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IM MASTERS DESIGN ACADEMY EINDHOVEN

## DESIGN IN TIMES OF CRISIS, REVISITED. thesis

Master Graduation Project

# DESIGN IN TIMES OF CRISIS, REVISITED. thesis

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IM Masters Design Academy Eindhoven June 2010 www.bartnijssen.com

## Abstract

Currently we are in an economic recession. We've all seen it on the news. Unfortunately we might experience it in our own financial situation. But does it have consequences for our work as designers? Does it influence the products we design? Can we still carry on like we used to, or do we need to adapt to these new circumstances?

In periods of crisis, be it an economical downfall, ecological crisis or any sort of scarcity, people tend to come up with creative solutions to take benefit of the situation. This concept can be captured in the one-liner: "Scarcity acts as a catalyst for creativity / innovation".

During the Great Depression companies started to hire more and more designers. In the United States they tried to make their product more aestethically attractive in order to raise the sales. In Europe the focus shifted to more functional and efficient product design. Also in later periods of scarcity / crisis we find examples of a shift in focus, to cope with these new circumstances.

Looking at the current situation this research tries to find traces and motivations why certain design decision were made in the products we use. When we understand those decisions we can grasp the goal of the design being like it is. An investigation in how people perceive these objects is presented that shows a clear set of indicators that account for reasons why people perceive some objects of better quality or cheaper price than others. Finally I conclude this thesis with a personal manifest. This manifest is inspired by the research into examples from the past and by the analysis of current design and it's perception by it's users. The manifest is based around the following principles:

(I) Products should be functional, (II) Products should be produced in an efficient manner, (III) Products should have no negative impact on the ecological / environmental situation and (IV) Products should be affordable for the group of people who need these products.

This personal manifest is not a set of rules that all designers should follow. I see it as my personal guide in which I constantly should be trying to find the right balance between these 4 principles.

These 4 principles are extra valid in 'times of crisis'. Especially in times when we have less, the right balance and paying attention to the right topics is of high importance. For long we took from the world what we needed, but since we are aware of the effects of our acts we should change the way we use it. This personal manifest is valid for the time we live in now, since it's build according all aspects of this research thesis. With this manifest I set myself guidelines for my future work.

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## Chapter 1 Introduction

Currently we are in an economic recession. We see it on the news and it might have an effect on our personal financial situation. But what consequences does it have for our work as designers or for the designs we make? Can we still carry on like we used to, or do we need to adapt to these new circumstances?

The year 2009 started with an article in The New York Times - Week in Review by Michael Cannell carrying the surprising title "Design Loves a Depression".<sup>1</sup> Only 3 days later The Design Observer came with a responding article by Murray Moss called: "Design Hates a Depression".<sup>2</sup> A sensitive and controversial topic it seemed. Without giving either one of the two my vote, both articles inspired me to come up with this project, which got the title 'Design in Times of Crisis, Revisited'.

<sup>1</sup> Michael Cannell, "Design Loves a Depression," The New York Times, January 4, 2009, sec. Week in Review, http://www.nytimes.com/2009/01/04/ weekinreview/04cannell.html.

<sup>2</sup> Moss Murray, "Design Hates a Depression: Observatory: Design Observer," http://observatory.designobserver.com/entry.html?entry=7757.

For me it is interesting to see how design is influenced by periods of downfall, the crises. Not specifically by the economic crisis we are encountering at this very moment, but my interest goes to the question if designers would / should make different products, different choices in the design-process or set a different focus is these periods. How do our products adapt to the time in which they are placed?

In this thesis I started with looking at the past. What can we learn from The Great Depression? Are there examples that show marks, influences or traces of the period of crisis? Are there other periods that asked for change, that due to scarcity became a call to action? As a focus I started working with the one-liner 'Scarcity acts as a catalyst for creativity / innovation'.

Guided by that one-liner I tried to discover if that is still a value in the world today. Are we still working with the same set of principles like efficiency, aesthetics, functionality and affordability, or has that focus shifted to a more economic influenced decision making process? Finally I created a personal manifest, which is based on the historic research blended with opinion and motivations I gathered with a catalog of details and questionnaire. On their own, each of these principles in this manifest are valid for a lot of industrial produced artifacts and products. Unfortunately, because of costefficiency in the production process and the ever-ongoing battle to produce as cheap as possible, a lot of compromises are made on these conditions, causing one to flourish on the cost of the other.

Enjoy reading,

Bart Nijssen

# "Crisis is a process of transformation..."

### Chapter 2 Initial research

#### **On Crises**

Inevitably we've all heard about 'the crisis'. It is all around us, first in the news, the papers and later in our own wallet. Today the economic crisis, credit crunch or Great Recession is having a great effect on the economic situation in most countries. For many of us being in a crisis is new, but it may effect our income, our job security or even our personal financial well-being. This current crisis is very much an economical issue, in it's origin but also in it's effects.

In general a crisis can be explained as follows; an unstable, sometimes dangerous social situation, that may occur on a personal or societal level.<sup>3</sup> Literature on crisis management also gives the following explanation: "crisis is a process of transformation where the old system can no longer be maintained." If change is not needed, the event could be described more accurately as a failure.<sup>4</sup>

<sup>3 &</sup>quot;Crisis - Wikipedia, the free encyclopedia," http://en.wikipedia.org/wiki/Crisis

<sup>4</sup> Venette, S. J., "Risk communication in a High Reliability Organization: APHIS PPQ's inclusion of risk in decision making" (Ann Arbor, MI: UMI Proquest Information and Learning, 2003).

Many of us may see a crisis as a result of the current situation, merely as an economic problem. But from my personal viewpoint the economic crisis isn't the only 'unstable social situation' we are encountering nowadays. The ecological issues around us concerning our own environment and the way we live in that environment is a situation which is of big importance. Next to that, I believe we could speak in terms of crisis about topics like globalism and consumerism. The world is losing it's identity, which, as a designer, concerns us in the uniformity of the products we use, the cars we drive and the food we eat. The consumerist world is only craving for more and more products, which results in piling up useless devices and products into huge landfills.

Within this project I work with the term crisis, in the broadest sense of the word. As I mentioned above to me a crisis is much more than the current period of economic downturn. It is about different emerging problems in the world we live and work in, where change is needed.

#### **On Scarcity**

When diving into the topic of different types and times of crisis I made the connection to scarcity. Scarcity; the fundamental problem of having human needs and wants, in a world of limited resources.<sup>5</sup> In the mentions of different types of crises above, I believe they all can be individually connected to a kind of scarcity. Simply put, in an economic crisis there is a lack of money, of jobs and of confidence in the banking institutions. In case of the ecological crisis there is a lack of ways to use clean energy or sustainable materials to use. The globalism issue shows there is a lack of identity.

#### Focus

This led me to the following insight; if people have less, there is a bigger need to come up with a creative solution on how to cope with 'having less'. In other words; if you have less energy, less money or less materials you need to use what you have in a smart way. I believe that this insight, which isn't new obviously, is a good starting point for an analysis on the way how we design, manufacture and use products these days.

<sup>5 &</sup>quot;Scarcity - Wikipedia, the free encyclopedia," http://en.wikipedia.org/ wiki/Scarcity.

This idea can be put into one sentence, that I will take as a focus in this project:

#### Scarcity acts as a catalyst for creativity / innovation.

Taking this as a focus means that I will look for examples of this 'phenomenon' in the past. I will analyze if this is still the way we work today, and how it can stimulated people in our own times to come up with more innovative and creative solutions to the problems our current crisis brings.

# Scarcity acts as a catalyst for creativity



## Chapter 3 History research

#### Introduction

Looking back can teach us a lot. By researching occurrences of crisis in the past I try not only to proof the one-liner "Scarcity acts as a catalyst for innovation / creativity", but I also want to learn from examples of designers, their thoughts and their designs in a certain crisis / scarcity related context.

Everywhere in history we see when people are in need, they come up with creative solutions. In this chapter I introduce a few historic events of crises and highlight examples of that time, in which the scarcity led to breakthroughs, innovation or new direction that had a certain impact on the design field.

#### The Great Depression

The Great Depression started in most countries around 1929 and lasted until late 1930s or early 1940s. The Great Depression was the longest, most widespread and deepest depression of the 20th century. It originated in the United States with the stock market crash on Black Tuesday (October 29, 1929). This crisis had a huge impact on almost every country, both rich and poor. Personal income, profits and prices all dropped and unemployment rose in some countries even to 33%.<sup>6</sup> Industrial cities were hit very hard, but also the rural areas were suffering because of the low demand for raw materials or finished products.

#### **United States of America**

To understand the state of design around that period we first have to take a look at the product market. Because in the United States the government was extremely cutting expenses to respond to the Wall Street drama, the purchasing power dropped very low. Commercial companies hired designers to increase the aesthetic value and luxury of their products. By doing this they tried to persuade the people to still buy their goods. They believed that making their products more beautiful their customers would be still interested in buying more of these new products. Also by representing them in postal-catalogs like Sears Roebuck and Wannemaker's, which had a huge circulation all around the country, they made their products available for the masses.<sup>7</sup> Between 1929 and 1935 numerous design offices started and had a very commercial background and attitude.

<sup>6 &</sup>quot;Great Depression - Wikipedia, the free encyclopedia," http://en.wikipedia.org/wiki/Great\_Depression.

<sup>7</sup> William H. Young and Nancy K. Young, The Great Depression in America (Greenwood Publishing Group, 2007).

The French (graphic) designer Raymond Loewy started his office in 1929, the crisis-year, but instead of having a hard time, after just a little while his office counted over 100 employees. Also, originally a theater-decor designer, Henry Dreyfuss started in the same year. Other well respected designers from this period were Walter Dorwin Teague, Norman Bell Geddes and Egmont Arens.

When we take a critical look at the range of products from the period described above we can conclude that design focused (by the demand of commercial manufacturers and companies) on the appearance of the products. There was no social aspect in the direction of the companies, since they strived to increase their sales by pursuing people to buy more products (with the help of design) instead of making their designs more affordable and more efficient in production terms or raw material use. The products only seemed to use even more material than before and complex production techniques.



Design from the United States of America Henry Dreyfuss, Vacuum Cleaner, Model 150, 1935



Design from The Netherlands Mart Stam, S43 for Thonet, 1931

#### The Netherlands

The Wall street crash in 1929 was only a small article in the Dutch newspapers. The effects of the Great Depression reached the Netherlands around 1931, after the German economy was already suffering. Obviously the American designs were also for the Europeans very attractive, but they were out of reach and totally not affordable here. The Dutch designers had a different solution to the depression.

Instead of producing many products, the production itself had to be efficient. No luxury, no overdoing, but functional and purposeful. The designers shifted to a more engineering approach where design was seen as a functional problem. A chair was an instrument to sit on, instead of a continuation of what was expected or seen before as a chair. Design, and the resulting products, should be sober and in perfect balance, like society itself, where everybody had the right to the basic needs. A very social principle.<sup>8</sup>

In Germany, at the Bauhaus, Dutch architect Mart Stam and Le Corbusier made new revolutionary furniture designs, which were produced by Thonet, a manufacturer

<sup>8</sup> Evert Werkman Jan Beishuizen, De magere jaren ((Leiden): Sijthoff, 1980), http://openlibrary.org/b/OL13924889M/magere\_jaren.

that was very skilled in the production of bend wood, and now also in steel tubular frames. In the Netherlands Gispen was an important factory, where from the midtwenties on lamps and furniture were produced. Also designers like Paul Schuitema and Ari Verbeek where engaged designers who focussed on the social idea of 'a product for the masses'.<sup>9</sup>

In contrary to the 'American approach' you could conclude that in the Netherlands (and other parts of Europe) the scarcity made designers and manufactures aware of the fact that more efficient production leaded to more affordable objects, so more people could afford these objects / pieces of furniture.

<sup>9</sup> Timo de Rijk, "Design in Times of Crisis," Kunstbus, http://www.kunstbus.nl/agenda/2009/20090503122739.html.

#### WWII

World War II (1939-1945) can be seen as the breaktrough in the application of plastics in consumer products. In the war times there was a great scarcity on copper, aluminum, steel and zinc, because there were precious for military use. Fabricators and manufacturers of consumer products started to rethink their production systems and material use. Plastic were around for some time already but during World War II the material was reconsidered. Cellulosics, acrylic, nylon and especially polyethylene become much used materials, which allowed the production quantity to go up again. Back in those days material manufacturers, machine builders, moldmakers, and processors all prospered.<sup>10</sup> Ever since that period plastic the consumerist culture was flooded with plastic goods.

<sup>10 &</sup>quot;By Design: World War II, plastics, and NPE | PlasticsToday.com," http://www.plasticstoday.com/imm/articles/design-world-war-ii-plastics-and-npe.

#### Crisis in the 1980s

At the start of the 1980s a lot of western countries were in the Savings-and Loan-crisis. As a follow up on the second Oil Crisis a lot of governments were under high pressure because of rapidly growing prices of energy and consumer goods. In the Netherlands this resulted in a governmental policy to cut wages and social care. There was a huge problem of unemployment and also public life was making a shift.

The art and design world went in a more autarkic direction, in which they tried to sustain themselves. 'Design it yourself' and 'build it yourself' were simply necessary in the 1980s. Some designers started imitating machines by handwork, because getting design massproduced was very difficult. Designers and artists like Jurgen Bey, Vincent de Rijk and Joep van Lieshout started to work on their own initiative, to challenge their own creativity. The designer him/herself created the circumstances. The scarcity of opportunities for massproduction or industrial manufacturing was very present, for that reason these designers started to challenge themselves, to cope with those new circumstances.

## Chapter 4 Design context research

#### Introduction

Where the Historic Research shows examples of design in times of crisis in the context of specific crisis cases, the translation to our current time is still unclear. It seems that many production-lines have been increasingly industrialized or up-scaled. Uniformity in products throughout the globe is increasing. Globalization of major brands, but also of small consumer goods has a vast place in the current society. Without question we use products that are used, and produced all over the world. During the design and production of these objects, designers and manufactures tried to reach a ultimate balance between cost-efficiency and maximum profit. Aspects as quality, durability, comfortability, sustainability and last but not least aesthetic appearance are subordinate to reducing material, labour and production costs.

Consumerism is also a result of this mass-marketing and mass-production. We buy, use, and dispose products at a high rate, because of the lack of quality, (trend-base) style or functionality.

If this all fits under the umbrella of Design in Times of Crisis, somewhere the idealistic approach must have been lost, or forgotten. If we take a close look at products we use daily, it isn't very difficult to distinguish or recognize the results of this hunt for cost-efficiency, material reduction and cheap-labour. I believe these factors can be found in the details of daily products. By creating insights in these details I believe that designers can come up with new combinations, which answer not only the demand of high cost-efficiency, but also have positive results in the scope of, for example, comfort, functionality and aesthetics. These details will be the first part of this 'design context' research.

Secondly, besides the details, showing traces of the design and production process, there is the question why we perceive some objects to be 'cheap' and others as higher quality, greater comfort, or just more pretty. This question plays a significant role in the second part of this research.

#### **Catalog of Details**

Note: The catalog of details is available as a separate booklet, which also includes a more detailed description of the process, goal, and categorization.

The balance between cost-efficient production on the one hand and aesthetic refinement on the other hand is always present. In this project, part of the research went into looking for traces of this scarcity. If we can indicate why certain design decisions were made, we can better understand the motivations for the aesthetics of that specific product. The result of this investigation is the Catalog of Details. This is an extensive overview of different furniture designs categorized to what their details teach us. Every single detail is represented by a photograph and is indexed according to the following characteristics;

#### Eco / Eco-impact

Is the selected detail negative, neutral or positive in relation to the environment? Does it require extra materials, is there a lot of waste during production etc.

#### Price / Affordability

Does the selected detail make the object itself more expensive or more affordable? Is it a cheap solution or is production of this detail very costly?

#### Labour intensity

Is the featured detail very labour intense? Does it require a lot of time to produce, or is it very quick in assembly etc.

#### **Comfort level**

Does the specific detail increase or decrease the comfort while using the object?

#### Aesthetics / appearance

Is the detail a positive contribution to the aesthetics / appearance of the object? Or do some small details give the object in general a negative look.

Every single of these characteristics is explained by a rating, going from -- (double minus) to ++ (double plus) with a neutral mark in between. By creating a visual overview together with a close-up picture of the detail, a clear catalog is created that communicates easily what the negative and positive characteristics of small details mean for the general interpretation of the object / product.

This catalog will function as an overview of possibilities within a specific design or product requirement. Finally, all examples and details will be related to the specific object they belong to, guided by details on the object itself.

Ultimately this catalog can function as a guide, where any designer can make a selection of details in design, to be applied into his/her own design. So it will consist of the most optimized details conform his/her personal selection criteria: eco-impact; affordability; labour intensity; comfort-level and aesthetic appearance.

#### Perception of scarcity design

Note: A corresponding booklet on this (questionnaire) part of the research is separately available. It consists of a description of the approach, set-up, results and conclusion of the questionnaire.

Since the Catalog of Details is constructed mainly based on technical information and personal experience, backed up with existing research, it's appearance might be subjective on some points like comfort level and aesthetic appearance. In order to diminish those subjective factors in that part of the research, a broader scope of thoughts / experiences is needed. In order to investigate peoples perception of the effects of 'scarcity design' a questionnaire is set up to collect a large number of personal opinions. By analyzing these opinions and translating them into a set of conclusions, a more objective view can be presented.

The questionnaire aims at how people (the questioners in this case) perceive differences in price (between cheap and expensive) of an object. Numerous examples of objects and products are presented where the questioners are asked to indicate what they believe is the cheapest object. An open question informs to their motivation: why do you think that object is cheapest?

#### **Results of questionnaire**

The questionnaire was online for a little bit longer than 1 week in total. In the period that started at 15 April, 2010 16:00, I reached over 310 respondents who answered my questions.

In the separate booklet you can find data about the diversion between every two examples of chairs, of which people have indicated which they believe is cheapest. This clearly creates an understandable and graphic overview of the perception of value between two selected objects. Besides that data, the most interesting part for us designers lies in peoples motivation for the choices they made. Why do they actually think that one chair is cheaper than the other one? To get clear insights in those thoughts I made an analysis of the motivation that people gave along their choice. Fortunately a large number of respondents took time to explain and enter their motivations, which all-together made an extensive mass of data.

When analyzing these written results, you could see 'trends' appear like; cheap because it's mass-produced, it's cheap material, less details make it cheap, but also very 'taste-oriented' reason like; "It's cheap because it's an ugly chair". On the other hand people's motivation also contained opposite thinking, because they would explain why the other one was more expensive; highly details, famous designer piece, wood is more expensive than plastic, etc.

Those two ways of answering the actual question made me realize that most of these 'factors' act in duo's. The reason for it to be cheap is not exactly the contrary of the reason why the other one would be expensive, because it's not 'Either this or Either that'. By trying to get together these sets of factors I can also indicate what factors create a higher value-perception in design. That list is as follows:

Factors that give a product a cheap perception	Factors that don't give a product a cheap perception
mass production	hand crafted
made with cheap material	expensive material
less color	colored, painted, coated
easy manufacturing	complicated manufacturing
less details	detailed
no finishing	finishing
less solid construction	good solid construction
fewer parts	multiple parts
less material used	more material used
self assembly product	finished (assembled) product
less, basic shapes	complicated shapes
familiar (seen before)	unknown (never seen)
object	object
	Famous designer or company
copy / rip-off of original design	
This list isn't very surprising, but since it reflects the opinion and perception of a large number of people, it's representative for what we designers can take into account when making design decisions. By doing that, we can have more influence on the 'positioning' of the objects we design.



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Research booklet: Catalog of Details



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Research booklet: questionnaire

# Findings form a personal manifest

### Chapter 4 **Design direction**

#### Approach

In this thesis I started with the general analysis of a crisis; what it is and how it is related to scarcity. Through a research in historical events I made a link to how scarcity can affect product design. Next I analyzed the current situation, what we can learn from the object we daily use, and how we are influenced by what we see. Now it's time to translate this research into a direction for a design proposal.

If the above research has to be of any influence for designers, the design-process or designed objects, it should be translated into a format of guidelines. Guidelines however have the characteristic that they are seen as general rules that one has to follow. That is not my intention. I don't want to, and I cannot, write new guidelines for designers and future designs.

#### A Personal Manifest

Instead of creating guidelines or rules I will translate my findings into a personal manifest. This personal manifest is a set of principles that are inspired by the research I've conducted. On their own, each of these principles are valid for a lot of industrial produced artifacts and products. Unfortunately, because of cost-efficiency in the production process and the ever-on-going battle to produce as cheap as possible, a lot of compromises are made on these conditions, causing one to flourish on the cost of the other. These four principles consist of things I learned from looking at the past and investigating our current perception of design / objects.

- 1. Products should be functional
- 2. Products should be produced in an efficient manner
- 3. Products should have no negative impact on the ecological / environmental situation
- 4. Products should be affordable for the group of people who need these products

I believe by actually putting these 4 lines down on paper, they become more than just some ideologies. In this I am very much inspired by the German designer Dieter Rams, who works according to his '10 Principles for Good Design'. Neither he makes it an obligatory list of demands for all designers to follow, but tries on his one to stay true to these principles.

These 4 principles are extra valid in 'times of crisis'. Because especially in times when we have less, the right balance and paying attention to the right topics is of high importance. For long we took from the world what we needed, but since we are aware of the effects of our acts we should change the way we use it. This personal manifest is valid for the time we live in now, since it's build according all aspects of this research thesis.

In their simplicity the key is to find the perfect balance between these principles. One can make the greatest and most ecological design ever seen, but tends to fail in terms of affordability. It's a hopeless situation if it is the perfect solution but nobody can afford it.

#### Direction

As mentioned, my personal manifest becomes interesting when these principles are executed in a 'perfect' balance. In an industrialized situation this is almost impossible, since making compromises due to economic benefits are very common.

Nevertheless I believe that my own designs will have an extra value by staying true to this kind of personal manifest. I see this graduation research project as a milestone. It marks what I've learned in all those years of design education, but it should also communicate my personal viewpoint on design. With this manifest I set myself guidelines for my future work.

The design proposal following up this research project will be inspired by the theme 'Design in Times of Crisis, Revisited.' Revisited because I conclude that most designs or daily products are influenced by some sort of 'scarcity approach'. Industries is always picking the most economic efficient solutions, cheapest materials, manufacturing techniques. Personally I find this goes on the cost of quality, aesthetic appearance and ecological values. In my design design proposal I'll try to find the right balance, based on my personal manifest presented above. By doing that I believe I can make a design that communicates what I stand for, what I think is necessary and what is a new interpretation of the one-liner;

#### "Scarcity acts as a catalyst for creativity."

Rethinking our standard routines, methods and products.

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Bort Myssen

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Currently we are in an economic recession. We've all seen it on the news. Unfortunately we might experience it in our own financial situation. But does it have consequences for our work as designers? Does it influence the products we design? Can we still carry on like we used to, or do we need to adapt to these new circumstances?

In periods of crisis, be it an economical downfall, ecological crisis or any sort of scarcity, people tend to come up with creative solutions to take benefit of the situation. This concept can be captured in the oneliner: "Scarcity acts as a catalyst for creativity / innovation".

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