time. How they entertain, how they think, how they reflect so differently upon things compared to us adults. And perhaps most admirably their ability and urge to learn and devote to new things. This project is herby also dedicated to improving possibilities for and rewarding children of today.

1. <http://www.lararnasnyheter.se/pedagogiska-magasinet/2010/05/07/kreativt-kaos>



# BACKGROUND

## *motivation*

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What is creativity? For one who has design and art as a profession it might feel like artistry and an aesthetic mind is the only right answer. Although, when one comes to think of it, the essential part of being creative could also be the ability to fantasize, solve problems and dare to make mistakes. That includes all parts of life.

**Eva Hoff**, adjunct lecturer in psychology at Lund university writes: *"Using creativity and fantasy in playing practises children in 'possibility thinking', which can increase the chance for them to become creative adults."* (1)

The play of a child can be creative in different ways: both the wild fantasies in a mental aspect; creating imaginary friends, places and happenings, or the more every day creativity, making drawings, playing with clay or building hide out places. It can of course also be the more rule based play like games or instructions given in play from friends or other children, but also adults.

Not all children have the same width of fantasy, some are innovators and some are "adapters"; following the fantasy or ideas of other children. One aspect that can trigger the play and creativity of a child is alone time. The American research scientists **Jerome** and **Dorothy Singer** writes: *"children must be given room to be bored in to be able to develop their creative fantasy"*. With these words meaning physical space. (1)

So, what is the situation for Swedish children today? Is there room for all types of creativity in school, at home or a neutral places like the playground? Or does the children with a lack of inspiration mostly turn to media where they don't have to contribute with creative thinking?

1. [http://www.academia.edu/2154917/Hoff\\_E.\\_2010\\_.Lekfulla\\_barn\\_blir\\_kreativa\\_vuxna.\\_Tvärsnitt\\_3\\_14-17](http://www.academia.edu/2154917/Hoff_E._2010_.Lekfulla_barn_blir_kreativa_vuxna._Tvärsnitt_3_14-17)

# INITIAL BRIEF

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The goal of this project is to research the methods, products, media and situations provided for creative development of Swedish children.

In the beginning of the project the research will include the situations at school, at home and in the “neutral” space, of a child’s everyday

environment. This to get a wide knowledge of where improvement can be needed and introduced.

The final result shall preferably be a product or concept that can simplify, motivate and stimulate children to develop their creative thinking.

# METHODS

## **SURVEY**

*home environments*

## **OBSERVATION**

*home  
school  
kindergarten  
playground*

## **INTERVIEW**

*researcher: Eva Hoff  
teachers  
children  
parents*

## **THEORETICAL RESEARCH**

*creativity  
pedagogics  
products on market*

---

To find essential information about the core subject, children and creative development, will the research initially consist of theoretical gathering of information.

To further continue into finding an area of improvement, more practical studies will take place. When following and talking to persons with larger knowledge and experience in child development, I hope to get valuable comments

and more understanding in the everyday life of a child. Interview needs to be made with both parents, teachers, researchers and of course, children them selves.

Surveys on everyday behaviour will beneficially be made and distributed to parents, to get knowledge on common needs and behaviours in home environments.

# DEMARCATIIONS

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The project shall focus and aim for children in Sweden. This due to limitation in time and easier access of information on this group.

Initially the research will include all ages, from infant to teenager. From this I hope to soon find a smaller group, where the research can be further focused and aim for a specific problem within that age span.

The decision has been made to discard all research into digital media such as television,

computers and video. This active position making is due to these activities becoming more frequently used by children by the day. The personal notion is hereby that alternatives to digital media is important to provide. Also, the decision was made to make a hands-on product, to mainly be produced in the workshop. Therefor, I wanted to disaffiliate from digital products.



# GOALS

## SPECIFIC - WITHIN THE SUBJECT

---

The intension is to gain knowledge about the development of creativity among children, and how adults can help with guidance.

Also important to learn is how creativity of children connects to their ability of learning new things. How can an early creative development be useful for the future?

The research will also focus on gaining knowledge on what difficulties parents are faced with in everyday life, in the goal of activating their children.

The final goal of the project is to develop a hands-on product that can help children in their creative development in everyday life.

## PERSONAL

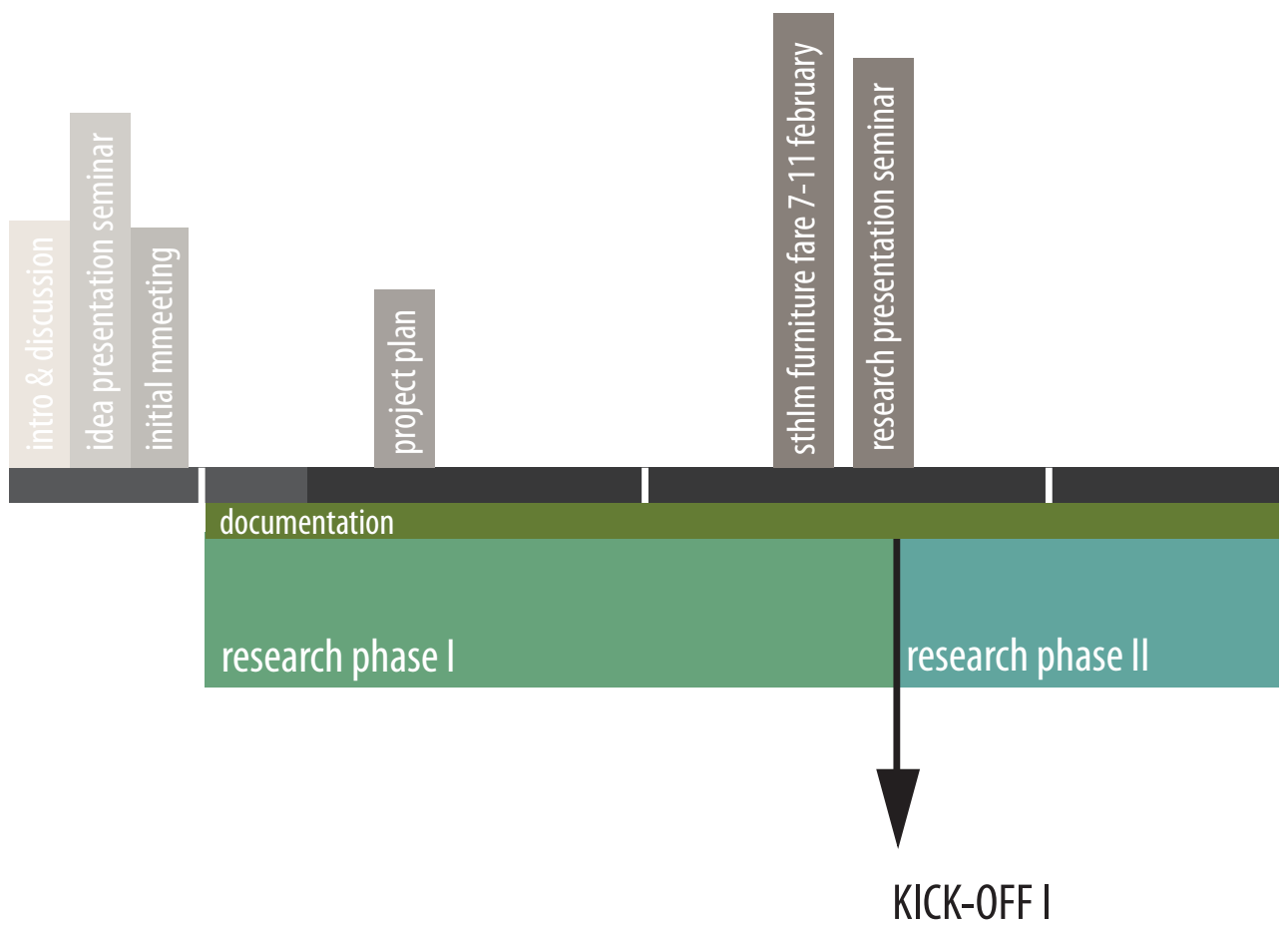
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Some goals are simply set as personal aims, independent on the subject of the project. Since the masters project will be the last curricular work made within the education, it seems important to sum up the personal skills developed during the last five years. By choosing a subject that I'm personally connected to, I hope to make the project in whole reflect on me as a person and as a designer.

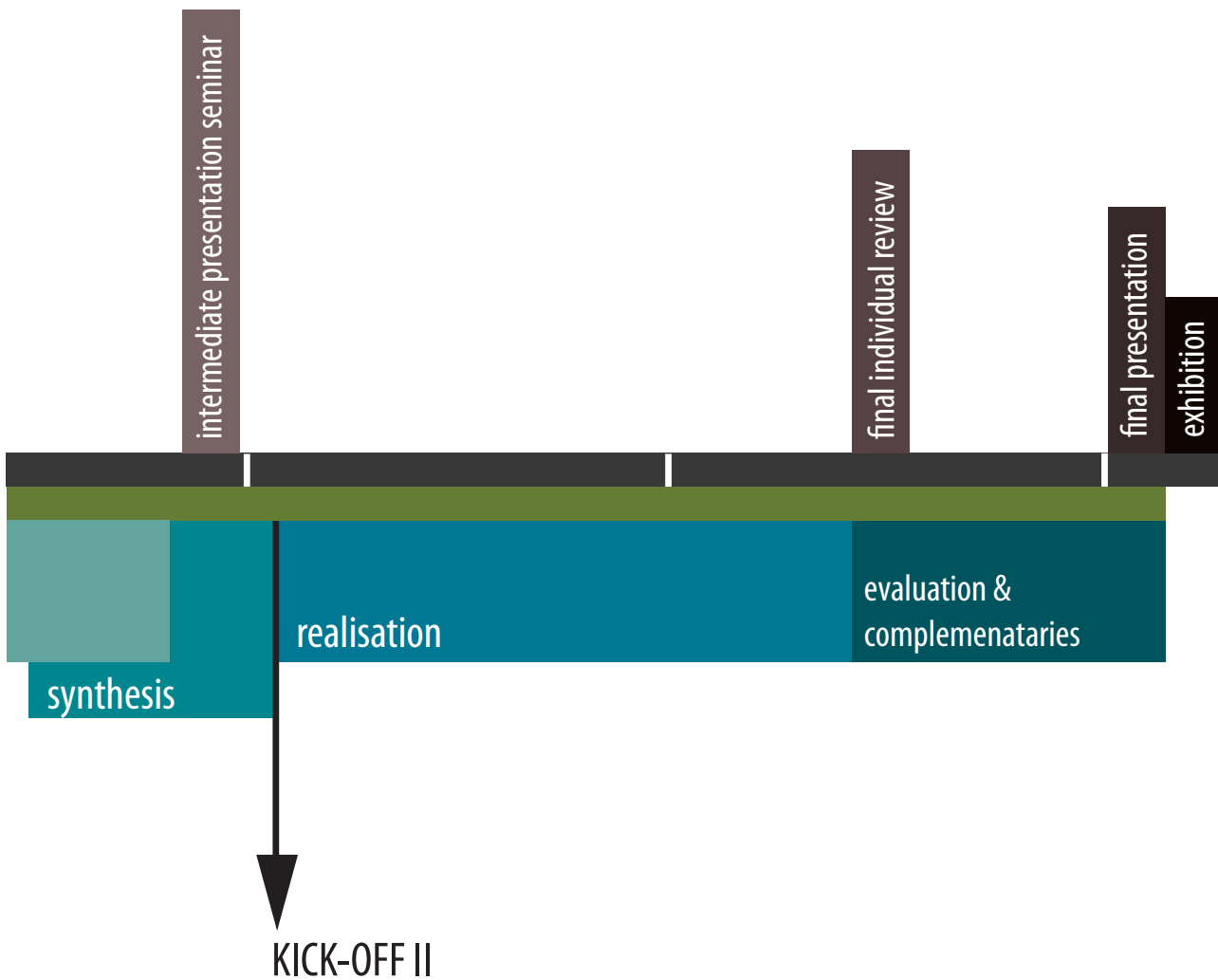
An other goal is of course also to deepen some

areas of knowledge, such as experience in the workshop.

The project shall also aim to improve the personal skills in research methods. By using a variety of methods during the process the intension is to gain knowledge on which ones were more or less useful. This will most likely be helpful in future works.



# TIMEPLAN



# kreativitet:

[*av latin creare, skapa*] skaparkraft, uppfinningsförmåga och förmåga att finna nya lösningar

*Bonniers lexikon*

# RESEARCH

*Part I: theoretical*

playgrounds

belongings

products

environment

society

developing  
creativity  
in children

relationships

family

friends

upbringing

education

kindergarten

school

# AFFECTING FACTORS

## *of children's creative development*

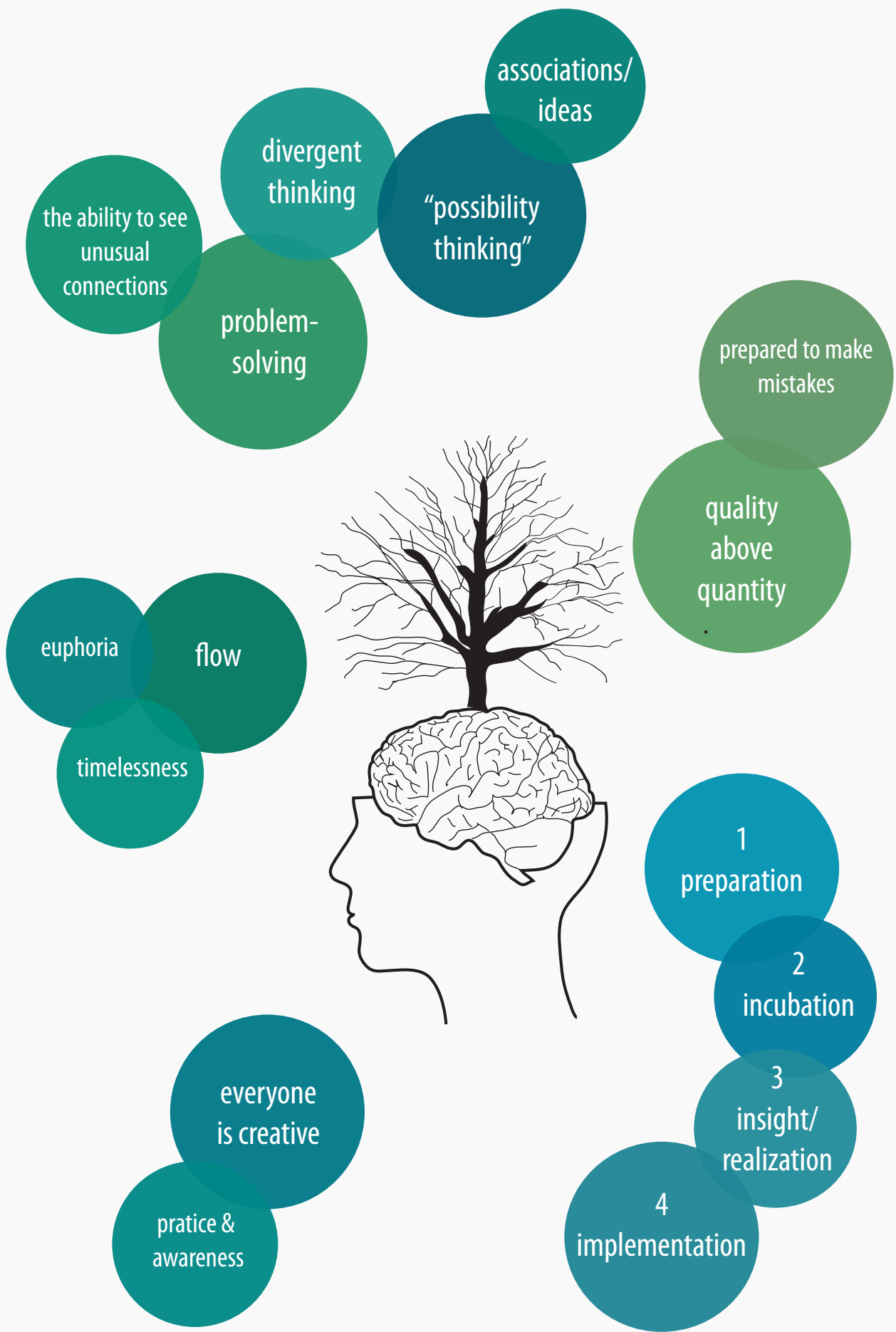
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One could perhaps say that a newborn child is like a white sheet of paper, ready to face the world and become a new and interesting human being. Although, what we also know is that the persons we become as adults is a result of the environment we grew up in.

Some parts of our personalities are simply just genetics, but even those can sometimes be altered with practice and devotion. Other factors that affect our development and path in life are relationships, society, access to

products and belongings, and education.

Which ones of these are the most important or powerful? Somehow they are all connected, as parents influence much of the information and resources their children are provided, at least in their younger years. What's most interesting for this project is finding out in what area children have a greater outlet for their creativity and possibility to realizing ideas of their imagination. This will most likely also be the area where this project can finalize in.





# what is CREATIVITY?

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When searching for an answer to this question one can find a huge variety of answers and explanations. One of those is phrased:

*“Creativity is defined as the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others.”(1)*

Robert E. Frankens

The apprehension is that the explanations vary dependent on what field there're phrased within, such as economy, marketing or artistry. What it all though comes down to is psychology, the ability of generating creative ideas.

Creativity has for a long time mostly been connected to idea generation and artistry, but today the definition has widened into also being seen upon as an important factor of productivity in our knowledge based economy. Creativity is not always pleasurable, but also useful and sometimes lucrative.(2)

One commonly mentioned description of using creative thinking is being in **flow**. This can be explained as a state of mind when one has full concentration and a feeling of intense euphoria and timelessness. Most people can probably recall moments when loosing track of time and space once doing something you find extremely interesting or devoted to. Hence, this is when we're performing a creative act.

Further description of being creative is to possess divergent thinking, which means having a large flow of ideas and the ability of making a wide variety of associations. When combining ideas, thoughts and fantasies in new ways, we can stimulate our divergent thinking, and learn how to use the resulting creative ideas to solve problems in our everyday life.

**Anders Sandberg** explains the difficulty of defining creativity due to the actual description of it as “*jumping out of the system*” (Douglas Hofstadter). He writes: “*a creative solution results in something completely new which could not be predicted, it creates its own rules, making it hard or impossible to set rules of how creativity actually works*”.

Further Sandberg describes the creative process as normally being dividable into four steps:

1. preparation – phrasing the problem and gain knowledge about it
2. incubation – leaving the problem aside, doing other things,
3. insight/realization – when the solution of the problem or the inspiration comes to you,
4. implementation – following through, from idea into reality. (3)

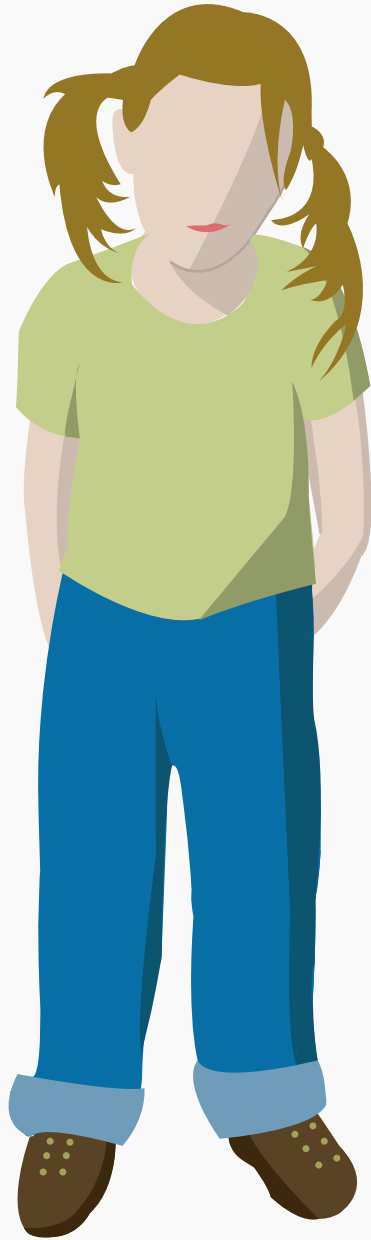
This might not apply to all creative thinking, but it can be seen as a good description of using creativity in our everyday life.

Everyone can be creative, although we need to be aware of it when we need to use it and practise to develop it into its full potential.

1. <http://blogg.sigma.se/en/Innovation-Management/Tomas-Olsson/Dates/2010/12/Kan-man-definiera-kreativitet/>

2. <http://www.forskning.se/temaninteraktivt/teman/kreativitet/tiofragorsvar/tiofragorochsvar/vadarkreativitet.5.34a8543912bbe474e1f80005257.html>

3. <http://www.aleph.se/Projekt/Handbok/Kreativ.html>



# INDIVIDUALITY

## *who is creative?*

---

*“All creative ideas should not be placed in a museum, and everyone does not possess a great talent. But, everyone thinks with a creative mind”*, says the American neurologist and researcher in creativity, **Richard Caselli**. He has been studying the neurobiological components of what creative behaviour rests on - and found that the same set is available both in those who generate many new good ideas and those that generate little or bad. Hence, there is no specific creativity gene that only certain people possess. There are rather four parts that you can have varied biological conditions for - but which also can be influenced:

1. Motivation – how the reward system is framed in the brain. Some people are more motivated by avoiding discomfort and pain, others by the hunt for rewards and new experiences.
2. Perception – the ability to create mental pictures and visualize an idea is partly controlled by the same part of the brain which handles sight impressions.
3. Action – to translate a vision into a viable idea demands a strategic skill – which among others is ruled by the working memory.
4. Temperament - experiments have shown that people differ in terms of ability to sustain activity in the reward centre in the brain when the stimulus from the outside is low. Some are better suited to diligently work toward realizing

a vision, despite the absence of rewards or even sign that one is on the right track.

**Lennart Sjöberg**, professor in psychology at Handelshögskolan, has devoted much of his research quest for personality psychology. He has seen a clear connection between the measurable personality dimension “openness to change” and creative ability - but he also points out that this is something that could be practiced. He says: *“There are a lot of research that shows that everyone can become more creative”*.

A similar opinion on the subject is given by **Eva Hoff**, psychologist and researcher at the Department of Psychology at Lund University. She says: *“We are all creative, but the quantity and quality varies from person to person. Anyone can potentially develop their creativity if they are exposed to the right environment, but we have different conditions for talent in various fields. Someone can be very creative in mathematics or language, but less creative when it comes to creating images or move their body”*. (1)

Herby, one can establish that our creative development at all times can be altered. We depend on our environment and the tools given to us, though the possibility lies in our hands to make changes if we find our situation stagnating.

1. <http://www.psykologifabriken.se/galna-genier-vilda-barn-10-myter-om-kreativitet-del-1/>

# what stimulates creativity?

unusual ideas

dare to make mistakes

evaluating your ideas

fantasy

encourage children to (have):

practise:

multiple ideas

plan your actions

boredom

space to be alone in

time

physical room

access

certain guidance

tools & material

# DEVELOPMENT

## *stimulating creativity*

---

Several methods are to be found on stimulation of creativity. When focusing on children creativity is often connected to fantasy and imagination. This topic will be more deepened further in the project.

*"Using creativity and fantasy in playing practises children in 'possibility thinking', which can increase the chance for them to become creative adults."*

Eva Hoff

Since a child's ability to use imagination and fantasy in their play, is strongly connected to them becoming more creative it's important to see to the factors which trigger their imagination. American researchers in psychology, **Jerome and Dorothy Singer**, mentions that a child must be given space to be bored in to develop their creative fantasy. With space meaning physical room, children is in need of a private space (for example a room, hide-out or screened of place). Only after a certain amount of time in loneliness can the fantasy be given room to develop. This also demands the parents not to take control over their playing, since it's crucial that a child can practise being the one controlling and setting the rules also in the joint play.

According to **Eva Hoff**, children can also need inspiring models, besides time, space and room. Those can act as guidance or exemplifiers to develop a child's creative fantasy. The models can be adults or other children who enjoys creating alternative realities. Toys or play-houses can also trigger imaginary playing. Children who always are activated by controlled activities such as playing computer games or guided by adults doesn't have either time or space to develop their creative fantasy.

A common method used in child development pedagogies, which also is mentioned by **Eva Hoff**, is to focus on the individual in every child. To provide them with a freedom of choice, participation in decision making and independence is very important to the creative development. This makes the child practise the planning of their actions and also to evaluate their

results and ideas, which is a core part of being creative.

Also of great importance to pedagogues is to motivate the child to make new trials after failure. A child needs to be inspired to try again, despite a setback. The use of trial-and-error is commonly described as important in the creative process. Adults needs to motivate children not to focus on right and wrong, but rather multiple possibilities, since this gives them opportunity to develop their divergent thinking. (1)

An other method that can be helpful when trying to develop your creativity is imitation. This connects to Hoff's view on using inspiring models. Imitating or plagiarising the ideas of others can sometimes work as preparation to new ways of thinking. This can often results in finding more or less successful results, and in discovering what appeals to you as a person. Many innovative creations are often based on earlier works, connected in new or unexpected ways.

Useful in triggering the creative mind is also to use techniques of creating new associations by chance. When combining earlier finding randomly or in new ways, we might trigger new ideas. (2)

*Thoughts: Hopefully most people come to learn what works better in stimulating their personal creative thinking. In that way we can all use our tools when needed. Although, it would probably be optional that we are faced with these tools at an early age, to gain the possibility of developing them during the years when our fantasy and imagination is most active.*

1. [http://www.academia.edu/2154917/Hoff\\_E.\\_2010\\_.\\_.Lekfulla\\_barn\\_blir\\_kreativa\\_vuxna.\\_Tvärsnitt\\_3\\_14-17](http://www.academia.edu/2154917/Hoff_E._2010_._.Lekfulla_barn_blir_kreativa_vuxna._Tvärsnitt_3_14-17)

2. <http://www.aleph.se/Projekt/Handbok/Kreativ.html>



# IMAGINATION & FANTASY

*friends • worlds • play*

---

As was mentioned earlier fantasy and imagination is said to be strongly connected to creativity, especially among children. A child's play with an imaginary friend can be either consciously developed or an adventure into a world of possibilities and impossibilities. Researcher **Eva Hoff** says that for a child to develop into a creative adult they need to be stimulated to play fantasy games. This way of playing practises them in possibility thinking.

The imaginary play of a child is often developed with age. A small child under three years is not often playing with intension, but more spontaneously and with imitations of real life. An older child does more often have an intension of creating something new or unreal in their games. It's not unusual that children develop imaginary worlds and friends during many years.

As the worlds, friends and games of imagination evolve, same happens for the child's creative skills in other areas of life. Studies with interviews has shown that approximately 50 % (in a study of 110 children) of the children in intermediary school (age 10-12) still had or used to have imaginary friends and worlds. These children were also more creative than the others. (1)

Although, as a child grows older he/she less often tell others about his/her fantasies. This can often be mistakes of them being less creative. From about the age of ten children tend to censor them selves in a larger extent,

most often to keep others from having an opinion on their fantasies, says Eva Hoff.

In relation to this, there's an important division in the intermediate age, according to the Russian development psychologist Lev Vygotsky. His opinion is that some of us at this age, lets the logical thinking compete out the more free and associative thinking, that we connect with creativity. Herby, approximately half of the population ends evolving within some areas during this age, as they stop exploring or finding new ways of realizing things. The other half of the population continue to develop flexibility and associational skills, and among those intelligence and creativity has the possibility to interact. (2)

To encourage a child to play with fantasy and imagination must hereby be to also give them the opportunity of developing skills of associational thinking. As mentioned on the previous page, the private space is important for the child to fully evolve his/her creative fantasy. Where could this space be? There might be some places commonly used by children such as the bed, under a desk or in a wardrobe, though this must also be strongly connected to the individuality and the age of the child.

1. [http://www.academia.edu/2154917/Hoff\\_E.\\_2010\\_.\\_.Lekfulla\\_barn\\_blir\\_kreativa\\_vuxna.\\_Tvärsnitt\\_3\\_14-17](http://www.academia.edu/2154917/Hoff_E._2010_._.Lekfulla_barn_blir_kreativa_vuxna._Tvärsnitt_3_14-17)

2. <http://www.psykologifabriken.se/galna-genier-vilda-barn-10-myter-om-kreativitet-del-1/>





# THE SWEDISH SCHOOL

## *development • education • creativity*

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*“Since we don’t know exactly what knowledge we need for the future, we must make sure to develop a creative talent to deal with unexpected situations.”*

These lines written by Matti Bergström, professor in physics and researcher in brain science at Helsingfors university, concerns the need of the Swedish school preparing children of today for the future that lies ahead of them. His opinion is that, only learning the knowledge we today possess on our surrounding world and our selves, is not enough. By learning from updated brain science we could today develop a school shaped for our time, characterized by rapid changes and a constant flow of new information.

According to Bergström science shows that if the brain is strained with too much information at a time, it won't process the information in an efficient way. The same thing apply to small amounts of information. Herby there's an upper and lower limit for the tolerance of knowledge in the brain. The result is then that the capacity of concentration, valuing and creativity is lowered and a hostility against knowledge memorization is emerging. His opinion is that, to develop the child brain in an optimal way the school system should beneficially work with two areas in the education: knowledge memorisation and creative ability. (1)

This statement is supported by the fact that aesthetic and creative skills can, just as written or mathematic skills, be developed and therefor need to be continuously maintained, stimulated and acknowledged. (2)

The freedom of deciding what you want to do and what to learn, is closely connected to the creative ability in the brain. Research shows that too strong knowledge impressions prevent the generation of ideas. If children are given the opportunity to decide what knowledge they want to take in, and how to use it, their creative capability is strengthened. This is what happens in play, which in reality is creativity, hence, introducing chaos in order. According to Bergström art activities, aesthetic learning processes and physical movement are also important and can improve children's development into “cultural beings”. (1)

In the Swedish school system the active development

of creativity in children is given less and less space, according to Rolando Perez, elementary school teacher, and this despite of creativity being requested from several directions in our society. By encouraging, and not diminishing, children's joy of creating and ability of free imagination their creativity is developed.

The connection between artistry or physical activity and creative development is commonly mentioned in research on creativity. One important argument of introducing more artistic subjects in school is that by practising the visual mind through drawing or sketching the right part of the brain is activated. This helps the brain to admit information, but also to improve memory and ability to concentrate. According to artist Birgitta Watz, our self confidence and trust in our creative ability is also raised by sketching and drawing.

*“All school subjects can and should base on creativity and lust. We must not lock creativity in artistic subjects, but rather use it within all areas”.* This opinion given by art teacher Lena Strand seems reasonable and logic to apply on all education, and especially for children. As she further mentions, focus today lies within the frames of each knowledge area. It would most likely be useful to mix subjects in a way that knowledge is processed in new and unexpected ways. This would probably result in more creative learning. (3)

The situation of the Swedish school system today, seems to be a constant battle on how to rationalize and make the children develop within the given time and frames of the different subjects. It seems that the difficulty at all times lies in adapting to the individual needs of each student. Developing creative skills among students at an early age could simplify memorization of knowledge, concentration abilities and personal confidence in taking on future problems and unknown situations.

1. <http://www.lararnasnyheter.se/pedagogiska-magasinet/2010/05/07/kreativt-kaos>

2. <http://www.lararnasnyheter.se/lararnas-tidning/2011/01/13/stark-estetiska-ammena>

3. <http://www.skolvarlden.se/artiklar/teckning-utvecklar-vart-tankande>



# CREATIVITY & CHILDREN

## *pedagogies*

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As mentioned earlier school and kindergarten is an important factor in a child's development. What pedagogy used in the child's education does most certainly effect their possibilities for the future. The Swedish school system is framed by the collective curriculum, phrased by the government. The commune and the independent school's owner has main responsibility of the activity. One important regulation is that the education shall be equal regardless on where in the country the child is positioned.

In Sweden we have the communal school and independent schools. The regulations are the same for all elementary school education, although an independent

school often use specially developed pedagogies in the goal of providing alternative learning methods. (1)

Some of these special pedagogies especially focus on evolving creative skills in children. Two of the most common alternate methods in Sweden today is Montesorri and Reggio Emilia. These will herby be seen into in hope of finding inspirational methods or guides useful in developing creativity in children.

1. <http://www.skolverket.se/forskola-och-skola/grundskoleutbildning/om-grundskolan>



# REGGIO EMILIA

## *history & methods*

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Reggio Emilia is a town in the north part of Italy. Reggio Emilia has also become a name for the pedagogic philosophy which has developed in the towns public preschools during the last fifty years. This pedagogic philosophy has gained a wide interest around the world (ex. USA, South Korea, Australia, Scandinavia and other European countries).

*“A child has a hundred languages”* was a poem written by Loris Malaguzzi, chief over the public preschools in Reggio Emilia during many years. This poem expresses many of the basic thoughts of the pedagogic philosophy.

In a preschool group based on Reggio Emilia pedagogic, it is for example important to combine advanced theoretical work with varied practical methods with the children. They are working with play and work, reality and imagination, and with many ways of expression at the same time. An other speciality of the pedagogues of Reggio Emilia is that they're working together with scientists and professionals in different areas, like brain research and design. (1)

1. <http://www.reggioemilia.se/>



# MONTESSORI

## *history & methods*

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The founder of the Montessori pedagogy was also the first female physician in Italy. Her name was Maria Montessori and she was active in the beginning of the 20th century.

Maria Montessori learned from her in-depth studies, what every parent know, that all children are curious, full of joys for discovery and eager to try and learn new things. She also learned, just as parents do, that the interests of children vary with age and maturity. Montessori also observed that the change in interest follows a given pattern, which is the same in every child. From the earliest interests of feeding yourself, learn to walk, talk etc., to the interest of reading, mathematics, space etc. She found that, during the different phased of maturation, children are especially receptive to different type of knowledge. From this she realized the importance of using those phases of interest, which she called “emotional” or “sensitive” periods.

During her observations she found:

- that learning adapted to the developing phase of the child is easier performed.
- that one best preserves the child’s spontaneous desire to work, by letting their own interest be motive enough to search for knowledge.
- that children has an enviable ability to focus on an interesting task.
- that children who wants to learn something new, repeats the exercise over and over again.

With the knowledge and experience Maria Montessori gained about the early human maturity phase, she found methods that give children the possibility to develop into harmonious and independent adults. She phrased that children should be given the freedom to chose activity and to be able to work undisturbed in their own pace.

in the Montessori pedagogic. It is based on the idea that one person cannot teach someone else something. You might need help to be able to learn, but the actual learning must be a conscious action from yourself.

The task of a teacher in a Montessori-group is not primarily to mediate knowledge, but rather to observe the children and to be attentive to every child’s needs. He/she should give the stimuli that adapts to the maturity and interest of every individual child. The teacher is reporting, describing and stimulating to discussion and new questions. He/she shows were information is to be found and how it could be used to give the child important training. The child then works independently with the task. The Montessori pedagogic says that all unnecessary help is an obstacle in the child’s development.

*“In free creating children have an outlet for their imagination”.*

In a Montessori-class in elementary school ordinary benches and teacher desk are absent. It is more common to work randomly on the floor or by tables, alone or in groups. The children can at all times access varied tools and working materials in shelves along the walls.

The children chose their own occupation, which leads to them devoting to the task as long as they feel like it. They sometimes concentrate on one subject during an entire day. Although, given this freedom, the children are also required to take on responsibility to cover up all subject areas of the school program during the semester. This concerns planning and evaluation.

The freedom also requires the children to respect their fellow students. (1)

*“Help me to do it myself”* is one phrase that is important

1. <http://www.montessoriforbundet.se/>

## **FLOW**

– the state you're in when using your creativity at the fullest.

## **EVERYONE IS CREATIVE**

– although, we need to practise and maintain our creativity to develop a skill useful for various situations and future problems.

## **PRIVATE SPACE**

– a child needs a physical place where they can be alone with their fantasy. Only then can their creative fantasy evolve at it fullest and practice them in divergent thinking.

## **INSPIRING MODELS**

– triggering products or individuals that enjoy creating alternative realities, can inspire a child to develop imaginary playing. Creativity can also be developed by imitating others.

## **TRIAL-AND-ERROR**

– encouraging children that it's alright to make mistakes teaches them to try again and to develop tools for solving problems in the future.

## **IMAGINATION & FANTASY**

– to encourage wild ideas and alternative realities in a child's play give him/her the opportunity of developing skills of associational thinking.

## **FREEDOM OF CHOICE**

– too strong knowledge impressions prevent the generation of ideas in the brain. By giving the children the opportunity of deciding what knowledge they want to take in and how to use it, their creative capability is strengthened.

## **ACCESS & GUIDANCE**

– connected to the freedom of choice, adults must also provide the children with access to tools and be present for guidance when needed. If the children have an overview of what tools are provided, they have to possibility of choosing what that want to learn.

## **VARIATION**

– by combining practical and theoretical methods a child is more likely to memorize information.

## **INDIVIDUALITY**

– to understand and respect the individual in every child is essential to give them the opportunity to develop into creative adults. Children most commonly want to learn, important is though letting the learning adapt to each child's development phase.



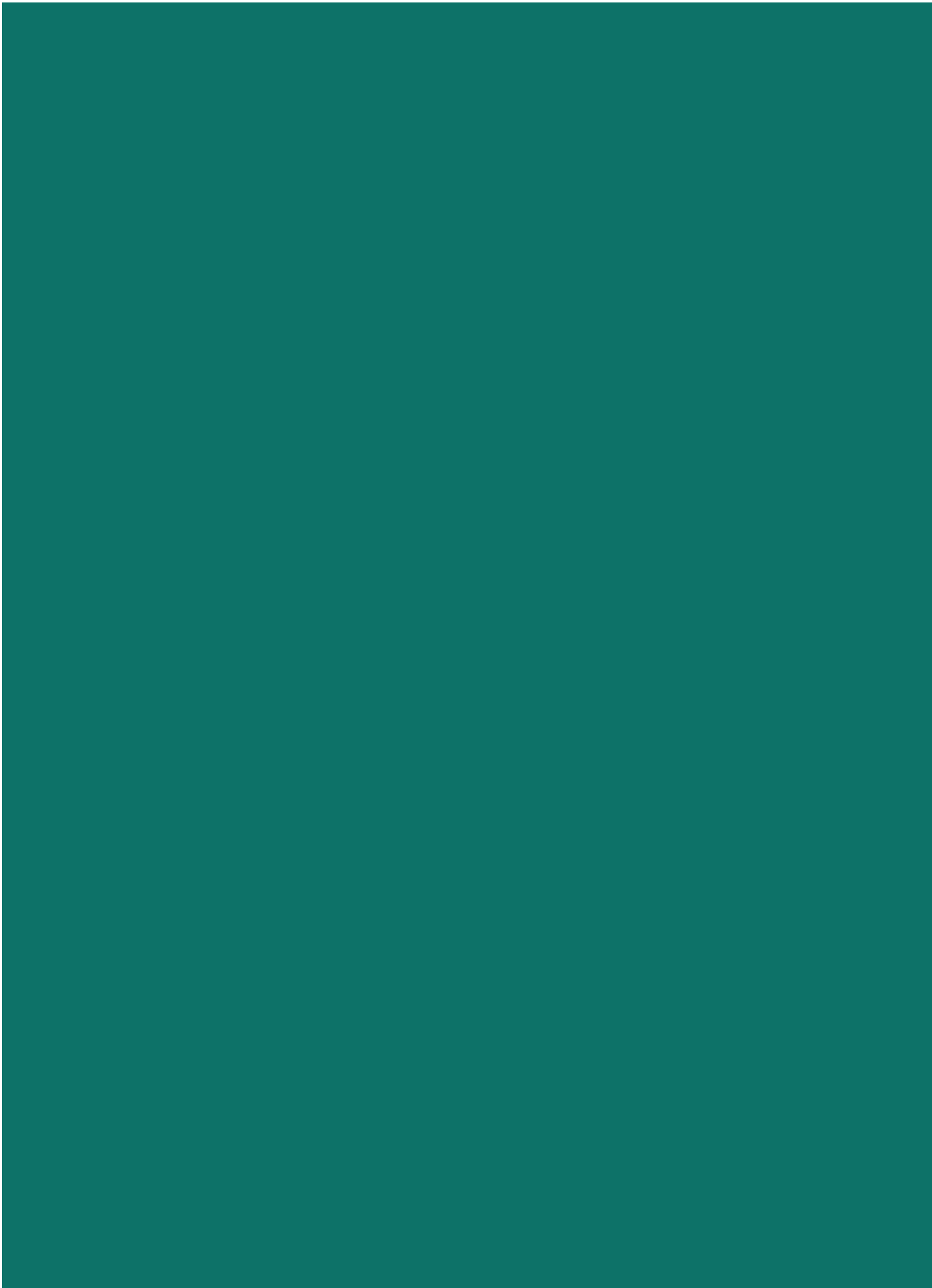
# SUMMARY

## *creativity & development*

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As the core information on what creativity actually is and how it's commonly used and stimulated has been processed, confidence was gained to further continue with the research into using more practical methods.

The knowledge gained that is perceived as most essential could hereby be summed up (see opposite page).



# RESEARCH

*Part II: practical*

INTRODUCTION



*field trip:*

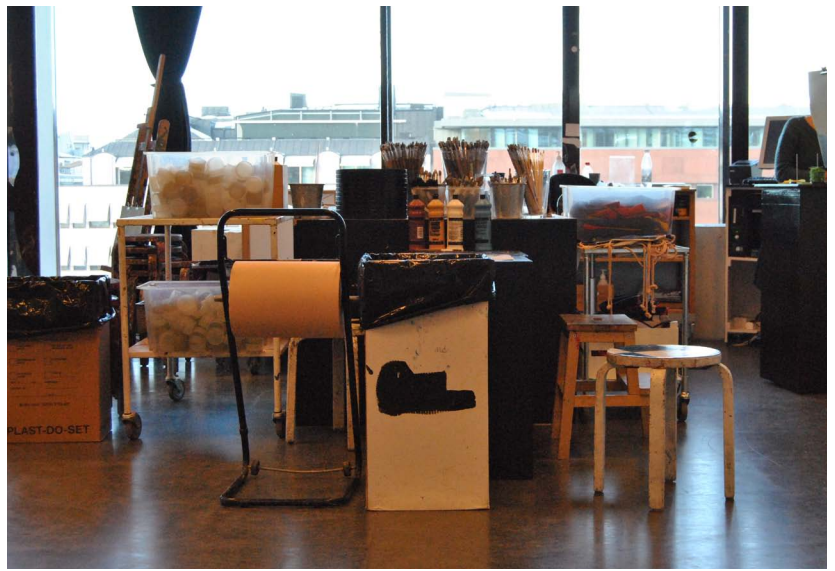
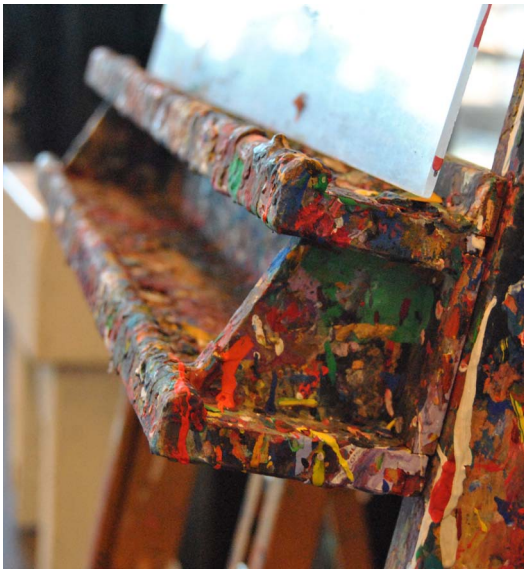
# **STOCKHOLM FURNITURE FAIR**

*Friday 10th of February 2012*

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To kick off the practical part of the research phase, a visit was made to the annual furniture fair in Stockholm. The goal was to gain inspiration from smart solutions and interesting “young design” projects in the Green

room. What especially was found interesting was the playfulness found in much furniture series, such as peepshows and hide out places for peoples of all ages.



*field trip:*

# RUM FÖR BARN

## KULTURHUSET, STOCKHOLM

*Sunday 12th of February 2012*

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In the centre of Stockholm you find the **House of culture**, (Kulturhuset), which is a building holding a variety of culture forms and rooms for these. At the floor next to the top you find **Rooms for children (Rum för barn)**. This whole level is dedicated for children with parents to visit between Tuesday and Sunday. You can come here to loan and read books in the experimental library, listen to fairytales or sing songs in the round space inspired telling room, be an artist with clay or paint in the arts workshop or just spend time together. You can eat your nosebag in the eating area and look at the aquariums at the same time.

At some dates **Rooms for children** also offer special happenings like junior movie making, Friday dance, baby hours etc.

Since this seemed like a great place for encouraging the fantasy and creativity of children, it was decided to make an inspirational visit. To get better knowledge of how these rooms are experienced by children I brought with me my two cousins, Tilde 9 years and Ida 6 years old, and my aunt Katarina.

We started our visit taking off our shoes in the first room and continuing with exploring the rest of the floor. Right away the children started pulling us around to show what they'd

found. Everything from a funny chair to the view from the window to how you could slide around on the shiny floor.

We continued into the arts and crafts room where the children could play with clay for a small fee. It was interesting to see how their minds started rolling when given the small piece of soft grey clay. An instructor from the workshop showed the children how they could use the tools and spin the moulding plate to observe their sculpture from all angles.

Both of the girls started off sculpting an idea right away. They also both got to a point where they were disappointed with the result and started transforming the object. We encouraged them to follow up their ideas and to evaluate what they wanted to change when not satisfied. In the end the clay turned into little objects and they were both satisfied with their results.

After a while we left the workshop and further explored the rest of the floor, climbing ladders, peeking into hiding places, pulling drawers, reading books, running and crawling. It was a rewarding few hours, watching and joining the children in their way of looking at and understanding a new place.



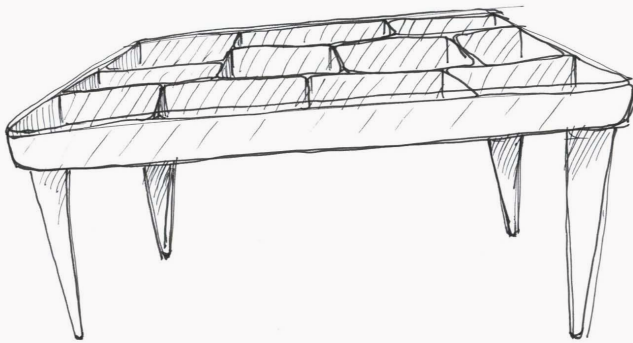


# RUM FÖR BARN

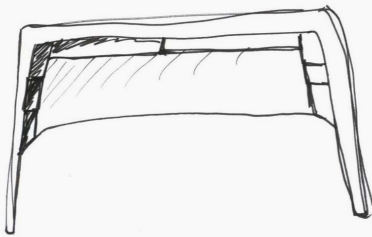




PEEP SHOW - SHELF



PEEP SHOW - TABLE



HIDDEN DRAWERS - DESK



INTERACTION PLANNING  
DEVICE

# FIRST IDEAS

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With the knowledge gained from the first phase of the research and the two inspirational field trips a few simple ideas was triggered.

The unexpected combination and display of products that could inspire to new ideas and to discussion that was found in the experimental shelves at Rum för barn, was found interesting. This activated the children that interacted with them, triggered their ideas and imagination. If these shelves were to be open, to let the children interact and change the arrangements, could

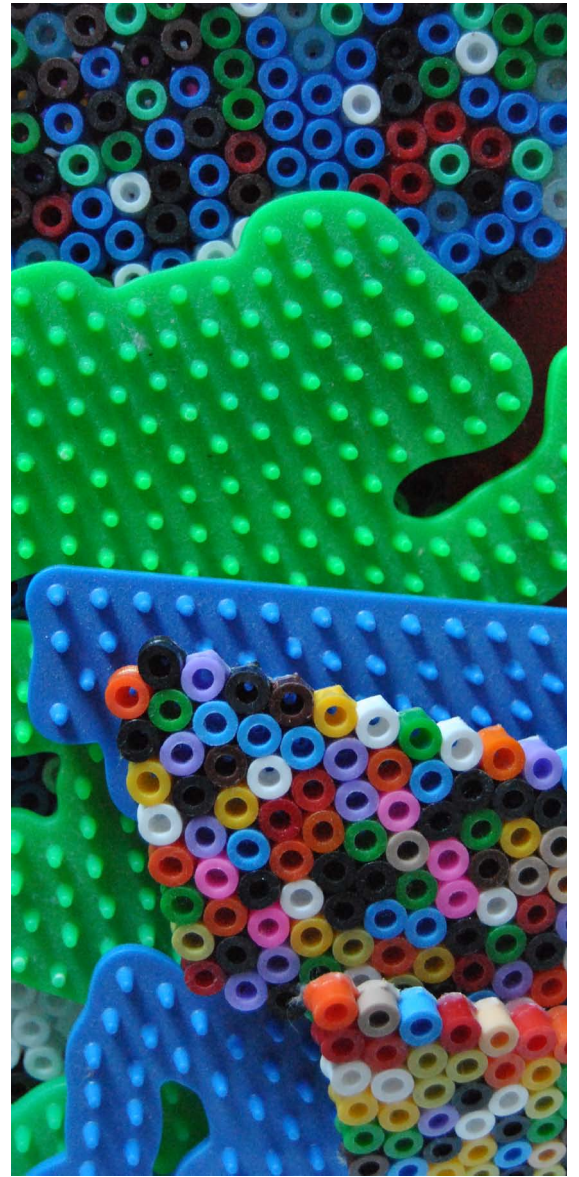
it might serve even better as an inspirational station for activity?

When the child don't know what to do, where does he/she often do about it? Ask parents for ideas? Turn to a product/place where they are likely to get inspiration? What/where is this?

Hopefully the answers to some of these question can be found when visiting families and finding more specific information on children's behaviour.







*observation:*

# HOME ENVIRONMENTS

*habits & behaviour in everyday life*

*parents & children*

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Since the goal of this project is to develop a product aimed to children and also to use them as an important inspiration, it is necessary to also observe them in real life. Only after doing this, can the final result be successful.

The goal of the home visits was most importantly to observe behaviour and habits of parents and children in their everyday life. The intension was to be present but leave room for them to act in their home as they normally do.

Five families was visited for observations. All five had two children each and one family had a single parent. The whole group of children consisted of six girls and four boys. They were between the ages of 2-10 years old.

Some questions were phrased before visiting the families to get an as wide picture as possible of their view on creative development in their home. The goal was also to find out if they had thoughts concerning issues or difficulties, were a solution could be implemented. The questions was aimed both to the children and the parents.

The questions asked to the parents were:

- *Where in your home does your child spend most of his/her awake time? Why?*
- *When do you think your child is being most creative? Where and with what activity?*
- *Do you perceive your child as creative with his/her time? Does he/she usually independently activate him-/herself? Or do you need to give examples of what to do?*
- *Are you actively focusing on developing your child's creative thinking?*

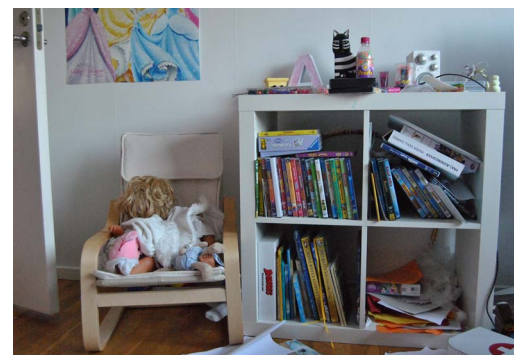
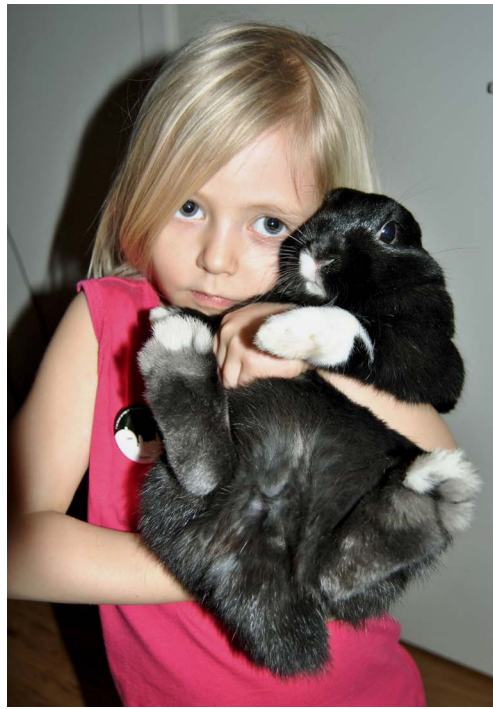
The questions asked to the children were:

- *What is your favourite place in your home? Why? What do you like to do in this place?*
- *What is your favourite activity when you're at home? Is there something you often want to do, but can't or are not allowed?*
- *Do you like playing alone or together with friends, siblings or parents?*

The answers and reflections collected during the inspirational home visits were varied and interesting. Some of the visits were made during weekdays and some during weekends. The difference was noticed in the pace of the activities and how they were executed. The families that was studied during the weekends naturally had more time and possibility to let the children do more time consuming things, such as building hide outs, baking, pulling out the big box of colouring materials etc.

The families observed during the weekdays, interestingly though had to be more efficient with their time. When making dinner the children either joined in the cooking or focused on activities that was close at hand, such as continuing on already started projects (Lego, drawing, re-dress dolls etc).

With more time at hand during the weekends, the children had a larger outlet for imaginative playing, although they also became restless and undiverted at a larger extent. At these times parents was actually perceived as the un-creative individuals, as they suggested the common games and products to activate the children. After some time of boredom and light despair the child found an interesting task independently.





# *continuation*

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Most of the children, especially the younger ones, enjoyed the company of the adults, or at least to keep close to them. For example one girl at the age of four brought her crayons to the table when dad was sitting by the laptop. She instructed him to not look at her drawing, although she still wanted his presence.

All children had one or several positions in their home that they favoured for alone time. Some preferred the bed, some enjoyed building hide out cribs, some just preferred a place that was calm and undisturbed. A few children explained to me about their fantasies, high and low, common and new ones. Others were more private about their imaginative ideas and games, especially the older children.

One appreciation was that most of the parents (as perhaps could be expected) connected creativity to artistic activities. One mother answered when asked if she thought her sons were more creative at any specific occasion, that their family members were not so artistic, although she sometimes enjoyed making name plates with her youngest son. Further she was asked if the sons had rich imagination or often played imaginary games. The answer to this was that she at many occasions were amazed by their surprising and fun ideas.

Interesting was to see how the ideas and games of the children evolved. Many of the games and ideas that was perceived as the most creative was developed when the child was playing alone. This might had been a result of them at these times having the possibility to develop their ideas and fantasies regardless of other individuals

affecting their creative flow.

At least six of the children had one or several places were they used to hide or keep things from others. When asking them why and what they were hiding, it seemed that the most important part of it was the thought of secrecy and keeping something hidden from others. Even though they didn't all reveal what they were hiding or where, most of them enjoyed narrating the action of the hiding.

Overall the home visits were inspiring and helpful to move further in the project. The most important conclusions could be summarized as follows:

**Individuality** – the activities and hobbies that engaged the children and that could set them into a creative flow, hence focusing on one thing for a longer time, varied in relation to their personalities.

**Age related differences** – personalities and interests also vary with time. A favourite activity or product can be put aside for something else.

**Structure** – older children (<6 years) seemed to be more structures in their activities and with their products compared to the younger ones.

**Informative display** - many of the children had products they'd forgotten about in closed drawers. When looking at forgotten products imagination evolved.



occupation

restlessness

creativity

# REFLECTIONS

## *habits & behaviour*

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One additional important reflection made when observing children in their home environments, was the connection between restlessness, activity and creativity. When the child was restless or undiverted he/she either turned to the parents for guidance or just turned to a product or activity which was close at hand or commonly used. This did after a while of interaction result in including more/ other products, moving the activity to an other

place or just develop completely new games or pursuits.

The interpretation was that the creativity of imaginary ideas was developed from the state of boredom. How can a product or concept help the child in this state of mind? Is there a way to provide the child with informative exemplification of activities and products they have access to?



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After some research in the topic, I found one name mentioned several times in the texts and websites that I read, adjunct lecturer in psychology, Eva Hoff. As she's located at the institution of psychology in Lund, it seemed like a good idea to contact her for a discussion or interview.

"Eva Hoff is doing research on creativity in children. She pursues the issue of creativity and originality needs to receive more focus in the school world and is also leading a European creativity group around these issues. Eva Hoff has shown that many different types of children can be highly creative: the silent alone, the popular academically gifted, and the social trouble makers. She is also doing research around fantasy friends, their function and in the relationship between fantasy play and creativity."

<http://vr.se/huvudmeny/tvarsnittnr32010/essalekfullabarnblirkreativavuxna.4.6e3f84f912af3e345e780002575.html>

The discussion or interview with Eva Hoff was rewarding for the project in many ways. Some questions were prepared before the meeting, though these acted more as a guideline or base for the discussion. Since she has wide knowledge in the subject of creativity and children, it was interesting just to listen to her thoughts and experiences. The interview was audio recorded.

In the beginning of the interview I asked Eva if she knew during which ages children are more creative. The intention was to figure out more about the chosen target group and if it was a good age span to focus on (4-10 years). Eva mentioned that she thinks it takes a certain amount of awareness to actually be creative. She explained a common test used to analyze the width of children's creativity. The initial test is to provide the

child with a brick and ask him/her to give as many examples as possible of what could be made from it. In some of the sessions Eva had she used a milk package or a paperclip instead.

From this she observed that the younger children (3-5 years) looks around the room to search for inspiration, in contrast to the older children (6-9 years) who has a wide repertoire of memories and experiences that they can use to fantasize and create new ideas from. Although, she also mentioned that it's not unusual that the smaller children can be perceived as more creative, since they're often more out acting their fantasy. When the children grow older it's more common that they're not sharing as much of their fantasy with the surrounding. As Eva Hoff has done much research in imaginary friends and worlds, she also mentioned that it is common to have these all the way up till the age of ten.

Eva mentioned that she think it's important to "provide children with boring moments", to give them the opportunity to use their fantasy to fill up the time of boredom.

When I asked Eva if she thinks children has a larger outlet for their fantasy and creativity at home than in school, she said yes with no hesitation. With an exception to the time spent in after school care (fritids), where the children have a larger opportunity to develop their creativity than in the classrooms. Her opinion is the Swedish school system has a huge potential to practise a more creative pedagogic, and that this would not impair or improve the results. Although, it would be a way for them to use creative thinking as a tool. She also mentions that it's actually written in the educational program that school shall make the children more creative.

## *interview & discussion:*

# **EVA HOFF**

*adjunct lector in psychology,  
Lund University*

*Thursday 16th of February 2012*

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Further on I asked Eva if she thought that children wants to be more creative than they have the opportunity to be. Her answer to this question was that she thinks it's an individual matter. Some children have a wilder fantasy and can more easily be creative with their time, while it for some other children it's very important to be like everyone else. For those insecure children it can be very difficult to dare to be different. Therefore, Eva thinks it's important to encourage all children in their creativity. Children should be practised and encouraged in being their own and to be original she thinks. Eva said that the school today is much based on right and wrong. That it is encouraged when doing the "right" thing, and told that it is dangerous to do something "wrong". She also said that creativity is about "walk against", dare to be different and maybe make mistakes. She thinks that it's important to emphasize that it's good to make mistakes, because you can always learn from your mistakes, and that it's okay to ask "stupid" questions.

Eva mentioned an example about introducing creativity in a subject commonly perceived as being non-creative, mathematics. To ask the students to give examples of equations where the result is 10, you will receive a wide variety of answers. This task triggers their creativity instead of just searching for **one** right answer.

We discussed the variety of conditions a child is shaped by: parents, school, where they grow up, friends etc. Since Eva at occasions is testing her ideas and doing studies in schools she also mentioned her thoughts on the difference between growing up in the city or at the countryside. Although, she had no scientific answers to this question, whether children are more or less creative based on where they grow up.

Eva told me that she visited a school in Stockholm, which is based on a Danish pedagogic method called Bifrost. This is apparently a method that she feels very positive about, since they're integrating the creativity of children and learning in a good way. This pedagogic method will be studied more later in the project.

From this we discussed the importance of individualization in learning and also the ability to plan and evaluate your own work. (Since this is a base in the Bifrost method). Eva said that she thinks this is in fact is the foundation for the creative process: to come up with a task or occupation, make realistic goals and to evaluate your results.

As a final question I asked Eva if she knew any specific methods or products that has been introduced in a school or kindergarten environment, which has been proved positive for the creative development of children. From this she took the example of toys and products that are called "creative playing device". These are according to her most commonly products that trigger the children during a short time, but soon tends to become boring. They only offer a very limited way of using them and to develop from them. Eva said that the toys and products that you instead "can make a thousand things of" are what really develop the children's creativity. She mentioned example like Lego, large building bricks and clay. Hence, it's more important to create products that are not so controlled and not too gender based.



come up with a task  
or occupation

make realistic goals

evaluate your results

# SUMMARY

## *interview & discussion*

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The comments that was found most interesting and useful from the interview with Eva Hoff could be summarized. Her opinion was that Swedish children today have a larger possibility to develop their creativity at home than in school.

Eva Hoff mentioned that her view on the creative process required that three steps are included: the idea of a task or occupation, set-

ting up realistic goals and to finally learning to evaluate your results.

When discussing creative products, her most useful comment was that the toys and products that you “can make a thousand things of” are what really develop the children’s creativity.

This comment was the one that was chosen to further continue with in the project.

# MOTIVATION

After a discussion with the supervisor of the project (Charlotte Sjödel), it was decided that the brief needed to be redefined. Some parts of the initial brief were not motivated and those therefore had to be rephrased. This considered the the actual aim of the final result; what situation/place should this product be made for? Since one of the goals of the project is to build a product in the workshop, the brief shall also phrase it this way: a product (hence, not a concept).

We also discussed the importance of narrowing down the target group when it comes to age, to more easily make a product that can be adapted to specific needs and to make the research phase less wide. Although, I wanted to make a few more steps of the research to find out what age group that can be in most need of this type of stimulation.

An important demarcation that could be made after the discussion and interview with Eva Hoff, was that Swedish children today have a larger outlet and possibility for development of their creativity at home. Therefor, and due to the project needed to be narrowed down, the decision was made to further on focus on implementing a product in a home environment.



# REDEFINED BRIEF I

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The research of this project shall initially include situations in school, home and the “neutral” space, of a Swedish child’s everyday environment. This to get a wide knowledge of which methods, products and concepts have been proved successful and helpful in engaging the children in their creative development, and to see where inspiration can be found.

The final result shall be a product for a home environment, which can provide (a) chore/ occupation for children. It shall motivate and stimulate children to develop their creative thinking. The product shall help parents to offer activity to their children that does not include a computer or television.



# MARKET

## *creative toys*

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During the discussion with Eva Hoff the subject of creative products was attended. As mentioned earlier her opinion was that a creative product is something that can become “a thousand things”. This can be crayons, beads, building blocks, clay etc. Although, interest and inspiration is affecting what makes one child creative with what kind of products. Therefor this group of products can for example also be something found in nature like cones, branches and leaves. Or perhaps just a pen and paper, for writing vivid stories.

A wide variety of creative products are to be found on the Swedish market. The perception is that most of the products labelled “creative

toy” often are meant to be used in a specific way, leaving little room for variation. According to Eva Hoff these products are often the ones that children only find interesting for a short time.

It seems important to leave room for the individual to interact with the product in an independent way. If this project shall aim for developing a new creative product, how can this product be adapted to different personalities in different children? Also, since children have different interests and perhaps enjoy interacting with different products at different occasions, how will this product adapt to this variation?



# DEMARCATIION

*indoor vs. outdoor*

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Naturally children can play with imagination and start creative projects in both indoors and outdoors environment. Nature provides multiple opportunities for children to out act their fantasies. Although, since the interpretation is that parents are more likely

to introduce new products to their children in the indoors environment of their home, the demarcation was made to continue with the goal of developing a product aimed for indoor usage.



# USABILITY

## *“just another toy”*

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When reviewing products that could be used to stimulate creativity among children, that are to be found on the Swedish market, some thoughts and reflections came to mind. From the recently made observations of children in their home environments the important conclusion was made that the individuality and interests of each child is naturally effecting what products and tools they need to develop their creativity. What might be stimulating creativity in one child, might not do the same for an other one.

Is it possible to make a product that could adapt to different interest and hobbies and still be inspiring and easily used for different children with different personalities? Even though common behaviours and interest might could be established, how will the product adapt to the “extremes”? And is it necessary?

As the variety of products and belongings also vary with time for a child (sometimes from week to week), how can an implemented product become constant or at least used for a longer amount of time? The hope is to make a product which will not be disposal or soon found uninspiring. Therefor, the question was raised to instead learn what in fact is more constant in a child’s everyday life at home? What/where does the child turn to when in need or hope of inspiration? Or could their be a new product offering this possibility?

What could be established from the research was that most children had favourite places they went to for moments of free imagination. Also worth remembering was the rediscovered items, giving new inspiration and ideas.

After phrasing these questions and discussing them with fellow student and other people around the project, some interesting conclusions could be made. One answer to the brief of this project could be “just another storage device”. Perhaps if executing a storage arrangement in a way that it displays the belongings and inspirational items of the user (the child) in a way that stimulates to creativity? If so, what are the most important guidelines to follow for this to become successful and alterable depending on the different individuality of the users?

The project needed to take stand in some direction and therefor the decision was made to further continue with the goal of developing a storage device which in the way it displays the products/items in it, will stimulate creativity in children.

Important was also to have the goal of developing a piece with finesse and to execute it well. Given this, it shall not result in “just another storage device”, but rather a creation with features specifically aimed for the target group, which will make it unique.





*interviews:*

# CHILDREN

## VÄSTRA RAMLÖSA SKOLA

*Friday 9th of March 2012*

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To get some specific comments on what children prefer to occupy themselves with at home, and when and where they find inspiration that trigger their fantasy, six intermediary children were interviewed. Four boys and two girls were interviewed during three sessions. They were all between the age of 12-13. The reason for interviewing children of this age was due to them more easily being able to express themselves when asked about specific situations and both earlier and current habits, than children of a younger age.

The questions asked were as follows (although they were altered somewhat during the different sessions):

- *What do you enjoy doing the most when you're at home?*
- *What is your favourite place to be in your home?*
- *Is there a place or product in your home that you often get inspiration and ideas from/in?*

The children were all very helpful and gave

vivid answers. The two girls and two of the boys mentioned that they enjoyed drawing and creating things. The other two boys mentioned that they enjoyed performed project where they could build products and work with technical solutions.

They all had a favourite place in their home where they spent time when needing to be alone or just being in a calm place. This was also where they did things like reading, writing and listening to music.

Some valuable comments were given on where they find inspiration and get new ideas of possible activities or projects. One mentioned the parents wall of paintings giving her inspiration to make new drawings, one could lose him self in thought and imagination where looking at a special lamp. A few of them also had a wall or board in their room where they liked to put pictures and 2dimensional projects that they were proud of, got inspiration from or just reminding them of something.

  
**LUNDS**  
UNIVERSITET

**Hej!**  
förälder!

Mitt namn är Frida Fuchs och jag studerar industridesign vid Lunds universitet. Jag arbetar för tillfället med mitt examensarbete som handlar om barn och kreativitet. Jag är intresserad av att få en inblick i barnfamiljers vardag och rutiner.

Jag har sammanställt en enkät med ett par korta frågor och skulle vara mycket tacksam om du vill hjälpa mig med att svara på dessa. Du är givetvis anonym i dina svar om du vill det.

Tack för din tid!

Med vänliga hälsningar

  
Frida Fuchs

Om du har frågor eller synpunkter kan du kontakta mig på:  
frida.fuchs@live.se  
Tel: 0704-994122

frida.fuchs@live.se

### BARN & KREATIVITET

Hur många barn har du?  
 1     2     3     4     fler

Hur gamla är de/det?  
 1-3     4-6     7-9     10-12     äldre

Under er lediga tid i hemmet, vad sysselsätter barnet/barnen oftast sig med?  
 (1=vänligast, 6=ovanligast)

Titta på tv, spela tv-/dataspel     Leka utomhus     Pysssel (ex. rita/måla, klippa/klustra, skapa)  
 Hjälpa till med "vuxensysslor"     Leka inomhus     Annat \_\_\_\_\_

När upplever du att ditt barn har lättast för att fokusera på en sak en längre stund?  
 (Ex spel, bygga med lego, fysisk aktivitet, rita, specifik lek/sak)

Var upplever du att ditt barn har lättast för att fokusera på en sak en längre stund?  
 (Ex på sitt rum, vid matbordet, spelar ingen roll?)

Brakar ditt barn skapa fantasivärldar/lätsasvärldar?  
 Ja     I perioder     Nej

Om ja, upplever du dessa förekommer mer i en viss typ av lek eller på en viss plats? Var?  
 Finns det en specifik möbel eller produkt i ert hem som genererar fantasi eller idéer hos ditt barn?  
 Kommentar: \_\_\_\_\_

I vilka situationer och ev. med vilka produkter upplever du att ditt barn bäst använder sin fantasi till egen kreativitet?  
 Kommentar: \_\_\_\_\_

Om du kan tänka dig att bli kontaktad av mig för ett par ytterligare frågor lämna gärna din mailadress:  
 \_\_\_\_\_

Tack för att du tog dig tid att svara på mina frågor!  
 Om du kan tänka dig att bli kontaktad av mig för ett par ytterligare frågor lämna gärna din mailadress:

The questions that was asked were:

1. How many children do you have?
2. How old are they?
3. During your free time at home, what is your child/children usually activated with?
  - Watching tv, playing computer-/tv-games
  - Playing outdoors
  - Pottery/artistic activities (for example painting, cutting/gluing, creating)
  - Helping out with "adult tasks"
  - Playing indoors
  - Other
4. When do you consider your child easiest focusing on one thing for a longer amount of time? (For example playing games, building with Lego, physical activity, drawing, with specific toy).
5. Where do you consider your child easiest focusing on one thing for a longer amount of time? (For example in his/her room, by the dining table, doesn't matter?).
6. Is your child often creating imaginary friend and worlds?
7. If yes, do you perceive this happening more often in a specific game or place? Where?
8. Is there a specific furniture or product in your home which generates fantasy and ideas in your child?
9. In what situation and perhaps with what products do you believe your child is using his/her fantasy to develop his/her creativity at the most?

*survey:*

# CREATIVITY & CHILDREN

*children's habits & behavior*

*in home environment*

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A survey was made to get a wider view on children's outlet for creativity in their home environment. The goal was to look for patterns in behaviour and activities that could be developed into a practical solution. The questions were compiled in a survey and distributed digitally online (via e-mail and facebook).

In total the answers of 33 participants was collected. The comments on the more open questions (4, 5, 7-9) were varied, but some interesting notes could be made. The most useful conclusions of the overall result of the survey could be summarized as following:

**Individuality** – once again the conclusion could be made that the place of concentration/creative flow in home environment is individual. Older children (<6 years) spend

more time on their room or by themselves than younger children.

**Introducing & exemplifying** · Common that children need to get started by an adult. If given example of a shore, the children are more likely to find inspiration to develop creative ideas.

**Hiding places & secrecy** -To find creative flow, children often pick or create places or hide-outs in their home to find their private mental room.

**Common products** - The situations when children independently develop their creativity most commonly includes products of some kind: blocks, lego, drawing material, books, balls, blankets etc. These situations were also described including rather calm activities, when focusing on one specific task or project.



# SUMMARY

## *research phase*

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### LITTERATURE

- Pedagogies developing children's creativity - encouragement, focus on individuality and guidance is the common goal.
- Having imaginary friends and worlds is common among most children. When children get older, they more often keep them to them selves.
- Factors that stimulate creativity:
  - encourage wild fantasies and unusual ideas
  - being in boredom - private space, physical and mental
  - access to tools and guidance, giving examples of shores or activities
- Everyone is creative - practise and awareness are tools for development
- ▶ **Flow is a state of mind when creativity is evolving.** When feeling euphoria and timelessness can describe a creative flow.

### FIELD TRIP - RUM FÖR BARN

- Simplest solutions: the most diverse?
- Unexpected situations: fantasy trigger
- ▶ Offer tools and guidance - possibility to realize ideas

### FIELD TRIP - STHLM FURNITURE FAIR

- Swedish homes/environments trends

### INTERVIEW - EVA HOFF

- The products that can become a thousand things, are the most creative
- ▶ Swedish children can most commonly be more creative at home
- Creativity: 1. idea, 2. plan, 3. evaluate

### HOME VISITS

- ▶ Level of organization varies, parents more commonly in need of structure than children. Older (<6 years) children more structured than younger.
- Children often forget about toys and products in closed drawers

### SURVEY

- ▶ Place of concentration/creative flow in home environment is individual. Older children (<6 years) spend more time on their room or by themselves than younger children.
- Common that children need to get started by an adult, exemplify shore.
- ▶ To find creative flow, children often pick or create places or hide-outs in their home to find their private mental room.
- The situations and products used by children to independently develop their creativity most commonly includes products of some kind: blocks, lego, drawing material, books, balls, blankets etc.

### INTERVIEWS - CHILDREN

- ▶ Help getting started
- Sources for inspiration, looking around
- ▶ Favorite place - finding creative flow



# DISCUSSION

## *goal of project*

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The gathered research shows that creativity can be stimulated in several ways, depending on the environment, the child, the situation etc. Making a product that is attending all of those variables would be difficult or more likely, impossible. Therefore it's important that the actual goals and directions for the next phase of the project is set.

What products a child will be inspired by or be in need of can vary from week to week. Can this age related development of a child's individuality be used as inspiration, as done in for example in Montessori schools? Perhaps by providing the child with the tools he/she needs as have interest for interacting with, giving them the opportunity to display what they want, and hide what they are less interested in, they can be motivated to involve independently in their creative development?

The research also showed that the personal space and a place to be alone in where the child can develop ideas and find inspiration is important for the creative development. This personal space is something that I find important to continue focusing on. How can this personal space be executed?

Due to these reflections, the product could beneficially be adaptable to some age related changes a child passes, such as height variation, safety aspects, stored belonging (in aspect of

size, for example younger children having more up-sized products, older children having smaller products and often cares more about structure/arrangement), behaviour in relation to products (playing structure, bringing products to another place aka modularity, etc).

As much as I with this project wants to serve the needs of as many children as possible, this is not possible. Focusing on the individual child is a battle teachers and parents are phased with every day. My contribution to the topic will be a result of inspiration gained from the inspirational visits and observations of the children and families participating in this specific project. Would this project be executed at an other time or with other participants, it most likely wouldn't turn out the same way. An obvious statement, but yet important mentioning.

After these reflections and after summing up the research, it felt necessary to redefine the brief a bit and perhaps narrow down the goals of the final result.

One important issue that I felt was missing in the brief at this point was the lack of demarcation in the age of the target group. As looking back at the research it therefore felt necessary to requestion if there might be any specific age spans in need of creative stimuli.

---

Children in Sweden does in general have a larger platform to be creative in their home environment than in school or kindergarten. The interpretation gained from the research is that the guidelines of the Swedish school system aim the children to develop according to a given path. The subjects including artistry and physical development has been given less and less time during the last few years.

All phases of the research has showed that what makes a child feel creative flow is very individual, depending on interests, hobbies and relationships. Although, the majority of all children need certain amount of guidance or outer source of inspiration. The access to tools and products that can help them execute their ideas is just as important.

The youngest children, between 2-5, often seem to have a wild imagination, although their creativity (concerning testing and evaluating their ideas), develops first after a few years. Children between 6-9 years more easily transforms ideas into reality and thereby have the ability to use given tools and sources of inspiration to develop their creative thinking.

The conclusion drawn from this is that during the first years the child spends in elementary school it's important to provide a base for creative recreation and source of inspiration which is constant. The first years of school (starting at the age of 6) is often a big transformation in life. Although, this

time is also very important for the individual development and can for some serve as a template for the next-coming years of education.

To establish a place and product which is constant and a solid base for creative development in a safe environment, can be an important resource during the first years of school. It's important that this product is a place where the child can return to seek an outlet for his/her ideas and that it can serve as a source of inspiration.

It's beneficial if the relationship to the product is established before the child gets introduced to the school environment, to make it a constant base to return to when much else is changing outside the home environment.

The goal is to produce a product that can be adapted to different individualities and reused by future users. There should be a possibility to display personal favorites or memories, but also to hide secrets, belongings and ideas. The product shall also provide a randomness of some kind, displaying things that can trigger ideas by being displayed in an unexpected context or combination.

Herby this product shall provide storage and display of the tools, products and belongings (individual to the user) that affects and trigger inspiration in him/her.



# REDEFINED BRIEF II

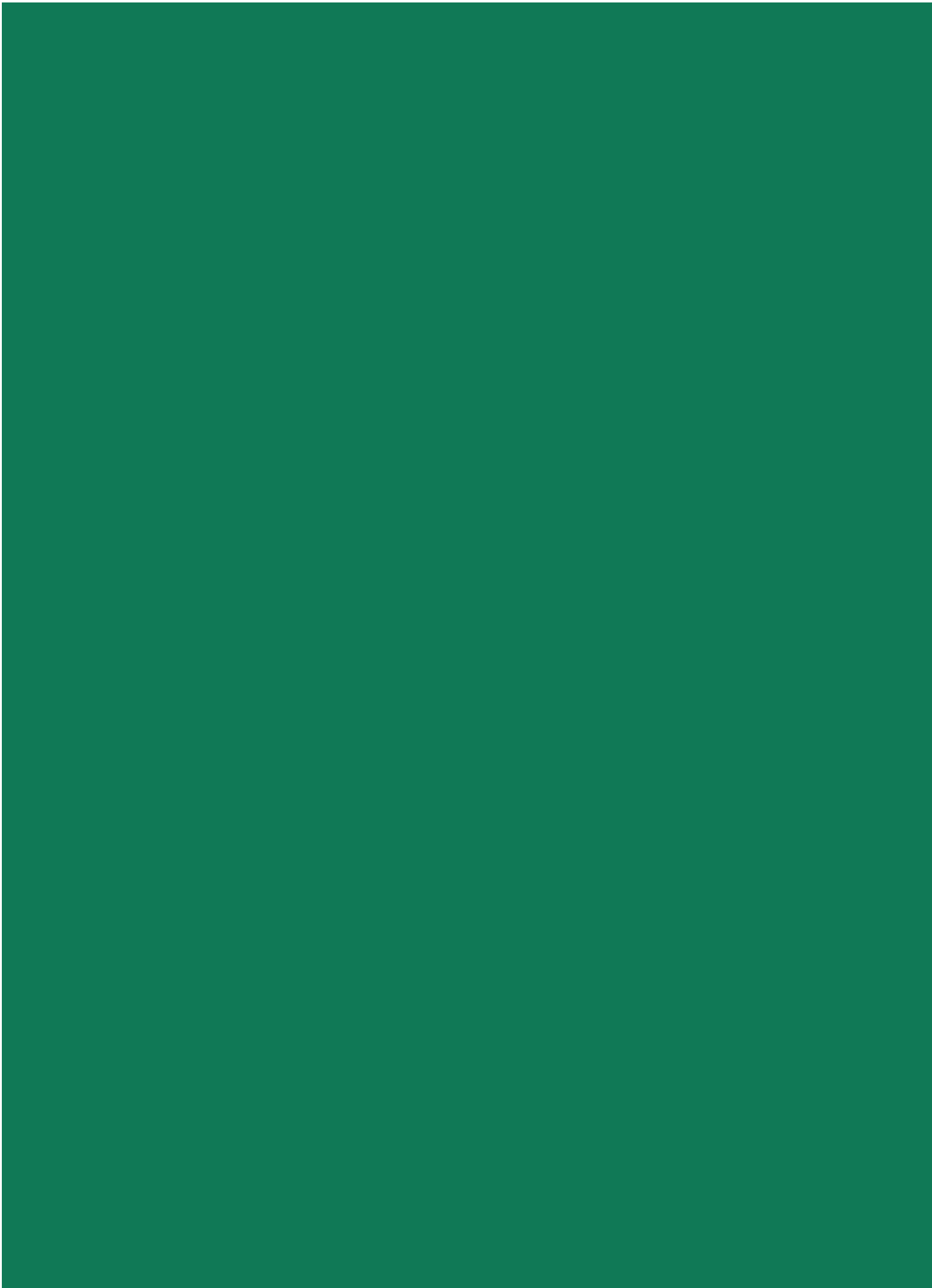
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The goal is to develop a piece of furniture aimed for users between 5 and 10 years. When in use, this should serve as a source of inspiration and help the child in finding new ideas and examples of occupations which further can develop their creative thinking.

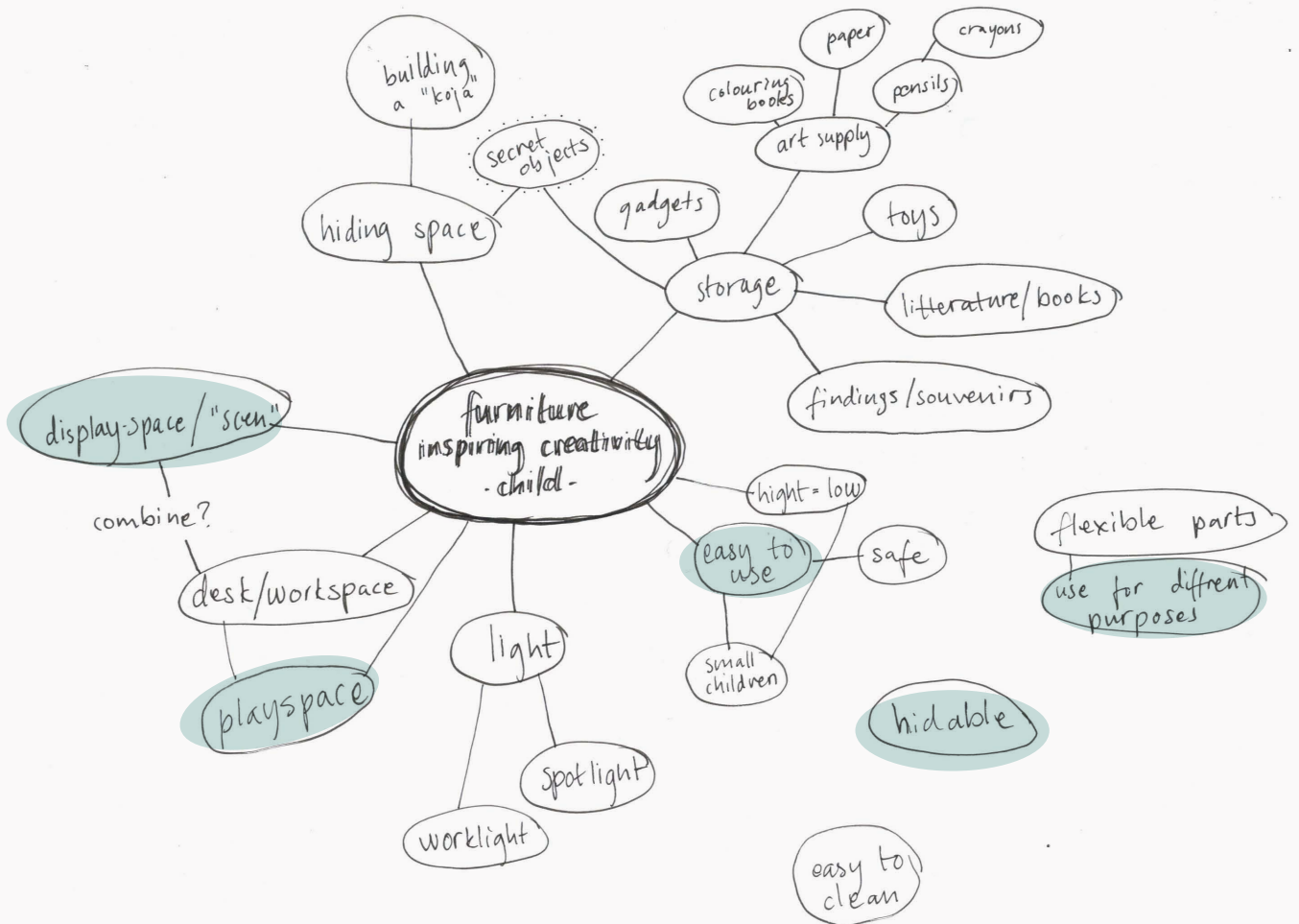
This furniture shall store belongings and display them in an efficient way and also in a way that the child easily can see what products that are stored inside. It shall also offer a

possibility to hide belongings when wanted so. The piece shall somehow offer random display of a selection of products. This to trigger ideas from unexpected combinations or contexts.

The piece shall be made for an indoor environment, such as the child's room or a place in his/her home where he/she feels most comfortable outliving his/her imaginations and ideas.



**ADDITIONAL  
RESEARCH**



# BRAINSTORM

*possible features/functions*

---

To get some more thoughts on what was most interesting and important to implement in the product I made a quick brainstorm. After considering the ideas and options, some were found more interesting than others. What's most important was to decide what features and qualities that will make this furniture unique. What will make it stand out from

other storage devices for children and most importantly – what parts of it's execution will make the child develop his/her creative skills?

This was just a quick start to have some different features and ideas in mind as the project continued with some additional research before the synthesis phase.

## USER FUNCTION

<i>function</i>		<i>class</i>	<i>comment</i>
offer	storage	n	of child's belongings
display	stored products	n	3D objects
offer	private space	d	for child
stimulate	creative development	hf	
be	easy to use	n	for children
allow	varied volume	d	of storage containers
provide	flexible usage	d	
offer	display of 2D objects	d	
allow	Creative inspiration	d	
offer	easy access	n	of stores products
facilitate	possibility to hide belongings	d	
facilitate	cleaning	n	of product

## SPECIFIC

<i>function</i>		<i>class</i>	<i>comment</i>
allow	horisontal paper storage	d	min. A3
allow	display of litterature	d	ex. books, magazines

## EMOTION & DESIGN

<i>function</i>		<i>class</i>	<i>comment</i>
be	inviting	d	to children
stimulate	creative flow	d	
motivate	interaction	n	for children
express	safety	n	
be	easily apprehended	n	

## ECOLOGY & SAFETY

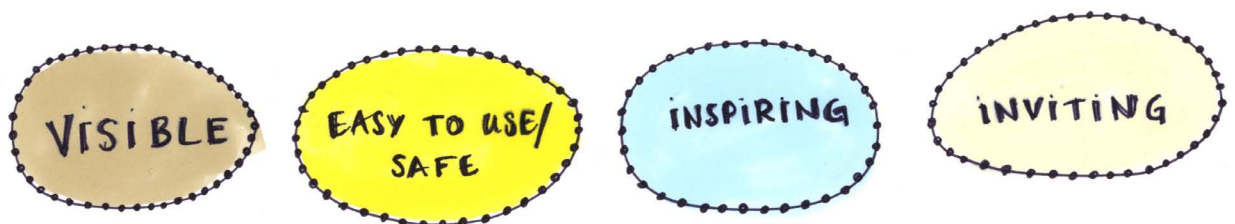
<i>function</i>		<i>class</i>	<i>comment</i>
be	safe	n	for children
use	non-toxic material	n	
minimize	material use	d	
maximize	durability	d	as long term wear and tear
minimize	energy usage	d	in production
minimize	steps	n	in production

## PRODUCTION & TRANSPORTATION

<i>function</i>		<i>class</i>	<i>comment</i>
minimize	production cost	n	
minimize	package volume	d	in transportation
facilitate	assembling	d	
use	sturdy materials	d	
minimize	transportation	d	

# FUNCTION ANALYSIS

*keywords & direction*



# desk/workspace

high (price)



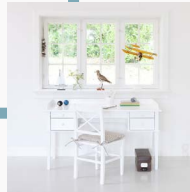
Jonti-Craft  
5.700 kr



Cilek  
4.914 kr



Guidecraft  
(laminat)  
3.200 kr



Farmhouse  
4200 (+995  
legs)kr



Cilek (lami-  
nate)

functional

emotional



ILVA (MDF)  
1.499 kr



IKEA  
799 kr

low (price)

# storage

high (price)



Engelsson (pine,MDF)  
7.000 kr



SB Nor  
4.040 kr



Engelsson (birch,  
MDF)  
ca 2.900 kr

functional

emotional



Cubby (wood)  
3.000 kr



IKEA (particle  
board)  
1.880 kr



IKEA (pine,  
propylene)  
2.399 kr



ILVA (MDF)  
2.399 kr



IKEA  
399 kr

low (price)



# MARKET ANALYSIS

## *furniture for children*

---

The market for products aimed to children, also furniture, is wide and changing quite rapidly since it's aiming for a target group (parents) with great purchasing power.

To get the right understanding of the market before continuing with the development of my product, I felt that it was necessary to divide this search into "storage" and "workspace" since most product that are to be found focus on one or the other function.

After exploring the market one can establish that these type of products most often has focus on their functional performance. It might not be surprising since the target group almost always is in need of good storage ability. Although, my perception is that parents today also has high demands on that the products they place in their children's rooms also should have a nice and appealing design. I would think that it would be beneficial if this type of product could have a good combination of functionality and nice appearance/design. From what I found I think there's an opportunity of implementing this type of product.

The furniture that I found on the market which focus on the creative development of children does almost always have focus on different forms of artistry (drawing board, storage for crayons, pencils, beads etc), and doesn't leave much room (or at least not the way they are

presented) for other hobbies which also can be highly important for a child's creative development. This is something I believe I can take focus on in the ideation process.

The combination of storage/workspace can be seen in some products, but either they have a very functional appearance or they only have very little focus on storage, just a small amount of products can be stored. I believe this could be combined in a much more efficient way.

Almost all storage devices has closed drawers; the products stored within cannot be seen by the user. According to my research having visibility of the stored products is something that could be beneficial for the target group. Therefor also this is something that is missing and still good to focus on in the ideation process.

I see an opportunity (and gap in the market) of developing a product that can deliver a combination of good functionality (to store products in an efficient way, have storage compartments in a well suited size and amount for the target group and an efficiently functioning workspace) and at the same time have an appealing and inviting design, both in the eyes of the child and the buyers (parents). I believe the market offers an opening for the slightly more expensive product if it delivers the right functions and features and is executed with a nice finish and qualitative materials.



# TARGET GROUP

---

*Family: Mom, dad, two children aged 4 and 8.*

The first hand target group is of course the child, who will have this cabinet in his/her home environment. This child is preferably between the age of 5 to 10 years old and lives in Sweden.

The second hand target group are the buyers of the product, which most likely will be the parents. They are both working around 40 hours a week but value their family and time around their children the most.

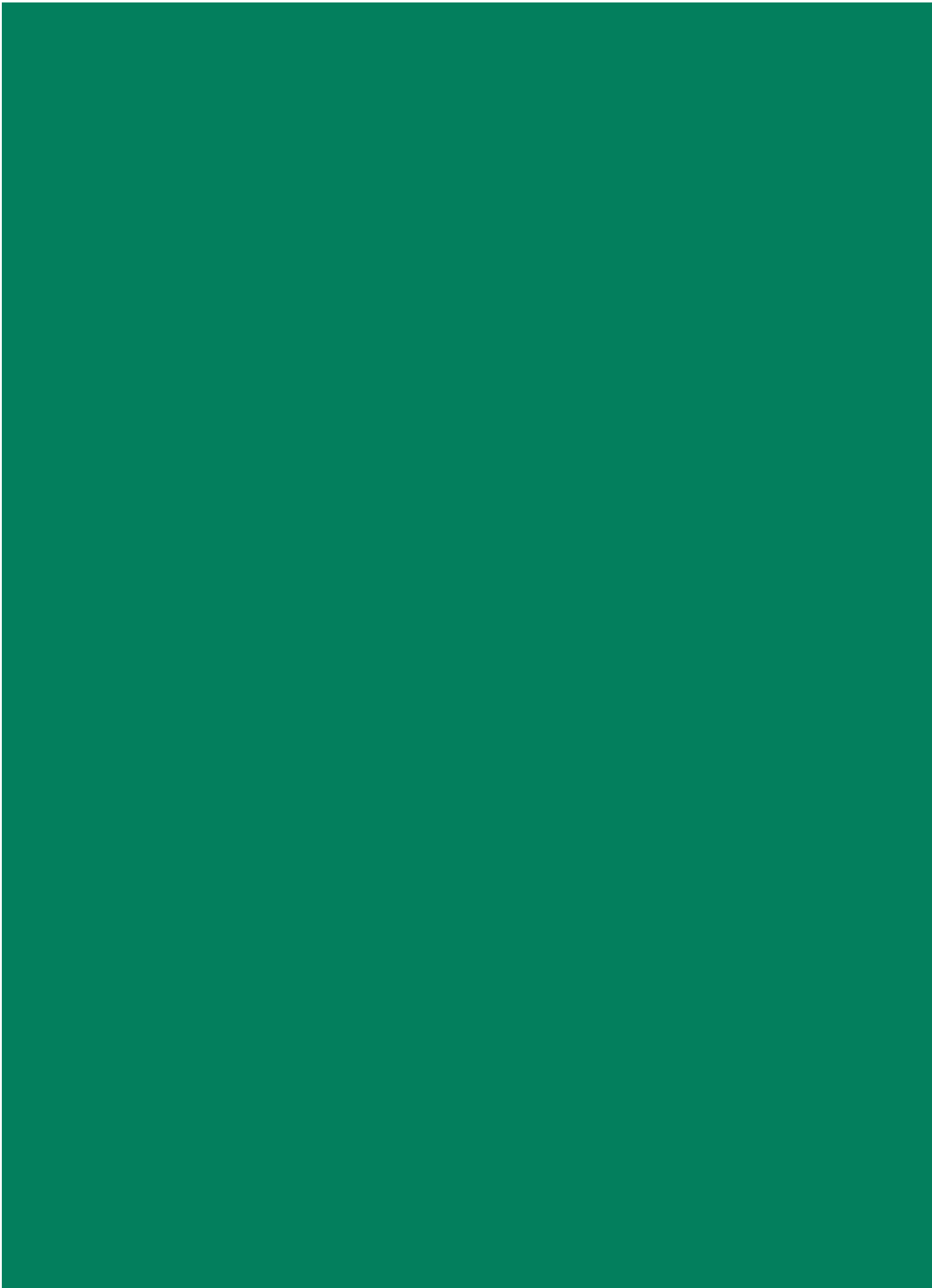
Like many other parents of our time they try their best to provide their children with natural and healthy food and for example follow the recommendations of reducing the use of plastic products in their everyday life.

Every parent know that the flow of new products in their children's lives is hard to influence from time to time. To put focus on long lasting

products which offers some extra quality when it comes to choice of material, execution and useful features where it's possible is important for these parents (the target group).

When it comes to furnitures for their children they rather buy a product which can last during a longer time and which doesn't have a specifically personal appearance for the child, and make the child's toys and belongings set the personality of their room. They believe this also makes it easier to hand on the furniture to the younger sibling after some time, which they value. Due to this they rather buy a product which is slightly more expensive than spending less money on a piece of furniture with will be useful only for 2-3 years.

The parents value the individual development of their two children highly and wants to offer them as wide opportunities for this as possible, both when it comes to sports, friends and hobbies.



**SYNTHESIS**

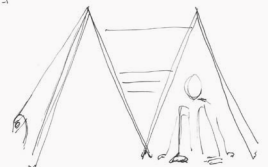
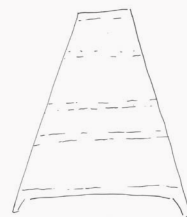
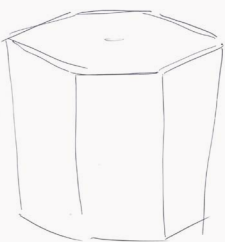
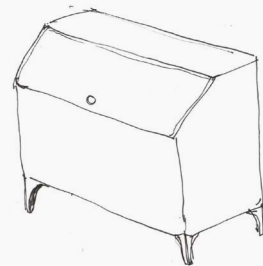
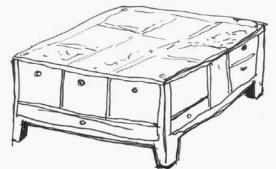
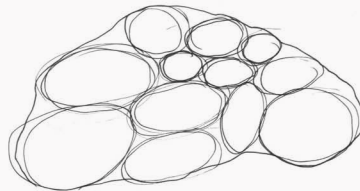
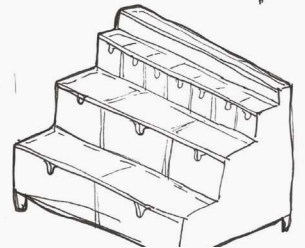
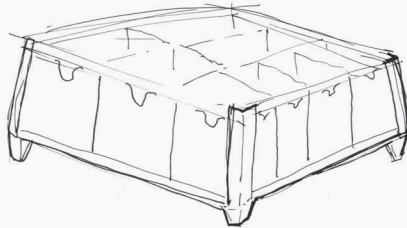
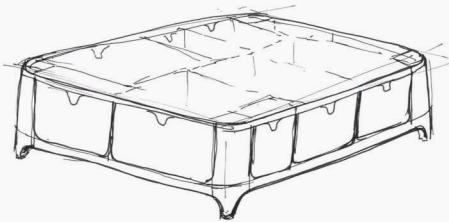
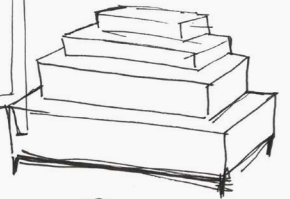
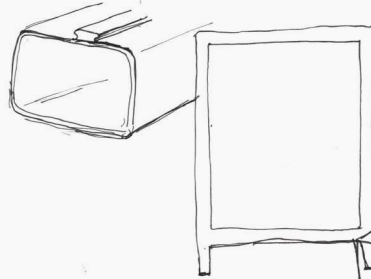
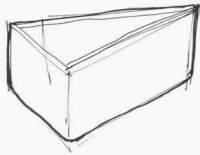
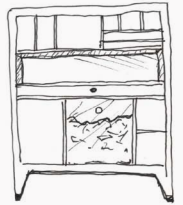
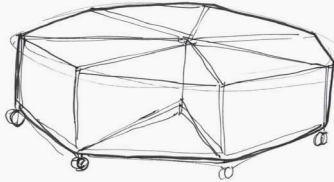
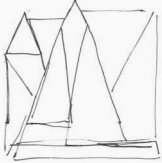
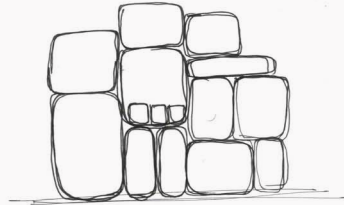
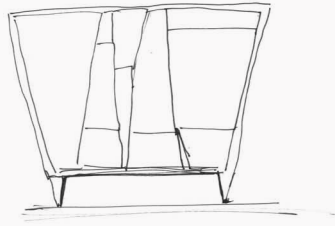
# peepshow



# MOODBOARD

*goal • feeling • inspiration*

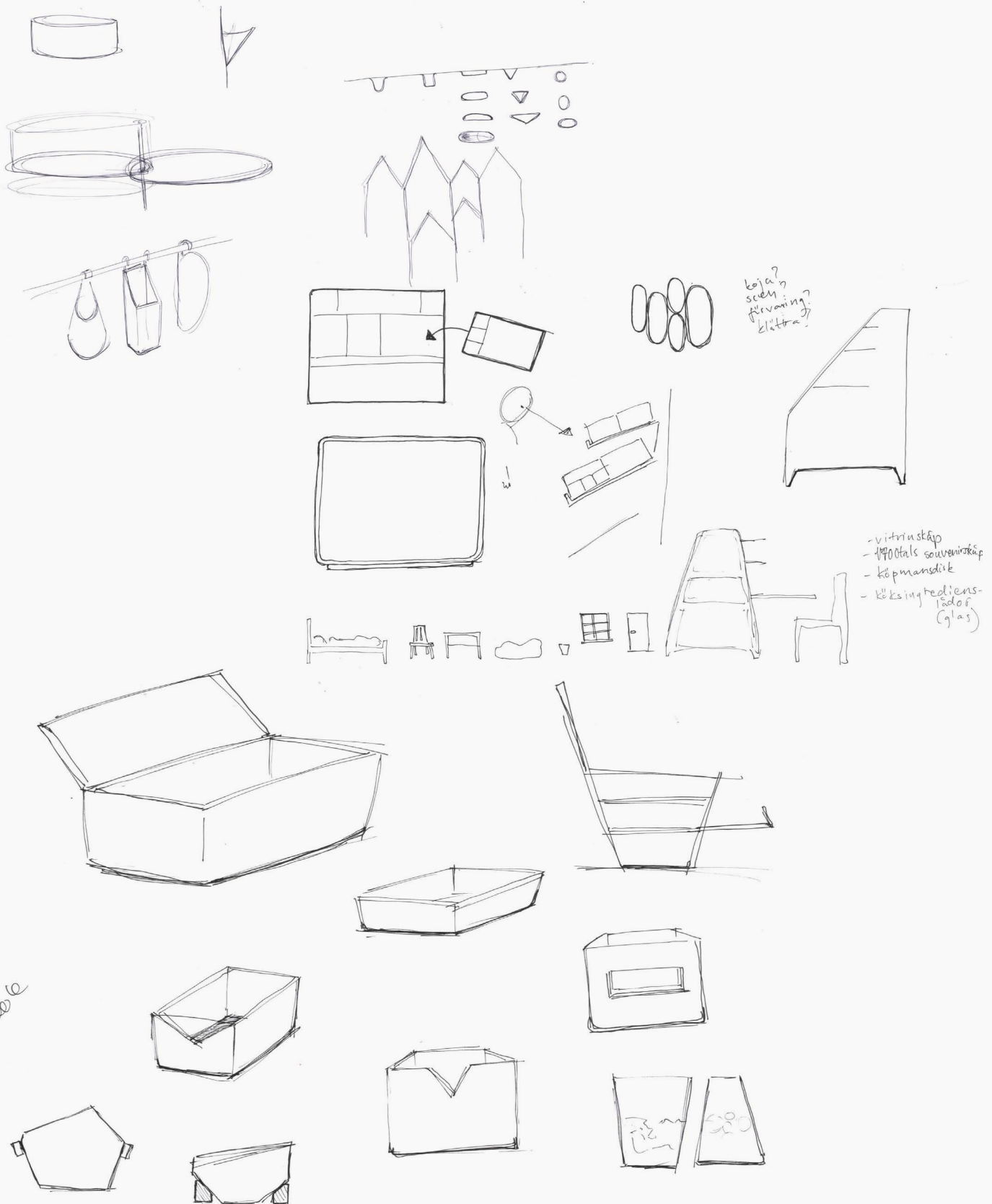






# SKETCHING

## ideation phase I





# SKETCHING

## *ideation phase I*

---

How will this storage device be executed? The goals of the brief was that it should “serve as a source of inspiration and help the child in finding new ideas and examples of occupations which further can develop their creative thinking.” It should also “store belongings and display them in an efficient way and also in a way that the child easily can see what products that are stored inside.” And “it shall offer a possibility to hide belongings when wanted so”. The piece shall somehow offer random display of a selection of products. This to trigger ideas from unexpected combinations or contexts.” And further “the piece shall be made for an indoor environment, such as the child’s room or a place in his/her home where he/she feels most comfortable outliving his/her imaginations and ideas.”

So, how can this actually look? Could it be something on the floor, under the bed, from the roof or hanging storage devices on the walls? Hooks, shelves, boxes, soft, hard, modular, on wheels? In the first part of the sketch phase I tried to be open minded for all kinds of different solutions.

Although, my thoughts went back to the homes I visited during the research phase, the children I met during my interviews and of course the parents, that in the end most likely will be the buyers of this product. What type of product will be most easily implemented and offer most diversity to the target group in

total? It feels like it should be as space efficient as possible, it should be a product that could be placed both in the child’s room or in for example the living room, dependent on the child’s and family’s needs. It should not be the “center piece” of the room but still be inspiring and inviting. It should be easy to use – not have complicated features. It should offer diversity in what can be stored in it, to be able to adapt to the needs and interests of different children.

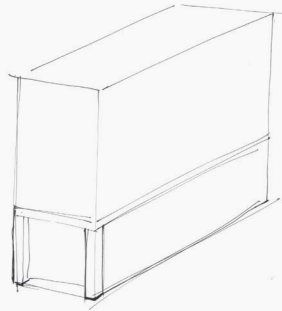
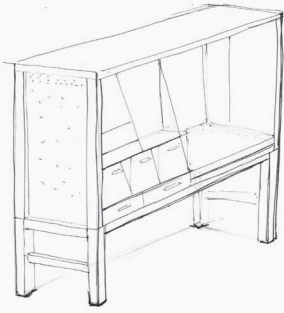
Considering this, my interpretation is that it should be

- a product that can be placed along a wall (space efficient) and that it doesn’t need to be attached to the wall (more easy to move in the room if living situations are changing for example).

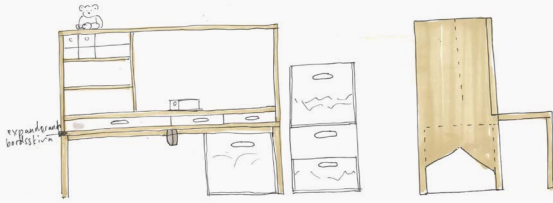
- It should have boxes or something similar to be able to store different type of products/belongings (for example Lego, building blocks, sketching pads, crayons, pearls, books etc) and to provide the possibility of bringing these products else where in the house if wanted so.

- A working space or desk space could also be good to combine with the storage function, to have a place nearby where the child can play or work with his/her things. If possible this should be combined.

After summing up the research this far into these focus points I continued sketching on some more specific concepts.

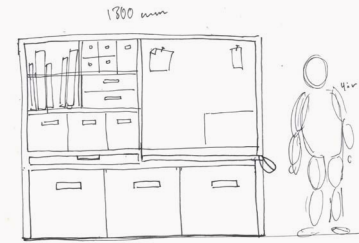


+ varvlar utdragbara sidor var  
 - bordsskiva? utdragbar?  
 - om den ska höjas  
 - bordsskiva för hög  
 - magnetiska för bilder  
 - bredd?



+ vid ev. upplämn. bättre läge  
 11455-75 cm  
 - kommer inte bli säkert när man har bordsskiva etc  
 - för stort fokus på bordsskivan

+ höja med extra ben när bänket blir äldre!

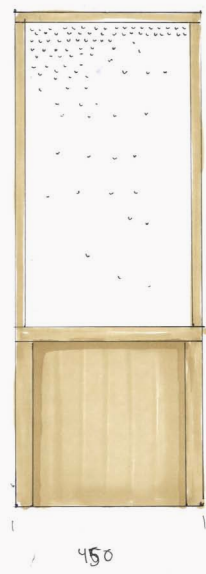
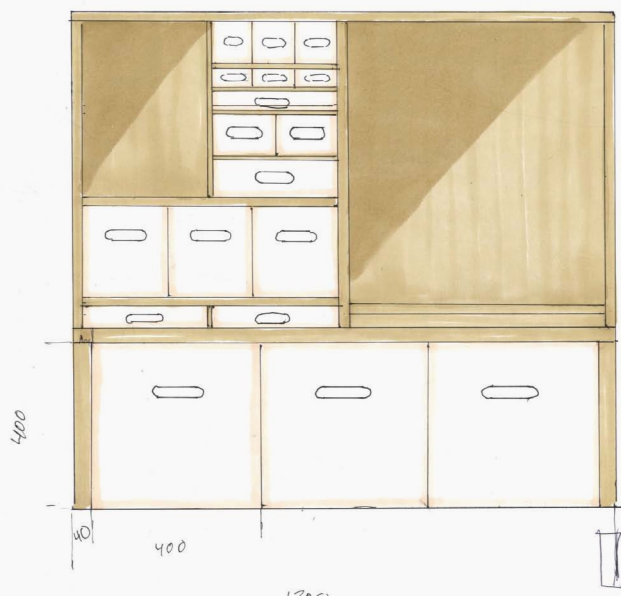
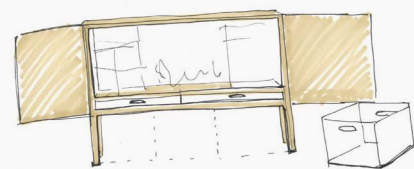
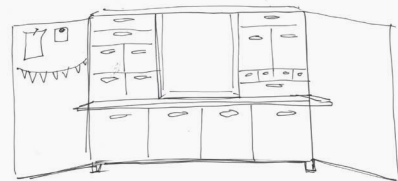


1200 mm



- max höjd: 100 cm
- max djup: 50 cm
- max bredd: 150 cm

- kunna fästa upp 2D-ting bilder teckningar fotos
- erbjuda "hemlig vä" - private space
- spulig förvaring



# SKETCHING

## *ideation phase I*

---

I tried to sketch on how this shelf/desk space could look and how the features could be combined in an efficient, good looking and smart way. Should the desk be a constant part of the product or something that you pull out from it when in need for it? Making it extensible will most likely make the whole product smaller, at least when the desk space is not in use. Although, how will this part be safe and steady? Does it need some kind of legs to keep it up and how will these then be executed in a way that it safe for the child?

It could be good to have some larger boxes/drawers for larger things to be stored in. Although, these might become heavier and shouldn't have to be carried by the child. Therefore it might be a good idea to base them on the floor and have wheels on them. This way it's easier to pull them out and start playing. Although, this takes away the space underneath that's needed for the legs (when sitting by the desk) if making a desk space included into the furniture.

How will the belongings be displayed in an inspiring and also random way? Could this be

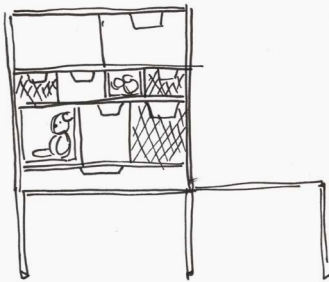
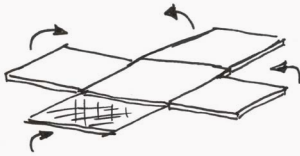
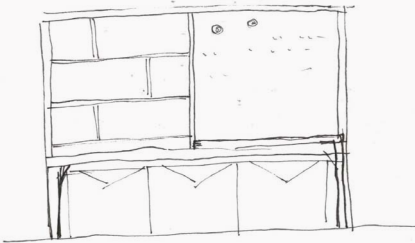
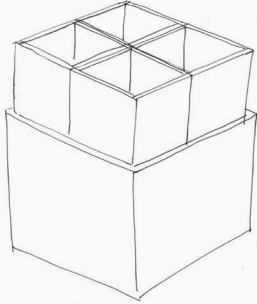
only a part of the shelf or should the boxes be made in a way that shows what's inside in an interesting way?

It could be good to have boxes in different sizes to store both small and larger things, although some of them can still be made the same size so that they can fit in the same positions. For example there could be three different sizes of boxes, and maybe three boxes of the same size. I need to somehow decide what sizes of boxes and how many are the best for this target group and this type of product.

Doors on the furniture can provide the possibility to close of impressions when wanted/needed so, and also to hide your projects and belongings if this is what the child wants. But how will these be made in an efficient way that doesn't make the product take up too much space when the doors are open? Can they be folded back into the furniture so that they're not in the way? Can they be used in some way for the child to be able to activate with them (attach things on them, have a drawing board, magnets etc)?

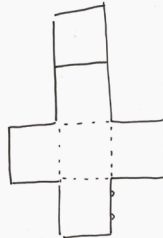
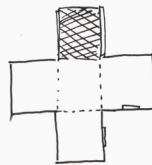
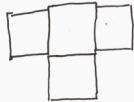
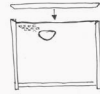
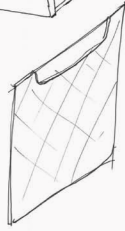
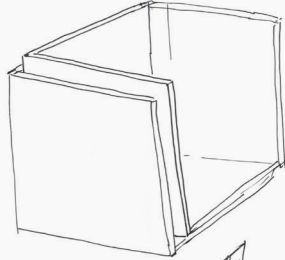
### system 1

- lådor passar i varandra; mindre utrymme vid transport



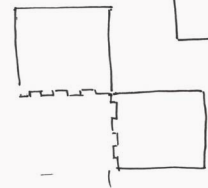
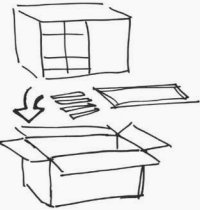
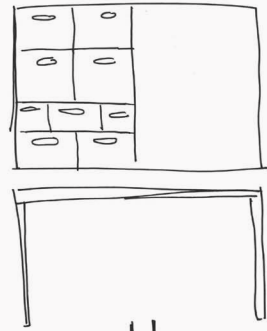
### system 2

- lådor passar i varandra, framsida skjutas i vid montering



### system 3

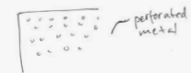
- halvmonterat - lådor sitter i systemet "permanent"



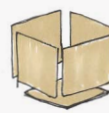
#### HANDLES



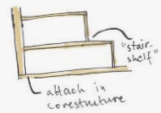
#### visibility



#### BOXES



#### SHELFS



big/low box for paper - measurements?

# SKETCHING

## *ideation phase I features & details*

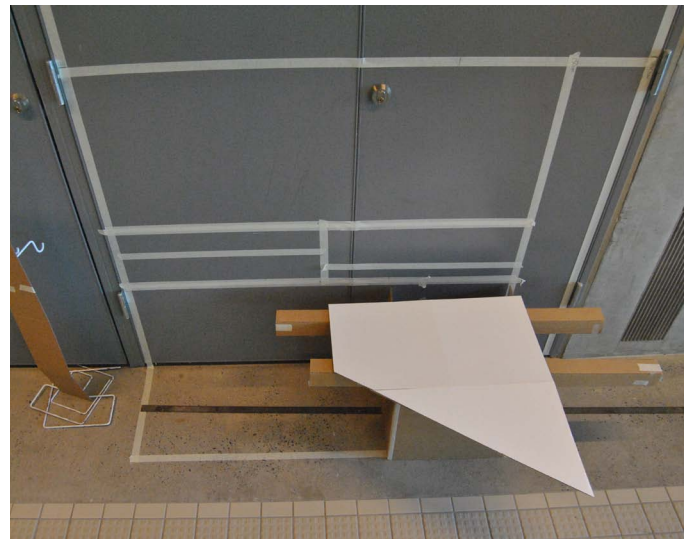
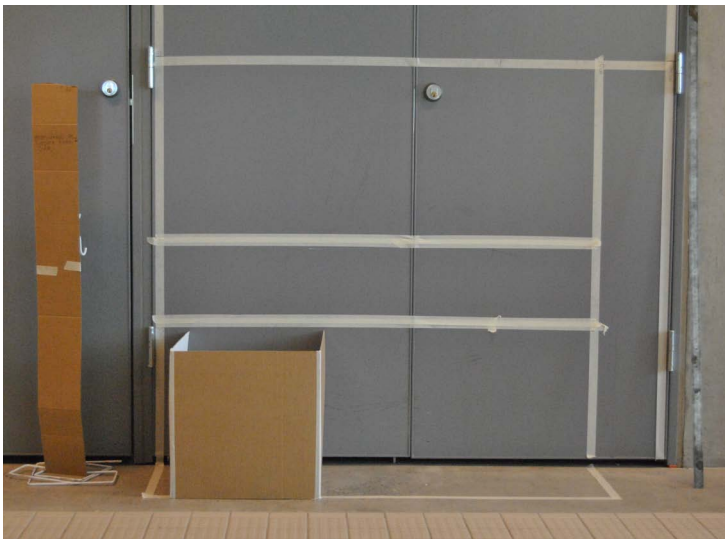
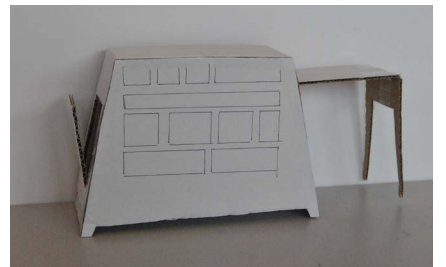
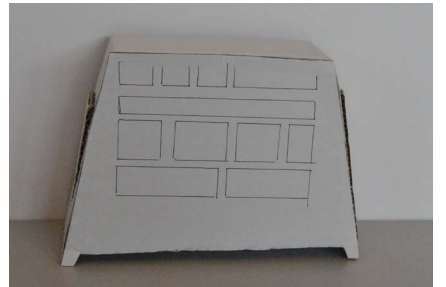
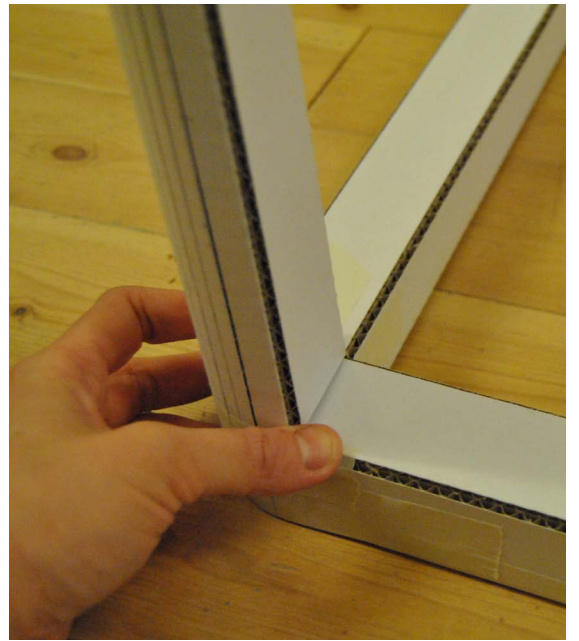
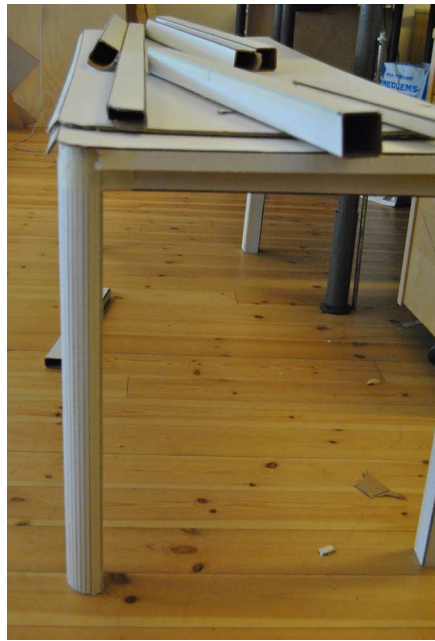
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The details and small smart solutions are of course important to consider. Can the boxes be made in a specifically space efficient way, for example that some sizes can be stored inside a larger one if needed so? And how can they be executed to take up less space in transportation and still be easy to assemble?

If the products inside the boxes should be visible from the outside how should this be made in the best way? What material is better suited for a child furniture? Should only one

side of the boxes be see through, and how should the boxes be able to be turned in both ways, so that you could close of impressions if wanted so?

The handles/grips of the boxes needs to be made in a way that is best suited for children this age. Fingers should not get stuck and edges should not be too sharp. They should be made in a way that the boxes can easily pulled out of the shelf, and also easily carried somewhere else.





# SKETCH MODELS

## *ideation phase I -evaluation*

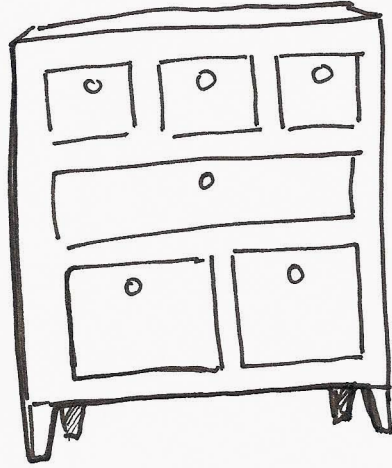
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As I tried out some of my ideas in both smaller scale and full scale it started to feel like something didn't work. These ideas felt too boring and uninspiring and also it felt like the work space took up too much focus. I tried to include it in a way that it could be folded away if wanted so, but didn't come up with a good solution.

At this point I felt influenced by fellow students and other people around me that commented my work to put much focus into making a device that mostly focused on how it was made from a sustainable point of view. I tried to come up with smart ideas for making a flat pack, all through environmental friendly furniture with the smartest construction methods more than the actual goals of the project. These ideas

felt like it became too much of an "ordinary" shelf or storage device, boxy and flat in it's appearance and I felt like I lost track a bit from my research.

So what could be altered, added or maybe made completely different with the furniture to make it stand out and better follow the goals of the project and the brief? Of course still trying to make an as environmentally friendly and production efficient product as possible. I also started to consider whether a desk space really is necessary for this furniture or if the combination of too many features making it harder to find a working solution for the actual storage device? Therefore a discussion around this will follow on the next page.



# WORK/DESKSPACE

## *considerations*

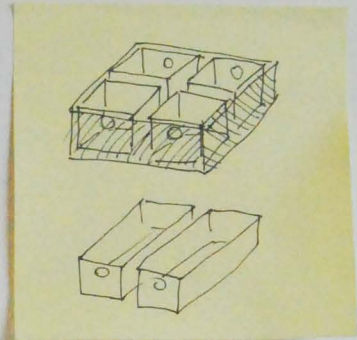
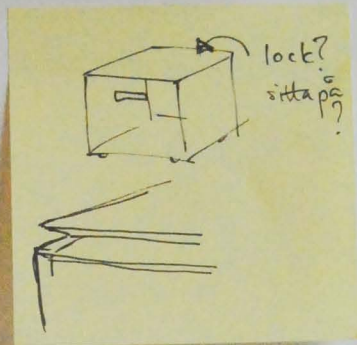
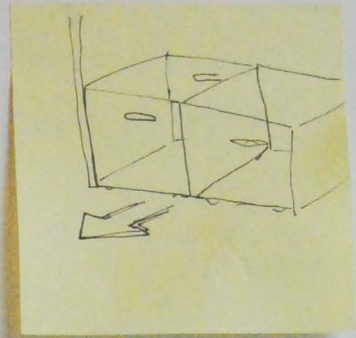
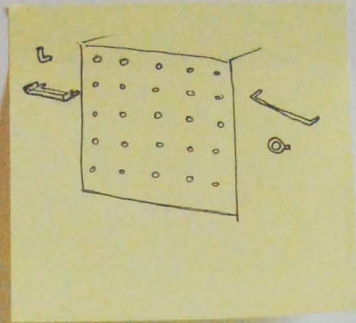
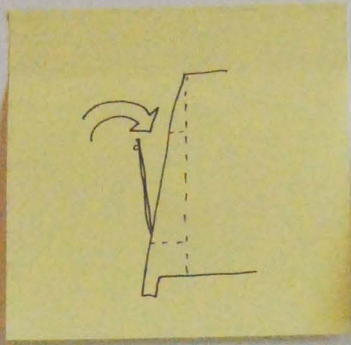
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A workspace or desk space is used differently dependent on age and person. As the child grows in age and physics the behaviour of seated activities changes. This of course depends on the personality of the child, interests, concentration ability etc. But also what space, products and possibilities the child is provided.

After trying out some different ideas, making sketch models and discussing with fellow student and supervisors I came to the conclusion that sometimes a combined product (in this case workspace/storage) might be making it more difficult than necessary. Also, this feature might not be the most important goal of the project, but rather to put focus on the actual storage and how this

will be executed in the best way according to the brief.

When the child starts school around the age of six, sooner or later homework becomes a part of their everyday life. Not all children do their homework by a desk in their room, but those who do might not be helped by having a desk combined with a storage device full of impressions (or maybe they do?). Anyhow the goal is not to make a product that focus of the tasks the child will be given from school but rather exclude these to make room for the personal creative development the child can make outside of the school environment. Therefore it also feels even more motivating not to further focus on combining a desk space with the storage device.



creative  
usage

logic use  
- honesty

hide/show?

safety  
- child

display  
2D-objects

personal  
hide-out  
space

# QUICK BRAINSTORM

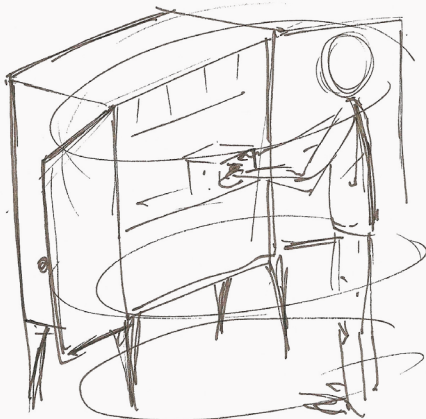
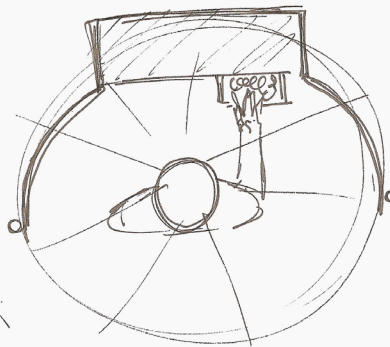
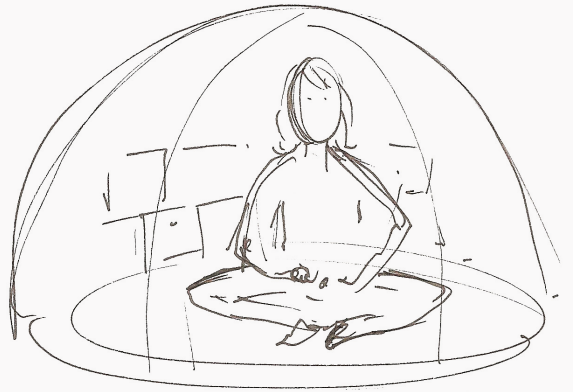
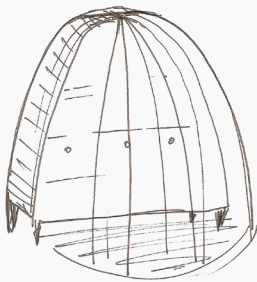
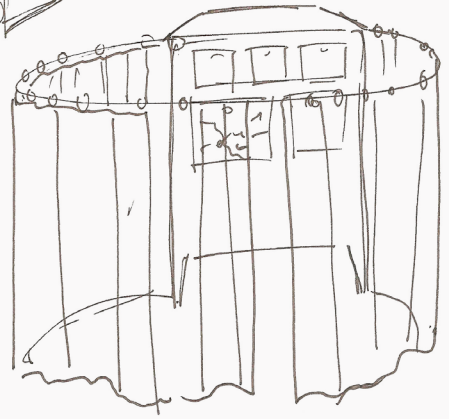
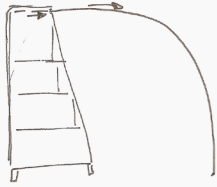
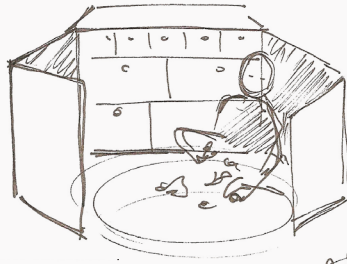
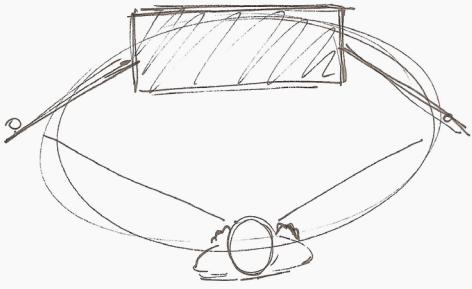
## *ideation phase II*

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To get on the right track and to kick start the ideation a second time I made a quick brainstorm. Some key words and some quick ideas were scribbled down. Some of these felt more important to focus on, such as the the personal hide-out space, how could this be implemented into the furniture? And also the

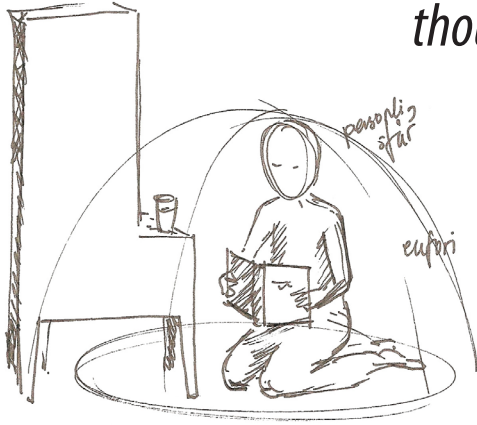
possibility to hide or show your belongings and projects, to be able to close of impressions or to re awake ideas.

These and a few more important focus points will be put down to be able to get forward with the project on the next page.



# FOCUS POINTS

## *the personal space thoughts & reflections*



The child's personal space when it comes to creative development has showed to be important during the research. I find it very interesting to consider how this can be seen to and developed in combination with a storage furniture. How can the child get the feeling of privacy or being shielded without necessarily being in a closed space? And how can this space be hidden when the child wants to close off impressions?

I would like to, if possible, combine the function of a storage device with a hiding space or somehow creating a personal sphere within the close area of the furniture. I find it challenging but interesting to see if I can develop a device that can bring out a feeling a "personal world within" and that can be inviting for a child to interact with.

It also felt necessary to summarize the research phase and first steps of the the synthesis phase into a few more focus points to make sure the project will be on the right track from here. The features that I considered more important to optimize the furniture for creative stimuli was:

- **Modularity** - play here or there. Bring your toys or crayons to another place in the house.

Shield of in another space or sit close to mom or dad to get company or feedback.

- **Individualization, favorites on display** - the possibility to put your favorite toy or crafts on a specific shelf for example, this might inspire the child to play/interact/be creative with his/her belongings.

- **Hide/show, open/closed** - the possibility to close of impressions or maybe hide your ongoing projects from others. Visual display of stored products but still a possibility of placing drawers in "closed off" position if you don't want everything to be seen.

- **Inviting appearance, peepshow, glimpse triggering inspiration** – A place and product that is interesting and inviting in it's appearance, that makes the child interested in finding out more and interacting with the furniture or the products stored/displayed in it.

Provide the possibility of displaying products as in a peepshow, giving a feeling of scenery or platform for roleplaying games or just displaying favourite belongings.

 GLASS

 PLEXIGLASS

 OPEN SHELVES

 BEVELLED BOX  
FRONTS

 METAL NET

 PERFORATED  
METAL SHEET



# VISIBILITY

## *display of stored products*

---

One of the most important goals for the product is to clearly display the stored products. This can be made in several ways, although some ways might be more suitable for children.

The first alternatives that was considered was glass and plexiglass, since these give a see-through display and an overview of most of the content. Although, both of these have a tendency to get stained from dirty fingers or what products might be stored within, like crayons, pencils or clay. This might result in the product needing to be cleaned to make it look nice and inviting again. Also, those completely see-through materials might not be necessary for the product filling the task of displaying the stored products. Perhaps a glimpse or hint of what's inside is enough to trigger the imagination or to inform the user of what's to be found inside.

Open shelves could maybe be the most honest way of display, although it becomes limiting in the way of storing small items or providing a modular product.

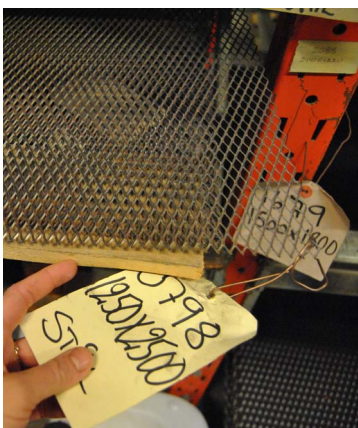
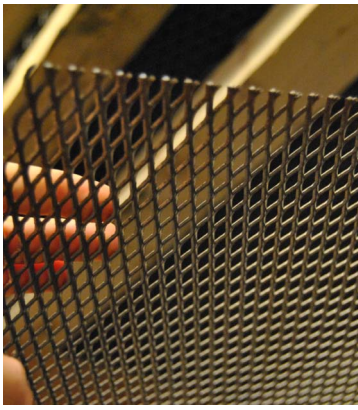
As the decision was made to provide boxes for storage in the product the level of visibility could also be set by the design of these. By making bevelled fronts or half-open boxes the content could be partly shown. Although, this

resulted in difficulties with integrating a good grip.

After some research was made in the area of materials and techniques used for visible display, interest was found in metal net and perforated metal sheets. Metal nets or expanded metal have closer holes and are based on a more thread-like construction compared to perforated metal, resulting in the material being more easily dented.

Perforated metal offers a possibility of creating appealing patterns in the structure of the holes, which can also beneficially be used to place the see-through points where it's needed. The issues could lie in making the holes not too small (regarding for example production possibilities) and not too large (for things not to fall out or get stuck).

The safety for the user – the child – is although the most important factor. Edges must not be sharp and unpleasant, and holes shall not risk the child to get stuck with fingers in them. These possible risk factors must be seen to before production. A supplier of perforated and expanded metal will be visited to get knowledge on the behaviour and production of the material.



*Field trip:*

# **SPG-METAL**

*perforated steel & expanded metal*

---

A visit was made to a company working with perforated steel and expanded metal, SPG-metall in Helsingborg. They provide metal sheets and nets for various usage areas such as benches, staircases, furniture and other products/places both for indoor and outdoor use. I wanted to investigate in what products that can already be found on the market (or at least in their collections) in terms of dimensions, thickness and appearance.

Some products were much too thick, sharp or unfit for the purpose of being used in a furniture for children. Although, some perforated pattern could easily be transformed a bit to better fit the purpose.

The holes should not be too large, to hold also smaller items, like pencils, beads, Lego etc. Although, it should still be somewhat see-through.

Some of the materials that were presented at SPG-metall could most likely be used for this furniture, although I came to the conclusion that I'd like to experiment a bit more with patterns of the perforations and perhaps adapt it a bit more to specific sized drawers or other surfaces, if possible. Since this most likely will effect the appearance and aesthetics of the whole product.



To be able to make a storage device that meets the common needs of the specific target group the size and amount of boxes, drawers or shelves needed to be considered. What type of products does the children this age most often play or interact with?

To get an honest view on this I went back to the research (of interviews, home visits and the survey), but still felt that I needed some more specific information on what type of products to focus on. I contacted some of the parents I was in contact with earlier during the project and also got in contact with 6 more families (all together 9 families with a total of 15 children within the target group 5-10 years old, mixed boys and girls). After asking them to list their children's most common products or toys (that

they interact with the most) or what type of storage they thought the children were in most need of, I could sum up what type of products that was mentioned most often as following:

- Books, magazines
- Paper/pads
- Cuddly toys/stuffed animals
- Pensils, drawing & painting tools, craft supplies
- Small toys (for ex cars, animals, dolls and accessories for these)
- Lego, building blocks
- 2D storage (ex. Noteboard) & hangers

So, from this it was easier to decide what sizes and amount of drawers/boxes/shelves to focus on.

# STORAGE FOCUS

*meet the common needs*

---

**Books, magazines** – A shelf of some kind, most likely that can keep an amount of 15-20 books/magazines in an upright position seems to be the most efficient way of executing it, after sketching on options and asking around for opinions.

**Paper/pads** - There should be some drawer/shelf that can store larger flat products such as drawing pads/paper and finished drawings. This drawer or shelf should of course be able to be used for other things if one child doesn't at all need it for this. Size wise it should at least be able to store A3-format.

**Cuddly toys/stuffed animals** – although it seemed that most children have this type of products (in varied amounts), I decided not to put so much focus on these when continuing with the design process. This due to comments from the parents and my own interpretation from home visits, that these often are placed in the child's bed or some other cosy area, and also since they take up quite much space and therefor also need some larger area to be stored in. There still might be room for this type of products in some of the compartments of the furniture, but I decided not to specialize any space in it for this.

**Pencils, drawing & painting tools, craft supplies** – 1-2 smaller boxes/drawers, a bit elongated to suit the format of most pencils/

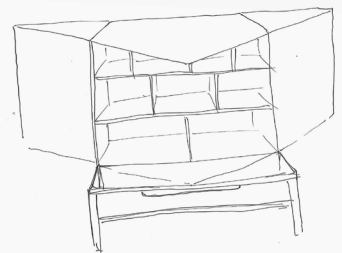
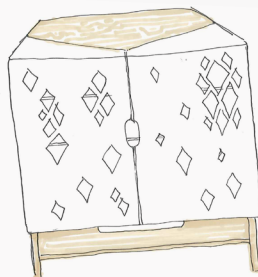
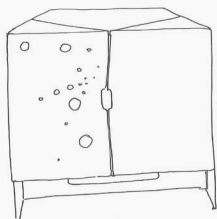
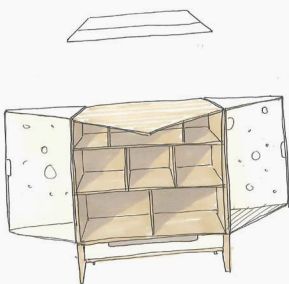
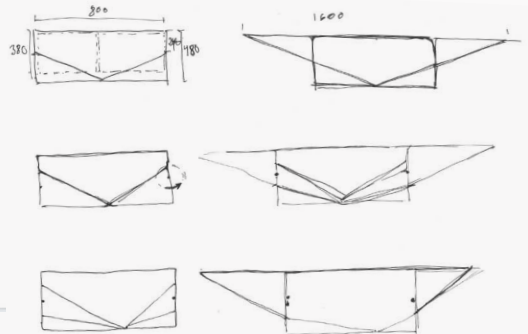
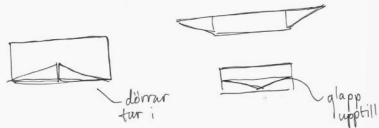
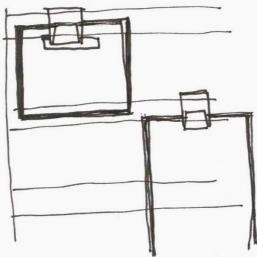
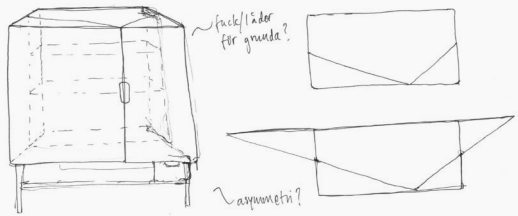
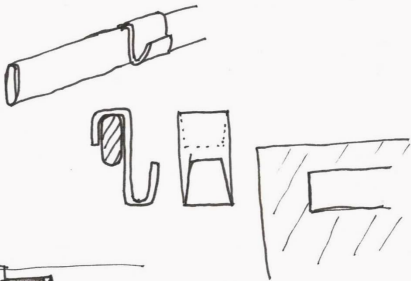
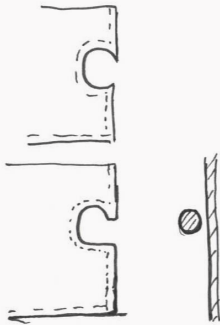
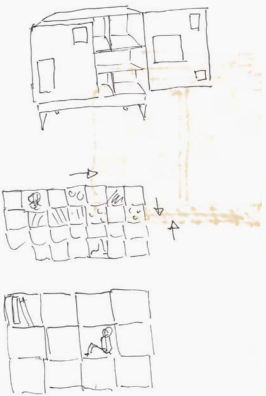
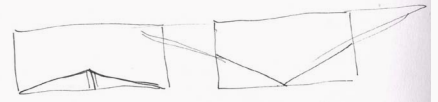
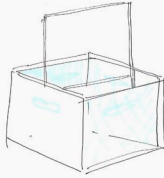
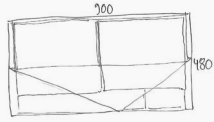
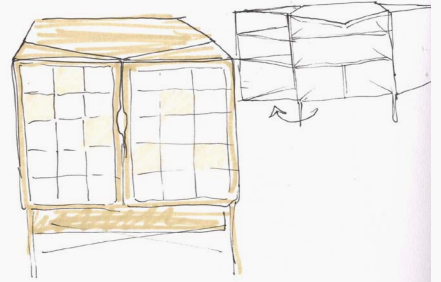
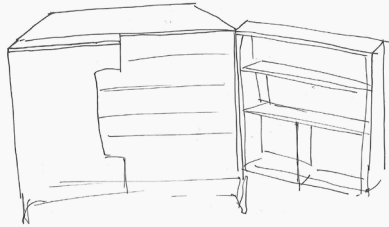
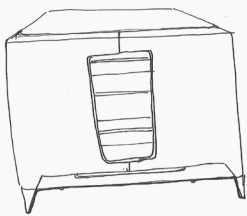
pens/crayons, but also in a suitable size for other small items such as pearls, punches, scissors, stickers, glue bottles etc. This drawer should not have too small holes that can make small pearls fall out.\*

**Small toys (for example cars, animals, dolls and accessories for these)** – 1-2 drawers/boxes medium sized drawers/boxes.\*

**Lego, building blocks** – 1-2 larger boxes/drawers for this type of collection of products. Although, one child might have just a few Lego blocks and a large collection of dolls (and accessories for these), and he/she might use the larger drawer for this and a medium sized drawer for the Lego.\*

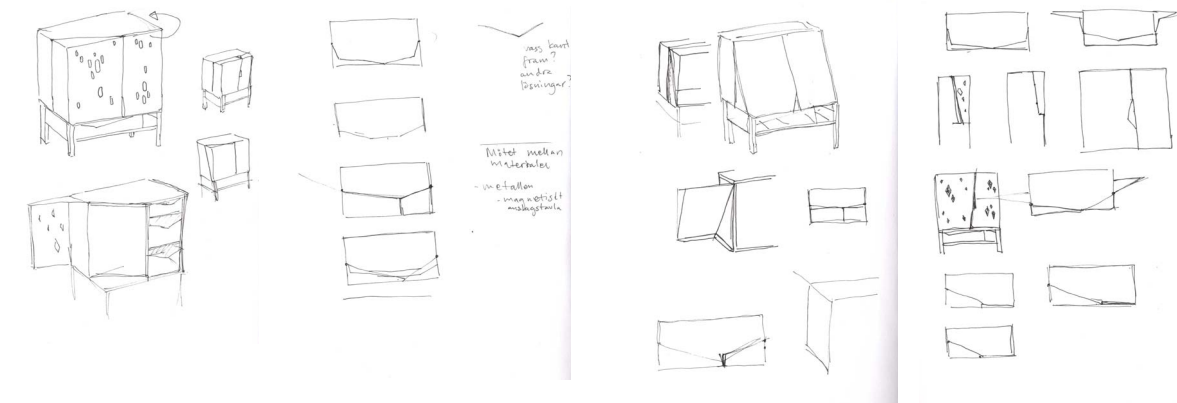
**2D storage (ex. noteboard) and hangers** – preferably a flat vertical area inside the furniture where the child can attach drawings, postcards, posters etc with for example magnets. This area could perhaps be combined with hangers of some kind for the child to be able to hang for example crafted items, accessories for dressing out or other belongings that can be showed/stored in a hanging position.

\* Should also be made in a way/size that enables the child to remove it from the base furniture and bring it elsewhere if the child wants to play on the floor or some other place.



# IDEA GENERATION

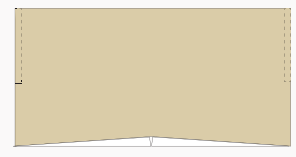
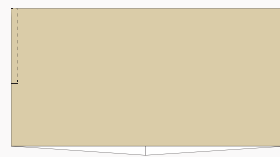
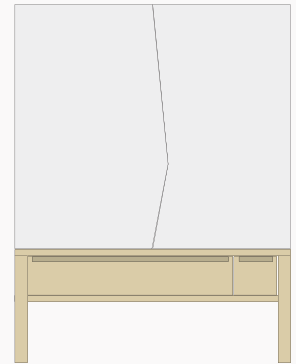
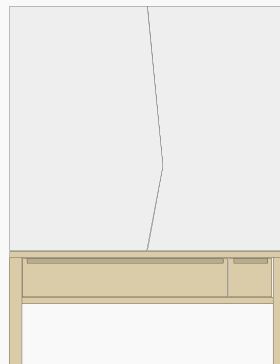
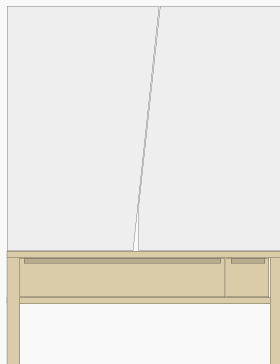
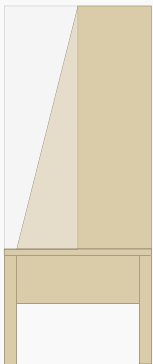
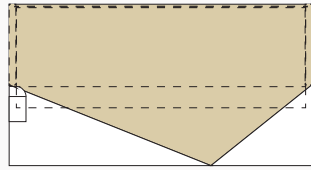
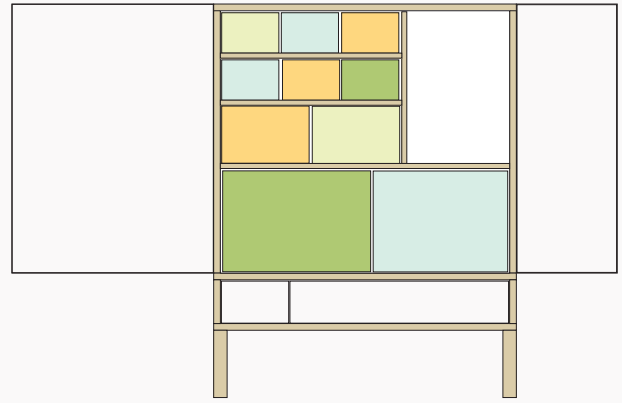
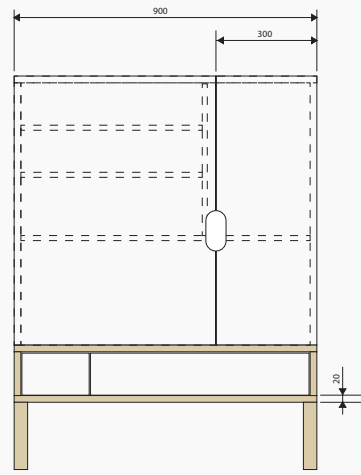
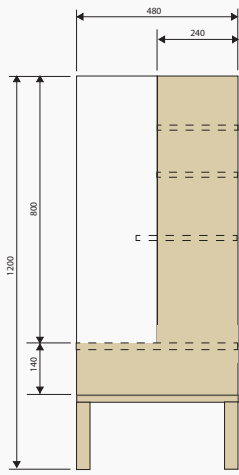
## *sketching phase II*



One idea that already had been considered during the ideation process and that now felt even more important to focus on, was to make a furniture of some kind that could offer both an active and inactive stage. One where the child can be active with his/her belongings and have them showing, easy to access and interact with, and one stage/look/function for when the child wants to be inactive with his/her belongings, providing a possibility to close of impressions.

Preferrably these two stages should both act as the “original”. For example if it would be a cabinet with doors, these would in the open

(active) stage be interacted in the furniture in a way that it doesn't look like a temporary position. It should not be doors that needs to be closed to get the cabinet back to it's “original stage”. If the child needs/wants it to be open/active at all time or at least most of the time, it must look like it's supposed to be so. Perhaps the doors then must have some kind of function more than being just “doors”? How can they help develop his/her creativity? Maybe the 2D-storage that was listed on the last page with for example hooks and magnets, could be placed on the inside of the doors to make these an active area of the furniture?



Average hight Swedis children



# IDEA GENERATION

## *variations*

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After a long sketching phase and trying out many different ideas, the decision was made to continue with the cabinet idea with the “activity doors”. This idea felt like it could be executed in a way that it fits in to many children’s rooms, is easy to understand and that can offer the possibility of creating a personal space within the furniture, where the child can go into his/her world of belongings and ideas. Also it will give a good possibility of closing off impressions when wanted so.

Although, to make this cabinet stand out and not be “just an other cabinet”, it needs to fill the goals of the brief and be carefully designed in the way details and special features are executed. It needs to be adapted in size, amount/size of compartments, material etc to the target group.

The idea of having the doors as an activity area on the furniture made me decide that the size of the cabinet should be suitable for a smaller (kids) room in both a closed and open stage, since this most likely is where the furniture would be placed. After taking this into consideration and testing out with some quick sketch models the decision was made that it should be at it’s widest around 150-170 cm (this would make it about half the width when closed) and at it’s deepest around 50-60 cm. In height it should be suitable for the average 5-10 year old to be active with it in - at first hand - standing position. The average length of a Swedish 5 year old is 112 cm and of a 10 year old 142 cm. (1-2) For the children within

these ages to be able to use the furniture in a safe and functional way the estimated height of the compartments should be at the lowest 20-30 cm from the floor and at the highest 120-130 cm.

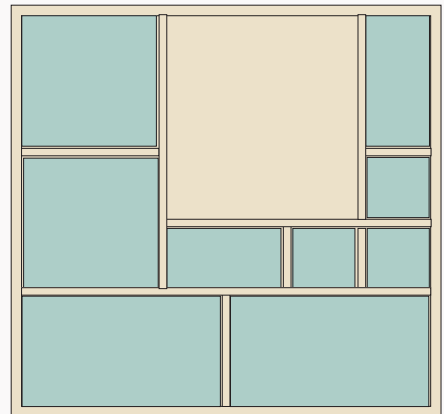
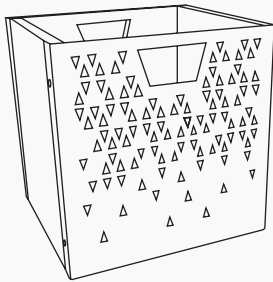
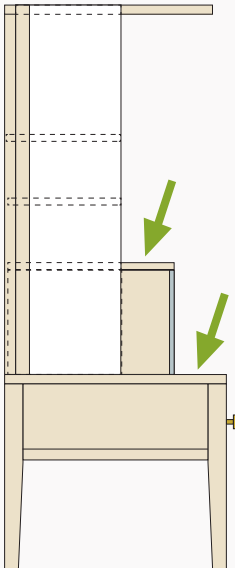
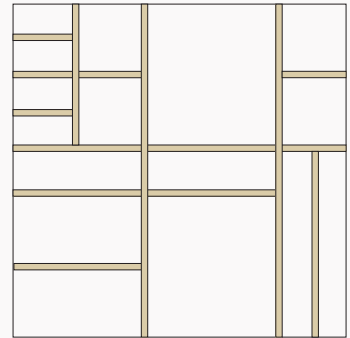
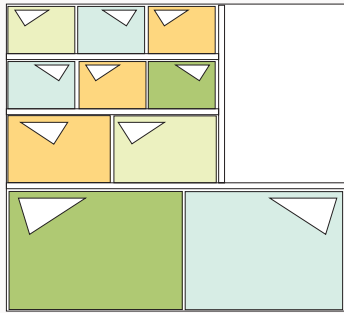
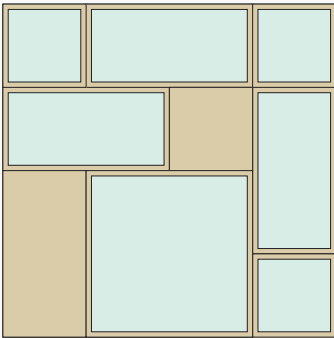
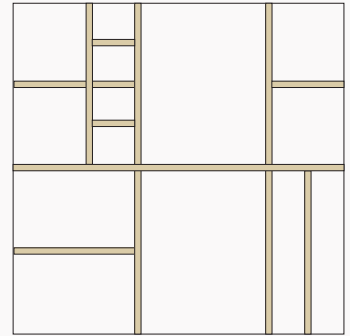
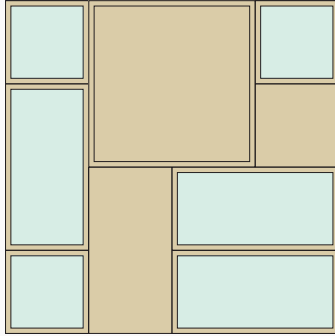
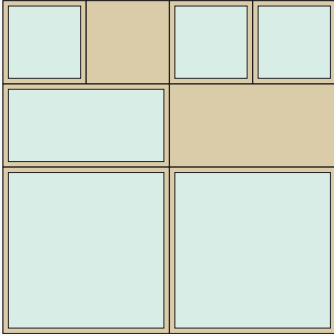
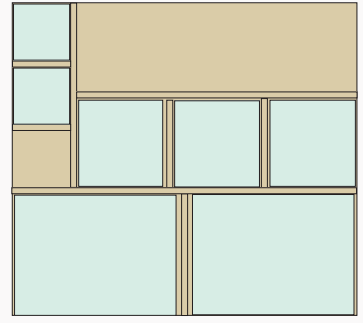
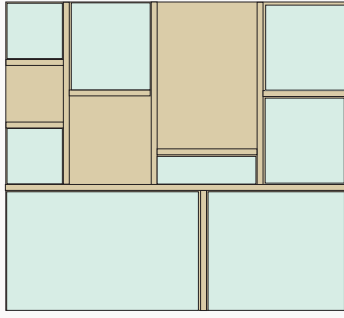
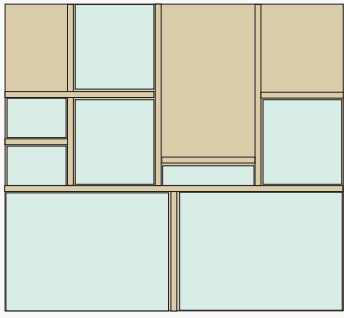
From this some different ideas were tried out of how the base structure of the furniture could look like. One difficulty lied in how the base structure would work with the doors both in a closed and open stage. The risk of hitting your head in a protruding shelf or edge of the door as you lean into the furniture needs to be minimized.

After trying out some different variations I came to the conclusion that the doors preferably should be as close to the wall as possible when they’re open, this to not take up unnecessary space around the furniture and not risk hurting yourself by moving into them. From this I came to the conclusion that the best way would be to attach the doors in the middle of the sides, and make them attach in the back of the core structure when opened.

I didn’t want to make the doors symmetric, just because I think this furniture would benefit from looking a bit “unexpected” or playful in some way.

(See sketch models on page 124-127 for further evaluation of ideas).

1. <http://www.tillvaxtkurvor.se/PCPAL-5-18ar-flicka.pdf>
2. <http://www.tillvaxtkurvor.se/PCPAL-5-18ar-pojke.pdf>



# VARIATIONS

## *compartments & boxes*

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The compartments and shelf system should address to the common needs of storage focus (see page 116-117) and also fit into the framework that was decided on.

The large drawer for papers and pads I believe could be placed below the doors since the wideness and size of it would benefit from being placed lower than the rest of the boxes to not be in the way for these. This might not need to be made with the same see-through effect as the rest of the boxes since it's so specific in it's size/made for a specific need (in other words the child might remember that "this is where I keep my pads and papers"). Also, if it should be placed below the doors it would benefit from having a closed front, as when the doors are closed it would make a calmer impression of the whole furniture.

The compartment system should look well dynamically and the largest boxes should preferably be placed at the lowest point, since they most likely will become heavier (with products inside). This will make it easier and safer to pull them out and carry them with you when wanted so.

I thought of having some compartments open as this would give space for just keeping some products on display and/or more easily moving boxes around between different compartments. Although, I felt that the furniture would then have too few boxes and I didn't want the whole furniture to become much bigger due to the size guidelines I set up on the last page. If the child wants to do this I still think there's a

possibility for it just as he/she instead brings some boxes out of the shelf. Also, the shelf/compartment system could be made in kind of a "stair construction" (see outline sketch on the other page) with the lowest boxes being a bit deeper, creating a little shelf above. This both makes it easier to pull out the smaller boxes on the shelf without having to place them on the floor or somewhere else to look into them, but also makes it possible to have these small shelves to put other products on or making little sceneries.

The system that was chosen is the last one shown on the opposite side. This has the right amount of drawers and combines the sizes of drawers so that most of them can be placed in at least two different compartments. The layout and combination of compartments works out dynamically and gives a calm but still interesting appearance.

The boxes should have one "open" side and one "closed", to give the child the possibility of putting them the opposite way to be able to close of impressions if wanted so. Further explanation to this has been discussed earlier in the project. After this second sketching phase and after making some quick sketch models (see next 4 pages) a solution of making one front with perforated metal and the rest of the box in ash wood was chosen. This construction is easy to produce, is sturdy and well suited for different kind of materials to be stored in. It can easily be pulled out of the shelf by the user and put back in since it doesn't need to be attached in any way.



SCALE 1:5

# SKETCH MODELS

## *ideation phase II*

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To verify if my ideas could work functionally I made some sketch models, as mentioned earlier, both full size and scale 1:5. The most crucial feature to test was how the opening/closing of the doors would work and how they should meet up with the cabinet on the top. The top shelf should not point out too sharp from the furniture and therefore the doors needed to overlap on top in some way to make sure there wouldn't be an open gap here when the doors are closed.

I also wanted to see if the dimensions (both

height, width, drawers/boxes, doors etc) would be suitable for especially the youngest aimed for users. Unfortunately I couldn't get hold of a five year old at this time so the models had to be tested by fellow students and myself trying to shrinking ourself to their height, and visualising what the issues might could be.

Some measurements and the sizes of the doors could be altered after the making of these sketch models.

(See further pictures on next two pages).



◀ SCALE 1:5

SCALE 1:1  
▼







# SAFETY

## *children & products in home environments*

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Safety must of course be seen to when developing a product aimed to children. Although most parents make sure their home environment is safe for their children accidents happen every now and then. Around 60 000 children (between 0-17 years old) are hurt in their home environment in Sweden every year.

Common risk factors where accidents happen combined with objects or furniture is when children fall from or into them, when objects fall onto the child (such as shelves not attached to the wall, or when the child pulls down loose objects from for example a table or shelf) or fingers and hands getting pinched in doors, chairs or drawers. (1)

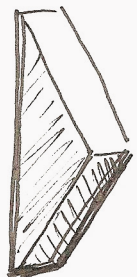
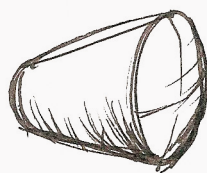
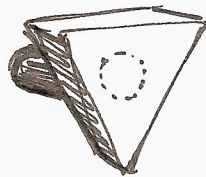
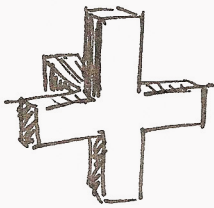
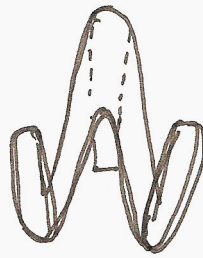
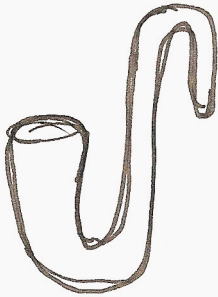
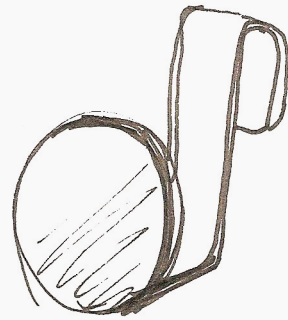
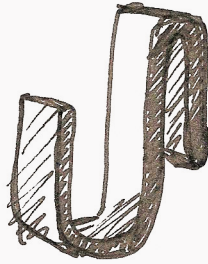
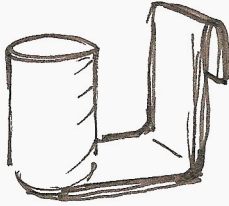
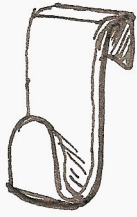
When developing a new piece of furniture most of these risk can be seen to and minimized. It's also important to consider how a child might interact with the furniture, for example not make it easily climbable or making sure handles and other holes or gaps are made in suitable size (to not risk small hands and

fingers getting stuck or being pinched).

The specific target group (children aged 5-10 years) will most likely use and interact with the furniture differently than younger children, although it must be made safe for all children, since it might be used by younger friends or siblings from time to time.

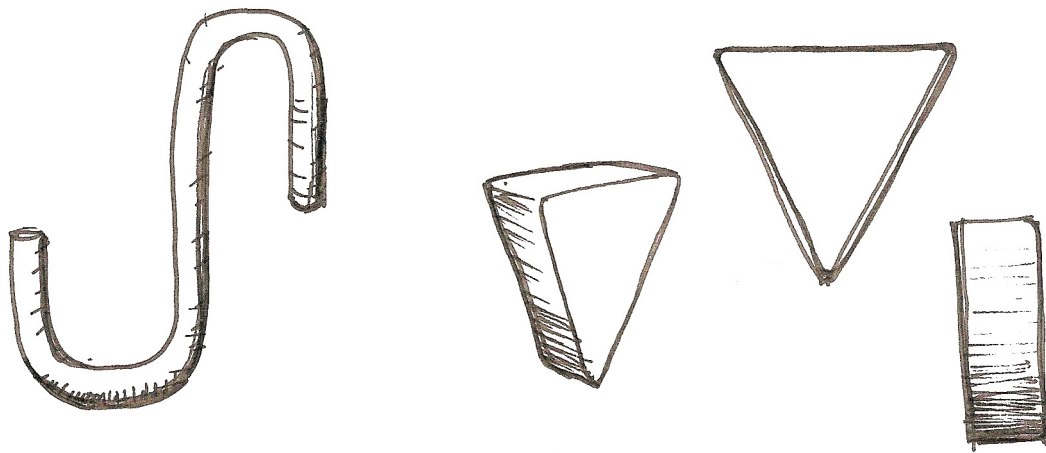
For this furniture it feels like the most important aspects to consider when it comes to safety is that it shouldn't easily climbable and there should be a possibility to attach it to the wall to make sure it can't fall over. The way the drawers will be pull out/pushed in shouldn't risk fingers or hands being pinched. Also how the doors will attach and close needs to be made in a way that the child doesn't risk having his/her hands in the way.

1. <https://www.msb.se/sv/Forebyggande/Barns--ungas-sakerhet/Fakta-och-statistik-barnsakerhet/>



# DOORS & DETAILS

## *function & attachment*



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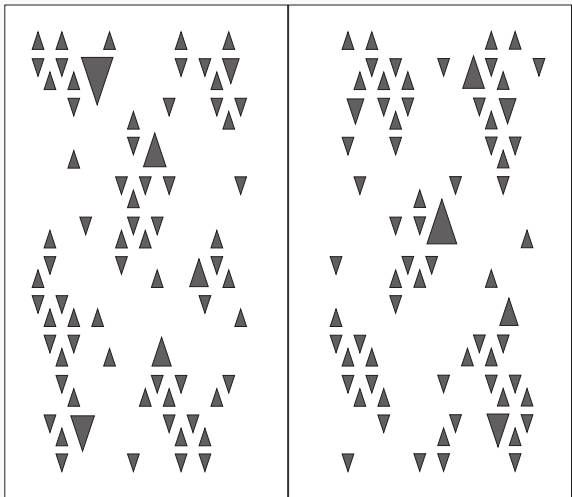
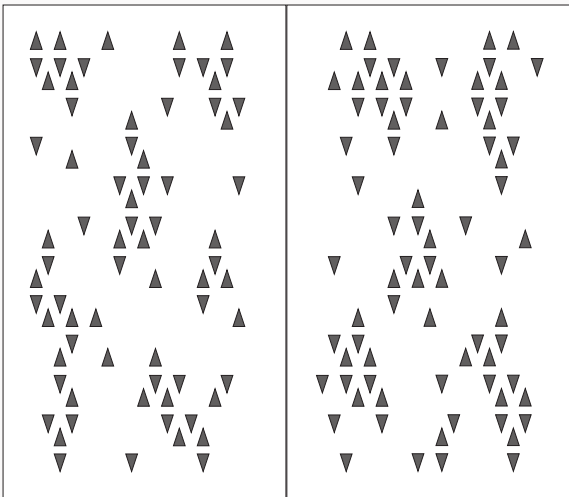
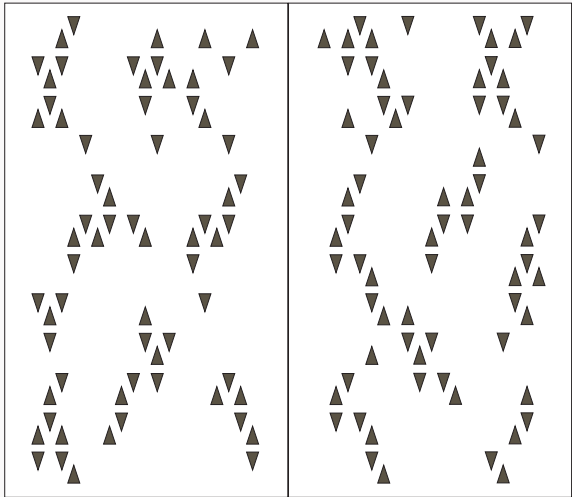
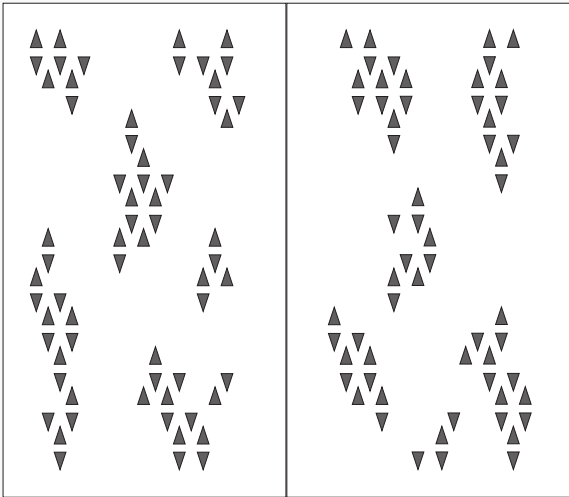
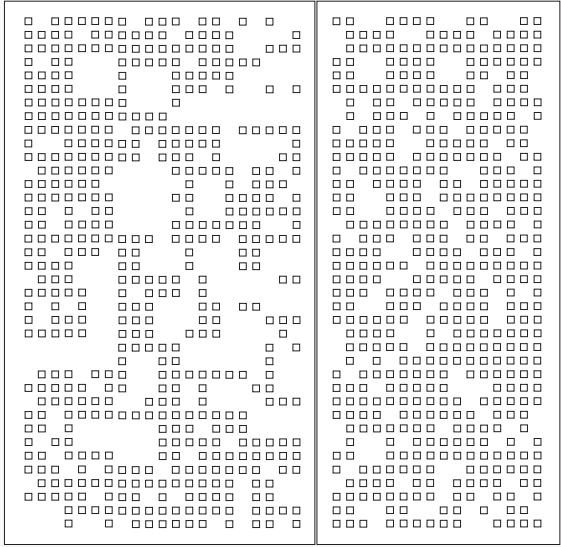
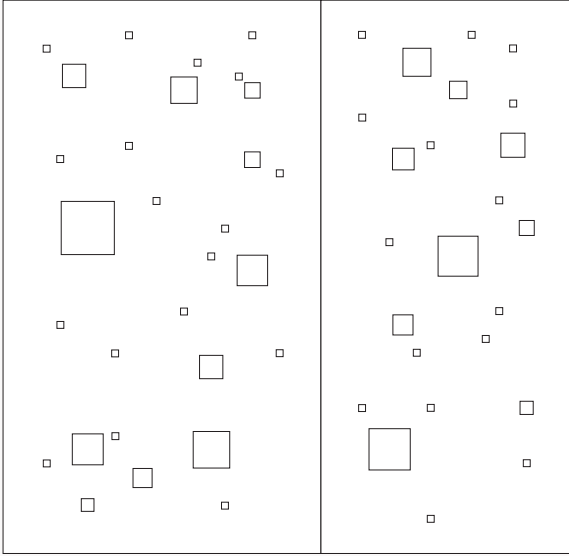
As mentioned before the doors should be used for displaying 2D objects such as drawings and pictures, but also function as a rack where the child can use hooks to hang objects.

By making the doors in perforated metal (for example steel) both of these functions could easily be solved. Hooks could for example be attached in the holes of the pattern and magnets could be used directly on the surface for the child to be able to attach drawings and so on. Using magnets is an easy way for children to independently be able to be active with putting his/her 2D objects on display, as long as they are made in a suitable size and shape.

Steel will be a good material for this purpose also since the doors needs to be sturdy enough to keep the shape as they are opened and closed. By using a metal sheet in steel in a

suitable dimension (hopefully 1,5-2 mm will be enough) for the doors and by strengthening them at some parts they'll hopefully be sturdy enough and also be able to fill the purposes mentioned earlier.

The hooks and the magnets could of course be designed in a million ways, but most important is that they'll fill their purpose. This meaning: that the shape of them should be easy to understand ("this should be used for this purpose"), they should not be complex in they're function, the material and shape should be made sturdy and safe for the child to use them over and over again. Due to this it feels important for me to make them as simple in their shape as possible. Sketches on the opposite side shows how this could look, and the ones on this side how it most likely will turn out.



# DOORS

## *peepshow pattern variations*

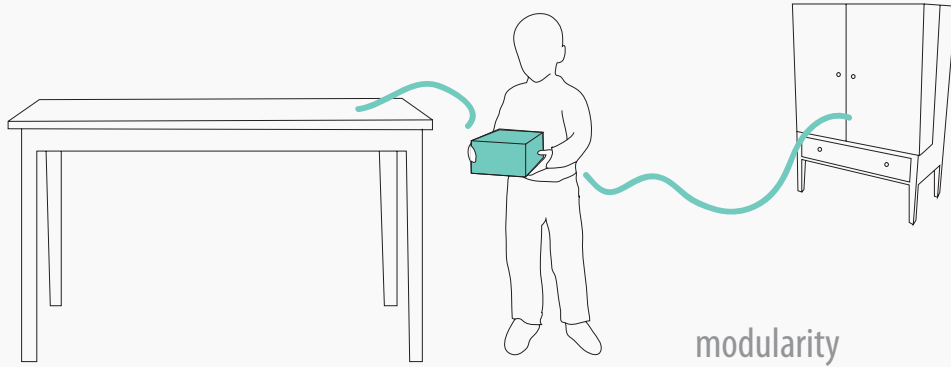
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The idea of having perforated doors is to give a “randome” (randome = dependant on what’s placed on the shelves and inside the doors) peepshow and glimpse of what’s hidden inside the cabinet. This to trigger ideas and creative thoughts in the child. Although, this pattern can at the same time give the cabinet an interesting aesthetic appearance dependent on how it’s designed.

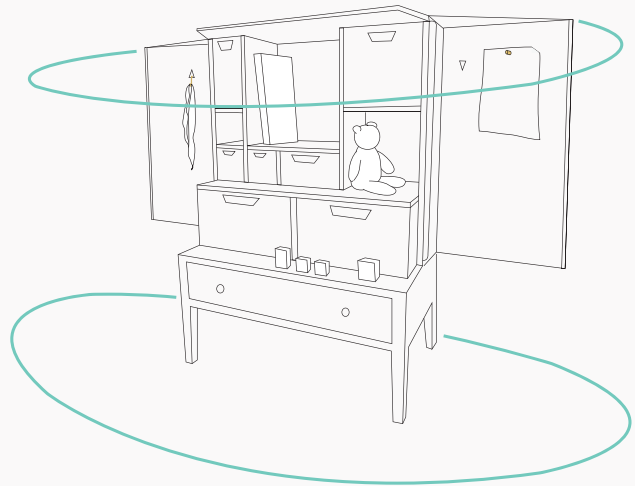
The holes must be made in suitable sizes not to get fingers stuck in them and there should of

course not be any sharp edges.

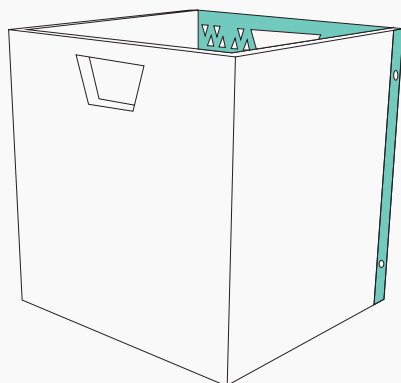
This area should of course also be used for the child to be active with, with hooks and magnets. Therefor the holes should not cover the whole area so that there’s space left to attach the magnets. The holes will be used to place the hooks in and therefor there shouldn’t be any holes on the sides of the doors, as this would prevent them from being able to fully open if a hook is attached on these sides.



the personal space

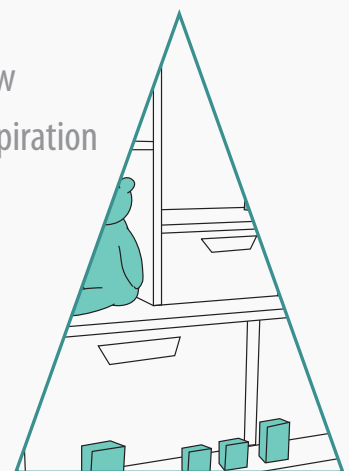


individualization  
favorites on display



hide/show  
open/closed

inviting appearance  
peepshow  
glimpse triggering inspiration



# USER SCENARIO

## *focus points & interaction with product*

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Some features were considered more important to optimize the furniture for creative stimuli. To make sure the project was on the right track these needed to be checked off once again.

The child should be able to interact with it in different ways:

- **Modularity** - play here or there. Bring your toys or crayons to another place in the house. Shield of in another space or sit close to mom or dad to get company or feedback.

- **The personal space** - to give a feeling of a closed off spaced even if it's not, to make the child feel inspired to go into his/her own world.

- **Individualization, favorites on display** - whether to use the shelves as a scene or just to put your favorite toy or crafts on them, or hang up your arts on the doors or your dress out clothes on the hooks, it might inspire the child to play/interact/be creative with his/her belongings.

- **Hide/show, open/closed** - the possibility to close of impressions or maybe hide your

ongoing projects from others. Visual display of stored products but still a possibility of placing drawers in "closed off" position if you don't want everything to be seen.

- **Inviting appearance, peepshow, glimpse triggering inspiration** - A place and product that is interesting and inviting in it's appearance, that makes the child interested in finding out more and interacting with the cabinet or the products stored/displayed in it.

Provide the possibility of displaying products as in a peepshow, giving a feeling of scenery or platform for roleplaying games or just displaying favourite belongings.

As the doors are closed, they might still give just a glimpse of what's inside. Perhaps this triggers new ideas and inspiration as some of all the impressions are closed off, and new ones can be found.

So far it feels like these focus points can be fulfilled with the latest design concept. Some details of course needs to be considered further on.





# MATERIAL

## *usability & aesthetics*

### *treatment & colour selection*

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The core structure and the main part of the boxes will be made out of Swedish ash wood. I believe it will look best with a light coloured material for this purpose (a children furniture) and after looking at the benefits of different light sorts of wood, this seems to be one of the best alternatives. It's harder and stronger than for example birch and pine. It's relatively easy to process with little wear on tools. It's well suited for indoor furniture and has a nice finish with not many twigs and with close lines in the material. (1)

Recommendations for treatment of ash wood to keep it light in colour and durable over time is to treat it with for example cold pressed linseed oil. This is also a good choice from an environmental point of view. (2)

The doors needs to be made in a sturdy material which can keep the shape when opened and closed many times and also when certain amount of things are hanged onto them. Although, they can't be too heavy since the child must be able to open/close them on their own, and neither should there be a risk of them slamming back and pinching fingers for example.

Since I want to make a perforated pattern in the doors and also in the fronts of the boxes to make a semi-seethrough effect, these parts needs to be made in a material which allows that. As I investigated earlier in the project I believe a perforated metal sheet (in steel) could be a good material for this purpose. It could easily be laser cut into a specific shape, bended and then preferably powder coated to get the right colour and wear ability. The thickness of the metal might need to be tested while building the furniture to get the best dimension for the purpose, although I will hope that a thickness of approximately 1,5-2 mm will be suitable for this.

As mentioned earlier, powder coating of the metal parts seems to be a suiting treatment for this purpose. The

edges will be slightly less sharp and the surfaces will become smooth and durable. This also gives a good possibility of choosing any wanted colours for the different (metal) parts. This treatment is also a good choice environmentally, as the method gives little waste and doesn't include any dangerous solvents. (3)

I believe it would look best to keep the furniture in light colours, although the fronts of the boxes could benefit from having different hues to more easily keep them (and the content within) apart. The doors I think will look best in a very light colour, such as white to keep them in contrast to the rest of the wood structure, as this might inform the user of these being something that stands out from the core structure. That this is a part of the furniture where he/she can interact with. Making them white can also act as a symbol of providing a "white sheet" to work on. A possibility of transforming it into his/her style, with posters, drawings, post cards, texts/sayings for example.

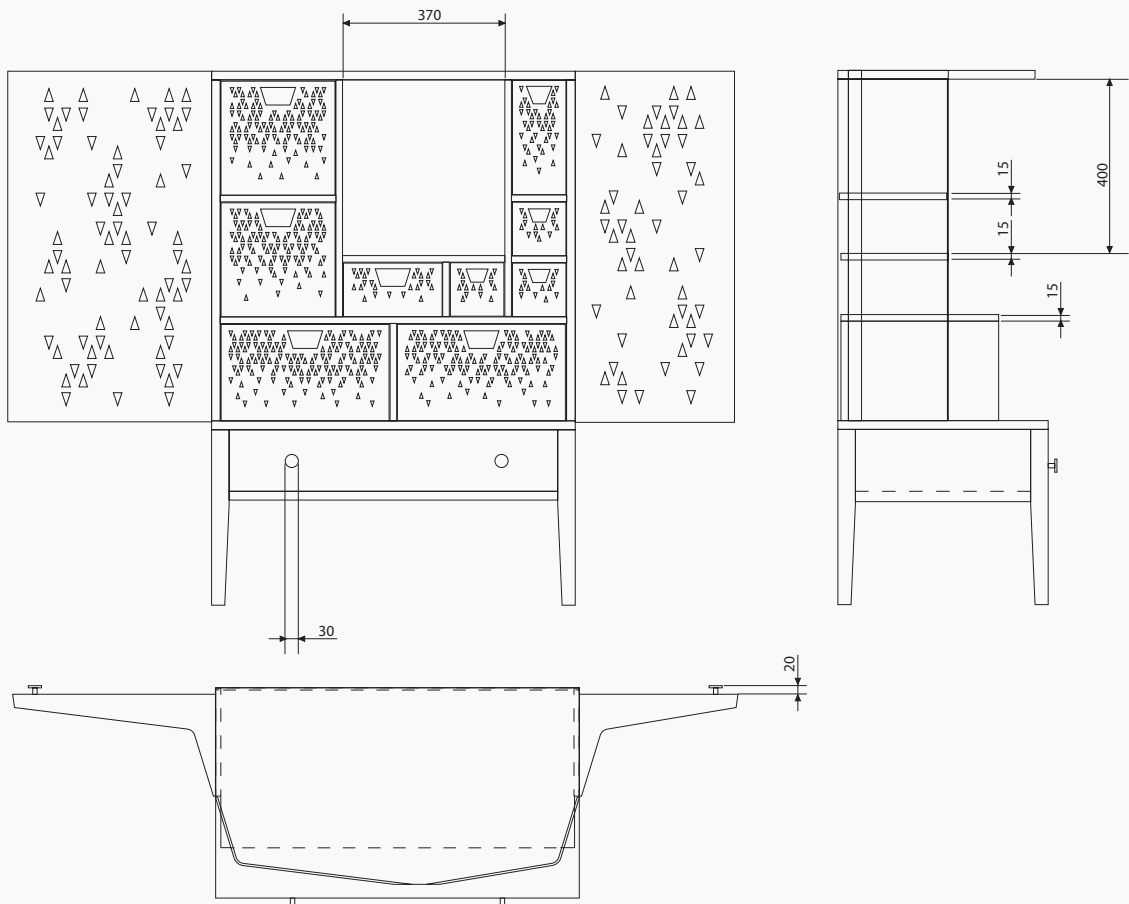
I believe the details (as magnets, hooks and handles) will look best if they're made in an contrast colour or different material than the rest of the furniture. Partly because I think it will look good in an aesthetic way and partly because it will make them easy to spot and understand that these are features where the user shall be active in one way or an other. To make them in brass I think could look nice in contrast to the rest and give a feeling of that "little extra", which could give the furniture an overall thought out appearance.

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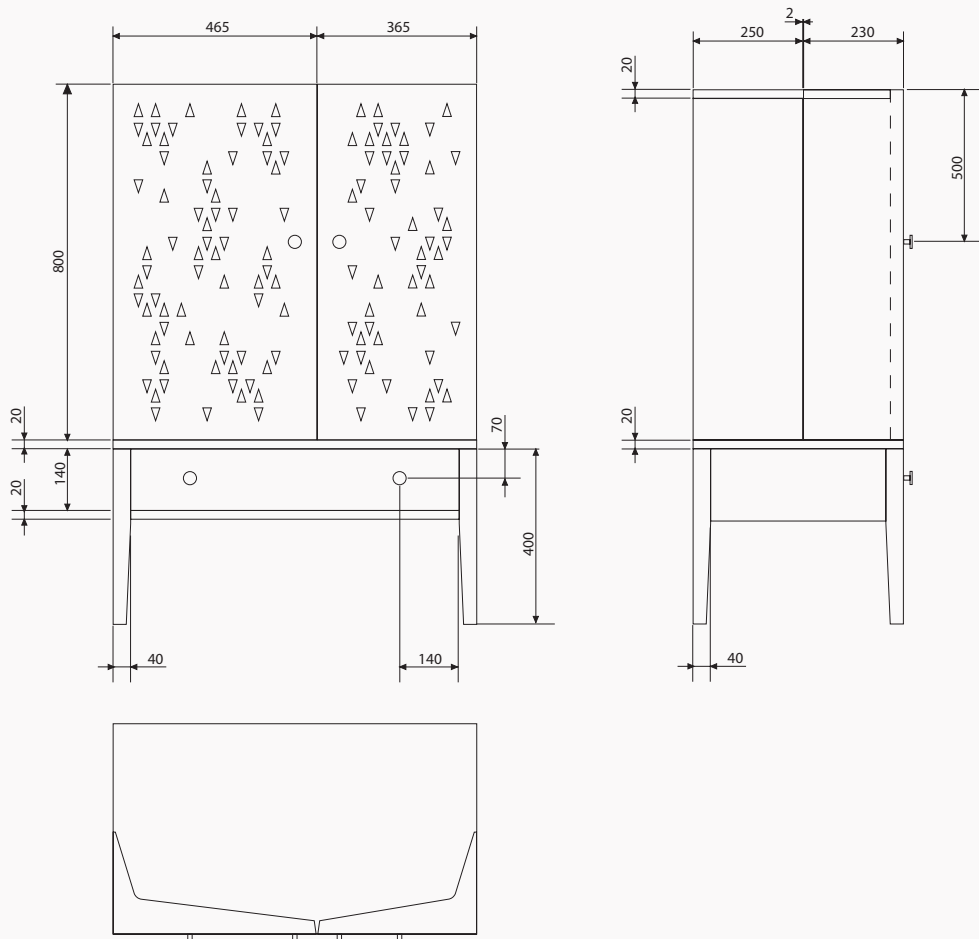
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# OPEN



# CLOSED

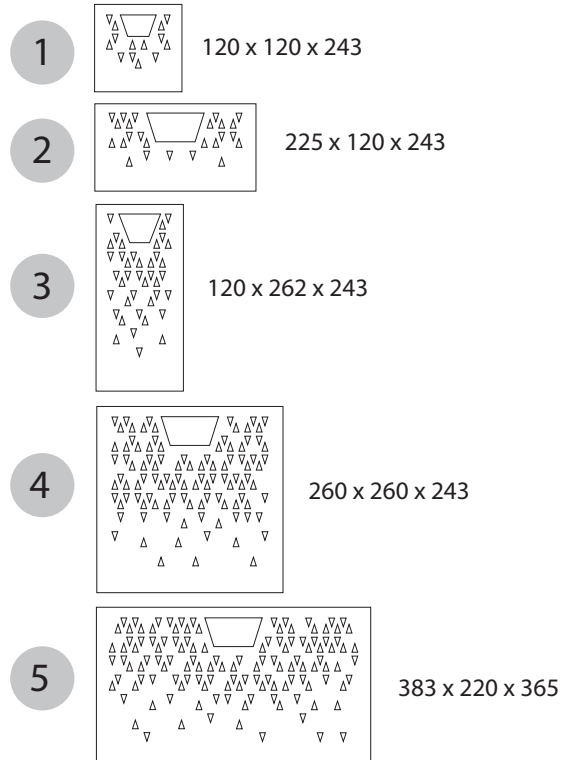
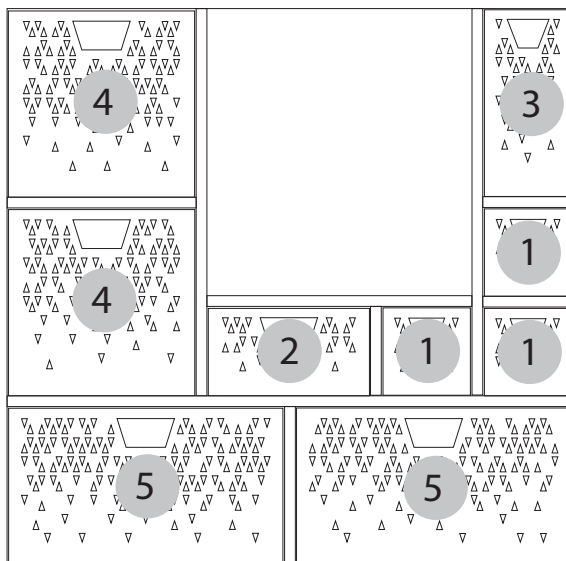


# OUTLINES

## Boxes

Thickness wood sides: 15 mm

Thickness metal side: 1,5 mm



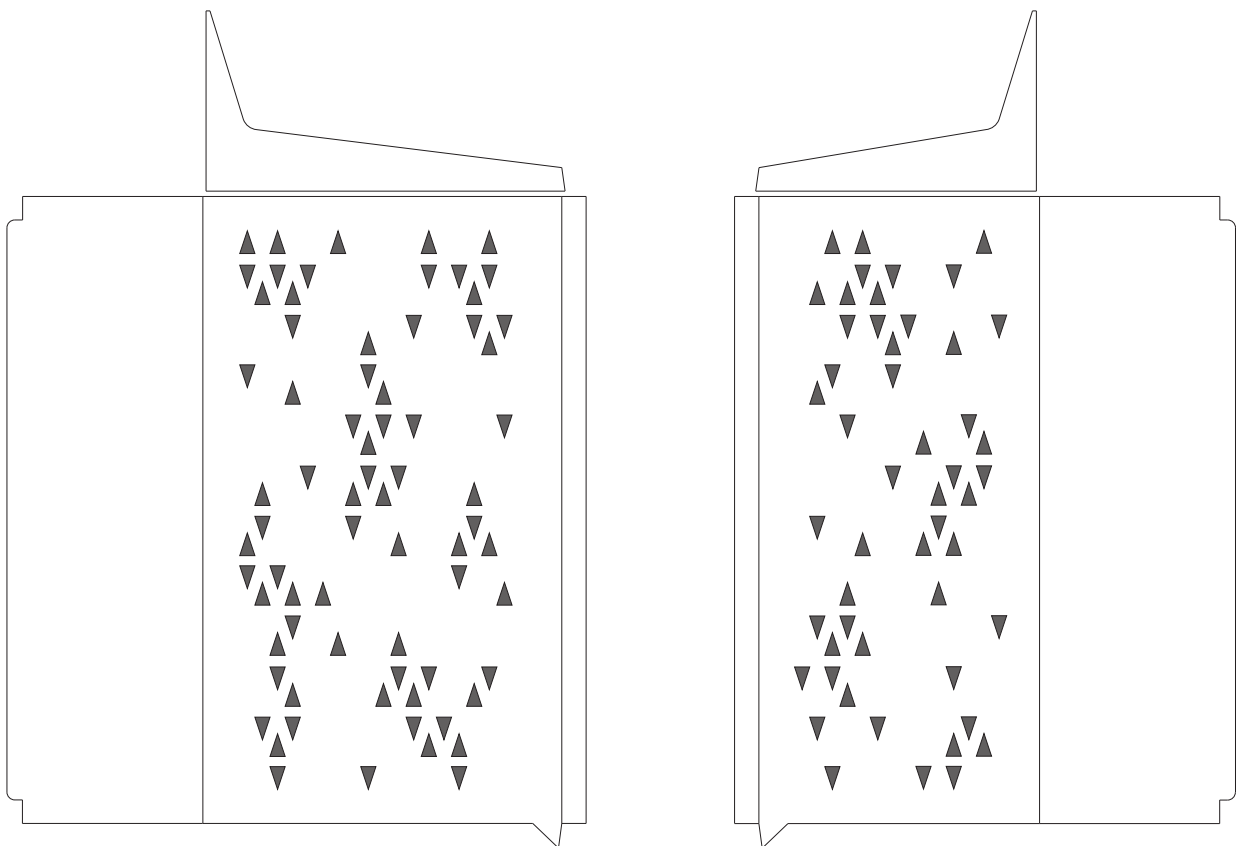


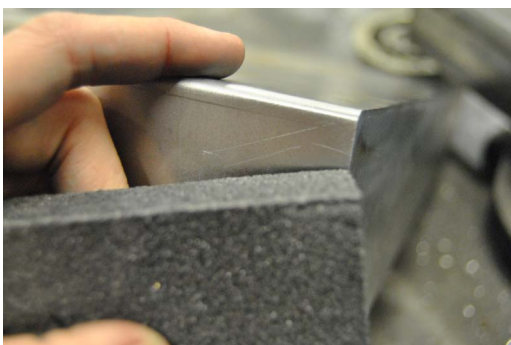
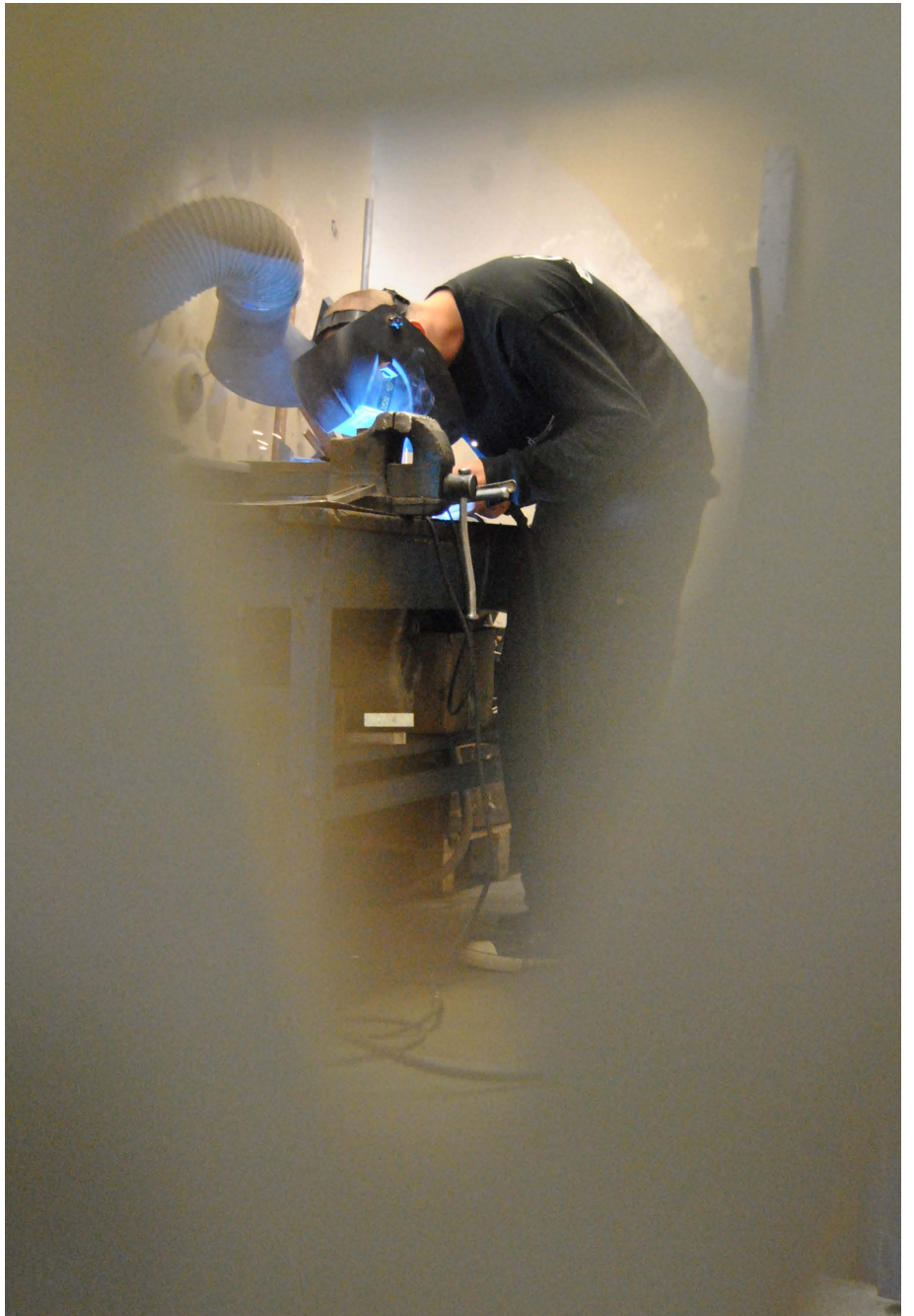
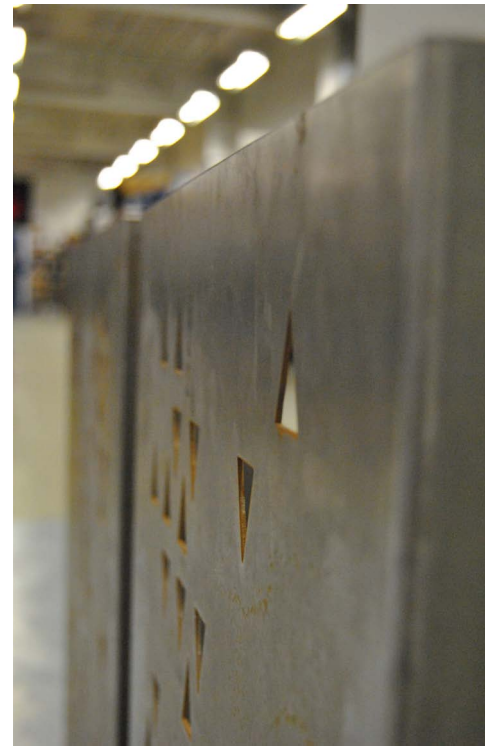
**REALISATION**



# DOORS

*waterjet cutting • bending*







# DOORS

*welding • refining*

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To keep their shape and not become wobbly and unstable the doors were strengthened with a triangular shape on the top. This was welded onto the rest of the shape. By bending the doors inwards in the front where they meet

the stability was also further enhanced.

The doors and box fronts were water cut in the workshop, then welded together and sanded. Finally the doors and box fronts were powder coated at a company in Malmö.



# FRAMEWORK

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The framework was completely made in the workshop, including trimming, glueing, planing, cutting, milling etc. Almost all the joins of the different parts were made with plugs and water based glue. Only the metal parts were attached with metal screws.

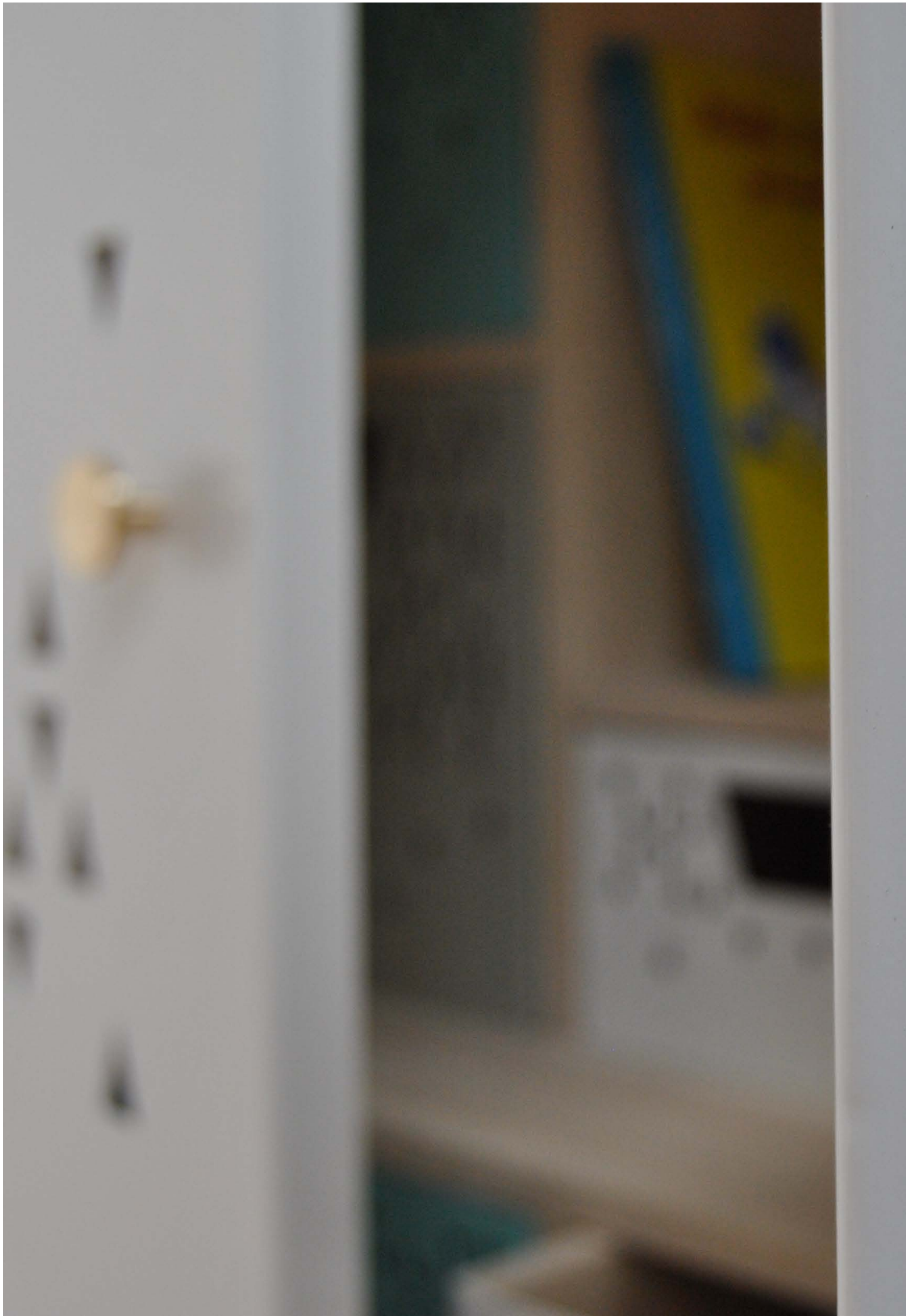
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**FINAL RESULT**



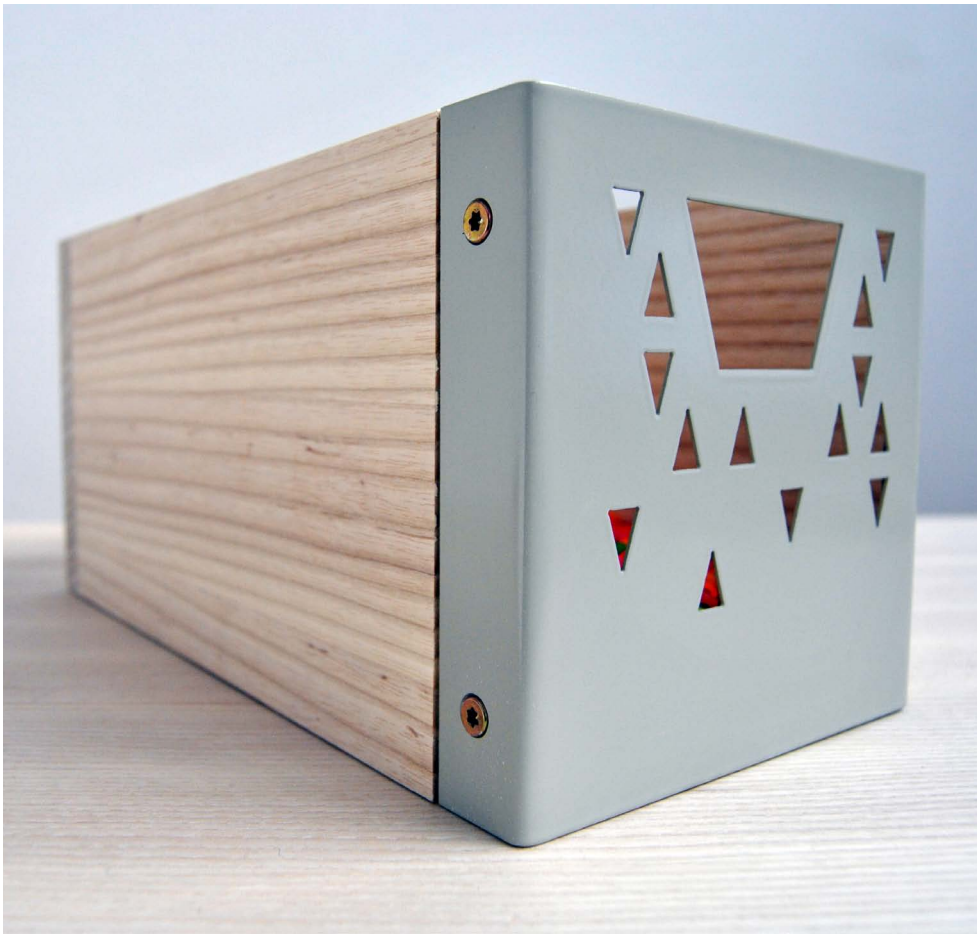


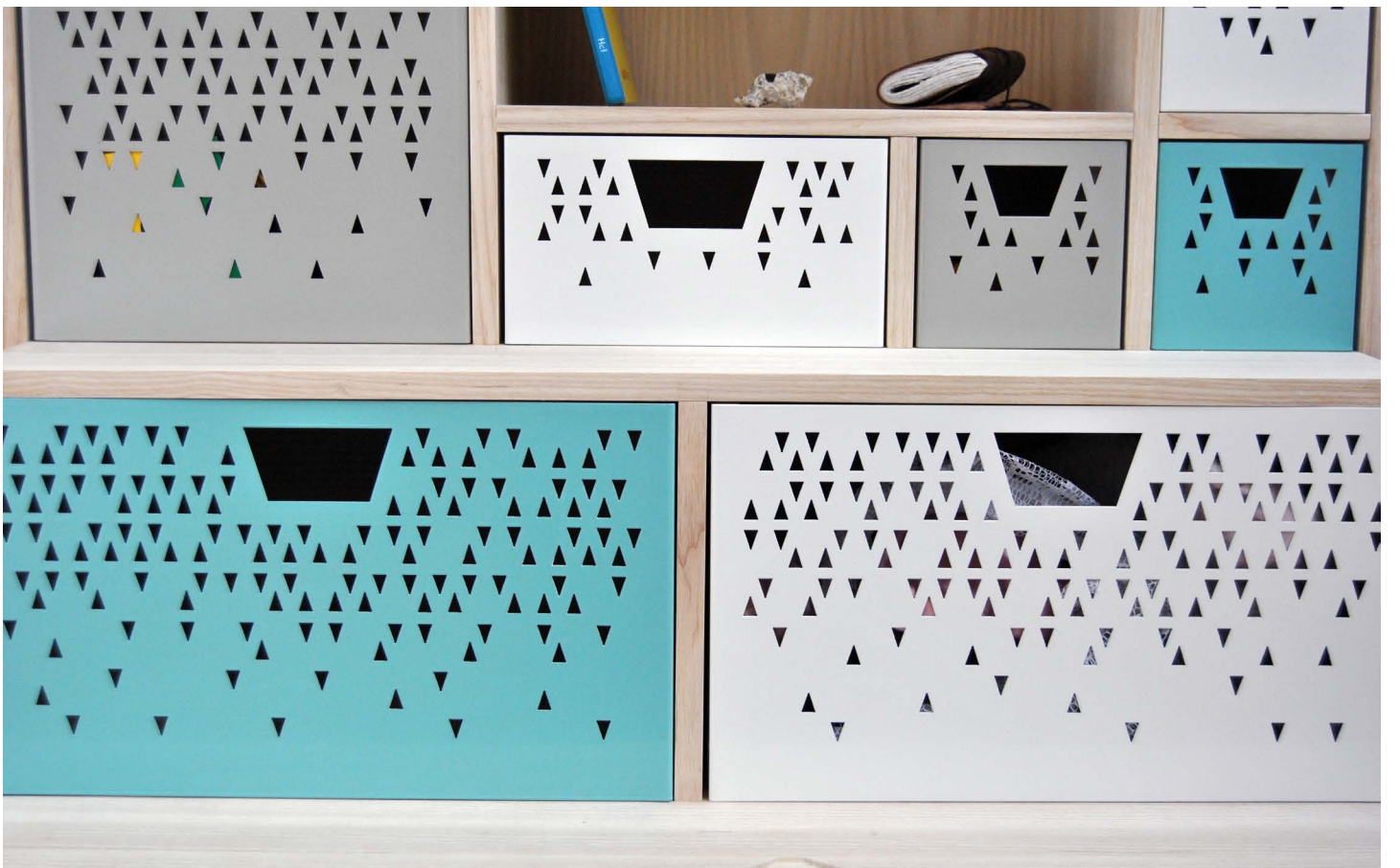




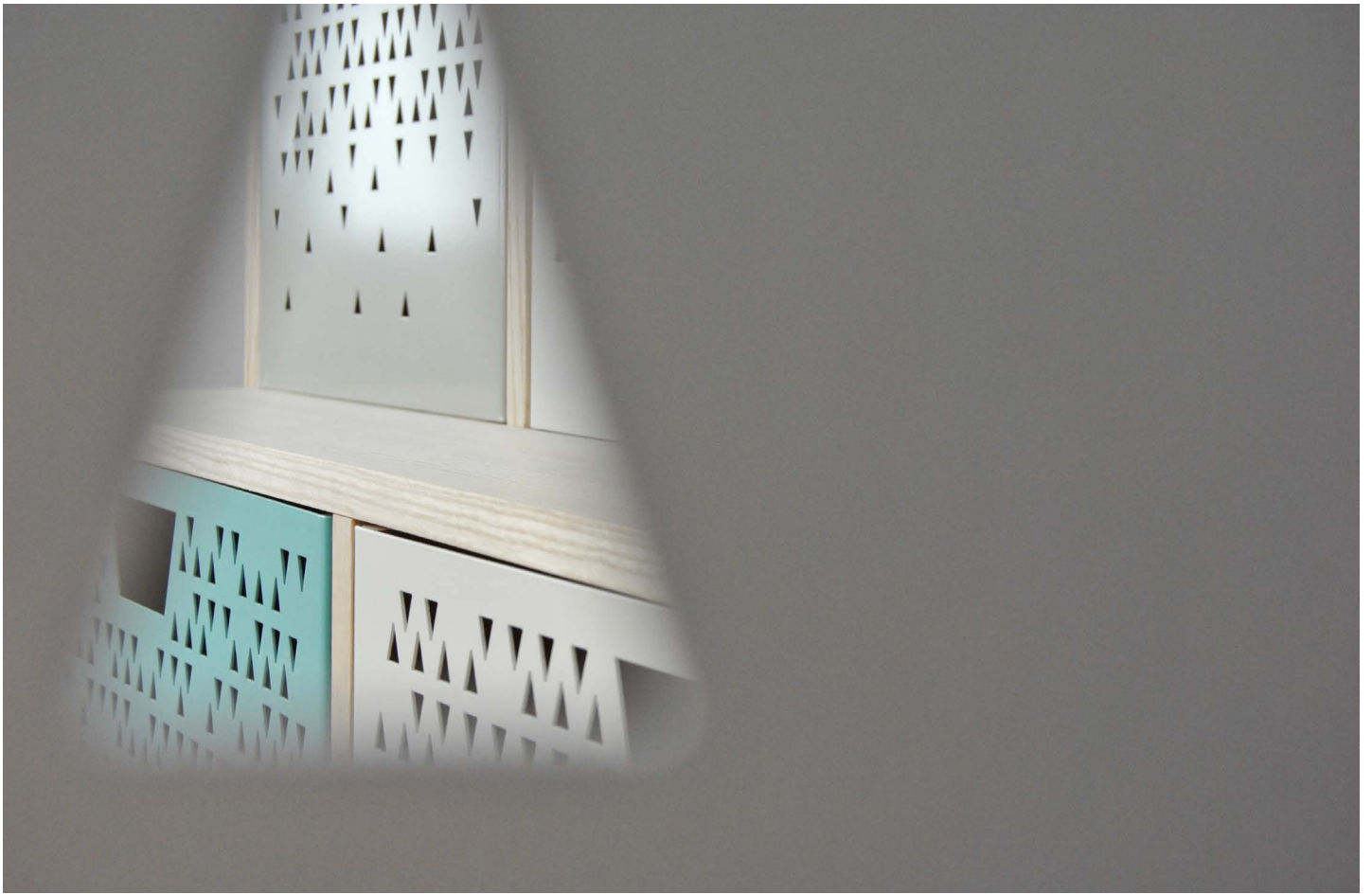






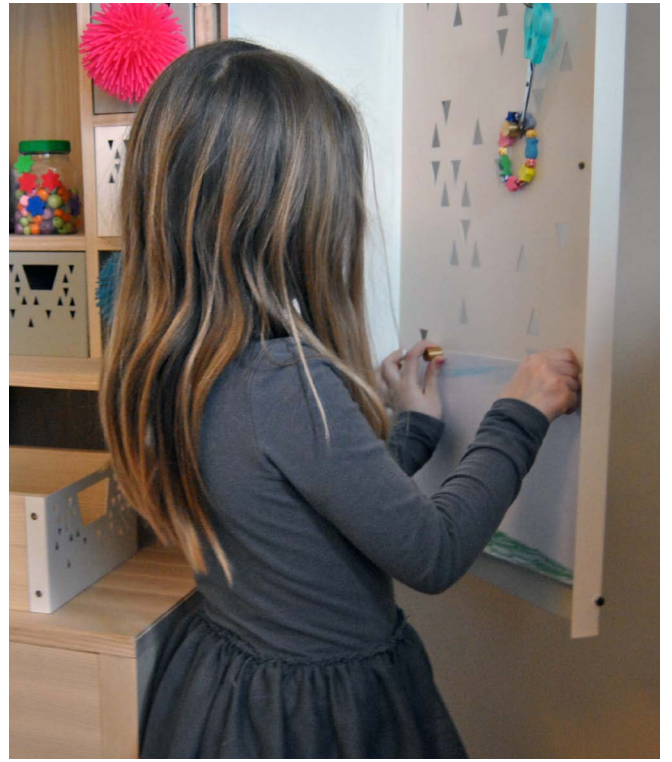






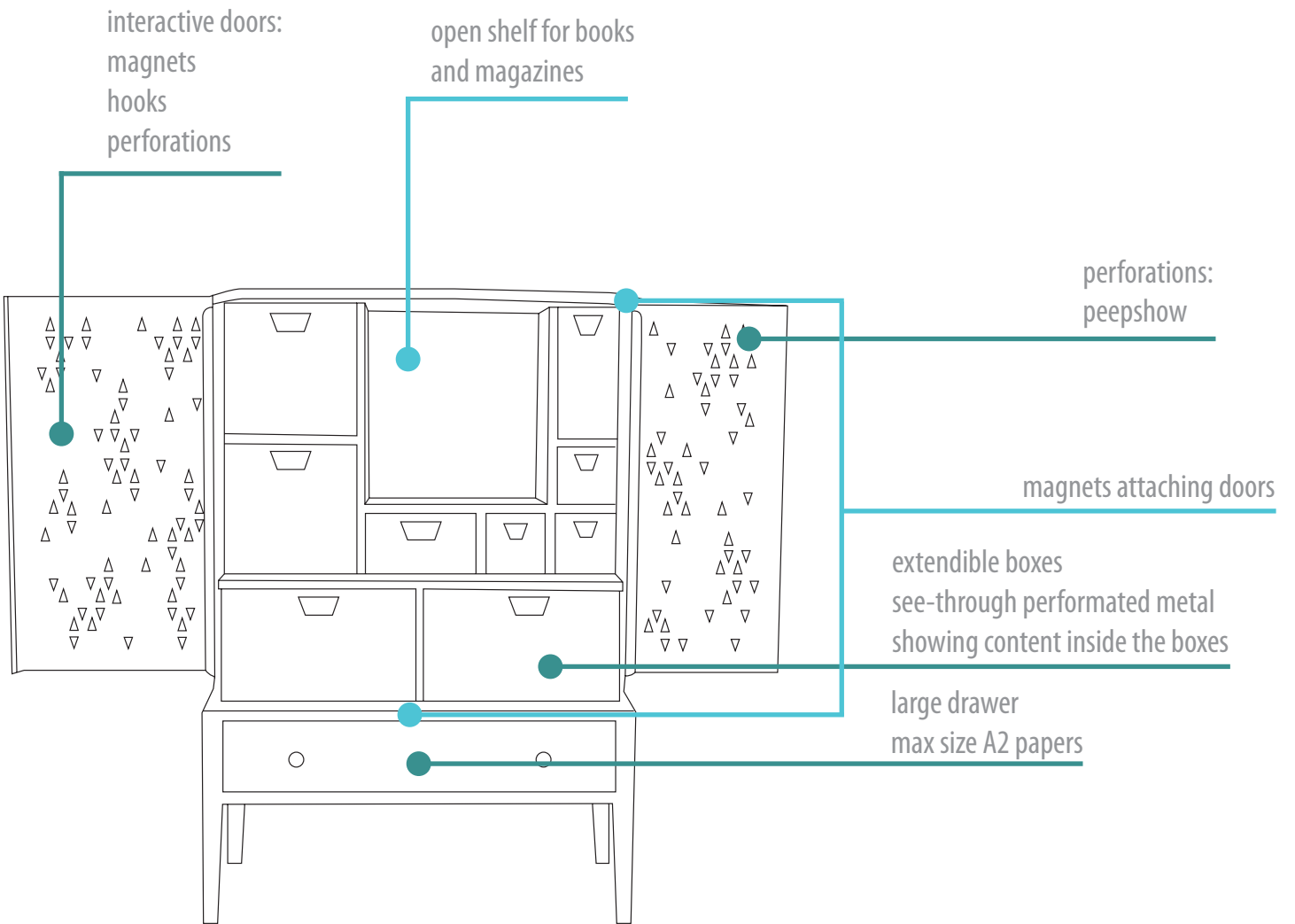






# MODEL IN USE





# CONCEPT

## *functions & attachments*

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The final result is a cabinet with the features shown in the illustration. Every child is different and has different possessions and interests. The possibility of displaying the personal products and projects in an efficient way gives a platform for the individual creative development. As the doors are opened the child finds his/her belongings stored in a way that hopefully can inspire to new ideas, games or other activities.

The final product was presented in June 2012 and at this point the finish of the cabinet

was almost as good as what was aimed for. Unfortunately there wasn't enough time to make the magnets to be used on the activity doors the shape that was intended. (They should have been in a triangular shape but in the pictures you see a round design).

For the presentation and exhibition I gave the cabinet the name "*Glimpse*" as an inspiration from the design and from what the child is given with his/her first interaction with the product.



# ANALYSIS & DISCUSSION

# ANALYSIS & DISCUSSION

## *project path • decisions • result*

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As mentioned in the abstract the main part of this project was executed and written in the spring of 2012, but finished first in 2017. One of the reasons to why it wasn't finished in 2012 was that some parts of the project were too open and unexplained when it was presented in June 2012. Both the examiner and the supervisor were not satisfied with how the synthesis phase was presented and explained.

Although these gaps and question marks most likely could have been solved much earlier, the project had in a personal way hit a wall. Some of the decisions that had been made during the synthesis phase was made during much time pressure (which of course isn't unusual during these type of circumstances), due to the desire of being able to present a finished product in time and before this having time left for the very time consuming process in the workshop.

When faced with the critic after the presentation and reflecting upon the result not everything felt so easy to explain and analyse, not even from a personal point of view. It's been necessary to put the project aside for quite a long time to be able to discuss both the shortcomings and positive outcomes of the finished product and project in an sufficiently objective way.

### **Method and research**

The methods used during the research phase included a wide variety of approaches to find as useful information as possible. All the methods that were used was rewarding to the project in some way and made it move forward. I don't believe it would be necessary to include other methods to this process than what was done.

### **Initial goal and brief**

The initial brief was quite wide and open. I found this necessary to be able to find a specific problem area and target group as I got started with the research. From the very beginning this worked out well and I felt confident in making a product for a home environment with the focus of addressing to the needs of the individual child, with the specific features that was established to be important during the last phase of the research and that lead to the second redefined brief. It all felt very motivated from much of the result from the research. Although, I believe it took me a little bit too long to come to this point, as it gave me too little time during the synthesis phase. Or at least there were too little time for making mistakes during this phase.

### **Synthesis phase**

As I got started with the ideation and sketching phase I was already stressed out, knowing I had to get started in the workshop as soon as possible to be able to have a finished product in time for the presentation. This was important for me from the very beginning, I wanted to create something in the workshop myself (if the project allowed the final product to be a physical product that will say).

Being stressed out and feeling the time ticking is not always the best situation for being as creative as possible. For me this lead to a feeling of uncertainty and disbelief in my own ideas. A result of this was that I listened much to comments from other people around me, both fellow students, the examiner and supervisor. Somehow I had a difficulty deciding upon what was most important for me and what was most important from the result of the research.



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For example I got tangled up in trying to make a product that would be as easy and environmental friendly to produce as possible. And all of a sudden I found myself focusing more on the best solutions for this than making the best product for target group. Of course this was also an important aspect to have in mind when developing the product, but I shouldn't have let it take up so much focus.

I also felt a bit misunderstood during this phase of the project when the examiner Olof Kolte and I discussed the different ideas and the issues around these. The time pressure led to me not being able to explain all of thoughts and goals in a sufficiently understandable way. We talked about different results and focused on different details at this point. Some of his opinions were important to consider and some of his ideas most likely could be useful in altering the design into something better. Although, I knew some of my own ideas were important not to let go of, I just couldn't motivate all of this enough at the time to make sure he knew I was going in the right direction. Or at least these are my thoughts on how the process was going at the time.

### **The result – evaluation**

So, which decisions were good and which were less successful for the final result? The overall idea of creating a cabinet which could adapt to the needs of the individual child, with the see-through fronts and the possibility of putting favourites on display, the activity doors and the possibility to close off impressions by closing them, all still feels motivated by the research and feels like it in combination with the aesthetics of the cabinet created a unique and useful product. Although, some choices

could of course have been made different to create an even better product.

The idea of having see-through fronts of the boxes felt very important for the final result to connect back to the research. The idea of creating these front in perforated metal sheets did at the time seem to be the best alternative. Although, there were too little time to try it out and to come up with the best pattern to create enough visibility into the boxes. This resulted in too little transparency and so the concept was kind of lost due to this.

Today I'm not sure if this material would be the best for creating the feature I aimed for. Even though I motivated plexiglass or some other plastic to be unfit for the purpose since I thought they'd easily be stained and/or scratched and therefore not look nice for long, I believe I should have investigated this more and given this kind of material a chance before moving on so quick.

The doors were also made in perforated metal, although here the transparency weren't the most important quality and therefore the material works better here. I remember one comment after the presentation was whether having heavy metal doors with sharp edges would be safe in a product aimed to children. This is something I've questioned myself many times after this and thought long and hard of what the alternatives would be. Although, after having had the cabinet standing both in my own and my parents house during the past five years, I've also seen it being used by children aged both within the target group and younger (both on a daily basis and using it for the very first time), and I've never seen

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any of them having had a problem with this or being hurt by the metal doors in any way. The doors stay in the position you leave them and doesn't "flap back" on you without notice. They're not heavy to move back and forward even for a small child (youngest user around the age of 2,5 years). Also the shape of them (as a "corner") gives the child little possibility of standing in the way when they are to be closed. Due to this I'm still confident that the way the doors were executed gives the cabinet a unique and positive feature worth keeping.

The construction of the boxes were made quite simple, both from a design/aesthetic point of view and production wise, which I believe is a positive thing. Although the shape of the handles became a little bit too sharp and especially on the side of the metal front. If the see-through fronts would have been made in a different material, this might had been easier to avoid. The thickness of the metal (1,5 mm) gives little possibility of making the grip comfortable with this design. Perhaps if a little folded edge would have been added to the inside or a grip in an other material, they'd become more comfortable to use.

The thickness of the wooden sides of the boxes (15 mm) could perhaps have been made slightly thinner (10-12 mm) since they became very sturdy but also quite heavy in relation to their sizes. Especially the largest boxes are a little bit too heavy for a five year old child to carry with products inside. Perhaps even the bottom of the boxes could have been made in a completely different material (for example plywood) to make them less heavy but still sturdy enough.

After the first part of the synthesis phase, I also found myself trying to create a product that would fill as many needs as possible, and one of the features I had problem letting go of was the included workspace in the product. At the time this became one feature too much to be able to come up with a working product within the time that was left. Sometimes the combination of as many features as possible can make the end result less satisfying.

At this point I decided to let go of this feature to be able to get forward with the project. I still believe the arguments I had for this decision were solid. The cabinet doesn't need the workspace to be the creative oasis and personal get away for inspiration which was the most important goal. Although, I still believe this would add something extra to the product if it could be implemented in the right way. A workspace that could be folded away or extended somehow doesn't force the user to use it if he/she rather bring their projects somewhere else. If I'd have the time I would have given this more time and a chance of developing a working solution of combining a workspace with the rest of the cabinet.

What was also important for me to implement in the concept of the cabinet was the feeling of having a personal space and creative get away within the cabinet. After some ideation around how this could be executed I came to the conclusion that it didn't need to be a closed of space such as hiding place or physically shielded space. My conclusion was that it could be enough that the the area within the doors of the cabinet can create this space and feeling for the user. My opinion today is still that this is enough for the user to feel shielded

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and enough for him/her to get the feeling of how the products and inspiration within is inviting him/her when the doors are opened. Although this is of course something that can vary between different children and not so easy to know before having the product tested by different individuals.

### **The personal process**

In the beginning of the project I felt the euphoric flow of creativity - exactly what I wanted to provide a platform for for the target group. I found that the more research I did, the more interesting it got and the more I also learned about myself.

When trying to develop a product that could respond back to this rewarding research, I although found myself losing track a bit which made me insecure in my own decisions. Even though my research showed that a storage device with specific features would be a good solution for the problem formulated in the brief, I was scared to end up with “just an other storage device”. This resulted in me trying to implement as many smart features as possible in the product, as I thought this was necessary to make it stand out. I think this is where I got stuck in the process.

Now, I don't think I ended up with “just an other storage device”, in the end this is a product which I'm proud of, if one just disregards some of the details I explained earlier. The process on the other hand is what has made me question myself as a designer. The insecurity and the disability of presenting my ideas in an understandable way during the last part of the project (synthesis phase) and during the presentation in June 2012, made me for a long

time look back at the project with disbelief and an unsatisfying feeling.

I must now also remember to look at the result from a personal point of view. If someone else would have taken over the project after the research phase, he or she might have come up with a completely different product. This was my interpretation of the result from the research and how this could be implemented into a product. One could have narrowed down the brief and target group even more to be able to focus even more in detail, but this was my decision not to.

The most rewarding thing about this project is that during the years that has passed by (which of course has felt like a defeat in itself, why couldn't this just be overcome?) I've had a child of my own, who I now can see interact with the cabinet on a daily basis. The fact that he sees this cabinet as his own, playing with his toys in and around it, opening and closing the doors, returning to it to carry on with projects he started on the day before, inviting friends to interact with it together with him, gives me the satisfying feeling of him having a product in his closest environment that seems to develop his creativity. That is, for me, the golden reward.





*Alfred, 3 years, with the cabinet in April 2017*



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