
Prologue

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This issue of *Temes de Disseny*, in line with its programme to cover themes of special interest within the area of design and culture as thoroughly as possible, is dedicated to disseminating what today may be said about design as an instrument aimed at developing and implementing creativity, the indispensable driving force behind innovation. At present, everyone agrees that the economies of advanced countries depend to a large extent on the added value they are capable of introducing into their products, services and communication systems. In today's world, it is not difficult it is to manufacture cheaply. What is truly difficult is being able to sell. In other words, it's no longer a question of producing a lot of cheap products, but producing expensive and attractive products, or new and exclusive products. Knowledge and creativity have therefore become instruments of great strategic importance because they are the indispensable seeds of innovation, which, in turn, is one of the main weapons held by developed economies. That is why design is gradually becoming an activity that forms part of this evolutionary trend in markets and consumption. This situation could be summarised by saying that developed countries have given themselves the task of creating new knowledge, the synthesis of new forms, the invention of increasingly more effective technologies, and the manufacture of products that enjoy great added value. On the other hand, manufacturing that requires the use of intensive labour at the service of simple technology is left for emerging countries, who work cheaply and with few social costs. This is the background to all current economic movements and also the impetus that motivates advanced economies to strive

to do things differently, if possible to be innovative or at least to seem so.

All this, and the themes deriving from it, is what we are dealing with in the articles before you. They are all written by prestigious specialists from our country, France, Canada and the United States. All endorse what we have just stated, namely that creativity and the corresponding innovation have gradually become the dimensions of design that are increasingly valued. In any case, and without wishing to enter into any contradiction with the reasoning expressed here, we believe it is useful to remember that saying one of the basic aims of design is innovation is not actually saying anything new. And this is the case because our activity, since the very beginnings of its conscious existence, has always borne this in mind and has put it into practice. Designers and architects decided to provide everything that was being manufactured by industrial society with the most suitable forms of the time; using the most appropriate materials and the best manufacturing techniques at their disposal. Accordingly, they designed products that had to be consumed by the masses; in the same way that, years later, when it was necessary, they got to work on renewing the appearance of what they had designed in order to make it obsolete in the short term. What was all this if not innovation and creativity, as understood by most within our discipline? It is because of this tradition of always finding what is most appropriate for each circumstance that design can now re-discover its youth. Therefore, what we can state, clearly and plainly, is that, although innovation has always been seen in a

positive light in the area of design, perhaps now as never before it is being seen as a highly strategic element within the new economy.

As we may confirm via the content of the writings below, most of the time innovation originated by design is different from that provided by scientific research or technology. But one author tells us that this may seem to be the case if we look very closely at how the different disciplines work. On the other hand, if we distance ourselves and take a better look at the fundamentals, we can see that the fundamentals of creativity are the same as for art, literature and all cultural activities. He cites the cases of Shakespeare and Beethoven, comparing them with the work of designers. His defence is that creativity is not an idea only, generated by genius inspiration, but rather the result of interaction between the individual and society. Creative processes are carried out based on pre-existing ideas but combined in a new way. It is not a question of simple copies or the mechanical articulation of ideas, forms and volumes, but of what is called "cultural creativity", consisting of knowing how to use the different culture models at our disposal in an appropriate way. It's a question of being good at building synoptic thought processes based on intuition and also on the knowledge of the cultural resources of the time. It is not difficult to see that this conception of creativity could have applications in professional work but could also form the basis for new ways of understanding the pedagogy of design.

In all the work published there is the idea, apparent in some cases and implicit in others, that designers must realise very clearly that they ultimately work through companies for specific publics. Such a circumstance we must bear in mind because, if a product, an artefact or any form does not reach the market and is not taken on by those publics made into consumers, it is not believed that innovation has taken place, or at least not innovation as understood in the business sphere, as the creation of

products and markets. There is no desire at all for useful novelties to remain confined within restricted sectors of society; if new products, services or applications do not become, in principle, available for the whole population, we cannot speak of true innovation within our sphere. Defending attitudes of this kind, we may say that many of the writers for this issue take a pragmatic position, which is why they do not appreciate knowledge as an end in itself, as appreciated by fundamental research, but knowledge applied to resolving people's problems, to giving them satisfaction, to providing them with symbolic and magical elements and, why not admit it, to serving companies. Not to mention the fact that, over the last few years and in the field of the tangible, innovation has changed in nature. When manufacturing industries predominated amongst us, it may be said that innovation was focused on technological improvement and the application of new mechanisms, such as more efficient engines, changes in sources of power, simplifying structures and other similar refinements. Now, however, it is considered vital for the application of improvements offered by innovation to be extended to all departments in a company: from administration and manufacturing to marketing, naturally including engineering and design. Innovation has become global, wide-ranging. And this is because companies do not limit themselves to producing more and better, more beautiful and interesting. Now their aims are extending towards the fields of ecology via savings in energy and raw materials and towards perfection in their production processes, aiming to avoid accidents at work. Furthermore, it is not a question of merely penetrating a market until it is saturated but of opening up new markets. For all these reasons, a modern company has to realise that it is a human group that must work in an organised way if it wants to achieve the aforementioned objectives.

It is well established, in more than one article, that there is a need to have sufficient knowledge of the social context in which consumption is carried out. As designers want

to do things that, in one way or another, will be aimed at a more or less widespread consuming public, it is evident that one of the aspects that becomes absolutely necessary is everything to do with the knowledge of lacks, demands and desires of these publics that become consumers. In line with this, design professionals must know, and the more the better, the culture of their time and, specifically, that of the human group which is supposed to receive their designs, something which is not easy at all, given that markets are increasingly more knowledgeable. Moreover, cultures, beyond any coincidences they may currently have and whether we like it or not, also have significant differences that cannot be underestimated. The so-often mentioned phenomenon of globalisation is still only a partial reality and everything seems to suggest that it will not be complete, if such a thing ever happens, until an indeterminate future date. But, on the other hand, design is seen as an excellent way to discover opportunities given that it reliably shows us how people interact with the objects and services in real contexts in their everyday lives. These facts are strongly confirmed in some of the work we have published, stating the need for sociological studies and also anthropological. One of our contributors, in agreement with what we have just said, even states that, in the spheres in which production and design are carried out, there is a need for departments specialised in social studies that can help to improve the functional and symbolic use of everything that is designed.

But there is more. Designers and their work are seen as halfway between technology and industry, on the one hand, and the consuming public on the other. It is stated that bridges are established between the logic of industrial production and the needs of publics that also have a specific culture, as we have mentioned before. For this reason it may be said that designers are the active agent that introduces the appropriate symbols in the forms they determine; symbols that must be understood by consumers. A design professional is, therefore, half a creator

of symbols; a cultural but at the same time technological agent. In this respect we must say that things have a functional structure that leads them perceptively towards a use, but also, and maybe we should say principally, an appearance that conveys them towards the emotional capacities of individuals.

Contemporary designers increasingly work in large firms or simply in collaboration with other professionals. We need to replace the old image of the design professional as a creator of forms in his or her studio, all alone or with assistants, with the new reality of working in interdisciplinary teams. That is why engineers, architects, advertising and all other kinds of professionals must collaborate with designers to ensure their work is efficient within the context of the current productive system. It is said that although new ideas are individual mental processes, these very often occur more readily in multidisciplinary environments. In some of the texts published it is considered to be particularly suitable, within the overall context of teamwork, for designers to collaborate with marketing professionals. And not only this but, as societies of knowledge evolve, it is stated that special areas are created known as "milieux of innovation". These are places where there is a providential meeting of universities and research institutes, dynamic firms and teams of professionals of all kinds. It goes without saying that, within the milieu of innovation, the texts published here place emphasis on designers, because it is believed they are precisely the best people to help the desired fruitful collaboration to come about. It is in these milieux where new objects and services are being created. These therefore emerge in environments that are suitable for the application of all the innovation capacity possessed by design today based on which we can already consider its long history.

The reader will also find an aspect developed here that is quite interesting, both from the point of view we may

call practical as well as from a theoretical point of view. I am referring to the use of the linguistic and even literary concept of narrative in order to clarify some aspects of the themes we are dealing with; of considering that social dynamics can be assimilated to literary or ideological narratives, based on which it would be possible to isolate what we may metaphorically call texts and to interpret them as such. Products and services offered to people would be capable of reproducing these social narratives that already exist or to offer them others as something new. The advantages obtained by using such strategies would derive from the possibility of offering products and services that can be perfectly assimilated by their targets.

Within the world of design, we may also see that there is concern due to fact that we may witness that not all companies are sufficiently sure about the advantages that can be provided by investing effort and also resources in the field of innovation and particularly that of design. Often many companies clearly see the benefits that can be obtained by applying a new technology but are, however, rather sceptical with regard to the formal and symbolic aspects that design can introduce into objects; formal and symbolic aspects that we know can bring production closer to people. In this respect, design professionals believe they can be an effective instrument in making a company more competitive but, although this all seems very clear, there are still too many companies that preserve a sceptical attitude and, in some cases, even one of rejection.

All this strategic aspect, which relates design with the creation of new forms and products, is based on the same notion, as well as on the basic psychological and psychosocial principles of innovation. In this respect, we may see how our authors analyse the concepts that concern us, namely those of creativity and innovation, their respective semantic fields, coincidences with other similar ones. However, we can also see that they are concerned about

the phenomena per se to which the concepts refer. From what they say, it may be deduced that there is a strong sense of the term with regard to its meaning and application, but also a weak sense. Innovation alone, or rather what we have just considered it to be in the strong sense of the term, can involve risks for designers and companies because there is the possibility of it being rejected because it is not understood. In this case, the only possibility is to measure it out; to plan a gradual introduction of the novelty in order to ensure that, over time, the acceptance at first refused. But it seems that, in the field of the production of goods and services in which design works, there are more attempts at finding new forms, new applications of what is already possessed. It is usual to adapt products to the trends of the time. In the same way, after a true innovation, which also exist, it is very frequent for the theme to be developed with applications in different fields. In this last way of understanding innovations, examples are provided of firms that have worked with schools, ELI-SAVA being mentioned specifically, in order to develop some previously unknown technologies.

There are even more aspects dealt with that are of a more specific nature but are nonetheless as interesting. Namely the practically universal use of computer technologies among design professionals. Computers allow us to create representations in three dimensions, projections of all kinds. Moreover, the internet, which has been the revolution of the last ten years, offers great possibilities, or so many believe, for offering information and promoting products and services. On the other hand, there are some that believe that the facility and ease offered by computer programs are undeniable but that they can cause some problems. We are not sure these technologies go against creative processes but neither do we have evidence that they favour them. The fact is that, to date, in spite of the appropriate use of computers, many designers do their initial rough sketches in the traditional way: or rather,

by hand. In this case, if this is true, creativity would be accompanied by the same old procedures, while the marvellous new technologies would be instruments that make work easier, would save time and energy but would not replace human activity.

In short, and returning to the beginning, with the articles we have provided here readers may go over some of the themes related to design and innovation that currently concern professionals, educators and entrepreneurs.