“Engaging human romance & the inanimate.”

A research Analysis on Emotional and Critical design practice

&

The development of a Concept project inspired from Design Archetypes and Semiotics.

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Abstract

The following thesis is divided in two parts: the first part is a gathering of theoretical knowledge concerning Traditional, Emotional and Critical design and an attempt to find similarities and differences among them. Traditional design keeps looking on today focusing on the needs of the client and the market while Critical design serves the counterpart and wishes through its product to make a strong social statement. Emotional design, here, is presented of something in between. It usually serves the market but because it is characterized from a deep psychological and biological analysis can't help but give a lot of space in the reflective level of a product that can be rich of critical and deep meaning. Both of the last two provoke feelings and thoughts that tend to reinforce a preferable reality. Contemporary examples are presented and analyzed which come to reveal benefits and purposeful applications.

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Introduction

This study developed out of an interest related to products that remain unforgettable, that affects us in a different way, and usually are parts of personal stories. It began with a strong personal feeling mirrored to the materiality of those things, continued with a strong question about why we get attached to inanimate objects and what are the values that they serve. When in research I understood that different levels of emotions are responsible for our actions and I realized that a designer ought to answer to those human instincts and needs. Furthermore, a designer as part of the society, by creating things that provoke questions, newly sensed feelings and thoughts, is usually trying to make a statement for the future, to speak loudly, to think in a divergent way and always discuss the "why?'' of an action.

Political and social changes reframe the way design is educated and been practiced. The profession of a designer should be kept alert to all the stimulus of the surrounding and keep a critical attitude towards the result of her products. The semantic and social value of a product is more important than utility today than ever before. A wide variety of electronic products nowadays, for instance, exploit the human of becoming easily attached to a screen showing moving images. One may question whether this is a preferable development and what alternatives are available.

My intention in this project it to challenge myself after understanding those fields analyzed in the first chapter, to create a new product that carries some values I have mentioned and elaborated on them. I also would like to call all the designers to de-familiarize themselves from their everyday practice and be always reflective to what they create.

Methodology

The findings on this projects are mainly originated from parts I found online from the book of Dune & Ruby "Design Noir: The secret life of electronic devices.", the book of Don Norman "Emotional Design: Why we love or hate everyday things" and the book of Deyan Sudjic "The language of things: understanding the world of desirable objects", both last two which I have on my library. The research was expanded to papers and PhD's I came across online from several Universities and was mainly focused on critical design and how it is analyzed and criticized or evaluated from designers of today.

The primary goals of the first chapter is to point out the basic meaning and structural lines of every term I discuss and bring inspiring thoughts through some examples that prove the meaningful application of this practice.

The second chapter is about the development of a concept design which is referred to the creation of some everyday products carrying a special attribute. The key words behind this project are *Archetypes* and *Semiotics* two senses which are analyzed in the second subchapter of the second chapter. These two senses comment on our behavior towards the usual, the signs we recognize as cultural symbols. More specifically, the project's objects created would be recognized as other objects than they would really are by looking them from a specific point of view, an effect gained from by the use of specific material called *Vantablack*.

With this conceptual project, I wish to deal with the notion of seeing and feeling something. Consequently, I wish to search for the truth behind the image and try to make a contradictory idea about the deep rooted images we have in our mind for the form of some everyday objects. I wish to make a statement and create the strange feeling of de-familiarizing with what I see. It is a combination of critical and emotional design because the deep meaning of the final product with the sensuous discovery of the result is combined. It is an attempt created from a designer who watches the world, makes something to shake the reality and provoke the people's reactions to the next level.

1st Chapter

1.Traditional or Affirmative design

1.a. Analysis of traditional design

Designing a product today mainly means that you're called as a designer to follow the rules of the industry and the market. Even if design is expressed as user-centered most of the times, as long as it serves the needs of the client it comes to boost the capitalistic spirit of today. When people sense something unsatisfactory or disturbing it is immediately solved. Design, in simplified words, is often described as a problem solving activity. (Liene Jakobsone, 2017). This is what is called traditional or affirmative design, as Dune and Ruby suggest in their book "Design Noir: The Secret Life of Electronic Objects". More specifically, affirmative and traditional design is the one that choose to solve problems for the industry and conforms to the cultural, economic and technical expectations of society. As long as design practice is an instrument of the commercial industry, a successful outcome of design is *what is expected* by the client; the considerations of the user—or society—are actually subordinate (Leon Karlsen Johannessen, 2017).

There are two terms explaining the traditional design practice, firstly is the *commercial design* as it is elaborated from Tharp &Tharp in their paper "Discursive design basics. Mode and audience", and the term *affirmative* (or traditional) design that are further explained from Dunne & Raby.

There are important similarities between those two above-mentioned terms. First, they share the commercial aspect—the primary purpose of design is to make money for the industry. In this sense, they are also normative and "self-reinforcing", as market expectations and commercial viability are what distinguishes success from failure (Leon Karlsen Johannessen, 2017). Secondly, they do not say that these are the only design practices that should exist. They replace traditional design; they are just its counterparts.

As we've already mentioned, what is called traditional or commercial design is what mainly answers to the market needs, in other words it serves the capitalistic spirit. This leaves a large amount of designers who are mainly driven from companies, to give a little importance to the essence of their products and the essence of human being using them. There is a big amount of information that explains how we get to interact with our environment and how most of our behavioral is culturally formed. Designers need to know how to use some keys to fully understand what is they create and afterwards they ought to find the right questions to interrogate the way of living, the system, in order to influence and change the things to the better. Design is something in the middle; it is something physical used to help us doing some

actions but is also an artistic practice. The role of the designer is to create and offer something to the others that will make them reflect, discuss and remember.

2.Emotional Design

A product beyond its pure materiality always reflects and expresses something more. This starts from the designer who instills some values on the object and is fulfilled from the user who mirrors himself/herself on to it. The images which are reflected inside the users mind are usually connected with the past or present experiences and future wishes. "*A favorite object is a symbol, setting up a positive frame of mind, a reminder of pleasant memories, or sometimes an expression of one's self*." (Norman, 2005).

The main 3 values that a product involves, as Don Norman points out in his book "*Emotional Design; Why we love or hate everyday things",* are: 1. **Usability**, 2. **Aesthetics** and 3. **Practicality**. The first one is related to the pleasure and effectiveness of an object, the second one comes mainly from its appearance and the last one has to do with the rationalization and intellectualization of its existence. All of those three characteristics interweave both emotion and intelligence.

Unfortunately, what the common tendency was and, in many cases, still is to pit cognition against emotion. Whereas emotion is said to be hot, animalistic and irrational, cognition is cool, human and logical. This contrast comes from a long intellectual tradition that prides itself on rational, logical reasoning (Norman, 2005). In other words, the perceived wisdom that emerges from this description is that emotions belong to our past animal origins and we must learn to rise above them. But this is a big lie! Emotions are the basis of cognition; they are its driving power.

One of the ways by which emotions work is through neurochemicals that bathe particular brain centers and modify perception, decision making and behavior. These neurochemicals change the parameters of our thought (Norman, 2005). In the end, everything that we do and think is tinged with emotion, much of it subconscious.

2.a.The three Levels of Processing: Visceral, Behavioral, Reflective

Emotions and instincts are, as we mentioned above, what we share with animals and they form our cognitive system in a big scale. The main difference among animals and people is that we are conscious of our emotions and actions so we can reflect on them. We learn from our past experiences so we can feel prepared towards the future and accordingly we can deal with current activities in a better way.

All those human attributes are related and strong connected to emotion and as Norman analyses, result from three different levels of the brain. The first level, called the visceral level is the automatic prewired layer; the second one is the part that contains the brain processes that control everyday behavior known as the behavioral level; and the contemplative part of the brain, or the reflective level. Each level plays a different role in the total functioning of people, and as a result, requires a different style of design (Norman, 2005).

More specifically:

Visceral level: This is the simplest and most primitive level. It concerns the fixed routines, where the brain analyzes the world and responds. This level is fast: it makes rapid judgments of what is good or bad, safe or dangerous, and sends appropriate signals to the muscles (the motor systems) and alerts the rest of the brain. This is the start of affective processing (Norman, 2005). The several conditions faced are recognized simply by the sensory information. The visceral level is incapable of comparing a situation with past history. It works by what cognitive scientists call "pattern matching". In other words, what people are programmed to do, for example food, warmth and protection are meant to raise a positive effect to us (Norman, 2005).

Behavioral level: This part is not conscious. This is the site of most human behavior. Its actions can be enhanced or inhibited by the reflective layer and, in turn, it can enhance or inhibit the visceral layer (Norman, 2005).

Reflective level: It doesn't have direct access either to sensory input or to the control of behavior. Instead it watches over, reflects upon, and tries to bias the behavioral level. We can overcome our biological heritage through reflective level. But, our biological predispositions mix with our experiences (Norman, 2005).

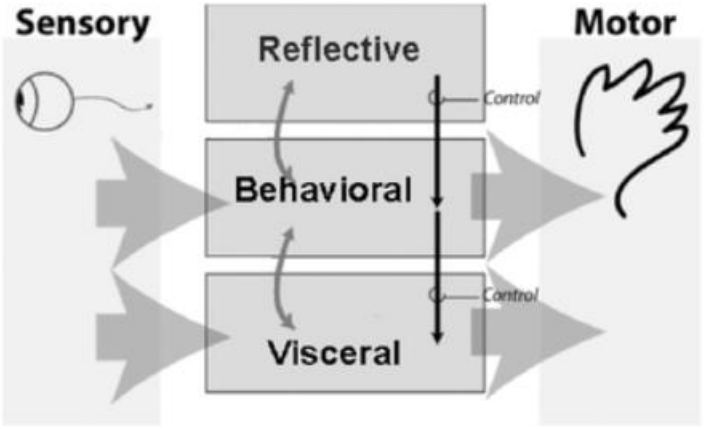

Figure 1: Three levels of processing (Norman, 2005)

When our actions start from the Reflective level and lead to Visceral we are driven by our thought. When happens the exact opposite, we are led from Visceral to Reflective layer we are driven by perception. The result is that everything you do has both a cognitive and an affective component-cognitive to assign meaning, affective to assign value. In the end we all change our operating parameters to be appropriate for the situation we are in; in other words we adapt (Norman, 2005).

2.b. Meaning and application in design

All the above levels find a strong application, either conscious or subconscious, in the design world. Every designer is driven from his/her emotions and thoughts which he/she instills in the final product which is finally passes to the final user. These three steps of creation and experience build a System based on function and understanding. The first step concerns the Designer's Conceptual model which is conveyed through the System Image of the product to the User's Mental Model. In an ideal world the designer's and the user's model should be identical, and as a result the user understands and uses the item properly, which means that the system image should communicate with the final user.

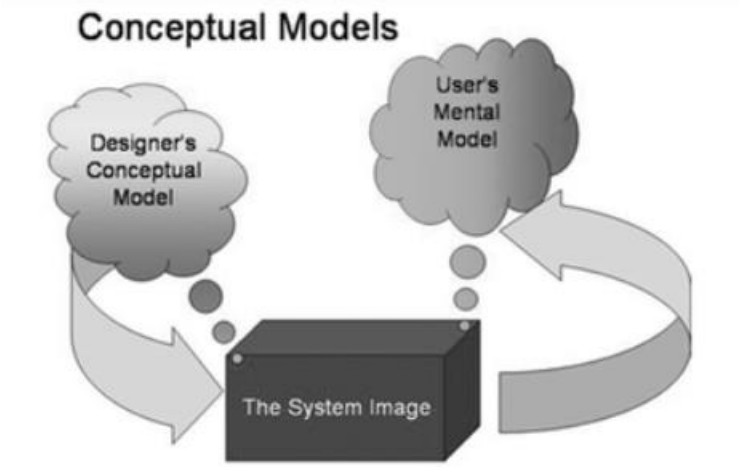

Figure 2: The designer's model, the system image, and the user's model (Norman, 2005)

This communication has all three levels of processing inside the System Image, and in every occasion the designer gives more significance in one level or (ideally) all of them. When the design, and eventually the final product, can called **Visceral**, is when the product transmit from its form, color, texture etc, a strong emotional signal which is accepted from the visceral part of human being. For, example when we receive something as pretty that judgment comes directly

from the visceral level. This is a simple interpretation that comes without effort from our initial reactions and usually is the same from the vast majority of people, for instance almost everyone like bright colors, sensuous curves, sleek surfaces. In all of these preferences our physical features – look, feel, and sound- dominate. Visual appearance is the main stimuli in visceral design, and is mostly used in advertising, marketing, photography or printed illustration and that's because this is what can be appreciated from a distance, which is the main point. Visceral design is all about immediate emotional impact (Norman, 2005).

Next, it comes the **Behavioral design**. This is all about usability and concerns peoples' needs. Appearance doesn't matter but performance does. The four components of good Behavioral Design is: 1. Function, 2. Understandability, 3. Usability, 4. Physical feel. This is the most significant test the product should pass. Whether the user will understand how it works. The forth component, physical feel, is crucial for the first three ones because it can manage to give a sense of control to the user through the sense of tangibility it may have, and make it look and feel more easy to use. Weight, texture and surface matter. A huge amount of the brain it taken up by the sensory systems, continually probing and interacting with the environment (Norman, 2005).

Most of our behavior is subconscious and what people actually do can be quite different from what they think they do. We humans like to think that we know why we act as we do, but we don't however much we like to explain our actions. The fact that both visceral and behavioral reactions are subconscious makes as unaware of our true reactions and their causes (Norman, 2005).

Finally, the **Reflective Design**, what concerns the idea and the concept of the design; it conveys a message about culture and about the meaning of a product or its use. This attribute has a more deep connection with the user. It usually evokes remembrances through reflection. The user can "see" behind the form, the physical image and get connected to the object while in retrospective memory and reassessment. What usually happens is that the user reflects oneself on the product. This involves a connection which is totally cultural. The answers given have nothing to do with biological and practical issues. The self-image which concerns the self-fulfilling prophecy provides a strong emotional attachment. That is the essence of the reflective design: it is all in the mind of the beholder (Norman, 2005). A strong example of today's world is the virtual products. In the world of software there is no physical feel, there is no physical interaction but only abstract actions offering numerous functions. The virtual worlds of software are worlds of cognition: ideas and concepts presented without physical substance (Norman, 2005).

2.c. Products with a story to tell

KAKAO Friends, Home Kit, Nendo, 2019

Figure 3: Kakao friends' home kit (www.nendo.jp)

A collection of seven IoT home appliances was designed by Nendo design studio for Kakao Corporation. "Kakao Talk" is the biggest messenger app in Korea and "Kako friends" are its original characters. A simple white bowl was the starting point for this series of healthcare products which are: a humidifier, a lamp, an alarm clock, an air cleaner and a sensor and a thermometer, and the characters match with the design of these products.

Nendo wanted to create uniformity between the appliances whilst also telling a playful story around each product (designboom | architecture & design magazine, 2019). They wanted to build a bridge between the digital content and the analogue use of those home appliances and create a synergetic effect between the two. The use of only one app, the "OS", that connects all of those products in one's smart phone led to the use of the shape of a bowl and the icon in every one of those, which works as a connecting factor between the appliances.

Figure 4: Kakao friends' home kit (www.nendo.jp)

In this example, the form of the products creates as a direct positive effect on us. They are designed based on the aesthetics of Korean's characters, which were designed with the target to cause a strong emotional impact related to curvy, happy and sweet little animals. Also, the colors that represent these icons were inspired by the tone used on the characters of "Kakao Friends" and the same colors were used in the icons and the interface of the app connected to the home appliance (nendo, 2019). The image and the form of the appliances are a metaphor among forms of nature, flowers, animals and simple animated images. As a result, the humidifier's icon is "vapor", the scale's is a "cloud" which symbolizes the desire to be light-weight, the lamp has a "ray of light", the alarm clock has a "small bird" that chirps an alarm, the air cleaner has a "flower" that flutters by the wind, the thermometer is expressed through "perspiration" produced from getting a fever, and the sensor is in the form of a "periscope" (nendo, 2019). We subconsciously react positively opposite those images, because we have related them with a symbol of playfulness, happiness, calmness, and through their icons we make a story with the little protagonists and us accordingly. It's an example of a feasible **Visceral design**.

22 [tu:tu:]/ Hybrid Tube Amplifier, Koichi Futatsumata, 2009

Figure 5: Hybrid Tube Amplifier (koichifutatsumatastudio, 2020)

This is a Hybrid tube amplifier design from Koichi Futatsumata for EK JAPAN. He actually reveals in detail the actual function of a new generation of a vacuum tube amplifier.

Figure 6: Hybrid tube Amplifier (koichifutatsumatastudio, 2020)

This tube is a type of electronic amplifier that uses vacuum tubes to increase the amplitude or power of a signal. In order to represent the simple beauty of the tube as it is, Koichi, allowed the existence of only two beautiful tubes on the top. And two big operation dials on the front

for the match. These two elements make its form. His concept was to wipe out the general idea of the tube audio and the design to fit in a variety of lifestyle scenes smoothly by both physical and consciousness slimming down.

The form of the amplifier is clear, the shapes are basic and simple and there is an overall balanced among its elements. The operation dials mean clearly their function; our hand goes to turn them like doing something we are already programmed to do so. In fact, it is a metal box, placed somewhere to transmit better the sound, it shouts loudly its use without further information. Its appearance is so simple that you don't care; it actually follows the functional part. Of course, the tangibility plays a role and that's why it is metal, which affects the sense of touch, it may feel easier to turn on the sound. This vacuum tube amplifier is a good example of **Behavioral Design**.

<u>If Chairs Could Talkon, Yinka Ilori, artist, 2012</u>

Figure 7: If chairs could talk on (http://wetransfer.wepresent.com)

"If chairs could talkon" is a product design series from the London based artist Yinka Illori. What he actually did in his project is to take second hand and abandoned furniture from London's streets and thrift shops and gave them a new life. He added colorful fabrics with vibrant patterns, raising the arms or shortening the legs (WePresent, 2019).

How people connect with chairs and furniture and a"territorial routine" of the members of the family were the ideas that caught the interest of Yinka. "*Chairs were very special and important in my family home. Everyone had their own chair they'd always sit in. Taking for example my*

sister's chair would always give me a sense of guilt, as if I'd stolen it from her. I also remember those times visiting my grandparents and provocatively sitting down in my grandfather's big, comfy favorite armchair. He'd always laugh and then try – always successfully – reclaiming his seat, perfectly shaped to his body over time." - Yinka says (WePresent, 2019).

Yinka bases the designs of his products on his roots which are African and British. He always tries to incorporate both cultures in his projects.

Figure 8: If chairs could talk on (http://yinkailori.com)

When looking these chairs you can actually read a different story in every one of them. The patterns, the colors and the parts that were added or separated from them they actually express the passing of time. The idea that furniture can pass from a generation to another and live so many different times and situations are what gave life to these products.

What is more, it intrigues the imagination because your thoughts can rejoin the puzzle of your memories and all those patterns on the chair can bring you images from the dessert, or the woods. You may see a giraffe, as Yinka mentions.

On closer inspection you discover that Yinka's work is not always functional; some of his stools have features that make them impractical, like a missing leg or indelicately-placed hooks. But that doesn't matter to the artist – it is more about how people want to use his designs, rather than how they should use them (WePresent, 2019).

Yinka, gave importance to the **Reflective level** of his design. He tries through the images that are being created in users' minds to influence their behavior. He challenges them to ask why this is not totally practical and maybe call them to use it in a different way. By making a

narration for the chairs expressed through their colors and their form, and by degrading the functional part, the artist managed to make the user start from the Reflective level and go upwards.

3. Critical design practice

3.a. Meaning and Purpose of Critical design

As we have already mentioned in chapter 5, the vast majority of designers tend to create products that belong to affirmative/traditional design, because they work within a certain ideological context, and their design aligns with this context instead of defying it (Dunne & Raby, 2001). The mainstream industrial product design follows the rules "determined by [capitalist] government and industry" (Dunne & Raby, 2013) thus indirectly contributing to a variety of negative consequences, including serious social and environmental issues. Usually, the designers' main purpose is to provide new products – smaller, faster, different, better. The opposite of this practice called affirmative or traditional design, is *critical design*. It is characterized by its focus on present social, cultural and ethical implications of design objects and practice and it is influenced by the critical social theory. Its "intention is to engage the audiences' imagination and intellect to convey messages" (Malpass, 2012).

"*Instead of thinking about appearance, user-friendliness or corporate identity, industrial designers could develop design proposals that challenge conventional values*."- (Dunne, A. and Raby, F., 2001)

Critical design elaborated as a term first time in "Design Noir: The Secret Life of Electronic Objects", a book written from Dunne and Ruby, two London based designers. In their book, Dunne and Ruby explain that when a product is designed in a way that aims to raise questions instead of finding answers, to be provocative and challenging in order to makes us think "out of the box" and push the cultural and aesthetic potential and role of products and services to its limits, it belongs to Critical design practice. Critical design takes as its medium social, psychological, cultural, technical and economic values, in an effort to push the limits of lived experience not the medium (Dunne, A. and Raby, F., 2001). What tries to succeed is to raise discussions and reach a certain level of intellectual maturity.

3.b. Categories of Critical design practice

Critical and **Speculative** design are two domains of contemporary critical design practice that are mentioned as two different parts both from Malpass and Leon Karlsen Johannessen. They represent a vast variety of projects that use different methods and contexts, but the critical stance towards the current situation or its potential advancement is common to both of them (Liene Jakobsone, 2017).

Critical design category is characterized by its focus on "present social, cultural and ethical implications of design objects and practice" (Malpass, 2012). It encompasses the critique over a situation and mainly tends to react opposite norms of society. Every time begins with questions regarding the WHY we design something and ends with a critique opposite the needs of the industry and the capitalistic culture. Critical design emphasizes the role and the responsibility of the designer in educating the users and raising awareness of their passiveness as citizens (Leon Karlsen Johannessen, 2017). It emerged as a reaction against designers who assume that design is "somehow neutral, clean and pure. But all design is ideological; the design process is informed by values based on a specific world view, or way of seeing and understanding reality" (Dunne & Raby, 2001)

Speculative design category is concerned with future; the act of speculation where designers critically investigate the advances mainly in science and technology. It is presented in the form of scenarios of products, their use and contexts within the society and illustrates a specific attitude towards the future (Liene Jakobsone, 2017). The main objective of speculative design projects is to "encourage the user to reconsider how the present is featuring and how we might potentially have the chance to reconfigure the future" (Malpass, 2012, p.185) It is an activity where conjecture is as good as knowledge, where futuristic and alternative scenarios convey ideas, and where the goal is to emphasize implications of “mindless” decisions for mankind. (Leon Karlsen Johannessen,2017).

3.c. Historical Overview

Critical design made its appearance in the late '90s as a critical reaction mainly to the capitalistic consumerist culture that has become one of the reasons of the political passiveness of the Western society and made people unaware of their decision-making potential. Although often seen as a phenomenon appertaining to the recent developments within the field of design, this kind of practice is not something entirely new; similar approaches, but with different denotations, existed already in the 1960’s (Liene Jakobsone, 2017). More specifically, that decade Radical designers such as Italian designer Ettore Sotsass made their appearance

proposing radical new ways of living, designing and building. Sottsass was famously eloquent on this topic, declaring in the late 1960s that design "*is a way of discussing society, politics, eroticism, food and even design. At the end, it is a way of building up a possible figurative utopia or metaphor about life*" (Domusweb.it, 2019). Radical design actually came to define the Italian movement during the 1960s. That decade, of course many other designers came to express their visions and philosophical concerns through their work creating utopian or dystopian futuristic environments. Some well known design groups are Archigram, Haus-Rucker-Co, Superstudio, Archizoom.

Contemporary Examples

Naki series (Japan, 1994)

Figure 9: Naki series of products (21st century Digital Art, 2019)

Sei-Gyo, **Na-Tate-Goto**, and **Uo-No-Me** are three very interesting products that were imagined and produced by the Japanese group known as **Maywa Denki** in 1994 as part of their *NAKI Series*, which are considered as “Nonsence Machines”. This is a term that lies at the middle of the group’s artistic philosophy and plays a large role in connecting their products to a larger conceptual intent; an intent that is beautifully represented in these specific works (21st Century Digital Art, 2019).

Sei-Gyo (*Holy Fish* in English) is a fish-controlled tractor. As the fish swims around in the cross-shaped water tank, which is equipped with four sensors, the tractor moves unpredictable in the

same direction as the fish. Upon closer consideration of Tosa's method for production in the *NAKI Series*, one can see that this product is to be considered from the point of view of God. The container then becomes a world for the human to observe the fish from a vantage point that is considerably more complex and potentially abstract (21st Century Digital Art, 2019).

Na-Tate-Goto (*Fish Harp* in English) is an automatic electric harp in the shape of an elongated fish. The fish's eyes light up and as the head rotates it slightly resemble a lighthouse, which provides additional connection to the water-based environment of a fish. The purpose of this product was to "instill divinity into a tool made by a human being." It delivers a standpoint from which one can draw new conclusions and answers to the questions: Who am I, and what does it mean to produce something?

Uo-No-Me (*Corn* in English) is a wearable device that allows the wearer to experience a fisheye view through the bi-directional fisheye lenses. Actually, wearing this someone stares to the left or right view and the body responses to that stimulus of the surroundings. The idea behind this is "putting some device between the relationship of a human being and the world." (21st Century Digital Art, 2019).

The Faraday Chair (Great Britain, 1995)

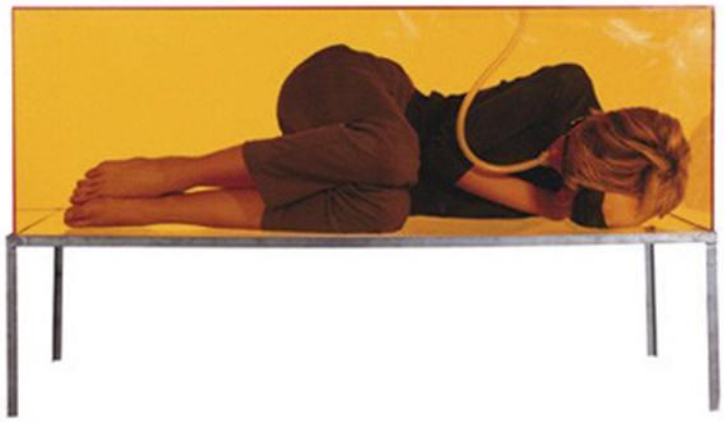

Figure 10: The Faraday Chair (Collections.vam.ac.uk, 2019)

The Faraday Chair, named after Michael Faraday (1791-1867), is a piece of work of **Dunne & Raby** aiming to be a space that protects humans from magnetic emissions that everyday appliance transmits.

The two designers are proposing that the Faraday Chair might offer us psychological comfort, rather than the physical one, by providing sanctuary. The tank is only large enough to allow the user to lie in a foetal position, which encourages us to see it as womblike and protecting. But it is also tomblike and restrictive, like a sarcophagus. It has positive and negative connotations of imprisonment as well as shelter, which are different ways of regarding security, and its association with the executioner's electric chair cannot be overlooked. Therefore it is deliberately an ambiguous object, open to different interpretations; and because it would not actually block the passage of electrical waves, it remains a prototype (Collections.vam.ac.uk, 2019).

Objets (Korea, 2011)

Figure 11: Object E and Object O (Frearson, 2019)

In order to twist the archetype of usual home furniture, **Seung-Yong Song** transforms chairs that double up as ladders, clotheshorses, shelves or lamps. His work is named simply "Objects". He believes that the unique name of things limit the range of product's shape and function, but above all, the fact that there exists stereotyped function in accordance with each unique name suppresses his imagination (Frearson, 2019). He points out "*I am not willing to deny or destroy the identity based on the stereotype, but I only reinterpret the uses I need in my own design language."*

Objet B is a ladder is the backrest for the chair. **Objet E** is a clothing line positioned atop a rocking chair is, which can move back and forth to gently help dry hanging garments. **Objet O** is a chair tucked inside a giant paper lampshade that can be folded down to create a private den

(Frearson, 2019). **8objets:** Eight chairs each integrate a piece of furniture commonly found in a bedroom, but can also be grouped together to form a bed.

Seung-Yong Song mainly wishes to make a comment of today's limited imagination on what and how we use something. It is clear that we have learnt to recognize specific images for our personal space organization, and that is the archetypical language of furniture and the limited function they may provide.

Figure 12: 8object and Object B (Frearson, 2019)

Designers just answer to these needs of consumers and create same things over and over again. Seung-Yong Song removes the labels and composes something new, a bit peculiar at first but with a strong tension to free the user from stereotypes. From those different objects he seeks the coziness of modular space, the security of a nest and the potential of an object that combines two functions from the beginning of its birth.

Accessories For The Paranoid (Germany, 2017)

Figure 13: Object A: un-hacking webcams (Piamariestute.com, 2019)

Katja Trinkwalder and **Pia-Marie Stute** have designed a series of add-on accessories for those who are concerned about surveillance and their data security. The so called "Accessories for the Paranoid" explore an alternative approach to data security. As our physical environment reads, collects and stores an increasing amount of user information, this series of parasitic objects are designed to produce fake data. Through blurring our digital profiles, our true data identities get to hide behind a veil of fictive information (Piamariestute.com, 2019).

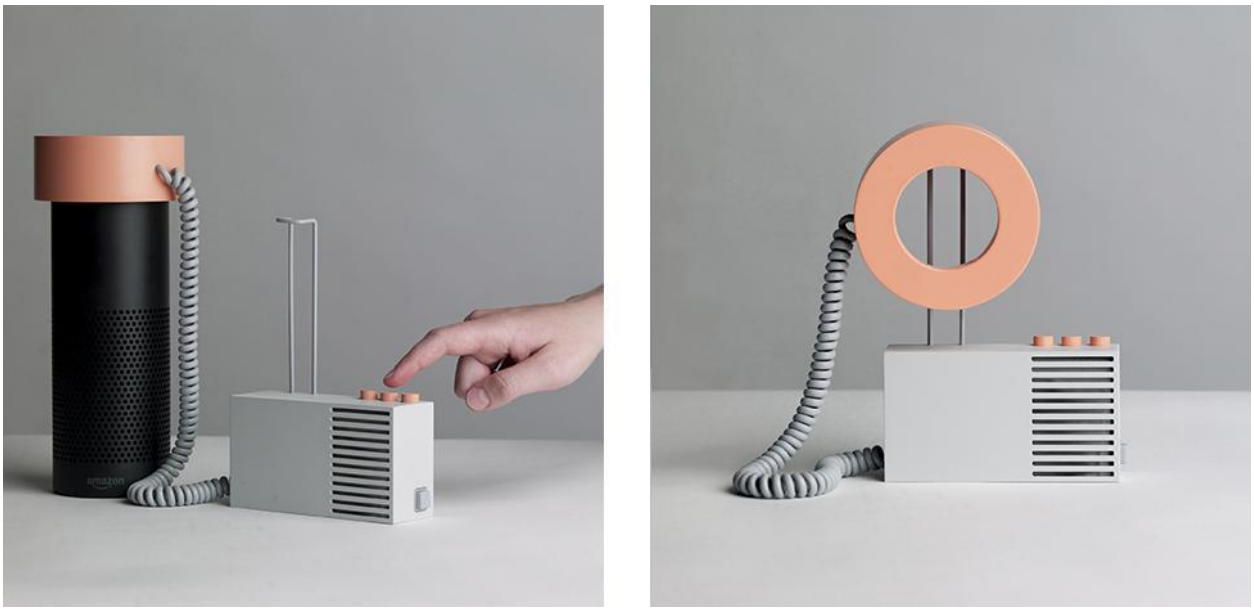

Figure 14: Object B: kidding Alexa (Piamariestute.com, 2019)

Object A: un-hacking webcams. Object A takes the principle of a toy camera and applies it to data security by displaying different scenes through the glance of the webcam (Piamariestute.com, 2019).

Object B: kidding Alexa. Object B prevents your sensitive information from the continuous collection of data from “Alexa”, Amazon's voice assistant for the connected home. The sound device allows to numb her when the situation calls for it or confuses Alexa's, algorithm with fake information. It quietly contributes to the creation of the user's online identity with thought-up personal interests and inquiries (Piamariestute.com, 2019).

Object C: leaving fault traces. Connected to any computer, Object C will generate fake online data. On the push of the button, an algorithm will randomly create site-specific content on the websites of services such as google, facebook, youtube, twitter or Amazon. Concentrating on the individualities that are specific to the service, the libraries in the code will be unpredictably influenced by changing content (Piamariestute.com, 2019).

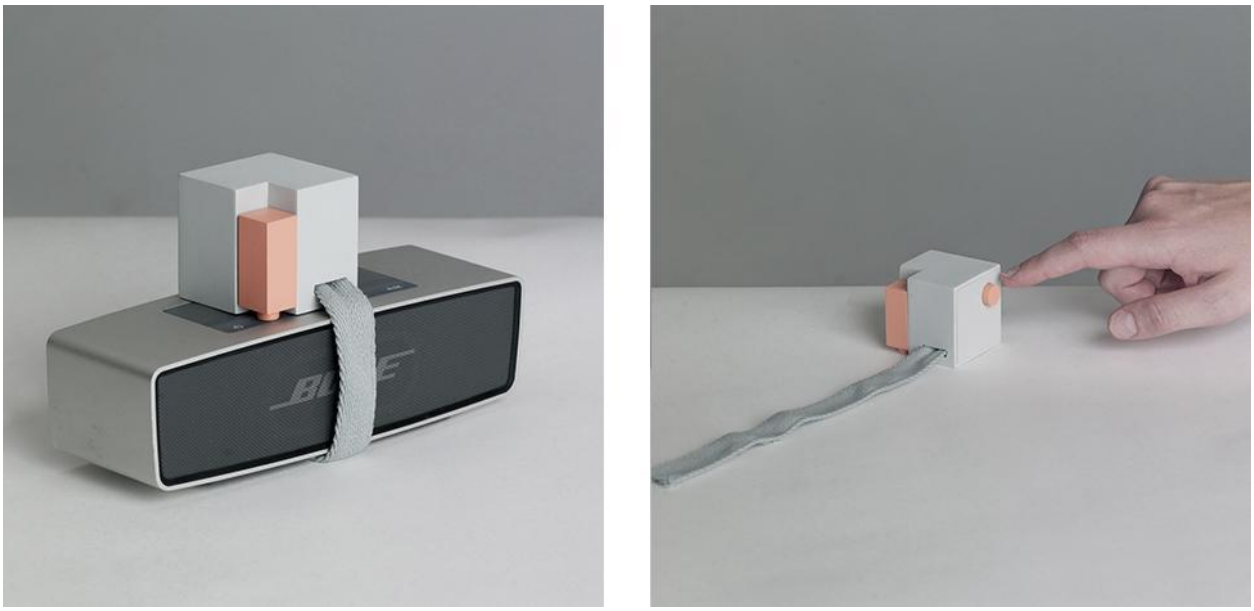

Figure 15: Object D: blurring USE patterns (Piamariestute.com, 2019)

Object D: blurring USE patterns. As a parasite to any connected device that is able to collect data, Object D will push their buttons randomly if activated, thus creating blurred user patterns during night time or when not actually home (Piamariestute.com, 2019).

The two designers wish to react and critic the mass “stealing” of our personal data from valuable companies of the world that they offer “free-services” in exchange to the above-mentioned trade-off. They create a series of products that aim to confuse, replace or hide

personal information of the user and pose a conflict opposite the rapid evolution of artificial intelligence of machines holding a whole file of us with numerous infos about our thoughts and actions.

4.Differences and Similarities among Traditional, Critical and Emotional Design

After all the above analysis, Traditional design shows up in our head as the negative counterpart of Critical and Emotional design. But this is wrong. Critical design doesn't plan to replace traditional design but wishes to, as long as it exists, to examine its rhythm and the way people behave with traditional things around them. In a way, one gives birth to the other practice. Emotional design is a deeper explanation and analysis of what lies behind every human action related to the surrounding. It provides information that can easily deny the capitalistic spirit because of the strong meaning of a product, and agree with the reflective consequence some products can create.

A very interesting diagram presented from Sanders & Stappers in "Co-creation and the new landscapes of design", relate different emerging approaches in relation to different frames of time. The inner circle represents design for the world "as it is" the middle circle represents design targeted at a near future, while the outer circle represents speculative futures (Johannessen, 2017).

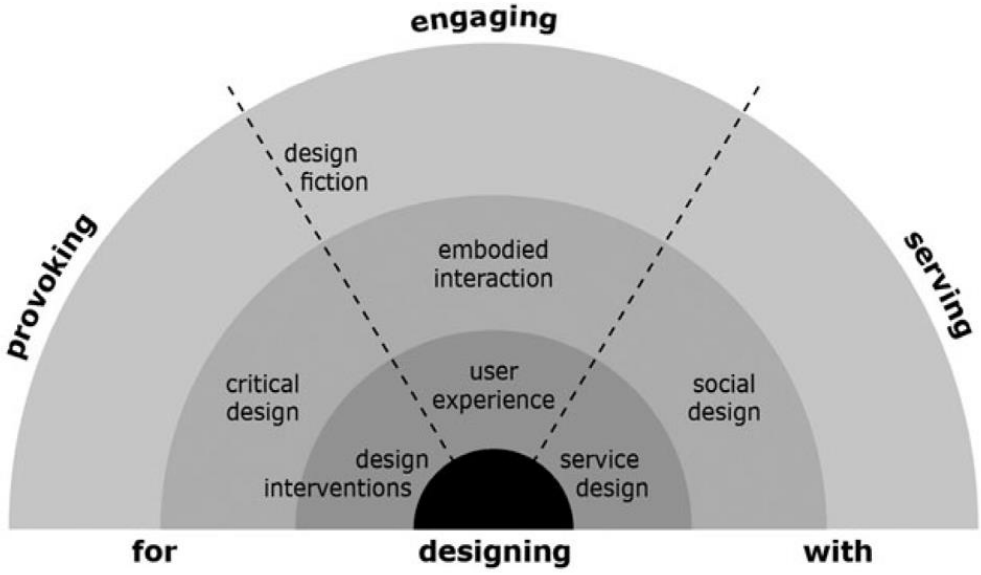

Figure 16: Emerging approaches in relation to different frames of time (Sanders & Stappers, 2014)

In this diagram design practices and user involvement are grouped together and been contrasted. Even if in the diagram every section seems static in reality its contents are transgressive. From the inner- to outermost, the rings in the model correspond to design for: the world as it is today, the world as it could be in the close future, and the world as it could be in speculative futures (Johannessen, 2017). Traditional design seem to exist in the most centric parts of the diagram, focused on today while critical design looks for the next level on user experience by provoking reactions. We could add emotional design also in the next layers of the circle mainly in the embodied interaction which is part of Engaging human with the product. Those layers focus on the differences may lie among those terms and practices and give a first impression according to time and user.

More specifically, as long as it concerns the differences between Affirmative and Critical design, Dune and Ruby in their book "Speculative Everything" written in 2013, had gathered the main and simple opposite terms defining Traditional and Critical design. Generally, the following two contrary lists describe those different senses:

A	**B**
Affirmative	Critical
Problem solving	Problem finding
Provides answers	Asks questions
For how the world is	For how the world could be
Makes us buy	Makes us think

In their manifesto the "A"-category holds that most future design, which follows the traditional path. However, on their view, there has to exist another type of design practice, the "B"-part of the list, to widen the horizon of design and avoid that the world develops in a gradually narrower direction (Leon Karlsen Johannessen,2017). The first list look persistently on today but the second one worry on tomorrow which follows of course the today. The B part is the answer to the things that have rooted and continually grow in today's human world. This is an idea that reveals a world full of possibilities, with no framed answers, a world which is easily altered and modified. To follow a "tradition" doesn't keep up with the pace of this change but forms ephemeral safety which lastly degrade people's intelligence and level of life.

On the other hand the three different levels of design as Norman analysis in his book for Emotional design, concern the psychological and biological way of interacting and reacting to the entire stimulus around us. We carry information from our animal ancestors but we also have developed our mind in a high level that we can create new wishes and needs. All these data concerning our steps of thoughts and feelings can be used from designers that tend to satisfy the profit of the market. Usually, Traditional design exploits the sudden and easily provoked Visceral reactions. Hundreds and thousands of products are being produced today only to cause the "Wow!" effect on us and persuade us to buy them. This is wide territory where the products of the market and the Emotional design meet.

Lastly, the third level of design called the Reflective level is where deep meaning and essence lie. This is the domain where intellectuality gives birth to critic which creates values on inanimate things. Critical and Emotional design meet to ask questions on human being behavior of today and tomorrow. How and why someone is engaged to something and think of it in a divergent way which will lead to strong memory and discussion. The appearance, or the materiality of the final product are parts of something bigger with a deeper meaning; they are parts of a synthesis that wishes to throw light to this part of the brain that will awake feelings of understanding relations in another way.

5.From theory to practice

5.a.Opportunities and meaningful applications

"*Product design is a powerful medium, language and process through which to make comment and engage inquiry*" (Malpass, 2012)

Designing something from the beginning is usually connected with a concept or an idea. This idea is articulated from presentations, artefacts, topics and contexts that in the end are communicated to the public and are finally formed into real objects. Critical design is based in this consequence of thoughts and it can actually offer a numerous benefits and qualities in the whole design process.

The first and most important field that critical thinking can be cultivated is of course in the academic. The academia provides a fertile environment for such contemplation as it is free of market constraints and demands of the clients. Creative Thinking is an integral and important part of design process where ideas reveal themselves without restricts and obstacles and is strongly linked with the future. This notion is part of the Speculative design through which designers truly try to influence the future rather than adapt to the most probable one.

Related to the above observation is the concept of “Future Cones” that follows which is about the so-called “three-laws” of future: future is not predetermined; it is not predictable; and it can be influenced by our choices in the present (Jakobsone, 2017). Below the cone shows the main 3 sections of future which are the probable, the plausible and the possible. The probable future is what most industries prefer to follow because it comes up from an analysis of the past and the present and it is the most promising one for gaining the maximum profit. What speculative design does is to look to all the other future scenarios without limits. They actually challenge and motivate people to think out of the box and care about the future they really wish to have, which is the preferable one and exists somewhere in between the plausible and the possible future. Besides, if we strive for something that we really want to happen there is a big chance we can make it.

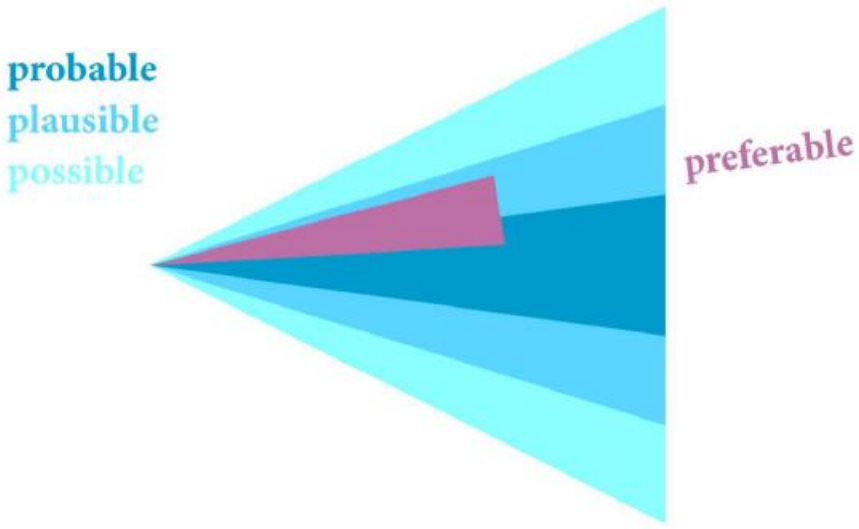

Figure 17: Diagram of future cones (Dune & Raby, 2013)

Critical and Speculative designers use design as a medium to visualize alternative futures without suggesting the preferable one, whereas other designers actually create the future - regardless whether it happens as a deliberate and conscious act or just as an inevitable consequence of insufficiently informed action (Jakobsone, 2017). Critical design tasks should be incorporated within the educational curricula allowing designers to respond to their imagination without limits.

From the other hand, Emotional design is strongly related to the truth about people’s existence and the way they are somehow “programmed” of reacting and creating several situations. This is a large field of deep knowledge that offers answers to people who are designing for human beings, and of course a large field of experimentation and challenging situations. Emotion is what actually forms most of our behavior, wishes, and social ideas and believes. This in combination to Critical thinking offers an enlightening potential and liberates people from their

ideological ties and push them to take informed decisions. Most of our social interaction and behavior is packed into pre-existing rules and ideas which we seldom even recognize is as an ideology but are thought as natural ways of seeing the world.

Every time, a designer creates something that is meant to have an interaction with a person, he must have in mind that this person is also a human with biological and psychological needs, a citizen and a person with several roles inside the game of life. He has to decide whether to follow the path that just put another brick in this big wall built, or take a small brick out and reveal a beam of light of something radical, contradictory and new.

2nd C h a p t e r

1.Introduction

People nowadays have adapted their everyday living in the demands of a big city which has become, from the early 18th century, an independent organism transmitting its pulse to its citizens. This, mainly Western, lifestyle has encompass a series of objects that we use every day and are almost thought as they've always existed. Their image has taken a strong symbolic idea in our minds which represent almost a language to communicate. They are reminders of actions and behaviors; they represent a frame of mind. All those symbolic products that appear as knowledge of our past experience are considered as archetypes. Archetype is an object that has passed the challenge of time and has stayed as the rooted image of a specific action. All those things that people know and believe as archetypes are means of our biological, survival system which wishes all the time to be prepared for the future and deal with the stimulus of its surroundings in the right way. In other words, they are deep connected with our visceral automatic prewired layer and affect/control in a big scale our behavioral level of living.

The first stimulus our existence reacts and stores as an information is the external image of something. It is the first memory that determines a big part of our behavior. Our sense of sight is considered as the most important of our five senses because that way we can easily conclude to rapid judgments and react in the right/safest way. But is this always good? Image, today, is the prevailing "representative" of everything around us, alive or not. The web has made it possible and "realistic" to communicate through images and upload new versions of us and our things in an everyday and rapid way. Some pixels are enough to persuade us of something. It is considered as the most common way of telling the "truth" of an existence. But is it? What it really is a tension that was born from the notion of capitalism. All the images around us represent only one thing: advertisement. Sell and buy. Unfortunately, we have learned to live in a ceaseless circle of these behavior and we have include all our values and strongest viable emotion into it. As Deyan Sudjic mentions in his book "The language of things: understanding the world of desirable objects" very accurately:

> *Possessions that stayed with us for decades could be understood as mirroring our experiences of time passing. Now our relationship with new possessions seems so much emptier. The allure of the product is created and sold on the basis of a look that does not survive physical contact. The bloom of attraction wilts so rapidly that passion is spent almost as soon as the sale is consummated. Desire fades long before an object grows old. Product design has come to resemble a form of plastic surgery, something like a Botox injection to the forehead, suppressing frown lines to create a brief illusion of*

beauty. (…) Each new generation is superseded so fast that there in never time to develop a relationship between owner and object.

Of course, in this endless recycling of ephemeral happiness, products are the protagonists that frame our capitalistic behavior. Their images, once they go online they become our gods. Designers have confronted in this way of living by promoting and adapt this kind of religion. Of course this is a result of lack of true and value. The only thing that matters is the money moving. Products with a strong look transmit a strong emotional signal that answers to our sight, which means our visceral level, creates immediate emotional impact and that way the System image of the product communicates with the user. But, it's enough to communicate only to make him/her buy. We barely care if something doesn't last.

2.Archetypes and Semiotics

The first impression of an image of a product which is right away recognizable answers to a sense called Archetype. These are forms of objects that have last through time and have replace all other similar products or actions related to those products, with their iconic image. In a way, our perceptions are shaped by the physical aspects of those products and generally by design.

What Archetypes can offer, as Deyan Sudjic mentions in his book about the language of products, is the less specific comfort of a memory, and the complex attractions of a sense of familiarity. By working within the framework of archetypes, there is the possibility of bringing some psychological and emotional depth to the design of objects. Even if our possessions do not age well, and we continually replace them, designs that evoke archetypes offer a consoling sense of continuity. They introduce a ready-made history for an object (Sudjic, 2009).

This history recommends an organization of the signs of archetype, or in other words a language. Linguistics is a large field of research and analysis concerning their sign and semiotics. Semiotics is the study of signs and sign processes. It is the first step to understanding the sign system. We perceive everything through signs, and nothing can be interpreted without them (Lee, 2012).

In semiotics, there are three kinds of signs: iconic, indexical and symbolic signs. The sign transmitted from products so called Archetypes is mostly the last one which is based on the knowledge and the background of the user who perceives it. More specifically, as Lee Jungha elaborates in her master's research project "*Using archetypes in the design process"* the symbolic sign means:

Symbolic sign: *Symbols are signs that have no link at all with the thing it represents. The only reason we know what they mean is because we have learnt what they mean over time. Symbolic signs are constructed or agreed upon to be used as signs for given purposes in the internal or external world.*

What Lee mentions in her master's project is that following archetypical forms in design is a helpful way of getting the user to understand in a more straight forward way how the product functions and what it represents. What I feel is that this notion may be creative and adapt the signs every time in a different product's body, but it also perpetuates an idea without the need for that. The world changes and we need to get out of our comfort zone in order to push our mind in the limits to reestablish new rituals. But first, it is crucial to understands what is semiotics, and how it works with human's perception. Afterwards, it is always intriguing to challenge different ventures as projects and dialogs based on that theory.

3.Concept generation

Figure 18: Illustration by the author

3.a.Concept

The concept of the following products designed has been born in this context of today but wishes to affect tomorrow's way of thinking. A series of everyday products is designed in a way of adapting the old, the new and the different. What represent the old are the rooted images

that are so called archetypes and an only look is enough to persuade us of their function. These are archetypes that have become as universal as to be invisible, each version building on its predecessors to continually refresh the basic parameters. Who would think of asking who first designed the first bottle? It is an instantly recognizable object. The bottle has had centuries to sink deep into the consciousness of the world. It has instant familiar form, and one around so many rituals, both public and private, have evolved. It is one of the archetypes that have endured for centuries. (Sudjic, 2009). Furthermore, the idea of new is the technology of a material called Vantablack [1], which absorbs the 99, 9% of light making something a 2D image than a 3D substance in the eyes of the beholder. And lastly, the difference is communicated through the truth behind the image. It is the experiment that it is been succeeded through the actual interaction with the potential user.

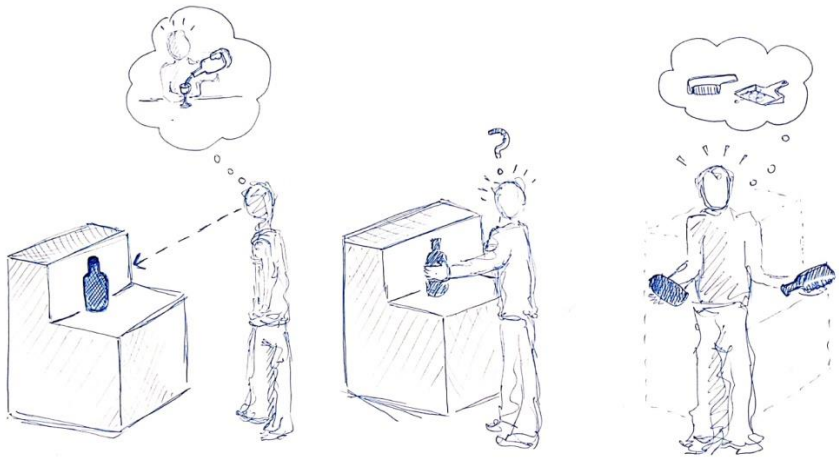

Figure 19: Sketch "the interaction between the object and the user"

In this experimental concept a double way of interaction exists: the user from visceral goes to reflective, because is strongly driven from perception – the outer image which symbolizes of something already known- , and, when he really “sees” and communicates with the products by using more of his senses, his reflection tries to bias his behavior so, from reflective goes to visceral level consequently he/she is mainly driven by thought –he actually understands that it is not what it seems. Both, actions are wished to be provoked because that way is totally understood that both affective and cognitive component is valuable to assign value and meaning.

The image reflected from the objects covered by the Vantablack layer subconsciously prepares the user of a specific series of actions related to the connected function and usability of those products. But, the lack of 3D substance of those objects confuses their existence and the behavioral value of understandability is eventually lost. The sense of control is lost; the prevailing feeling is curiousness and the need of physical feel, which comes with a sense of risk.

After touching the five objects he rejects anything he/she knew. The archetypical image about the products that has been created and it used to linger in their minds as memory ready for reuse vanishes. He finally"sees" behind the form and understands the illusion.

3.b.Sketches

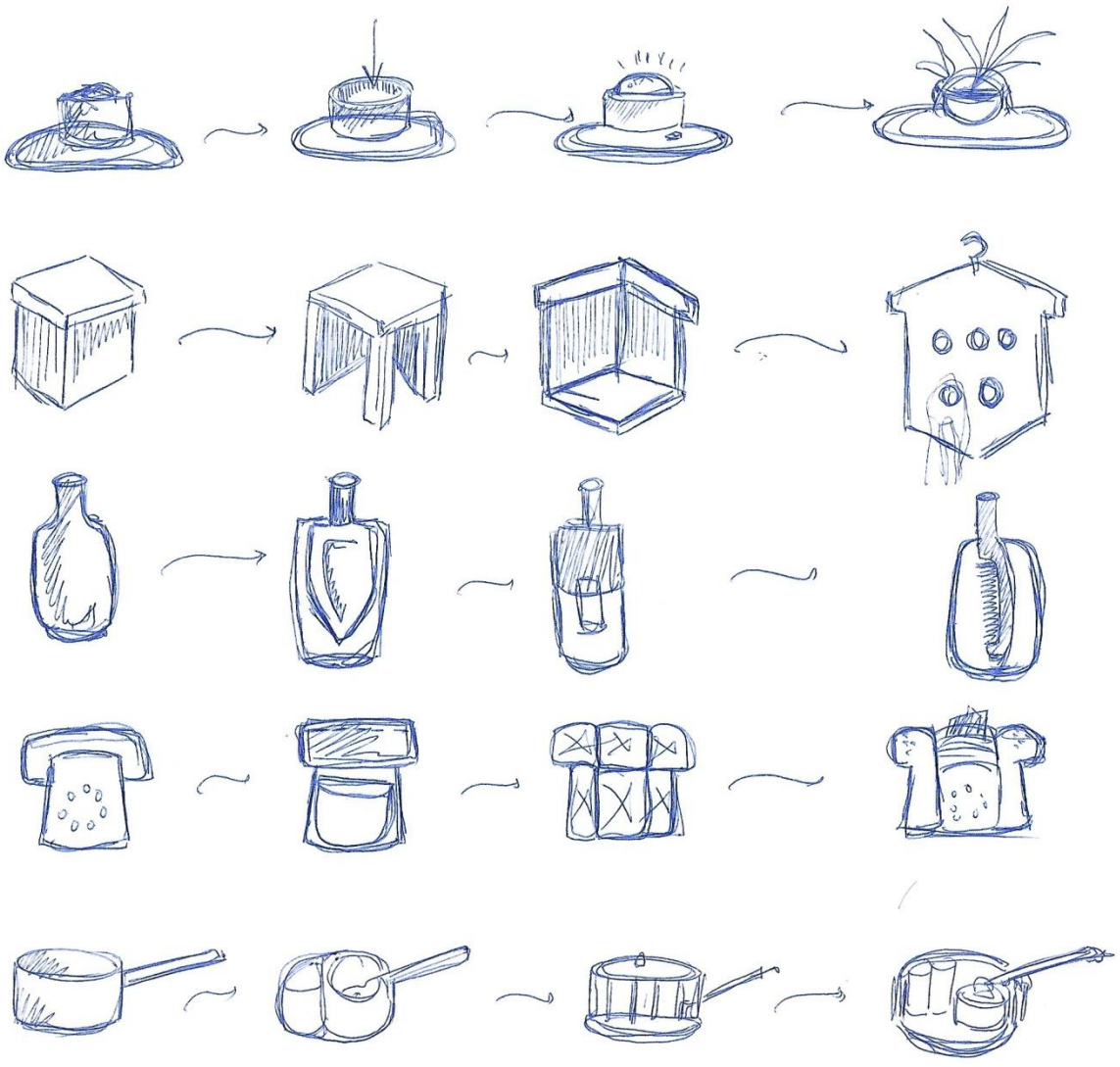

Figure 20: Sketches during the development of the concept

4.Final product

4.a.3D Visualizations

The truth behind a hat is a plant pot;

the truth behind saucepan is a bathroom set.

the truth behind a telephone is a salt and pepper shakers;

the truth behind a box is a hanger;

the truth behind a bottle is a broom and a dustpan;

They all seem to belong to a non specific past, or an as yet unclear future.

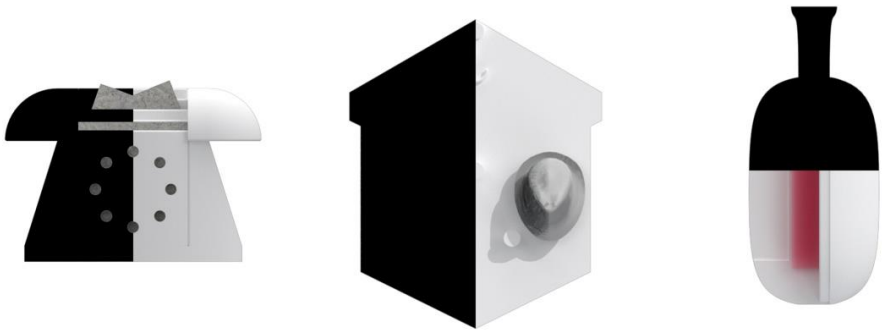

Figure 21: 3D visualizations

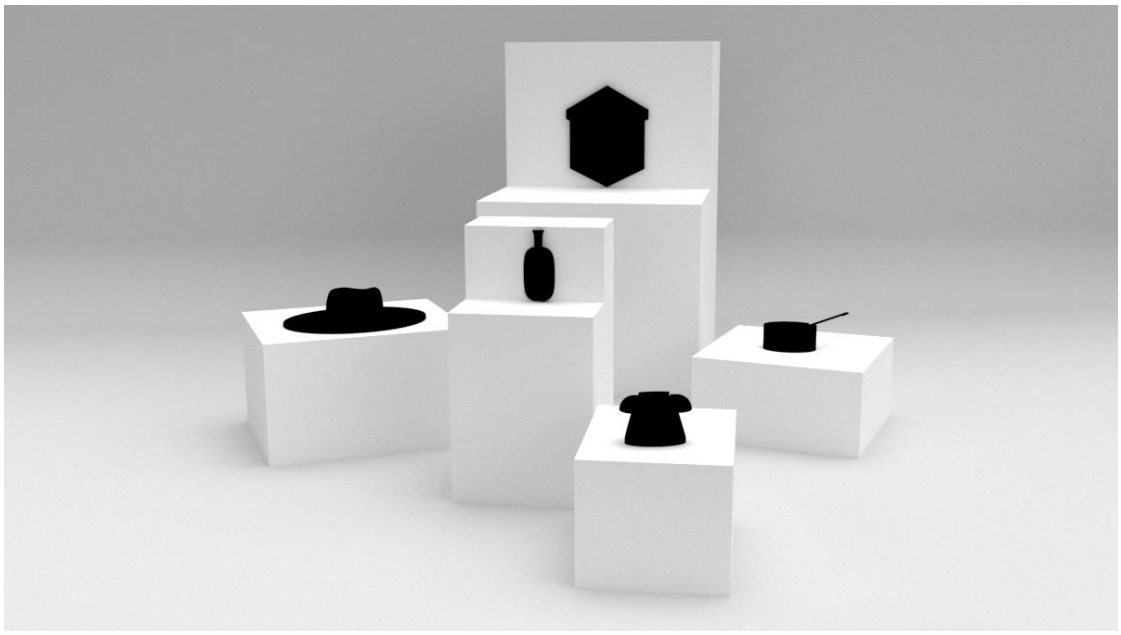

Figure 22: 3D visualization - In a gallery space

The connection behind the form of the product is of course cultural. Through this idea I try to make a statement about what we think of unchangeable things during our lives, how they are considered as authentic values, how are learned and why no one interrogates them. Our minds are the actual judges and they are just clay that is being sculptured and trained from people before us. Every one of us as part of a society has a specific world view and way of seeing and understanding reality, which is mainly common and conventional. A metaphor is needed to alter stereotypes and raise awareness about our present mainly virtual life.

Figure 23: 3D visualization - In a gallery space. Some parts of the objects are colored.

Forms offer ephemeral safety and lastly degrade people's intelligence and level of life. Vantablack, at first, makes their physical substance almost zero, just like the images of our dominant virtual world. The appearance isn't enough of engaging the audience, and the imagination begins to act. The **black** reveal a world full of possibilities. The user needs to reinterpret the form connected to the use and reflect on them. On the other hand, black suggests seriousness. It is considered as a non-color, used for scientific instruments that rely on precision rather than fashion to appeal to customers. Of course this is precisely the most effective kind of seduction. And in the end black too becomes an empty signal, a sign devoid of substance (Sudjic, 2009).

Figure 24: Conceptual collage

The five objects, the hat – pot, the box – hanger, the telephone – salt & pepper, the bottle – broom &dustpan and the saucepan – bathroom set, can be manufactured in any kind of material like plastic or metal (ex. aluminum) or even wood. On this material base the Vantablack layer of paint covers the item. Their dimensions are conventional in a household environment and obey the rules of human ergonomics.

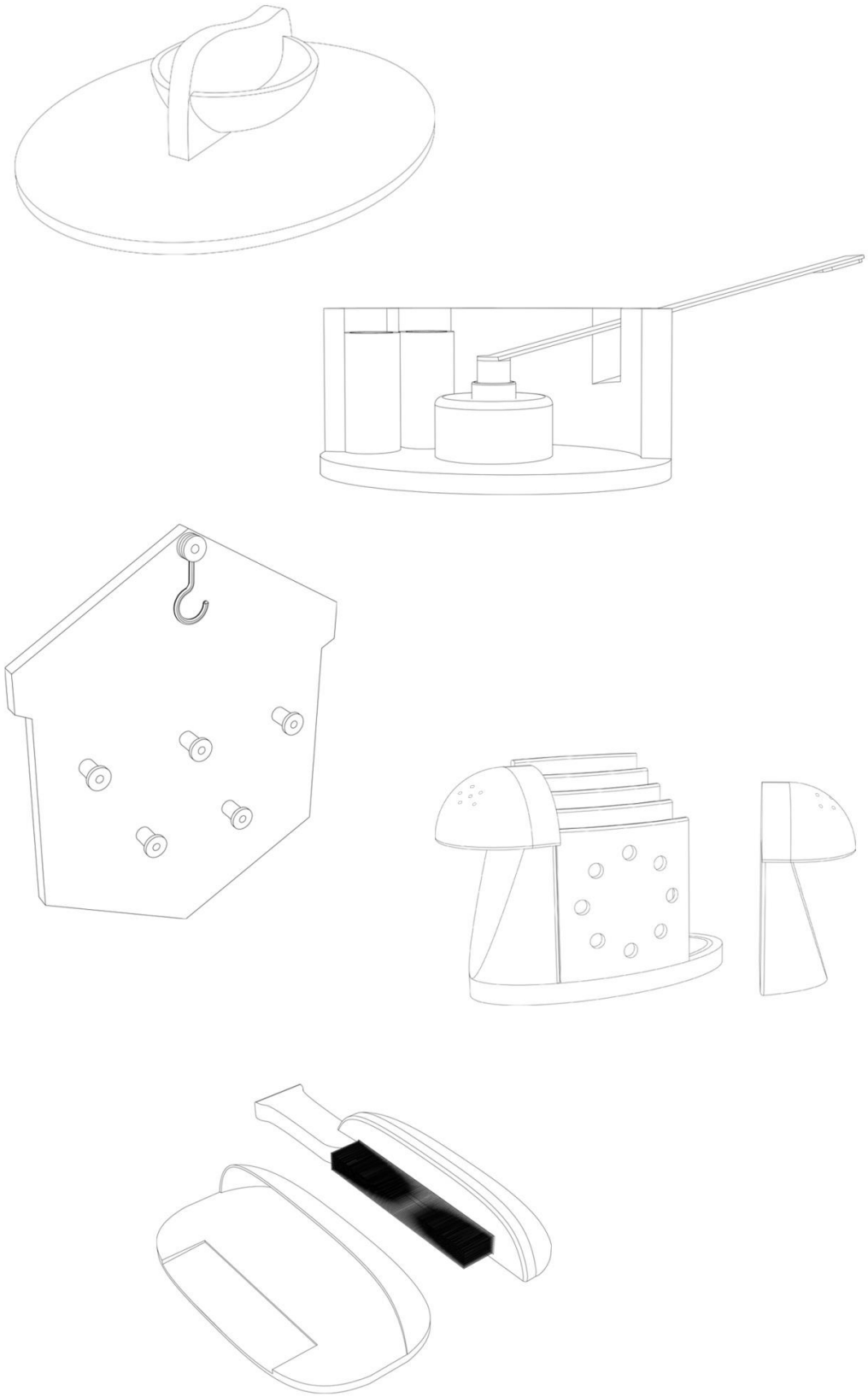

Figure 25: Axonometric drawings of the five objects

4.b.Spaces and objects

We are dreaming of the domestic fulfillment that we hope products will bring us. Our relationship with our possessions is never straightforward. It is a complex blend of the knowing and the innocent.
Objects are far from being innocent and that is what makes them too interesting to ignore. (Sudjic, 2009).

Figure 26: 3D visualization "Space 1 : The living room"

Figure 27: 3D visualization "Space 2: The bathroom"

Questions must be asked about what we actually need, about the way poetic moments can be intertwined with the everyday and not separated from it. (Dunne, A. and Raby, F., 2001).

They are not understood as simple objects, but a condensation of social forces. Thus things can be interpreted as conglomerates of desires, wishes, intensities and power relations. And a thing language, which is thus charged with the energy of matter can also exceed description and become productive. It can move beyond representation and become creative in the sense of a transformation of the relations, which define it (Hito Steyerl, 2006).

Figure 28: ED visualization " Space 3: The kitchen"

Figure 29: 3D visualization "Space 4: The hall"

Things that adapt to their environment emphasize change and show difference. - Marshall McLuhan

Beneath the glossy surface of official design lurks a dark and strange world driven by real human needs. A place where (electronic) objects co-star in a noir thriller, working with like minded individuals to escape normalisation and ensure that even a totally manufactured environment has room for danger, adventure and transgression. We don't think that design can even fully anticipate the richness of this unofficial world and neither should it. But it can draw inspiration of it and develop new design approaches and roles so that our new environment evolves, there is still scope for rich and complex human pleasure (Dune & Raby, 2001).

Figure 30: 3D visualization " Space 5: the storage room"

B O O K M A R K S

[1] THE MATERIAL OF "VANTABLACK"

Vantablack is a material developed by Surrey NanoSystems in the United Kingdom and is one of the darkest substances known, absorbing up to 99.965% of visible light. The name is a compound of the acronym *VANTA* (vertically aligned carbon nanotube arrays) and the color *black*. It is considered as the darkest man-made substance.

Properties: It is grown on metal foil and composed of a forest of vertical tubes "grown" on a substance using modified chemical vapor deposition process (En.wikipedia.org, 2019). What really happens is that when light strikes Vantablack, instead of bouncing off, it becomes trapped and is continually deflected amongst the tubes, eventually becoming absorbed and dissipating into heat.

In addition to directly growing aligned carbon nanotubes, Vantablack is made into two sprayable paints with randomly-oriented nanotubes, Vantablack S-VIS and Vantablack S-IR with better infrared absorption than the former. Surrey NanoSystems also markets a line of non-nanotube sprayable paints known as Vantablack VBx that are even easier to apply (En.wikipedia.org, 2019).

Applications: Vantablack most common application is in telescopes, by preventing stray light from entering through or infrared camera. But is has also used for artistic use in "Vantablack pavilion" at the 2018 Winter Olmpics by spraying a large area of a building. BMW unveiled a X6 also with Vantablack paint at the Frankfurt Auto show in September 2019. Lastly, Diemut Strebe in his concept "The Redemption of Vanity", which is considered as a science art project in collaboration with Brian Warldle, where by using vantablack he disappeared a precious diamond. What they wished to show and comment on is that both are made of carbon. It's the same element, just the different atomic letter structure, makes them so extreme opposite in the phenomenology, in their appearance (The-redemption-of-vanity.com, 2019).

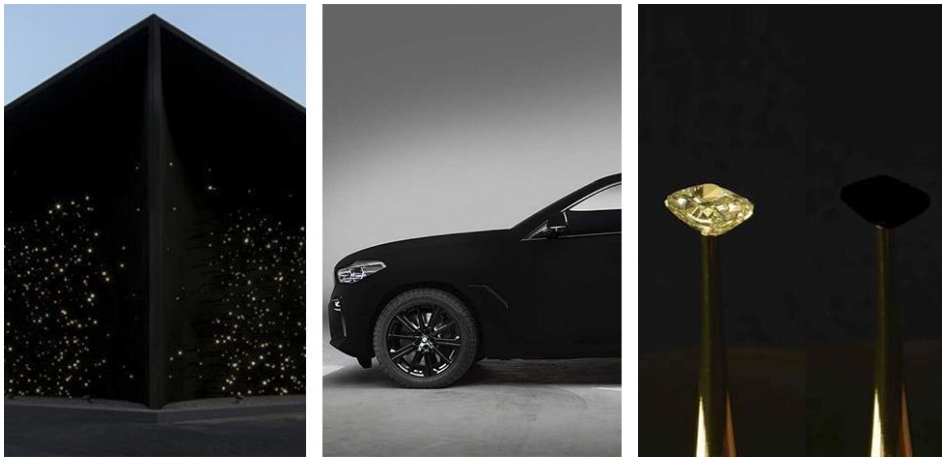

Figure 31: examples of Vantablack application in design

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