Basic Formgiving Skills - DFB311

final form integration

Abstract

This annotated portfolio consists of the process, deliverables and reflections of the elective basic form giving skills.

Introduction

The elective basic form giving skills focuses on understanding form; the language of designing. As mentioned in the course description, the student participated in hands-on design exercises that capitalize on the act of making, whereby the student experienced how giving form to an artefact is a continuous dialogue between the eyes, hands (and mind), driven by quality and craftsmanship.

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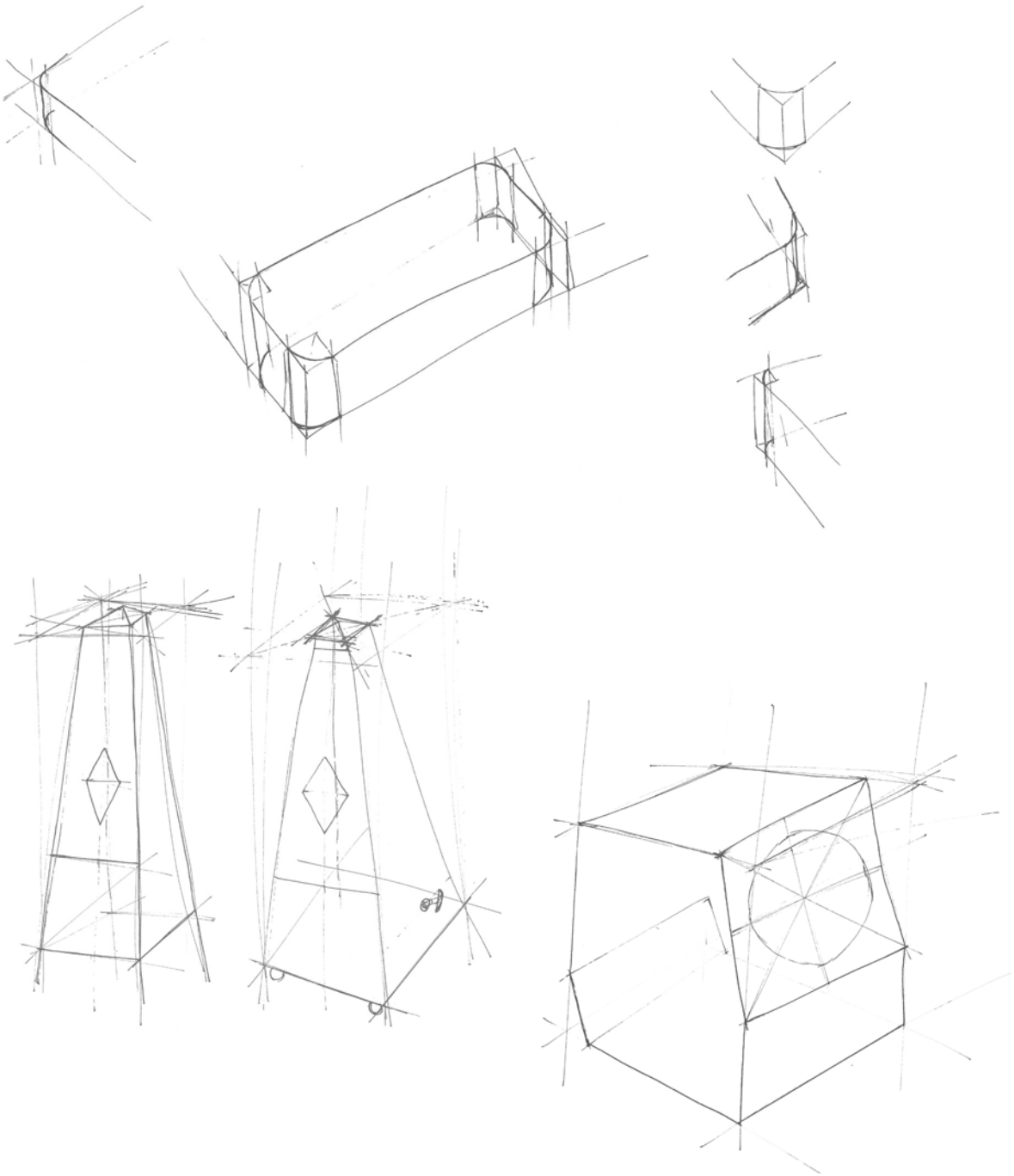
form abstraction.

All artificial products can be abstracted into primitive forms. As a designer, aiming to create products yourself, you should first be able to recognize these forms and understand the way they are used to compose an artefact. This was pointed out by the lecturers by an imaginary walk around the campus, and the exercise to draw different objects along the way.
This made me aware of this analysing way of looking, which enables me to easily find primitive forms, so I understand the form of an object and therefore can remember it.

During the lecture, the principles of sketching were explained. As I had never sketched before, I eagerly took the tips and tricks and red the provided literature (1).

By combining the two major lessons of this week (abstracting and sketching) I now am able to visualize objects in my mind and know how to sketch them on paper.



form abstraction sketches

wall socket.

This week's exercise was to make an exact copy of an old-fashioned wall socked. Therefore, I put in practice the skills I already gained. I observed and abstracted the form to analyse of which parts the socket consisted. By sketching and drawing the proportions and dimensions right I created a clear roadmap to work from.

During this assignment I learned to work with different wood working machines: the planer, router, drill, table saw, trimming saw and sanding machine. I continuously used the calliper to check the dimensions. Practicing these practical skills gave me the confidence I can make objects very precisely and in a professional way.

This exercise was also the first time the students had to run the whole cycle of cutting, gluing, sanding, panting, puttying, sanding and painting etc. This process made me aware of the love and care you have to put in the object, to get the smallest details and finish right.

wall socket

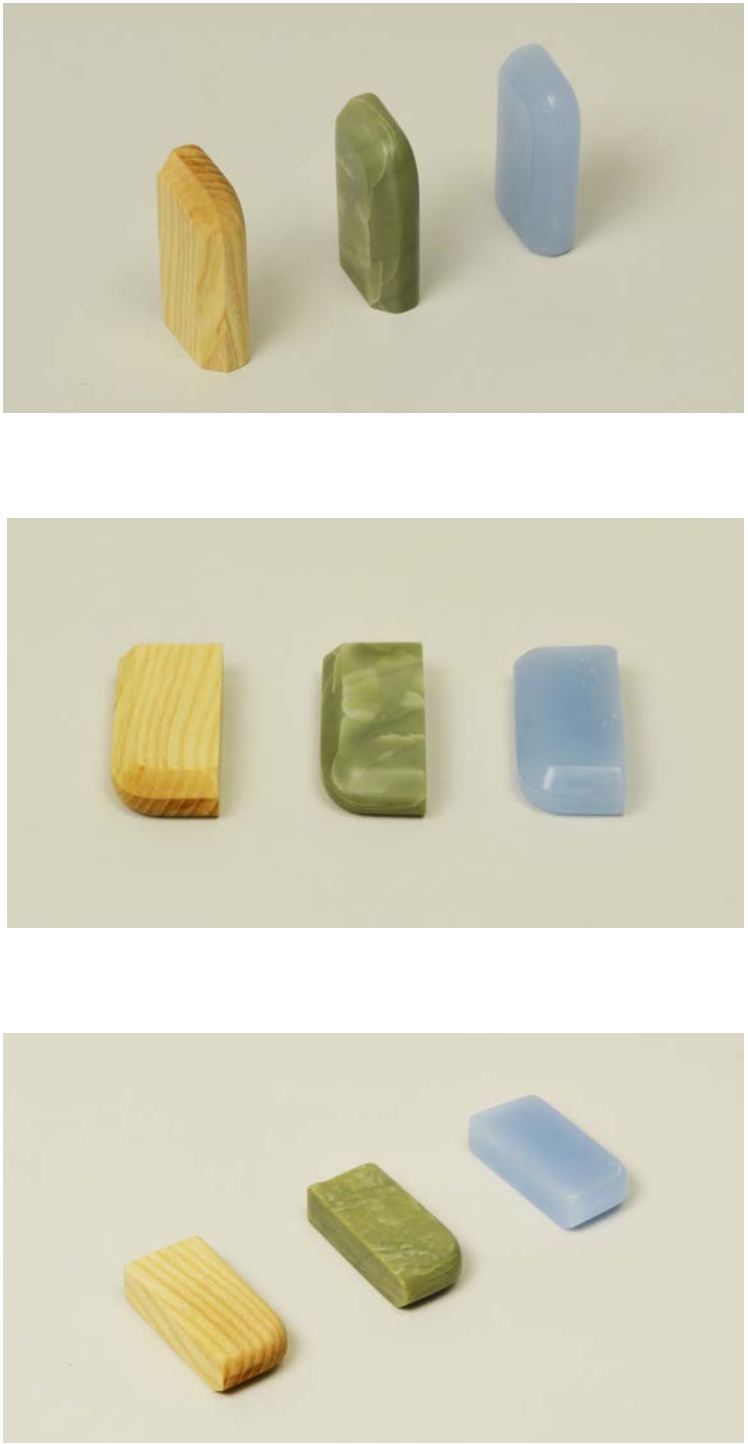
material study.

Form is not the only aspect that gives an artefact expression. Using the right material is equally important. To understand the properties of different materials, the students had to execute a material study, consisting of at least 3 times the same shape, made from a timber material, a stone material and a material by own choice.

I chose ash as the timber material and used the woodworking machines I described earlier. The soapstone was made only with hand tools. For the candle wax I made a mould based of algae powder, using my wooden object as the negative.

Stone was the favourite material to work with, because using the hand tools made me feel most in control of the object. I experienced that the woodworking machines are the most quick and precise to work with. The least appealing method to me was using the mould. This technique can either go perfectly right, or completely wrong, ending up correcting all the flaws in the mould.

This exercise showed me that different materials have different expressions, and change the way a design is perceived. I developed a broad view on which materials can be used for a prototype, and I am confident I can choose the right production technique for a material.



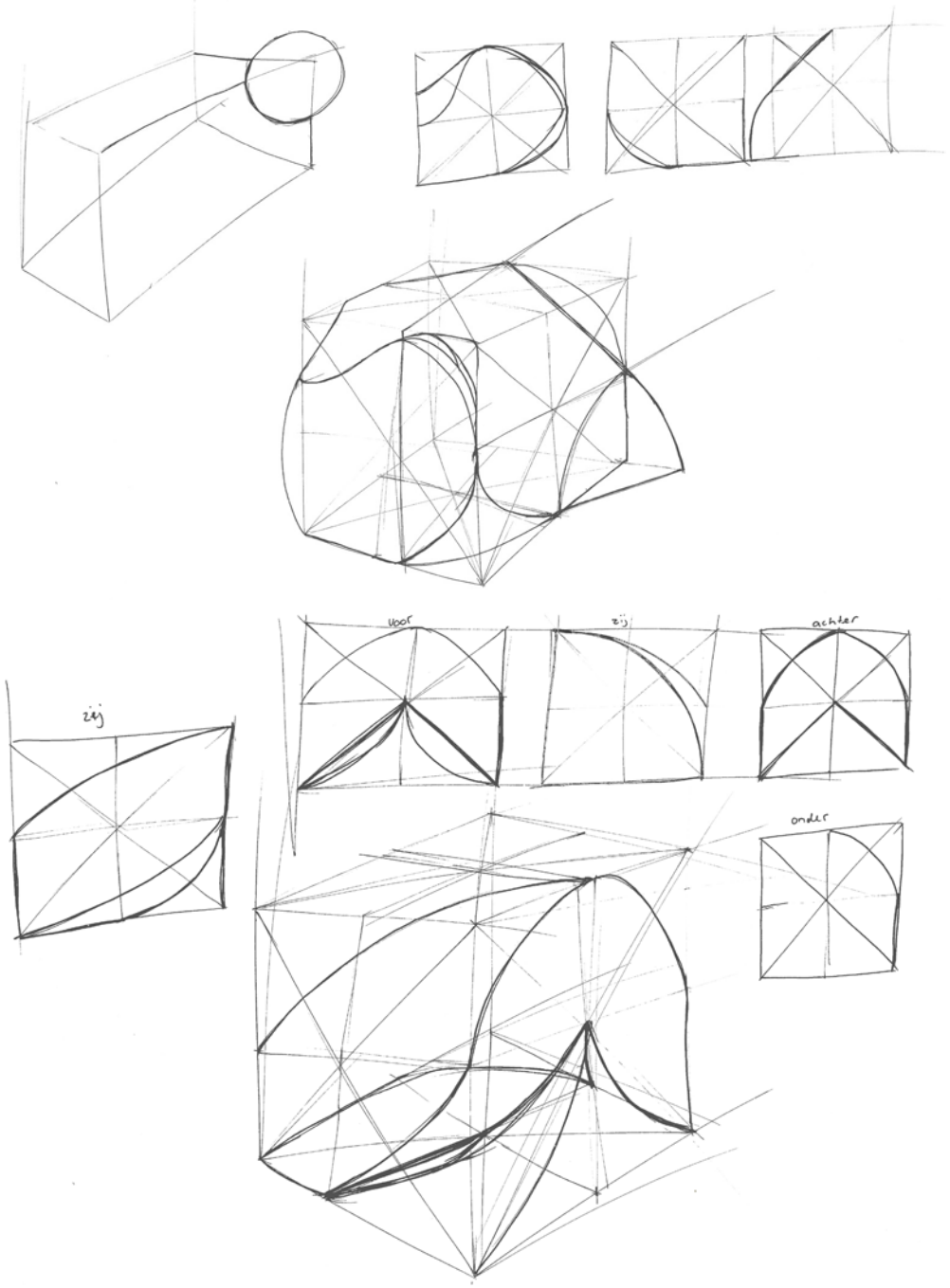
material study: ash, soapstone, candle wax

form integration exploration.

As the course had already covered three exercises learning us to analyse, sketch and make existing objects, it was time to let the students create an object themselves. The design should be an integration of a round and an angular shape, and should be of high clarity, definition and finish. The first part of this exercise consists of explorations of the form integration.

I truly struggled with this assignment. It was confrontational to experience that my sketching skills were of such a low level that I was not able visualize my ideas, which demotivated me. I had not the patience to sit down and practice sketching without any output that was pleasing to me. I clearly set my expectations two high within the time frame that was available to me that week.

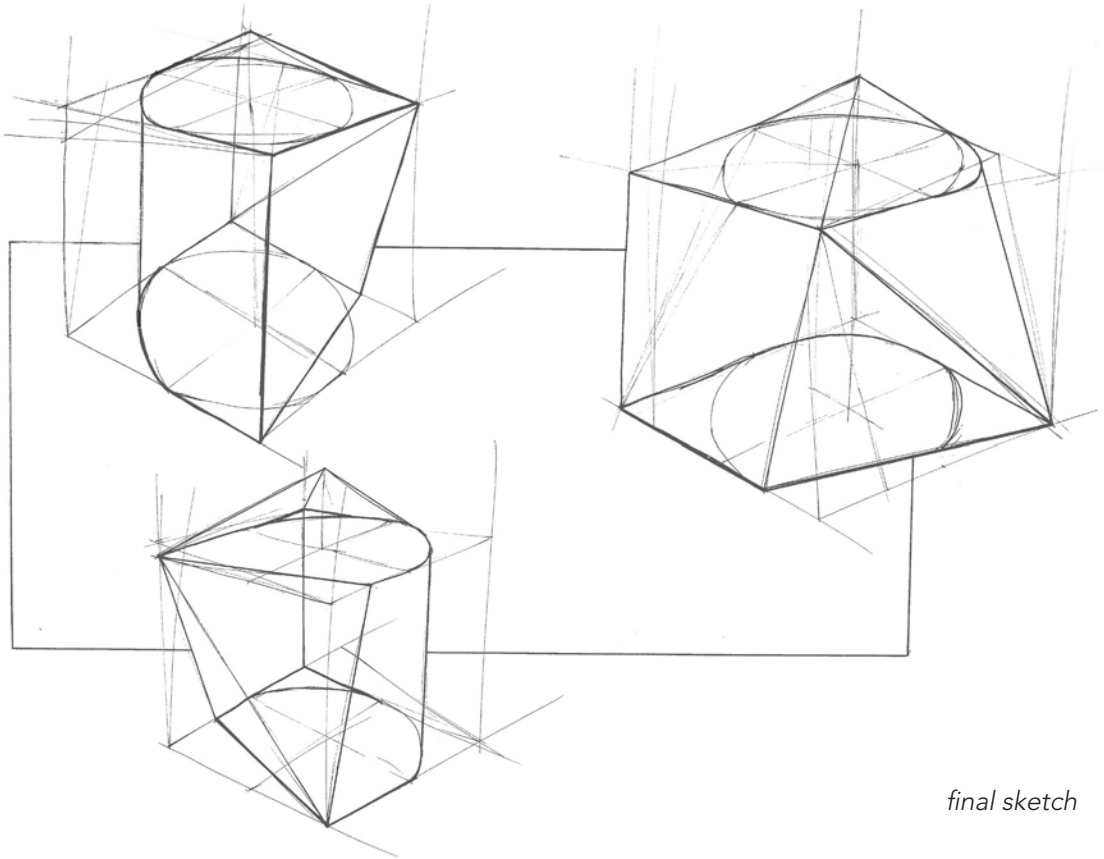
In class, I received valuable feedback that helped me to push through: I had to start with two basic shapes and create a nice composition. From there on I could start playing with the lines to create an interesting design that should reflect the dynamics that I found interesting. If I still felt unable to sketch in 2D, I could try to sketch in 3D, using clay or foam to experiment with different compositions.



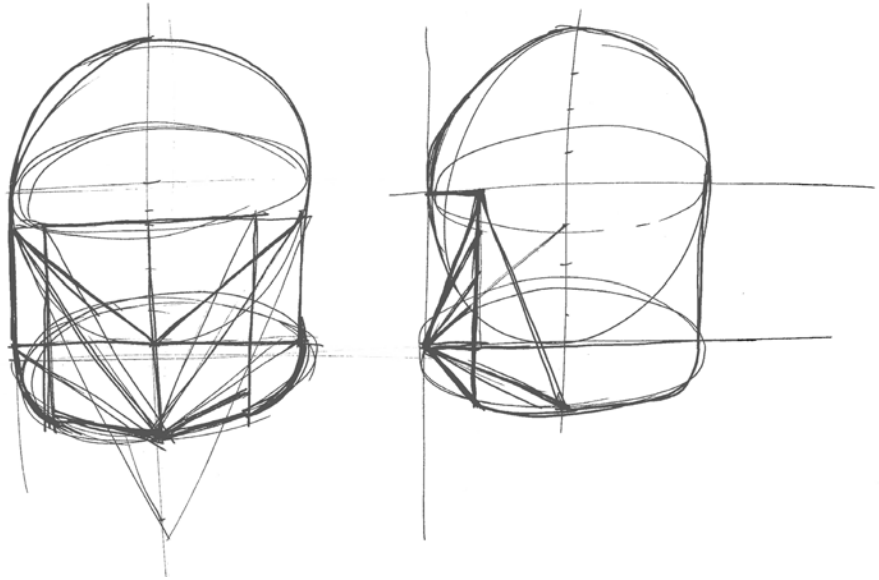
form integration first sketches

iteration.

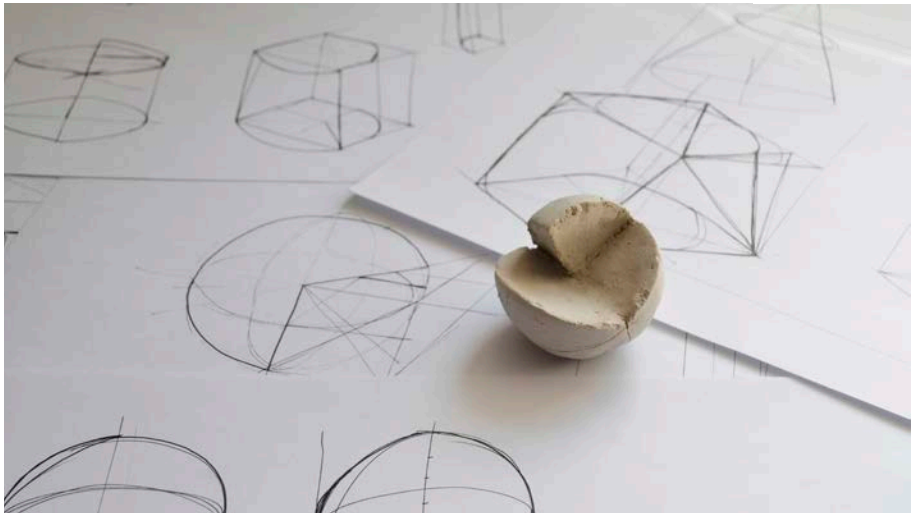
I proceeded as suggested in class and made a 3D model in clay. Therewith, my attitude was more positive, and it was easier to see potential in the objects I sketched. I ended up with a fairly nice sketch of an object that was fairly interesting to me.



final sketch



exploratory sketch



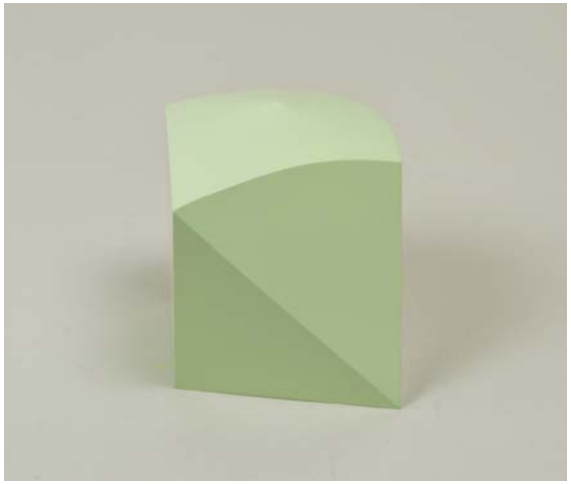
clay model and sketches

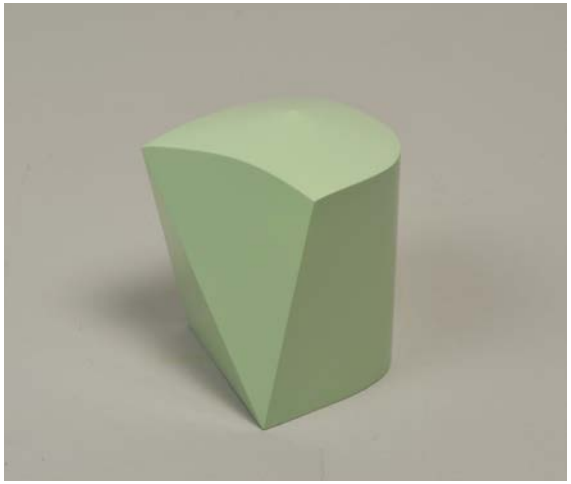
physical form.

The physical design has to match the following criteria: clarity, definition and finish. The clarity of the design is mostly covered in the exploration phase and tells the story of how the two forms are integrated. In a well-defined design sharp lines are razor sharp, smooth lines are smooth and the forms speak for themselves. The finish is about the outside of the design: smoothly sanded, properly puttied and perfectly painted.

This design is an integration of a cube, cylinder and a cone. The overall feedback I received was that the design really works. The shape is quite bulky, but the minty green colour and eggshell finish make the design light. The sharp flowy lines and well defined tip of the cone make the design playful and interesting from all sights.

On clarity the shape is not as convincing as on the other criteria: by cutting the edges of the cube diagonal, the cube is almost lost. Definition is done perfectly, and however the finish is already done very well, it could have used another layer of spray paint.





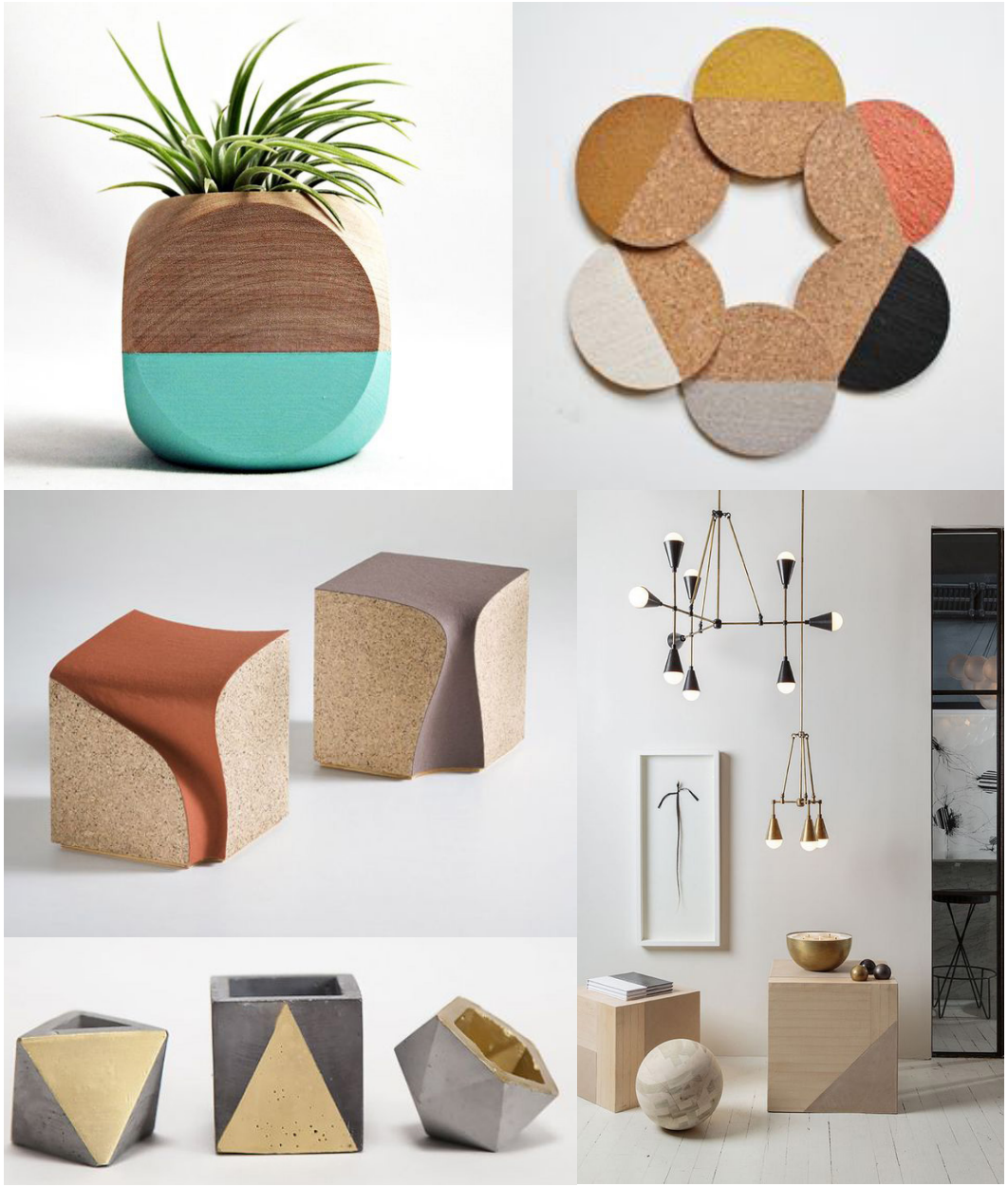
sideviews and detail of the final form integration

extension cord exploration.

In this last exercise all knowledge and skills gained in this course had to come together; analysing, abstracting, sketching and making had to be done as learned an practice in the previous weeks. But this was not all: all aspects of the final design should fit in one form family. A form family can be created by using similar,- or the same details, size, colours, materials, proportions, or design strategy in one object or a series of objects. All aspects should receive design attention.

I started this assignment by making a moodboard, that gave me a clear atmosphere to work with. The moodboard gives a playful, simplistic and warm feel, so my concept should match with these aspects.
I wanted to bring simple joy in the switch of a power socket. To find out how to do this, I looked back at the original concept of switching on and of power in an electric circuit.

Due to a poor planning, the exploration was not finished in class. Although I had a clear direction, I did not have any sketches of a design yet. Therefore there was not much to receive feedback on. My direction was approved, and I had to proceed sketching.

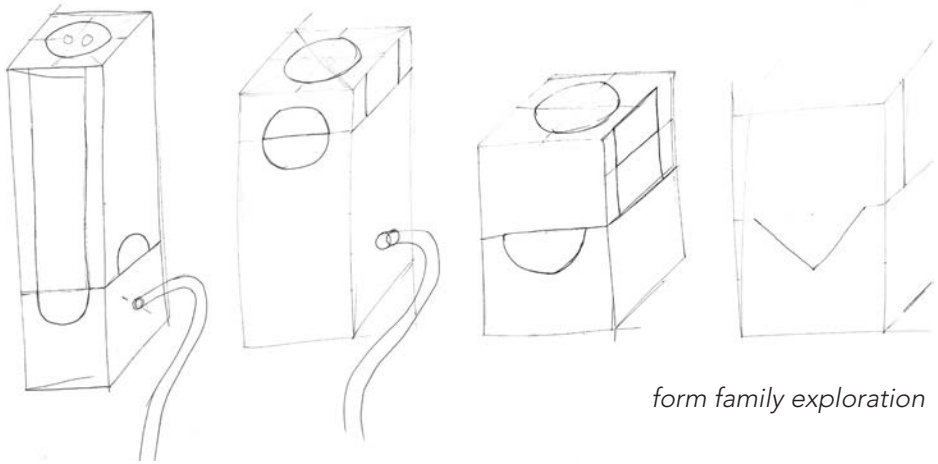


extension cord exploration moodboard
(all sources can be found in the references)

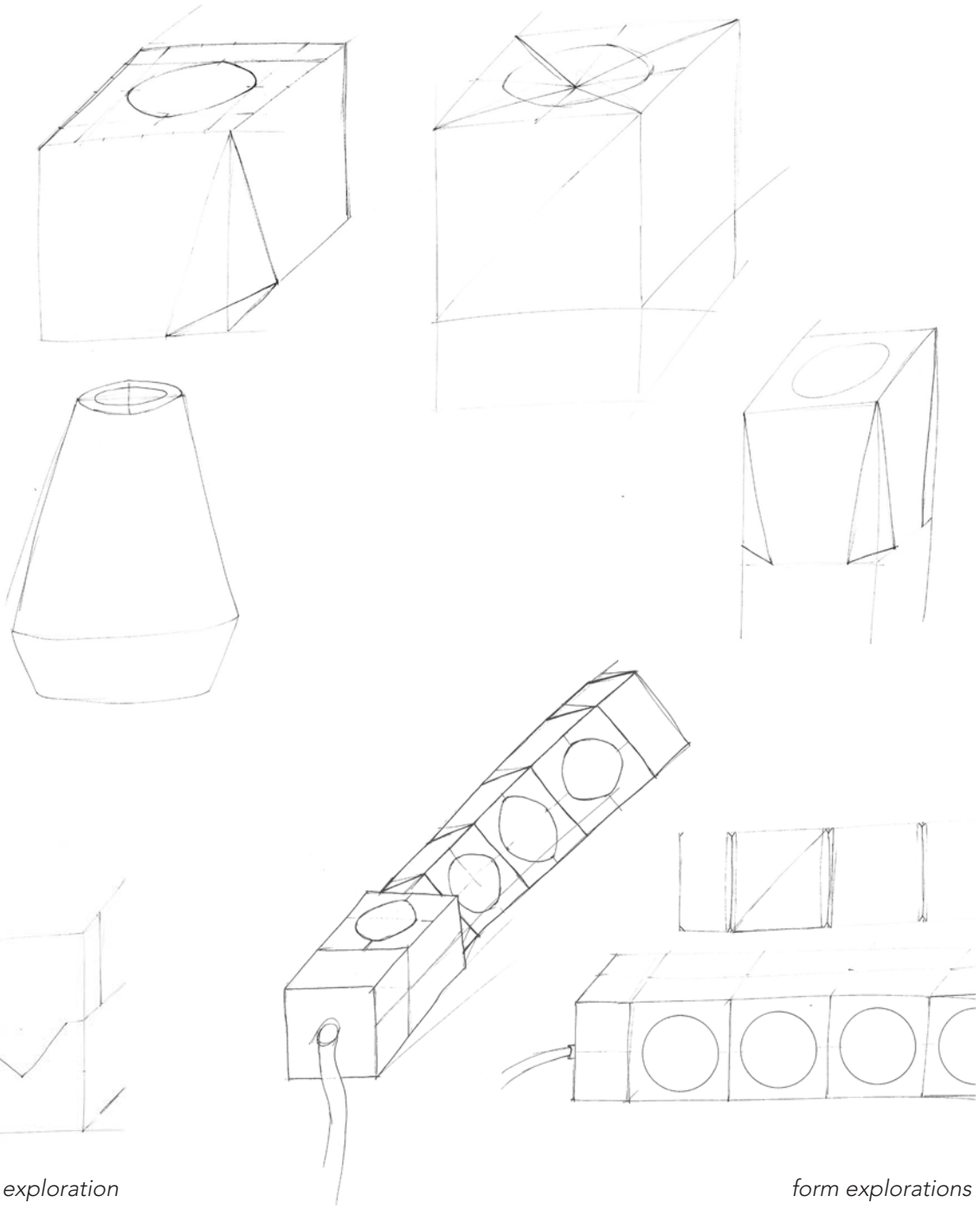
iteration.

I started sketching a power socket that could click on all sides, but this looked too similar to a regular power socket. When I looked at the moodboard, I decided to create a set of three extension cords that would be a family all together.

Concept: The switch is visualised by the shapes cut out in the cork: if the two half circles form one circle (a closed shape) the switch is closed. If the half circle on the bottom and the long beam on the side form a shape (an open shape) the switch is open.



form family exploration



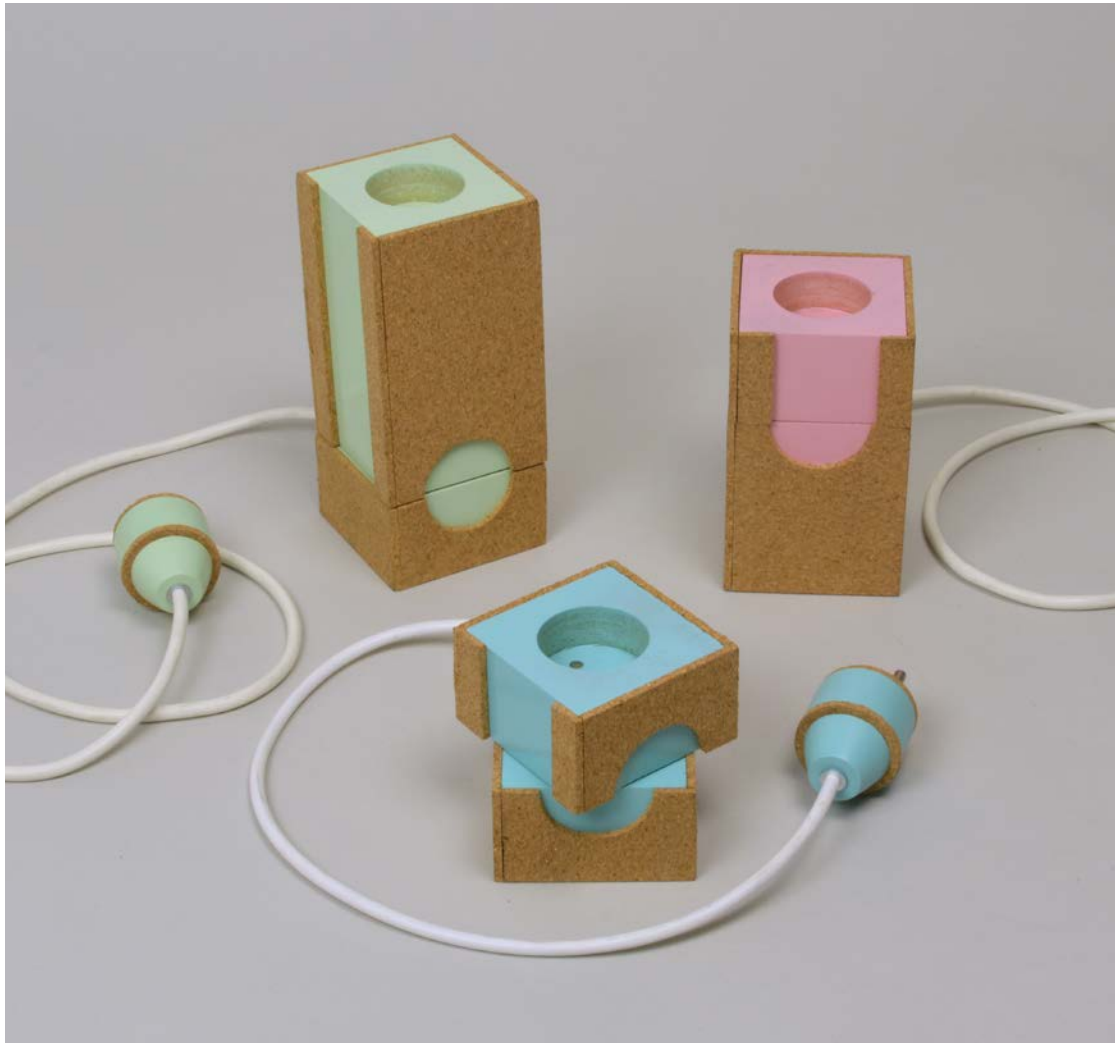
form explorations

final extension cord.

At the end of this assignment, I wasn't satisfied with the end result. I knew that the finish of the final design was not perfect. Also, the cotton cables I ordered were not delivered in time, so I had to use plastic cables to finish my design. I wasn't satisfied with the colour scheme either: I wanted a pastel-citron-yellow instead of the bright blue, but the paint shop did not sell that colour in the same finish. I could have prevented all those disappointments by a better preparation. I recieved feedback on the clarity and finish of the design.

Clarity: The concept is good and the function of the shapes is clear, however, the rest forms that appear while turning the base do not have a function, and therefore can be confusing or distracting.
I made this decision on purpose: I did not want to create another shape only than the 'switch-shape' on the base, to keep the design calm and clean.

Finish: Although the bottom and sides in between are painted well and the transition of the socket to the cord contains a well thought detail, the finish should have been better: the inside of the sockets is rough and the cork is not cut perfectly straight. Also, the green and blue shade do not fit together.



final design

reflection.

Attitude:
This elective made my study attitude more pragmatic. I am a perfectionist, and although this character treat helped me during this assignment to push through the exercises, I realized that often it is not feasible at all to aim for perfection. Health comes first. I saw that I have to set my own boundaries to the workload of this study, because no-one is going to do that for me, as most lecturers and coaches aim to learn you as much as they can. I still have a lot to learn in finding a balance between studying and other activities, but as I have clearly encountered the downside of working too hard, I can now feel better when to stop.
As I designer, my attitude has become more confidant. Last semester I struggled with my identity, because I had not found my expertise in designing, or aspects of designing I liked most. This assignment showed me that I have a natural, critical aesthetic eye that enables me to create aesthetically pleasing objects. Thereby this assignment showed me the joy of making and creating beauty, and gave me confidence that I am able to do so. I found that I am much more of an 'form and senses – student' than something else. Because this aspect of designing energizes me most, I am going to look for an internship where I can develop this aspect even more next year.

Skills:
Obviously, I mostly gained practical skills: woodworking with different machines, stone working, moulding and the whole cycle of prototyping with MDF (cutting, sanding, primer, puttying, spray painting etc.). Now I experienced this hours of prototyping myself, I appreciate craftsmanship even more and it has taken an important place in my visions as a designer.
During this assignment I also made a first start with sketching. These skills are not on the level I would like them to be; I am not able to convert the ideas and views in my mind into sketches that communicate the same ideas. But, as I had never sketched before, I had to start somewhere. Looking at the sketches I made during this course I definitely think I have grown, but I still need to practise way more. For now sketching is more of an obstacle than a tool within a design process, and that definitely has to change. I now understand the importance of sketching which motivates me to carry on sketching myself. I now know what and how to practice.

Knowledge:
I know that the lecturers would have liked me to deepen my knowledge on design (history) by reading Burdeck's book. But this really was impossible within the limited hours of these 8 weeks. As I participated in the assignment 'design history in global perspective' earlier in my studies, most information I briefly scanned was not new to me. Therefore I decided to focus on the more practical assignments and leave the book for my summer holidays.
This assignment taught me what can make a person a designer, and where they make the difference in any phase of the design project: it begins with an analysing way of looking to understand how objects are made and look for opportunities to create objects that do not already exist. Then comes the ability to sketch and visualise these ideas in a convincing and informative way, giving all features design attention. The ability to prototype the object perfectly, no matter what kind of material is another characteristic. Presenting the object in the most desirable way takes the object to a higher level, and finally photographing the object so that all features are documented is the last step of a design process. I believe I touched upon all these phases, and now know how to execute them like a real designer should.

references.

1) Basic Sketchin techniques for the Industrial Designer - Thomas Valcke, version 1.0

2) moodboard from left up to right bottom:

Cube Planter in Teal, source:
http://www.dotandbo.com/collections/tulums-casa-xixim/cube-planter-in-teal/?campaign=type276&content=201306&medium=HardPin&source=Pinterest

Cork Coasters, source:
https://www.etsy.com/nl/listing/185262748/onderzetters-van-kurk-handbeschilderd?ref=sr_gallery_42&ga_search_query=cork+coasters&ga_ship_to=AU&ga_page=4&ga_search_type=all&ga_view_type=gallery

Eroded Stools by I M Lab, source:
http://retaildesignblog.net/2013/01/27/eroded-stools-by-i-m-lab/

Mini Set Cube, Octahedron, Icosahedron, source:
https://www.etsy.com/nl/listing/257758845/mini-concrete-geometrische-gold-vaartuig

Aparatus Studio, source:
http://www.yellowtrace.com.au/apparatus-studio-manhattan-new-york/