DG690: Basic Formgiving Skills

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Abstract
In this portfolio I will describe my progress during the assignment DG690: Basic Formgiving Skills with scans and photos of my deliverables during the first semester of academic year 2014-2015. The deliverables consist of sketches and photos of the designs made for this assignment. As stated on the OASE website: 'The assignment teaches students to learn form-language as the medium through which we communicate. Using a series of hands-on exercises on the act of making it is taught how giving form to an artefact is a continuous dialogue between eyes and hands, driven by quality and craftsmanship.'

Keywords
Form family; form integration; form-language; form and senses

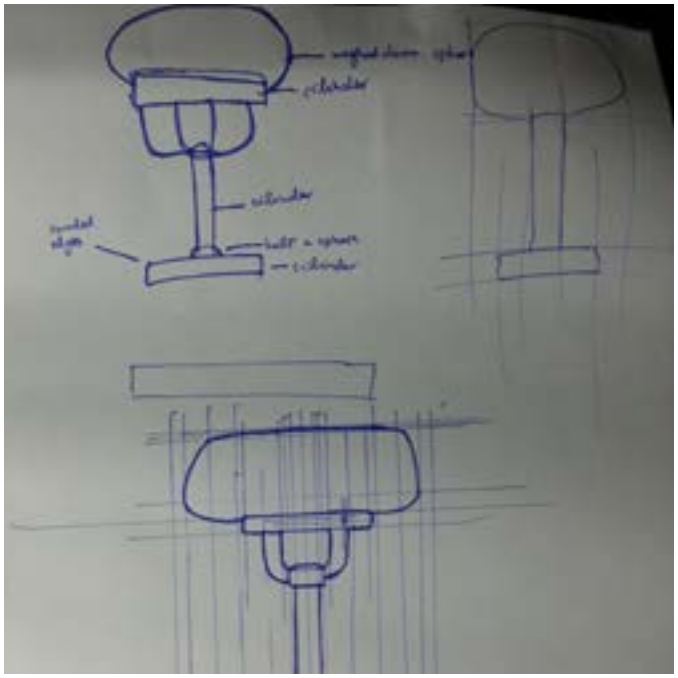
DG 690, Jan 09, 2015 Eindhoven, Brabant, Netherlands


FINAL DELIVERABLE OF THE BASIC FORMGIVING SKILLS ASSIGNMENT:
DESIGN AND PRODUCE A POWER BRICK

Week 1 & 2: Sketching and Abstraction

In the first week we tried our hand at observing and reproducing. We were taken on a walk through Eindhoven to observe various objects that we had passed on this trip. When we had returned to the classroom we were asked to reproduce some of these objects, when it struck me that it was very hard for me to remember those as I just looked at them instead of breaking them down in basic forms, a process called form abstraction. Because I have no past history with sketching I started off by drawing basic lines. I slowly made my way up to drawing the basic shapes, squares, cilinders, spheres. With this newly gained skill I tried to redo the initial assignment, which went a lot better than the first time. The next assignment was to choose three existing products and build them up in four stages of abstraction. I chose for an African Djembé, a traditional British phone

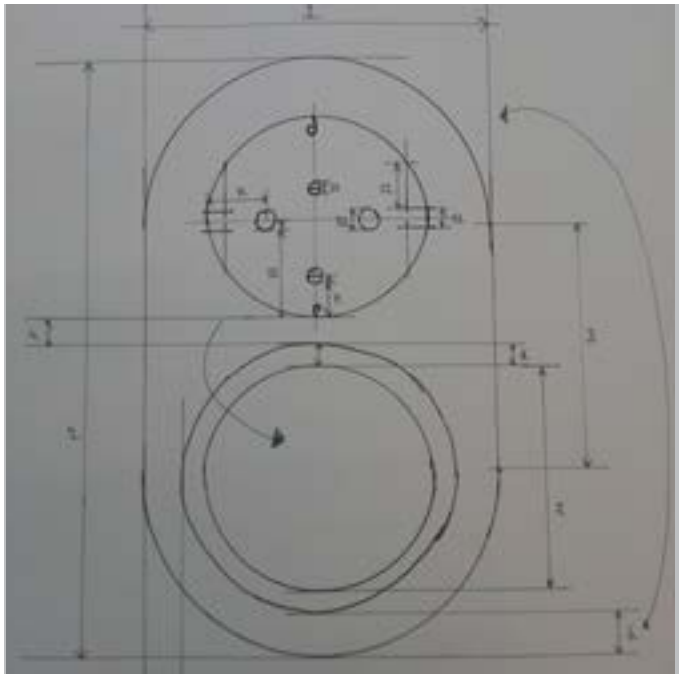
box and a retro table lamp because they are built from easily recogniseable basic shapes. When drawing, I quickly learnt to draw points for reference, which made the process of drawing in multiple stages of abstraction a lot easier. I also learnt to draw 'from the shoulder' instead of drawing with my wrist, as that helps you in achieving straight, non-scribbly lines that are thin. It's important to start off with thin lines, because you can always make them thicker, but once you have drawn some thick lines, you can't make them any thinner. I started using construction lines to be able to draw better perspectives. When I drew multiple perspectives on one page I learnt that I could connect those by drawing a frame throughout the picture. You can draw attention



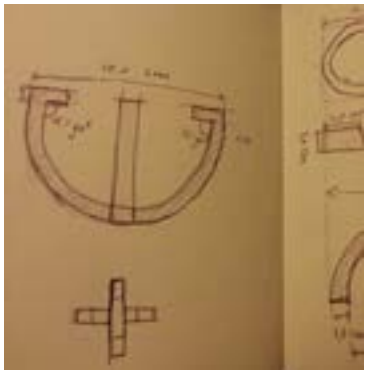
to certain details by making the perspective stronger, because it makes specific parts of your drawing a lot bigger. When I was about to finish a drawing I made the outlines of a product thicker and I added a subtle shadow to lift the object from the paper and to give it a realistic look. I tried to describe every object from different perspectives. This helped me get a better understanding of the proportions. Something that has also helped me out immensely was practicing certain movements 'off the paper' before I put the pen to the paper, especially circles and ellipses look so much better when you practiced the shape beforehand. Always finish your sketches by adding the date on the bottom so you'll be able to see the progress you've made along the way.

Week 3: Copying a power outlet

This week we got the task to copy an existing power outlet in an 1:1 scale. The most important aspects to this assignment were the ..., the definition and the finish. I started off by making a broad sketch of the outlet. I measured all of the sizes using a sliding calliper, and I wrote them down in a table on the page of the sketch I was working on. When I got all of my measurements I made a list of things I needed to do and the tools I would need to do that. My plan was to make the power outlet out of Medium Density Fibreboard (MDF). As Vertigo only sold the MDR in thin plates I had to make my model using multiple layers of MDR. By doing this I learnt the importance of proper sanding: if the surface isn't smooth the paintjob will never look good again. I also learnt that making mistakes pre-paint isn't that bad, as you can still fix some errors by using (spray-) putty, it just takes a lot of time to make it level by sanding. After I made the model I decided to do the paintjob by using white, acrylic paint, applied by

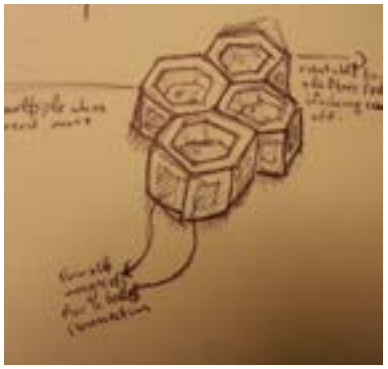


a paintbrush. Later on I learnt that this was not a great idea, as this leaves brush strokes and several irregularities. Using spray paint is a much better alternative to painting with a brush because you get a much smoother paint job as a result. You can use different types of paint to your advantage in different styles of designs, a matte paint tends to hide irregularities much more and can be well-suited for designs with many roundings. Glossy paint reveals every single flaw, so you should only use it if you're very sure about your finishing skills. When it is done properly it can look very good. During this assignment I started to notice much more intricate details to everyday designs. There are a lot of details to the power socket we had to copy, especially in rounded surfaces. All in all, I thought that the finish was the hardest part. A finish can make or break a project. Before applying paint, make sure all the surfaces are level. When using spray paint it's important to use many thin layers with a regular sanding sessions, as thick layers can produce paint drips that can totally destroy your design.


Week 4 & 5: Form Integration

This week we got an assignment to combine a rectangular and a circular object in one good looking object. I started off by doing some exploratory sketching. As I had a hard time coming up with a form integration I decided to take things into 3D. I made some basic shapes out of MDF and mashed them together. Finally I got the idea of exploring the concept of negative spacing. I made a spine of a circle, all with parts that have been cut off by cubical shapes. As there are a lot of rounded shapes in this design I took quite some time with the sanding, as I wanted a nice finish to make the definition clear. Little did I know that I was about to make a huge mistake: I did not use a primer on the MDF before spray-painting. As MDF is a quite irregular material without a clear structure, it tends to soak up a lot of the paint if a primer isn't applied before hand. As I had used an acryllic paint in the past project I wasn't aware of the need to apply a primer. Painting a non-primed surface of MDF gave me a very irregular finish, which really took away a lot of the details of the design. For designs, details are very important. Straight intersections need to stay straight to create a better contrast. I was also reminded of the importance of colors on designs, as I decided to use a yellow color for the main design and a white paint for accessories. The general consensus was that the color scheme

reminded everyone of beer, which I saw a negative as I didn't want my design to be associated with that because I had aimed for a clean, sterile look. The presentation of a product can also help the reception, using a contrasting background can make your design stand out more, and it can be used to get the crowd to feel the theme you need them to be in. The concept of my idea was well recieved, but the finish was a real let-down. If I had a good finish on the product my design would be a real trophy. I learnt that planning is a vital part to the design process, as it gives margin for error that you don't have if everything is done at the last moment.



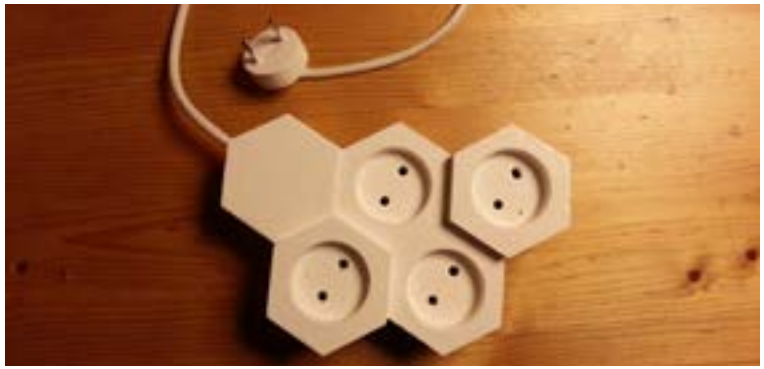

Week 6 & 7: My own form family

The final assignment was to make a series of products which all were connected to eachother as they shared the same form family. Intrigued by the possibilities of this assignment I started thinking about it, and I decided I wanted to use this in my advantage, as I wanted to make a modular design. After some exploratory sketching and research on natural repeating patterns I wanted to try and make a hexagonal pattern. The power brick had be adaptable to the user's needs. The thing about repeating patterns is that it can look very plain and repetitive, so I had to think of some way to make it interesting. I couldn't alter the width and the depth, but I could make different heights for the product. Because

I still wanted the people to identify it as a power brick I chose to have a white color. I think a white color looks clean and tidy, which corresponded with the general thought I wanted to pass on with my design. till wanted the people to identify it as a power brick I chose to have a white color. I think a white color looks clean and tidy, which corresponded with the general philosophy I wanted to pass on to the users with my design.

I personally think the definition in my final design was clear, but the entire thing still looked a bit stale as it didn't have much variety in it's shape. If I had to remake it I would add more details to the entire thing by using multiple, contrasting colors/materials and by making different modules. I could for example make a module with USB-slots instead of the power pins, and I could make a switch for the main module.

I am quite fond of the contrast created by using real wood paired with a matte color, so I think I will combine those in a design for the future.



Conclusion

I think I have made the right decision by enrolling for DG690: Basic Formgiving Skills as I feel like this entire assignment has been a massive help for my development as a designer. I have gained quite a bit of visual communication skills, as I can now succesfully visualise my thoughts on paper by building it up from the abstract forms. By attending the classes and reading up on design history in the book I now know that a design should be balanced, if you add an element to one side, you should even it out by adding or subtracting a similar element on a corresponding side.

Whilst working on the second assignment, the one where we needed to copy an existing design of a power output, I have learnt the importance of the planning and the measurements before you start creating your product, and I have gained a different attitude towards design; you should measure at least twice before doing something, and the finish is extremely important. By doing this assignment I was introduced to the basics of woodworking like sawing, drilling and most importantly sanding. I have learnt different techniques to make a wooden product look nice by using putty, paint and even lacquer.

This assignment has introduced me to aspects of design that I didn't know before like form abstraction, form integration and form families. It's been a massive help for my Form and Senses competency as I do not only know how to create better design, but also have a better way to be able to sense what will look good and what won't look good by using the things learnt during this assignment. A design should help the product function better, that's why you will most likely not instantly notice absolutely brilliant design as it should communicate the message instantly. I will definitely be applying my improved skills

on my designs in the future. This assignment has helped me pay more attention to intricate details, and it has helped me to appreciate all those small things that I did not notice earlier. I have learnt about the importance of a good presentation, and the effect a brilliant finish has. This assignment took quite a bit of time but I think it was worth the investment as it will not only help me improve the finishing designs, but also the design process itself as it has given me new tools to explore designs.

Acknowledgements

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References

[1] Bernhard E. Burdek (2004) 'The History, Theory and Practice of Product Design.'