APPROACHING A NEW DESIGN ERA
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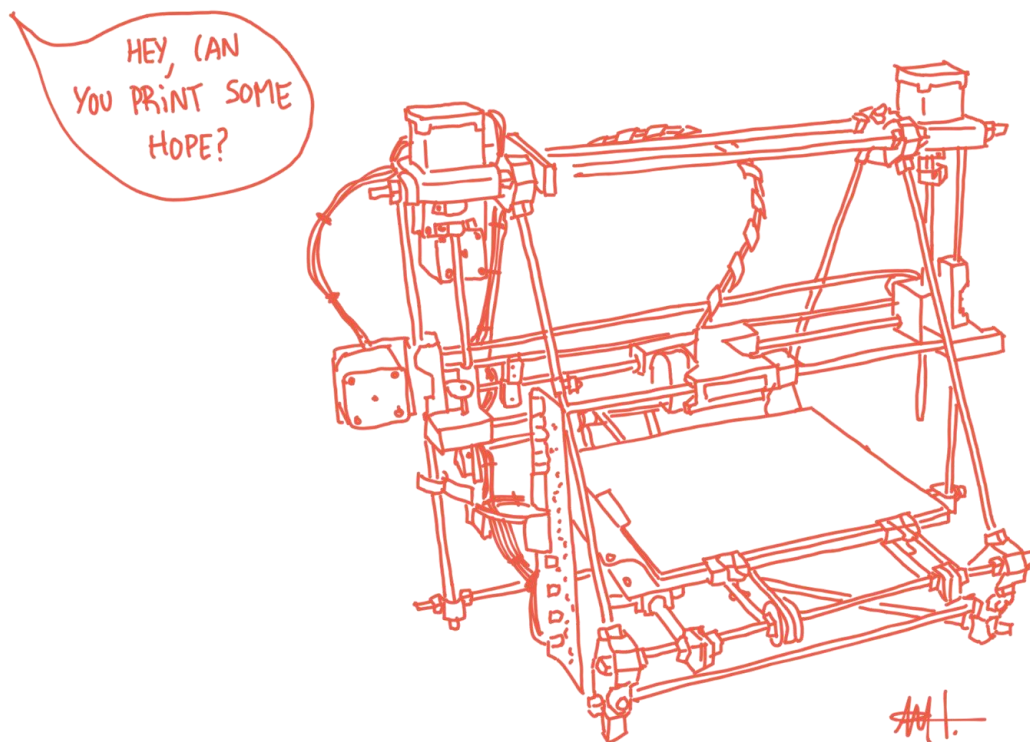
Abstract

We live in a new era. Over the last few years we have seen how technology has advanced exponentially. New products have been created with the aim of making our lives easier, production and transport processes have been streamlined, practically everything has been globalised, and a parallel digital universe has been created. Much progress has been made in some fields such as health and science in general, we have seen the birth of mobiles and applications, 3D printers capable of anything, electric cars, etc.

Even so, the system in which we live has also brought a lot of inequality between first and third world countries, where some consume and others produce. Also inequality within the same countries, where poverty is still a big issue for almost all governments. We are consuming massively every day and we create a lot of waste that ends up on a beach or forming an island in the middle of the sea. We are in a hurry, we want everything at the moment and this is reflected in the way we shop, the way we work, the way we interact with people (instant messaging, social networks, etc.). The problem is that all this has consequences, and serious ones. Climate catastrophes, environmental pollution (atmospheric, light, noise...), temperature situations that do not correspond to the time of year and much more.

What role does design play in all this? How can design be used for the common good and for the planet? First of all, by taking into account where we come from, how we got to where we are and by looking at our environment to understand that we are not alone, and that even if our existence on this planet does not yet have a reason (and may never have a reason), we have to understand that we are not alone and that destroying the planet does not only affect the human race. We must take a cue from what has gone before us, and incorporate it into the way we design.

We must also bear in mind that design drives the way we act and interact with the outside world. Our whole environment is full of signs, objects that tell us what to do and what not to do. In my opinion, the way forward has to be to design for the positive. We should not create to limit and restrict, but to enable and allow.

Finally, we have to understand that, in order to make progress, any information and resources have to be shared. Initiatives that promote this way of acting, away from privatisation and patents, will be the ones that decide how the future should be: empathetic and disinterested.

In this article I will address these issues and some others about my vision of design and my purpose, and at the same time talk about how design and current trends can contribute to improve the future.

<center>**Article**</center>

I. DESIGN AND ME

"Design", a word that is very present nowadays, a word that we find in many different fields: from product design to the design of business strategies, the design of methodologies, interiors, systems, theories, mechanisms, etc. Today we use this word in many fields of our society, but what does it mean? Who can be defined as a designer? What does it mean to dedicate oneself to design?

Honestly, even though I am a practitioner and I use this term a lot in my daily life, I have to say that I already loathe it. The diversification of university degrees has resulted in the creation of a large number of design degrees, each one specific to a particular subject. In addition, with the resources provided by the internet and new editing and content creation software, more and more people are defining themselves as "I'm a designer" or "I'm in design". Obviously this does not have any negative connotation, quite the contrary: there are more and more people who have notions of design and this is a good thing, as long as it is accompanied by the responsibility required to dedicate oneself to it, of course. In any case, the fact that this word is used so much nowadays has given me a feeling of emptiness, that it no longer has the meaning it used to have. The first times the concept of "industrial design" was used by the Bauhaus masters, it had a very powerful role and meaning, it was the creation of objects, from the first drawing to the final result, following all the iterations and medium steps. Now, someone who is dedicated to industrial design can perfectly well be a person locked in an office drawing plans for pipes that are probably going to be manufactured in China. See what I mean?

In my case, I have never defined myself as a designer, at least not as a designer and nothing else. I studied Industrial Design and Product Development Engineering, a very long name but one that I think pretty much defines who I am and what I do. I consider myself an engineer and I consider myself a designer, basically because I believe that both words are co-dependent in the world of object creation. You can't design a chair without taking into account the structure that is going to support the person sitting on it. You can't design a toaster without taking into account that it won't start a fire. You can't design a pen without taking into account that the cap may obstruct a breathing passage. These are very silly examples, but they teach us how engineering is basic to make these objects _work_.

On the other hand, during the last few years I have been realising what it is that I like to do, although I have had it inside me since I was a child. I like inventing, creating, modifying, repairing, improving objects or simply making them in my own way. If I had been born 50 years earlier, I would have defined myself as an "inventor". Now I think this word is a bit obsolete, but as in all fields there is already a concept in English that is used no matter what language you speak, which is the term "maker". I think this word defines much better what I do, which is to create, to make.

It is not just about design, nor is it just about making, it encompasses everything in one word. For the design of a product is the whole process of creation: thinking, drawing, engineering, digitalising, prototyping, iterating, manufacturing, post-processing. I think it is essential to participate in as many processes as possible, apart from the fact that I think it is the most fun and instructive.

Concluding this first section, you always have to bear in mind that design is something completely social. And what does social imply? Well, basically, anything that those of us who are in charge of design do is going to have an impact on society. This is both an opportunity and a warning, given that with what we do we can both help to improve society and help to make it worse. This social aspect is something I've always been concerned about and I've tried to apply it in everything I've done. Redistribution of wealth, equal opportunities, feminism, public infrastructure, racial equality, common good, etc. are for me fundamental values that are key when designing. We have to create from empathy and with the responsibility that corresponds to us. In the end, we are the ones who shape everything around us.

II. NATURE, THE BEST EXAMPLE

To begin with, I think we have to understand that the best designer will always be nature. Nature is capable of designing organisms as complex as ourselves, crystalline structures in snowflakes, trees that grow tall to reach the light. I recently watched a documentary series on Netflix called *Life in Colour*[1] by David Attenborough and it blew my mind. I already knew about the immensity of animal species with unique and picturesque-looking features, but until you are told the function of each of these rigorously designed parts of nature, you don't realise the amazing role of evolution and adaptation to the environment. The feathers of peacocks, the structures of spider webs, the skin of chameleons, the puffer fish's ability to swell, ant colonies, the ultrasound of bats, etc. are just some of the endless examples of nature's ability to design and improve every single organism on the planet.

Recently I also had the opportunity to see another documentary called *Fantastic Fungi*[2] by Louie Schwartzberg, which talks about the fungi kingdom (totally unknown to me until then) and its vital role for all the species that inhabit the planet both in life and in death. It also talks about the mycelium, present throughout the earth's crust, creating connections underground and transmitting electrical impulses to communicate from the origin of the existence of the world we live in.

Documenting these topics made me see two things more clearly: Firstly, we are just one more species on this planet and we coexist with millions of other organisms by pure chance and we have the duty and responsibility to respect nature and the organisms that inhabit it. Even if we are the dominant species on earth, that does not mean that our existence is more important than that of any other being.

Secondly, nature is clearly the best designer that ever existed, so we have to be aware of that and take an example. We have to learn from the structures, systems, functions that nature creates and then apply them in our lives. We also have to adapt to nature now that the evolutionary chain and natural selection are almost non-existent due to the massification and evolution of technology and medicine.

III. APPROACHES TO DESIGN

As we have already discussed in the first chapter of this text, there are many types of design and applications in many different contexts. Since I am not a specialist, I don't think I can talk about each of them and their role, nor would it be my intention to do so. Still, I believe that the definition given at the Bauhaus[3] is the most appropriate for any kind of design: "Form follows function". And yes, although this may seem to apply only to objects and other tangible things, it is also a definition applicable to all variations of design that may exist. You can design spaces, websites, systems, strategies, always keeping in mind that the function of all of these comes before the form as it is applied. What does this mean? It means that whatever can be designed, it doesn't matter what form is used if in the end it doesn't fulfil the required function. Function has to be paramount whenever you want to create something that is meaningful.

Apart from function and form, design can also be defined according to the intention given to it. Design can be seen as art, as a tool to achieve something, as something functional, it can convey emotions, it can be seen in an optimistic and pessimistic way, it can be ecological, useful, provocative. The great variety of ways of approaching the act of designing is what enriches this process and at the same time can implicitly give a personal and subjective touch to whatever is being designed.

One of the forms of design that I most enjoy and promote is the fact of designing to experiment, test, learn and discover. I think that *Fab Labs*[4] in general have worked a lot in this direction and have carried out highly successful and transcendental projects in many respects, including, logically, Fab Lab Barcelona with projects like *Remixing el Barrio*[5] and *Smart Citizens*[6]. The *Ateneus de Fabricació*[7], which I'll talk about later, are also putting themselves on a par with and at the level of the citizen to extend digital fabrication with this approach. *ELISAVA Research*[8] is also promoting this aspect of design, where design is basically for the mere fact of exploring and collecting useful information for other projects. The work of Saul Baeza that I have recently discovered seems to me to reflect this type of approach.

IV. DESIGN AND SOCIETY

Design has a direct relationship with society. It is everywhere and its influence reaches the deepest levels of our thinking. Although we may not think about it directly, the way we act or fail to act is intrinsically based on the design of the objects, forms and systems

around us. A very clear example in favour of this argument is traffic lights. With the advent of cars, roads and cities, a method had to be found to organise space so that no one would be adversely affected by the coexistence of machines and people. Thus, this globally recognised symbol was designed, an object that with two lights communicates a clear and concise message: "You can - You can't".

Clearly, the context and environment in which we live can and does affect our actions, which is why I believe that design, in this area, is the relationship between humans and things. We create the objects; the objects tell us how to act. It also goes far beyond age, gender, class, background, status.... Design is intersectional, and it is this that makes it so influential and important in our lives.

On the other hand, this relationship does not have to be positive. In fact, it is often used to do the opposite: control, limit, restrict. George Orwell, in the book *1984*[9], explained how Big Brother's government had invented a whole language, "newspeak", solely with the intention of restricting and limiting the thinking of the population. How can one think about the concept of "freedom" if it does not exist? Or concepts like "peace", "equality", "justice"?

Obviously, the book poses a very extreme situation of a society tremendously controlled by a government that says what is right and what is wrong, that writes the past, the present and the future at its mercy, that sets rules for everything. Although, come to think of it, perhaps we are not so far from this reality and we are much more controlled than we think. There are apps intended to create addiction, clothes that tell you that you should lose weight, benches on the street against homeless people and skateboarders (*Camden Bench*[10]). I think what we call "Unpleasant Design" is something that should be avoided at all costs. In the end, we should not design to censor or limit, but to enable and promote, always in a positive way.

V. DESIGN AS A MEANS OF PROGRESS

Having defined my concept of design and the bases on which my opinion is based, I think it is also important to talk about "what to do" and "how to do it", starting from the why.

To be clear, we live in a complicated reality. We live in a state of climate emergency as a consequence of an uncontrolled capitalism that literally devastates everything it passes through. Entire forests destroyed to build hotels, mountains exploited to obtain minerals such as lithium to produce non-recyclable batteries that will end up on some beach in a third world country, islands (yes, islands) of waste and rubbish in the middle of the Atlantic Ocean... We live in a society that alienates people, that bases everything on productivity and money, that works to consume and consumes to be happy. This logically leads to mass production, very low paid jobs in poorer countries, abusive fuel pollution to bring the

package home. The rich get richer, the poor get poorer, and a large part of society lives lost within a system that tells you what you have to be, what you have to buy and when you will or will not want something.

As Charlie Chaplin said in *The Great Dictator*[11]: *"We have developed speed, but we have shut ourselves in. Machinery that gives abundance has left us in want. Our knowledge has made us cynical. Our cleverness, hard and unkind. We think too much and feel too little. More than machinery we need humanity. More than cleverness we need kindness and gentleness. Without these qualities, life will be violent and all will be lost..."*.

This is why we have to use design to reverse this situation. We have to design from empathy, being responsible with the present, but also very conscious of how the past has been and always thinking about the future. It is not enough to design a product; we have to design the whole life of that product: What happens if it breaks? Are the materials going to be reusable or recyclable? How will it be used in 20 or 50 years? Fortunately, we are already moving, very slowly, in that direction. There are businesses promoting local trade and companies that are increasingly aware of the situation, innovating to reverse the situation we are in. But more is needed.

We must be clear that design is also about opportunities, solutions, innovation, improving the present. It can be used to confront reality, to change things that do not work and to provide other living conditions for other people/species, whether in the present or in the future. The *Hospital Sant Joan de Déu*, in Esplugues de Llobregat, is a clear example of what I am talking about. A very innovative hospital oriented towards children, based on their experience within the hospital, in order to make their lives easier and more fun, taking into account the difficult situation in which many of them find themselves. This is the kind of design we have to promote: the one that brings us closer to living better and being happier (all beings on the planet, obviously).

VI. SHARING IS CARING

In order to achieve everything proposed in the previous points, there is only one way: sharing knowledge, open source and distributed network. It is necessary that all the progress that is made, all the projects that can contribute to a more empathetic reality and all the design of the common good be shared among society. Without borders, without patents, without property. Knowledge has to reach everywhere where it is needed, as well as resources. Design by and for everyone.

Thanks to initiatives such as *Distributed Design*[12], much more promising goals can be achieved than with a system where knowledge is private. We are in society, and it is important to understand that everyone can contribute their grain of sand when it comes to improving reality, and that by joining efforts and information we will always be stronger.

To quote Emilio Smith: *"We must always think of the benefit of the ecosystem, before the benefit of the ego"*.

Finally, I also believe that education plays a very important role in all this. If we were taught from an early age that this is the model to follow, I am sure that society today would be a standard bearer for the values of equality and empathy. As an example, in Barcelona there are the *Ateneus de Fabricació*. These are public spaces of creation where knowledge about digital fabrication and the use of new prototyping technologies is taught and spread. The aim of these workshops is nothing more and nothing less than to give the opportunity to open this world to the entire population, especially to those who do not have easy access for whatever reason. And, most importantly, they are free spaces. You don't have to pay to use the machines, but in exchange you are asked for something in return, whether it's providing materials for other users or running a workshop for other people on something you are an expert in. This is how the network we were talking about is created, where everyone does their bit, while at the same time learning, and little by little projects are carried out at a local level taking into account methodologies such as Design Thinking[13] to improve the environment and the lives of citizens.

It is clear, this is the way forward and, as a maker, designer or whatever I am going to be, I will fight and promote any initiative that goes in that direction. Because society can only improve with these steps, understanding that we are not alone and that at the same time only we can make the future better than the present.

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[1] Attenborough, David. 2021. *Life in colour.*

[2] Schwartzberg, Louis. 2019. *Fantastic Fungi.*

[3] Bauhaus: German art school (1919-1933) that combined crafts and fine arts.

[4] FabLabs: Spaces where anyone can make almost anything using digital design and rapid prototyping technologies such as 3D printing, laser cutting, CNC, etc.

[5] *Remixing el Barrio*: A project about designing and crafting from food waste in the neighbourhood of Poblenou, Barcelona

[6] *Smart Citizens*: A project about local communities working together to collect data.

[7] *Ateneus de Fabricació*: Public fab labs and workshops with the aim to spread knowledge about digital fabrication and work with the citizens.

[8] ELISAVA Research: A team from ELISAVA that aims to generate and transfer knowledge to inspire, educate and instigate change through design.

[9] Orwell, George. 1949. *1984*.

[10] Camden Bench (2012): Bench for Camden neighbourhood in London. It's known for its hostility as it was designed against homeless people and skaters.

[11] Chaplin, Charlie. 1940. *The Great Dictator*.

[12] Distributed Design: A platform that acts as an Exchange and networking hub for the European maker movement.

[13] Design Thinking: A process for solving problems by prioritizing the consumer's needs above all else. It relies on empathy and involving oneself into the community they are designing for.