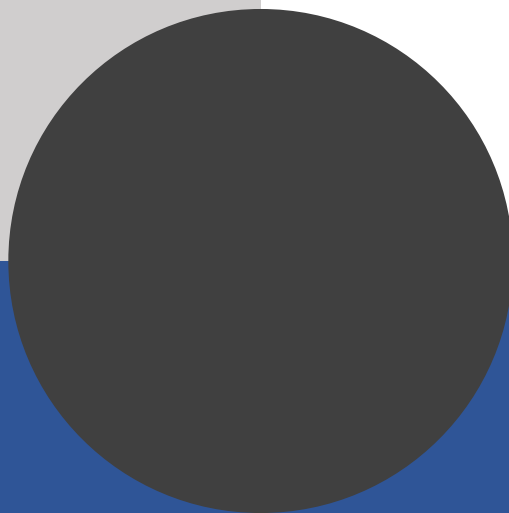


DG490

Design History in  
Global Perspective

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Assignment Report  
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# INTRODUCTION

I want to learn about designs that are already made. I believe that there have been amazing people out there, who looked at the world in their own way, and created their own views. I want to learn about these people, the ideas they have, and how they influenced our life. I want to explore the world of great, influential thinkers. Broaden my view on design and society, so I can get to know the world of design, and therefore the world we live in. I am eager to understand important developments in society and analyze the role that design played in it.

All those wanderings and thoughts, those bits and pieces I want to learn from great thinkers will help me to create my own vision on society.

# DESCRIPTION

This assignment introduced me to the story of modern design and its social-cultural context. I began to explore my whereabouts as a designer. This assignment consisted of a theoretical and a practical part. Within the theoretical part, we analyzed the work, historical background, ideology and political background of several important designers and presented the literature research we did. Our assignment group consisted of four presentation groups, which had to do a different research each week. At the end of this assignment period, we had seen 17 presentations within our assignment group, and we were asked to do two more individual literature researches. This report contains reports and reflections of all these different case studies. First I summarized the studies, and then reflected on the information, trying to formulate why these information can be useful to me as a designer.

Within the practical part, we had to design an object for the Rietveld-Schröderhuis in Utrecht. It had to be an object that wasn't already there, and it had to be in line with the ideals of Rietveld and de Stijl. This report also contains a reflection of the design process I went through.

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# THE INDUSTRIAL REVOLUTION

Industrial design as we now know it, started with the industrial revolution in England around 1750. During that time, England was a nice place to live. It was peaceful and quiet, in contrast to the rest of Europe where the French Revolution had just begun. Intelligent people like James Watt and Alexander Bell had in England the time of their life to think and invent life-changing technologies. There were made great inventions: the steam engine made it possible to mass produce products, and due to the metal can it was possible to eat fresh food when food supply wasn't enough to feed everyone. The lightbulb made it possible to work day and night, so that the night became an active part of the day. All these inventions made life much easier, and as a result of that, the human population exploded.

This case study helped me to understand the development of the industrial revolution better. I gained insights in why the revolution started in England, learned what inventions were done and discovered what influence these inventions had on society. I believe this knowledge is important to in industrial designer, because the industrial revolution is the start of industrial design and therefore created our way of life as we now know it.

# TALORISM AND FORDISM

As the industrial revolution spread out all over the western world, it found its place in America, where Frederick Winslow Taylor and Henri Ford improved the efficiency of factories.

Taylor designed a production process within the factories. His ambition was to make factories as efficient as possible, by cutting the production process up in small pieces. Every man in the factory did one small piece of the process, that fitted him well. In that way the workers enjoyed their job and wouldn't give them stress. Taylor believed happy workers were efficient workers, because stress gives problems, and problems are the biggest enemy of efficiency.

Henri Ford was the creator of the assembly line, which made production processes much faster and more simple. In fact that simple, that everyone could do the work in the factory. Even women and children. Fords vision was that uniformization was the key to efficiency. He put is vision into practice in the Ford factory in Detroit, which was named after him. There, Ford designed everything: the product, the production process, the assembly lines, everything that he needed to make the factory as efficient as possible. The product, the Ford automobiles, had one uniform base, only the very last finishes made the differences between several models. In that way, the factory was able to produce automobiles very fast and efficient.

As a designer, it is important know the historical background of your profession. Production processes are an important aspect of designing and therefore I am glad this presentation showed me the two pioneers that shaped factory work.

# ARTS AND CRAFTS MOVEMENT

Beside every big change in society will grow a counter reaction. And so did the Arts and Crafts movement. This international design movement, led by the English avant-garde designer William Morris, had objections against the industrialization. Morris found that by the industrialization products had lost their beauty: they were not handcrafted anymore, and therefore they had no longer a soul. People in the industrial revolution are not living in harmony anymore, with the products they use, and with nature. They didn't have the control on their making processes anymore. He saw, as one of the first sustainable minded designers, that the industrial revolution created disharmony between the production of products and nature. He was very concerned about the damage the industry was going to do to nature. And history proved he was right.

William Morris was influenced by the Marxism: He believed everybody has the same conditions. He wanted to produce hand crafted products that were affordable for everyone. In his workshop he offered jobs and paid his workers more than they would earn in a factory, to compete with factory work.

I discovered that William Morris is a great inspirational designer to me. I am really impressed by his vision and the way he stood up against the mechanization of society. His vision feels right to me and at most points even recognizable. Therefore the knowledge I gained due to this presentation will definitely help me to shape my own vision on society.

# CHARLIE CHAPLIN, MODERN TIMES

Another artist who had critique on the industrial revolution was Charlie Chaplin. In his movie he expressed his doubts on the mechanization of society. It scared him and he had the feeling that the mechanization twisted flesh into steel. He saw that it were not the people who controlled the machines, but the other way around. People began to live serving machines, instead of the other way around, as he believed it should be. A famous quote of him tells us: 'Machinery should benefit mankind, it should not spell tragedy and throw it out of work' .

I believe this view of Charlie Chaplin is still very up to date, as we are now living in a time of digitalization. In my opinion, the current digitalization of society shows clear parallels to the mechanization of society in the time Chaplin lived. Back then, our bodies began to serve machinery. Nowadays, our minds begin to serve the internet. Chaplin believed that mechanization itself isn't a bad thing, only the way it is used to make money isn't right. I think this can be applied to digitalization, like Dr Robert Caillau explained in his lecture.



Me and my presentation group made a presentation about Charlie Chaplin and his movie *Modern Times*. We introduces the audience to the plot of the movie, sketched the societal context the movie was made in, and explained the relevance of Charlie' s vision in Design. Finally we placed Chaplin' s vision in our own societal context and showed the parallels between mechanization and digitalization. We brought together this information in a prezi-presentation, clarified our story using YouTube fragments of the movie.

The feedback we received afterwards was that we made a great presentation. The content of our presentation was cohesive and clear, the YouTube videos we used added more value to the presentation. The visual presentation and the content were one unity and we showed that we worked together very well.

Another point of feedback was that I had to participate more actively during the other presentations by asking more questions.

# BAUHAUS

This world famous institute was the birthplace of modernistic design. It brought art and design disciplines together to its fundamentals. The artists that belonged to the Bauhaus did a big amount of research on the use of colors, forms, shapes and materials. They also described the relations to each other of these 'building bricks' of art, and the senses of them. Important artists were Walter Gropius, László Moholy-Nagy, Marianne Brandt and Paul Klee.

This is only a small and incomplete summary of this case study, because I didn't make that much notes during this presentation. During my art classes in secondary school I did an extensive literature research on the Bauhaus institute, so parts of the information presented were a repetition of knowledge I already had. But all in all I became even more aware of the fact that the Bauhaus institute has had a massive influence on the design, art and architecture.

# DIETER RAMS

A German designer who worked for Braun. He formulated 10 design principles:

Good design

- should be innovative
- makes a product useful
- has to be modest
- is honest
- is long-lasting
- is consequent in the last detail
- is environmental friendly
- is to design as little as possible

During the presentation we took a look at some of the designs of Dieter Rams, and compared it to designs of Jonathan Ive. We had a meaningful discussion on what good design is, and what makes a design a good design. What really stuck to my mind was that good design shouldn't feel like it is designed. It should feel completely natural, that natural, that no-one can think of a way of improving it, because it's perfectly right the way it is. So the question you have to ask yourself while designing an object should be: why is my design the way it is, and not something else? I believe this 10 design principles and these insights in designing will definitely help me to make good decisions while designing, and to overthink and improve my future designs.

# SCHOOL OF ULM

After the second world war, there was a 'design vacuum' in Germany, because the members of Bauhaus had fled to America. There was a need for youngsters with great ideas to make new designs. In this period, the school of Ulm emerged. This experimental design school, influenced by Bauhaus and the arts and crafts movement, developed its own model to teach art and science: the model of Ulm. In the school of Ulm art and technology are combined. The school of Ulm shows parallels to Bauhaus, and within design history these schools are equally important.

I remember that the historical and political background were explained very clearly, and that I listened very carefully, because I had never heard of the school of Ulm before. I found the model of Ulm inspiring and it seemed to me that it is a great education model that teaches students to develop a broad view on society. But I don't remember any design of the school of Ulm, and except its education model, I cannot describe particular design features of this school. The notes I made during the presentation give me no further information than I wrote here above. I can't tell why this school is influenced by Bauhaus, or the arts and crafts movement, or why Bauhaus and the school of Ulm are equally important in design history. I can't link the school of Ulm to other movements in design history, although I can't imagine that there are no links to be made. So I have the feeling that I didn't learn as much about this topic as I should.

# NORMAN BEL GEDDES

As we now covered the most important design movements in Europe, it is time to look at some great designers that shaped America. One of them was Norman Bel Geddes. He designed the installation 'Futurama', for New York's world fair in 1939. Futurama was a detailed scale model of a city as he envisioned a city would be like in 1960. Back then, it was very futuristic.

After world war two, the American soldiers that came back from combat needed a new start. A new city, a new way of life. And, as Norman Bel Geddes envisioned these new cities, they decided to build new cities based on the Futurama design. In this way, Bed Geddes shaped the lives of many Americans.

Norman Bel Geddes is an inspiring mind to me. I admire his courage to envision the future, in a realistic way. He did not style or restyle products, but he designed a whole society. His visions about transportation gave shape to the world we now live in. I believe that the world needs people like Norman Bel Geddes to shape society.



## RAYMOND LOEWY

This American designer is known as ‘the father of industrial design’. He restyled almost every product in America, and was responsible for world famous logos of coca cola, shell and lucky strike. He had a great talent for marketing. He knew very well what people wanted to buy, and made these products. But he also knew very well how to present his product on the market. Raymond Loewy was a business man as well as an graphical designer. His simple and strong logo designs are still used today.

My presentation group had to present on Raymond Loewy. We made another presentation, because we got very positive feedback on the presentation about Charlie Chaplin. We showed Loewy’s vision, some of his product designs, his logo designs and his designs for transportation.

The feedback we got afterwards was that we had to focus more on the question why Raymond Loewy is important for us, as design students.

## BUCKMINSTER FULLER

The third week of our assignment we focused on very diverse designers and design movements. The first designer was Buckminster Fuller. This man is known for his many innovative ideas, like the geodesic dome and dymaxian map. He also wrote a book: ‘operational manual for spaceship earth’, where he explains his vision on how to live on earth in world peace and wealth for everybody. He wanted to design technology that brings the biggest advantage for others. I also found his way of designing very interesting: He didn’t went on from the results of things before, but created from the active way of doing. He always took a close look around him, analyzed the problems he saw very adequately and then designed the solution.

I believe the way Buckminster Fuller looked at the world and designed his solutions is very beautiful. I admire the way he just goes his own way, designs from scratch without looking to object that are already there.

# CHARLES AND RAY EAMES

After world war two, when American soldiers came back from Europe, there came a baby boom. Because of the baby boom, the Americans needed cheap housing very fast. Charles and Ray Eames began to design for this need. The most important criteria in this process was that the houses were lovely to live in. Beauty wasn't the first need, although they believed it is definitely a part of good design. Charles and Ray also designed much furniture. They wanted to design mass products that fit a mass of people.

I am really interested in the vision of Charles and Ray Eames. The reason why they want to design and what they want to design is quite recognizable to me. I think I can learn a lot from the excellent form giving skills and their vision on society. The knowledge I now have about the designs of Charles and Ray Eames will definitely influence my own vision on design.

# SCANDINAVIAN DESIGN

Scandinavian design is characterized by the following aspects: mass production, minimalistic design, modernistic design and simplicity. The most famous design company is Ikea. Their products are designed for the Scandinavian way of life. Lightning for example is really important, due to the long and dark winters. Or entertaining: in Scandinavia it is common to invite your friends to come and have dinner all together at your own house, therefore it is important to create flexible living spaces, that are cozy and warm.

Ikea has a prominent place in the life of many people, also in my own life. I am quite familiar with Ikea, but also with the Scandinavian way of life. Although I already knew most of the information presented on this topic it was helpful to see this information all put together. It gave me a clear overview on the design vision, and the products that originate from it.

## ITALIAN DESIGN

After the second world war there emerged a design movement in Italy called 'radical design'. These designers were sick of the boring, modernistic designs. They wanted to make design more fun and more colorful. One of this designers was Ettore Sottsass. He longed to liberate design from the tyranny of smart, but soulless good taste in design. He gave leadership to the Memphis group, a post modernistic design movement that broke violently with the modernistic visions.

In our presentation we pointed out the life and vision of Ettore Sottsass, and some designs of the Memphis group. As conclusion we wanted to start a discussion about the influences of modernism and postmodernism in present-day design. But, it turned out that we hadn't explain postmodernism clear enough. The other students didn't knew what postmodernism was, and we ended up with the conclusion that the influences of modernism are more present in temporary design. I believe this shows that we tackled the setup of this discussion in a bad way. We chose to set up a discussion because we already had some interesting discussions about different design statements. But this discussion didn't work out the way it was supposed to.

## MARCEL WANDERS

Because we couldn't come up with clear examples of post modernistic influences in temporary design, we had to present on Marcel Wanders, who is a post modernistic designer. We explained his view and pointed out some of his most post modernistic work. We got a second opportunity to describe postmodernism, and I believe we succeeded.

Although I dislike Marcel Wanders as a person, I admire his ability to bring many aspects together in his designs. The past, present and future of Holland, the Dutch identity, the function of the design, and the form and sense of it. Marcel Wanders links everything together in a clear story. He underlines the Dutch identity and gives us the feeling that we can be proud of it. I believe that we should not only be proud of our identity, but also of the fact that Marcel Wanders is a Dutch designer.

## DROOG DESIGN

Droog Design is a Dutch design platform that gives designers the opportunity to show their work to the world. It brings together designs with the same vision. Droog stands for no-nonsense design, often playful and open minded. Many Droog designs criticize the prestigious world of design, while they are definitely part of that world. Within the assignment group we had a meaningful discussion about this statement. Some students found Droog design hypocrite, some thought that it was never the purpose of this agency to become a prestigious and expensive label. I believe that Droog design has a great marketing strategy and made the right designs at the right moment. I also think that the principles of Droog design are a fashionable trend.

## MVRDV

These Dutch architects design buildings in which they want to connect the use of space in the best way possible. They don't design from traditional ways of using space, but they start from scratch and create new ways of using space. To achieve this, they developed their own design process which covers all aspects of designing they need to design for society, such as collaboration, clarity, economy, green and urban. Great examples of buildings that MVRDV designed are the Markthal Rotterdam and the China Comic and Animation Museum.

I found the projects of MVRDV very interesting. The way they connect the functions of a building to the use of space is clever, fun and very efficient. I believe that the way MVRDV is looking at society and create solutions for it by architecture is the right way to go. To me it is very inspiring that they show that it is possible to design architecture that completely fulfills the need of our complex society.

## JACQUES FRESCO

I have to admit that I don't remember much from this case study. Jacques Fresco is an old man now, but can still speak very well. He has a daring and comprehensive view on the world, but I am not able to explain this view. Although I found his TED-talk inspiring and interesting, I can't remember anything of his ideas. I am going to watch his TED-talk again when time is there.

## DON NORMAN

I watched the TED-talk of Don Norman, 3 ways that good design makes you happy, where he explained his theory. The first way is beauty: A design has to be appealing to your eye. In fact, it has to be that beautiful you want to own it. A design also has to be functional: a delight to use and it has to give you the feeling that you are in control. It also has to be reflective. This part is about the impression you as a user want to make, about the image it gives you. Apparently, it makes you happy to impress people with the products you use.

Don Norman has a clear view on the needs and the trends in the current society. He makes clear observations and is a charismatic figure. But I don't believe his vision on beautiful design will change the world or inspire people to do so. In his TED-talk he shows the audience little bits of beauty and delight that are made by others, but I don't see if he is capable of designing products himself. From this talk I got the feeling that he observes, analyzes and thinks, and then tells others what to do, instead of applying these insights by designing products himself.

I also read a summary of the book 'living with complexity' and I watched one of his online lectures on this topic. Again he shows his biggest talent: being a great observer, he really sees the big picture. His studies on how to deal with complexity are useful for the world of design. I am glad I know that there are people thinking about these problems and can formulate their thoughts and analysis very clearly. But I think that his guidelines have no big value for me as a first year design student to apply in the projects I have to do.

# JOHN THACKARA

This man is also a great observer. He has a good feeling on which people he has to bring together in order to create meaningful discussions. This man also can write very well. The book he wrote 'In the bubble' is about modern day visions on design and technology. He doesn't focus on guidelines for a beautiful design, but he shows us a more broad and abstract way of thinking, that will lead to beautiful designs.

At this stage, it will take me a bit more time and thoughts to clearly understand the visions Thackara describes. I am not able to formulate the subject Thackara describes in my own words, so I guess I do not fully understand the points Thackara wants to make. But, as the book is not as hard to read as I expected, I am definitely going to read the whole book.



The Rietveld-Schröder house

## DESIGN PROCESS REPORT

## VISIT

On the 3th of December I visited the Rietveld Schröderhuis in Utrecht. This world famous house is designed by Gerrit Rietveld and based on the ideals of De Stijl. Truus Schröder, a good friend of Rietveld, entrusted Rietveld to design a home for her and her three children. It was a bold experiment in creating a new way of living: Soberness was the most important keyword. Truus wanted to live in the house, and not be lived by the house. This means that the house should be very flexible, light and airy. To achieve this, Rietveld designed the house like a three-dimensional composition of planes, designed from the inside of the house toward the outside. In his asymmetrical compositions, use of primary colors and black, white and grey, he accentuates the sense of space even more.

When I wondered around in this house, I felt quiet and a bit cold. The signature of Rietveld is that everything has a function, and only a function. Everything is brought back to function. There is no place for ornaments, little personal memorabilia or other objects that make a house a home. On top of that, Rietveld accentuates the wide, open space in his designs. So what is left in one big emptiness, filled with nothing but functions. The Rietveldhouse has everything you need in a house to live a comfortable life, except emotional comfort. Therefore, I wanted to design an object which gives warmth to the open spaces.

## BRAINSTORM

I started to think about ways I use in my own house to make it more cozy, like curtains, carpets, pillows and paintings. I also looked at 'something to do with light', because I believe light can change the feeling of a room in a very simple and efficient way.

I narrowed down my options:

Curtains didn't work, because Rietveld already made panels you had to place in front of the windows that kept out the light at night. During the day these panels were placed on the walls were they accentuated the functions of the space. Carpets were already there were they were needed the most: under the beds there was grey felt on the floor, so the floor doesn't feel cold on your feet when you step out of bed.

Cushions have no primary function in the living room, rather than look nice. This is not in line with the ideals of De Stijl, so the pillows weren't a great idea either. And the same goes for paintings. So the most vague idea of 'something to do with light' survived. I kept thinking of light. Lightbulbs give a nice yellow and cozy light. But there were already lamps in the Rietveldhouse. But what bring light and warmth together: fire. The Rietveldhouse needed candles. I was going to design a candle holder, which would be placed on the dining table in the living room.

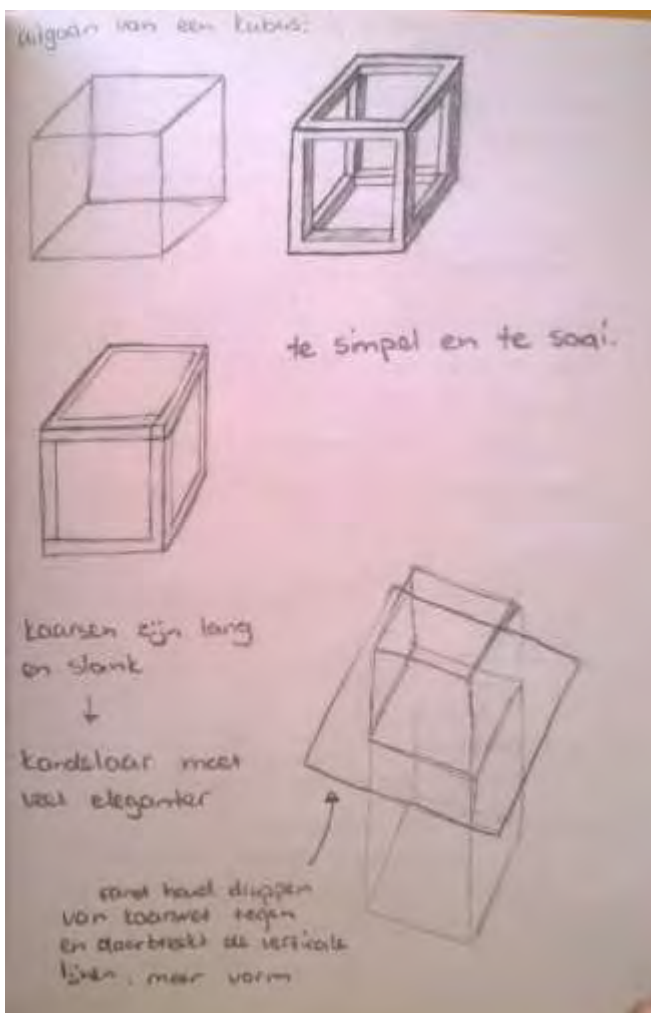


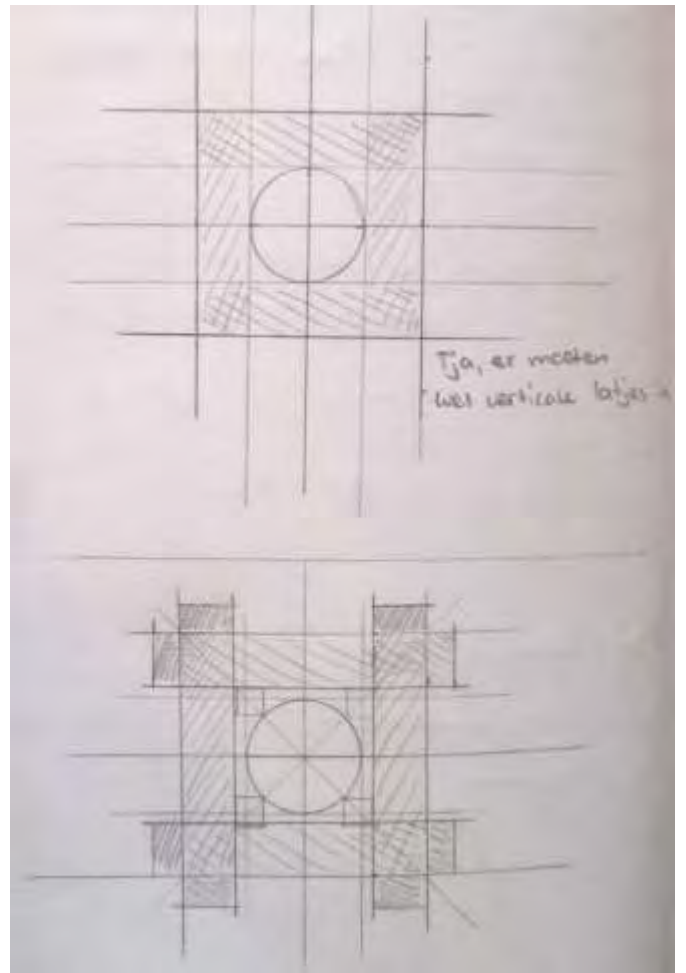
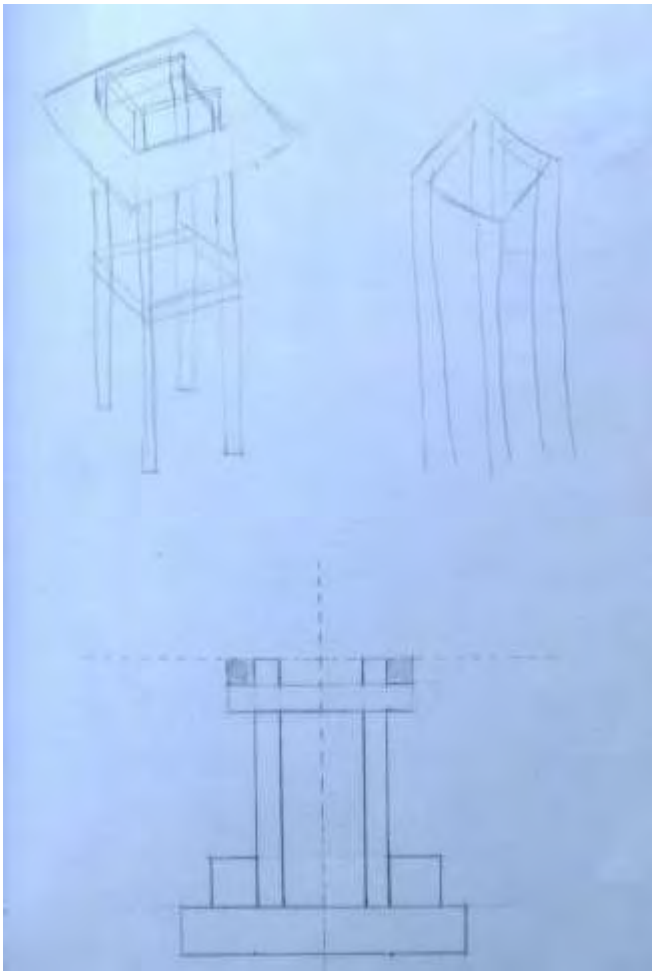
# PROTOTYPING

It's not about the materials, but about the space they make visible.' – Gerrit Rietveld

Rietveld believed that object shouldn't be big and massive blocks that fill the space, but only the use of materials that show the space. Objects should be transparent and clear.

I began sketching and making:



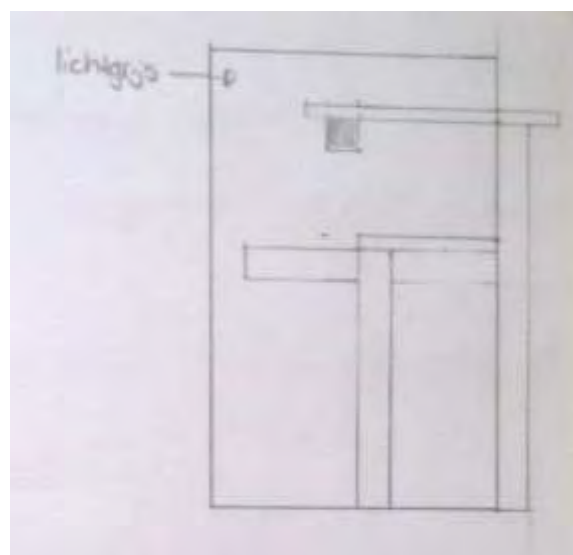
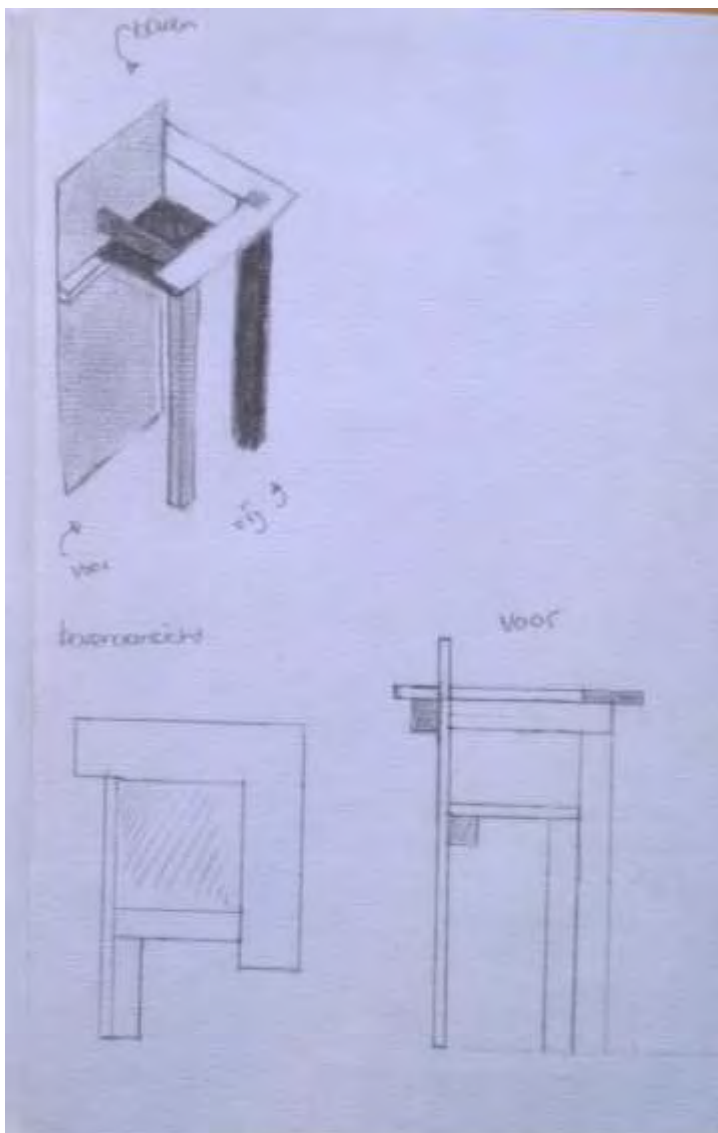




I discovered that I didn't like the symmetry in this designs. My little candle holder had to be more playful and stand more on its own, instead of only supporting the candle. I looked at more designs of Rietveld and I fell in love with the Berlin chair. I really liked the asymmetric lines and planes.



With this design in my head I sketched some more, and made some real-size sketches from different views, so I had all the measurements. I sawed all the bits and pieces and glued them together.





# COLOR

I didn't like to primary colors, because they draw very much attention. I wanted my design to be modest, quiet and subtle. So I chose black and white, and two shades of grey. Although the candle is a primary color, I think that the dark blue complements the grey shades very well.



# FEEDBACK

The feedback I got during my presentation was that I had a clear story. I thought very well of the decisions I made about the quiet colors. The shades I used complemented the function very well.

After the presentations I adjusted my design once: first, the dark grey leg in the front was light grey. But I found that it disappeared into the big grey plane, so I painted it dark grey. Now the leg stands more on its own and gets the attention it deserves: it is the only leg supporting the candle directly. Therefore it definitely has to be seen clear.





# REFERENCES

Austerlitz, Saul. (2010, November 16). Modern Times: Exit the Tramp. *Criterion*. Retrieved at November 20, 2014 from

<http://www.criterion.com/current/posts/1656-modern-times-exit-the-tramp>

Chaplin C. (1936, February 6) *Modern Times*. VS: United Artists

Charlie Chaplin . Retrieved at November 20, 2014, from

[http://en.wikipedia.org/wiki/Charlie\\_Chaplin](http://en.wikipedia.org/wiki/Charlie_Chaplin)

Designboom (2000-2008). Raymond Loewy. Retrieved at November 27, 2014 from

<http://www.designboom.com/portrait/loewy.htm>

!

Design Museum. Ettore Sottsass. Retrieved at December 4, 2014, from

<http://design.designmuseum.org/design/ettore-sottsass>

Emeco (2008). The life and times of Ettore Sottsass. Retrieved at December 4, 2014 from

<http://www.youtube.com/watch?v=iMDwp03xDv>

!

Estate of Raymond Loewy. The father of Industrial Design Raymond Loewy. Retrieved at November 27, 2014 from <http://www.raymondloewy.com/>

Ettore Sottsass. Retrieved at December 4, 2014 from [http://en.wikipedia.org/wiki/Ettore\\_Sottsass](http://en.wikipedia.org/wiki/Ettore_Sottsass)

Loewy, R. (1951) *Never leave well enough alone*. New York, NY: Simon and Schuster.

Marcel Wanders. Retrieved at December 11, 2014 from

[http://nl.wikipedia.org/wiki/Marcel\\_Wanders](http://nl.wikipedia.org/wiki/Marcel_Wanders)

Marks and Spencer (2012). Marcel Wanders Design Story – Marks and Spencer 2012. Retrieved at December 11, 2014 from

<http://www.youtube.com/watch?v=JnkyFnU9L5I>

Moore R. (2014, May 18). Ettore Sottsass: The godfather of Italian cool. Retrieved at Decemer 4, 2014 from

<http://www.theguardian.com/artanddesign/2014/may/18/ettore-sottsass-review-godfather-italian-cool-memphis-collective>

Norman D. (2003). 3 ways good design makes you happy. Retrieved at December 28, 2014 from

[http://www.ted.com/talks/don\\_norman\\_on\\_design\\_and\\_emotion](http://www.ted.com/talks/don_norman_on_design_and_emotion)

Norman D. (2010). *Living with complexity*. Massachusetts: The Mit Press.

Raymond Loewy. Retrieved at November 27, 2014 from

[http://en.wikipedia.org/wiki/Raymond\\_Loewy](http://en.wikipedia.org/wiki/Raymond_Loewy)

Roy Export SAS. Charlie Chaplin – official website. Retrieved at November 20, 2014 from

<http://www.charliechaplin.com/en>

Stedelijk Museum Amsterdam (2014), Marcel Wanders –Pinned Up Retrieved at December 11, 2014 from

<http://www.stedelijk.nl/tentoonstellingen/marcel-wanders-pinned-up>

DG490 – Design History in Global Perspective, Inhoudsbeschrijving. Retrieved from

<https://onderwijsso.tue.nl/Activiteiten/Pages/Informatie.aspx?courseCode=DG490&educationYear=2014&educationActivityInstanceId=87aa6573-2897-44c3-bf58-2caaacc2ca6e>

Thackara J. (2005). *In the bubble*. Massachusetts: The Mit Press. Retrieved from

<http://www.witz.com.br/textos/John%20Thackara%20>

[%20In%20the%20Bubble%20Designing%20in%20a%20Complex%20World.pdf](http://www.witz.com.br/textos/John%20Thackara%20In%20the%20Bubble%20Designing%20in%20a%20Complex%20World.pdf)

Truffault, P. (Producer). (2003). Modern Times.  
Retrieved at November 19, 2014 from  
<https://www.youtube.com/watch?v=5lp4EbfPATI>

Vara. (2014, January 27). Marcel Wanders, Pinned  
Up. In *De Wereld Draait Door*. Retrieved at  
December 11, 2014 from  
<http://irishond.nl/nl/home>

Wanders, M. (2006), Twenty-First-Century Design: New  
Design Icons from Mass Market to Avant-Garde.  
Retrieved at December 10, 2014, from  
<http://www.marcelwanders.com/about/writings/>

Wanders M. (2014). Knotted Chair – 1996. Retrieved  
at December 11, 2014 from  
[http://www.youtube.com/watch?v=E7\\_yTft89E8](http://www.youtube.com/watch?v=E7_yTft89E8)