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THE PHENOMENOLOGICAL STANCE OF THE DESIGNER

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Design today is becoming more and more cooperative and multi-disciplinary, becoming more and more complex. Design is complex because it involves several diverse disciplines; because its object is manifold; because finally its beneficiaries, its stakeholders, are in the same moment (1) sources of knowledge for the designers, (2) those who will evaluate its outcome and (3) those who will transform it into a part of their place. Designers should, therefore, become aware of the changes impacting design, reflecting on their practice to better understand how it can become effective and capable again to answer the needs and desires of its stakeholders. In this chapter I propose a sort of deconstruction of design, where its object is clearly distinguished by its outcome, and the interplay between them is used to characterize its complexity. My approach assumes a phenomenological stance, i.e., a position allowing a »return to the very things«, looking at what there is in front of a person's eyes and not at that thing's existence. This position is well rooted in the European philosophy of the twentieth century and is embedded in a thread of studies by scholars in fields like CSCW, HCI and Interaction Design.

THE GROWING COMPLEXITY OF DESIGN

Design today is becoming more and more cooperative and multidisciplinary: the figure of the designer/artist as the unique author of the designed opus has already disappeared. It is only kept alive by the media, which are always searching for stars to be mythicized, and by the designers themselves who need to cultivate their excessive ego; on the other hand, it is becoming the norm that not only designers (urbanists and architects and/or industrial designers and/or graphic designers and/or interaction designers, ...) participate in a design process but also human scientists (psychologists, anthropologists, economists) and technologists (software and hardware engineers). This means that the partiality of the viewpoint of any participant in the design process emerges more clearly: any designer, whatever his/her competence is, has a partial and limited view of the design evolution and its expected outcome. The problem is that cooperation among people with different cultural and disciplinary backgrounds is only possible if each of them is able to recognize the contributions of the other participants and to appraise and integrate them in the design process. And this is not what designers generally do. In Bruce Nussbaum's March 2007 talk, »Are designers the enemies of design?« (Nussbaum 2007), at Parsons, the New School for Design in New York, the curator of the conversation on innovation at *Business Week*, accused designers of not being able to understand that today they must design with people and of being irritated by the fact that everyone today is designing:

The process of design, the management of the design process, are changing radically. Egos and silos are coming down, participation is expanding, tools are widespread and everyone wants to play ... The emerging question is therefore: how do [designers] ... switch gears from designing for to designing with?

Moreover, the designed things are always more complex, since the effectiveness of the services delivered by ICT (Information and Communication Technologies) applications depends on the way they are situated in space in order to deliver, on the contrary, buildings and objects offer flexible and ad hoc services if they are augmented by dynamic, self-regulated features. We could regard this as a new occurrence of the typical combination of creative design (shaping spaces)

and engineering (efficiently realizing them), but the question seems to me to be more subtle: we still have a combination of creativity and rational development in the design of spaces and we should have the very same combination again in the design of their dynamic behavior. Finally we should have a combination of creativity and rational development in merging spatial and behavioral design. This means that far from a solution to the above problem, design today still faces, fragmented in each of its moments, the problem of integrating creativity and rational development. For example, in his already quoted talk at Parsons, Nussbaum also accused designers of not designing for sustainability, creating things that last, that can be reused many times, or that easily recycle:

Let's take your favorite toy, designed by one of today's design gods, Jonathan Ive and his team at Apple – the iPod. Apple does fantastic things with materials. Amazing things. And it has recycling programs for its products. But what it doesn't do is prioritize cradle-to-cradle design. It doesn't design a long-cycle product that you can open and upgrade over time. It doesn't design a process that encourages the reuse of materials again and again. It doesn't demand sustainability.

Finally, as the designed thing couples spatiality and dynamicity, becoming intrinsically flexible, the future stakeholders[†] play a relevant role, both in its design process and in its experience once it has been delivered. During design, both what stakeholders know on the practice to be supported and their beliefs, expectations and desires play a decisive role, as it has been strongly affirmed by participatory design (Ehn 1990) to grant the utility and usability of its outcome. On the other hand, as meta-design has brought to our attention (Fischer and Giaccardi 2004), complex things will be more effective if they can be configured by stakeholders, discovering the best ways to use them in a sort of »design

† In this chapter we will generally use »stakeholders« instead of »users«, in order to underline that design impacts not only those who will use the designed thing but also those who are interested in it and/or have made an investment on it. It is important to have a broader viewpoint on the design process and to also take into account that at the customer/beneficiary side there is a mix of different opinions, needs and desires.

after design« phase. On one hand there is a difference between stakeholder participation during and after design, on the other, design itself and, therefore, the way stakeholders participate in it change if what is designed must be flexible and adaptable. In particular, its aesthetics value changes, since what people perceive does not only depend on the designer's creativity.

The three remarks above together offer a partial view of the high complexity reached by design today:‡ design is complex because it involves several diverse disciplines; because its object is manifold, characterized, as it is, by different aspects with different quality criteria; because finally its beneficiaries, its stakeholders, are in the same moment (1) sources of knowledge for the designers, (2) those who will evaluate its outcome and (3) those who will transform it into a part of their place. The above problems, therefore, are not deriving from faults and/or flaws of designers and they should not feel responsible for them, but they should also not attribute to other the responsibility of the difficulties design encounters today.

What can, and must, be asked of them is to become aware of the changes impacting design, avoiding the arrogance of having the solution to its problems and reflecting on their practice to better understand how it can become effective and capable again to answer the needs and desires of its stakeholders.

It has been Donald Schön's contribution to bring »reflection« into the centre of an understanding of what professionals like designers do. *The Reflective Practitioner* (Schön 1983) is directed against technical rationality as the grounding of professional knowledge, opposing an alternative epistemology of practice to it »in which the knowledge inherent in practice is to be understood as artful doing« (ibid). The notions of reflection-in-action and reflection-on-action are central to Donald Schön's arguments. The former is sometimes described as »thinking on our feet«, since it involves looking at our experiences, connecting

‡ The debate on design has been very rich in the last 15 years. Among the many contributions, let me quote Mitchell (1993), Brown and Duguid (1994), and Nelson and Stolterman (2003).

with our feelings and attending to our theories in use. It entails building new understandings to inform our actions in the situation that is unfolding. The practitioner can experience surprise, puzzlement, or confusion in any uncertain or unique situation. We can link this process of thinking on our feet with reflection-on-action. This is done later – after the action. The act of reflecting-on-action enables the practitioners to spend time exploring why they acted as they did, what was happening in the team and so on. In this way they engage with the situation. They do not have a full understanding of things before they act, but hopefully they can avoid major problems while »testing the water.«

The combination of reflection in action and on action radically transforms practitioners, since they become people continually coupling action and reflection. If we go back to designers and to the problems they meet with the growing complexity of their practice, we see that the latter are strictly related to communicating with people having diverse competencies, cultures, needs and desires. This is impossible if the involved participants are not reflecting on what they do: the individual creators can avoid using words to explain what they do[†] but designers involved in a collaboration to design a building or a system for a specific community of stakeholders can't be silent, since their contribution to the joint effort depends on their ability to explain their proposals and to understand those of others.

If design today requires collaborating designers, then it requires reflective designers. It makes sense, therefore, to ask: What is, or should be, the viewpoint from which designers observe and reflect? What should be their stance? It should be immediately clear, in fact, that what matters here is not the act of reflecting *per se* (even if we could agree that reflecting designers are in any case preferable to designers following only their instinct and intuition). What is needed is a reflection, on the one hand, which supports the ability to investigate and take into account the complexity of the ongoing design and, on the other,

† Alberto Burri, the Italian painter, refused to answer to questions about the sense of his paintings, »Words don't mean anything to me. What I want to express, appears in my paintings.« (Gendel 1954).

which cares about the interactions with other people, both as speakers and as listeners, and therefore is based on listening to other voices and can speak to people from different cultures.

Thus, the stance we are looking for is one that allows designers to keep awareness of the whole and of the particular, of the object of their design and of the partiality of the contributions they and others give to it, recognizing and crossing the mobile boundaries which separate their action domain from that of other participants.

DECONSTRUCTING DESIGN

As written above, the main thing that reflective designers do is to pay continuous attention to their practice, i.e. to design, in order to discover new problems in it, new facets and new ways of behaving. This open-minded attitude is counter-intuitive since, as designers, they know what to do in any moment of the design process and how it makes sense. The practice of reflective designers is permeated with an irreducible duplicity: they behave as experts and look at their practice as if new patterns of behavior could be discovered.

As any practitioner, in fact, designers embody a (frequently tacit) view on design in their practice: they look at design as they always have and interpret their practice on the basis of the categories through which they characterize the different facets of it. When they collaborate with other people who are colleagues or customers, their view on design extends to them so that the designers know what they are doing and what their role is in the design process. The designers introduce changes in the way they perform, in the repertoire they use, knowing if, for some specific character of what they are performing, they are occasionally breaking the silently fixed rules guiding design practice; or if they are experimenting with a change of repertoire as a step towards innovating it. The designers' image of the way they perform is relentlessly affected by their pre-understanding of design: their prejudices affect the way they view their practice, but new experiences question well-established ideas and beliefs.

Re-considering their idea of design, renovating the understanding of their practice is of paramount importance for reflective designers when, as we have

recalled in the previous section, the sense of their practice seems lost if problems and contradictions arise.

»What is design?« is the first question for the reflective designer. What we need is not a new definition of design, but an opening path which spreads new light on its nature.

As an experience, design is characterized by the fact that the people participating in it deal with something that does not yet exist, but the future existence of it is their principal concern. The not yet existing thing[†] that will be its outcome takes form in the design process through the actions and interactions of its participants, but it is absent during the design process. Its place is taken by the object of design that designers create and manipulate day by day: the practice of a designer can, in fact, be characterized by its object. Despite the fact that we generally use the same name for both the object of design and its outcome, the former is not its latter: they are irremediably diverse.

What, then, is the relationship between the object of design and its outcome? On the one hand, the thing being the outcome of the design process will be the embodiment of the design object, but it can't be reduced to it (a thing exceeds the intentions of the people dealing with it, even when they have designed it); on the other hand, the object of design is not just a thing: it is constituted by all the (inscribed) things the participants create, import and/or modify during the design process. Its constituents are all interrelated: they form a web characterizing them as different representations, versions, views and details of the object of design.[‡]

The object of design is continuously changing during the design process, since day by day new constituents are created and existing ones are changed or sometimes destroyed: the creative process characterizing design is well reflected by the continuous changes of the web of things constituting its object. From this viewpoint, considering design as the development of the best solution to a problem, as the engineering traditions seem to do, is reductive and cannot fully capture its complexity.

† In a short essay published in *Poetry, Language, Thought* (Heidegger 1971) Martin Heidegger recalls that the German word »ding« (sharing its root with the English word »thing«) was used to name the governing assembly in ancient Germanic societies, made up of the free men of the community and presided by lawspeakers. It should be noticed that also the Latin word for thing, »res«, occurs in »res publica« (»republic« in English). So things are the issues governing assemblies take into consideration, the issues raising public concern. The word »thing«, therefore, does not indicate genericity, absence of specification, but impossibility of specification. Things are not without interest: on the contrary, they are what merit our attention. Things are matters of concern because they can't be reduced to any specification: things exceed the way we classify them and are open to discovery and surprise (see Latour and Weibel 2005).

‡ Here, as well as in the following pages, we will use *thing* to indicate something in the physical space. The outcome of a design process, its embodiment, is a thing, but also any constituent of the design object taken per se, detached from the object whose is a constituent is a thing, while we reserve *object* to make reference to the appropriation of a thing by people.

During the design process any »move« in the process is either aligning some constituents or dis-aligning them or both, so that the dis-alignment is always limited but never absent. From the viewpoint of the plurality of people participating in the process, alignment stabilizes achievements through a shared view of what has been done, while dis-alignment innovates, breaking the web of constituents of the design objects.

All the words that are spent during the design process contribute to shape the web linking the things constituting the object of design to each other, so that they contribute to give sense to it.

Design appears, from the above viewpoint, as the basic practice where human beings experience not yet existing things. The multiple constituency of its object has a not yet existing thing that has to be continuously evoked in the discourse/conversation accompanying design as a counterpart. Listening to what other people – designers with different backgrounds and cultures, users and/or stakeholders – bring to design is therefore the basis for enriching the object of

design. On the other hand, the quality of design depends on its ability to transfer the richness of its object into the thing being its outcome. From this viewpoint multi-disciplinarity, stakeholder participation and opening the designed thing to the experience of its stakeholders are different aspects of a good design practice.

Constituents are not what designers are designing but each one in the design process allows participants to interact with the object and to discuss its different features. Objects do not exist *per se*, but only through their several, diverse constituents. Even when what has to be designed is something physical, such as a building, a chair or a machine, its embodiment when it comes into existence, remains just one constituent among others. The object of design, let me repeat again, is not its outcome, its embodiment: the latter may be less rich than the process of bringing it into existence; other constituents may light up its sense or evoke qualities that it does not adequately embody already.

Once design has ended, and its outcome is delivered, a completely different story begins: the story of people experiencing the outcome of design. It is during this story that users appropriate the outcome of design, reinventing their behavior and practice. The intentions of the designers, the values they wanted to give to the thing designed, are not automatically transferred to it: users are free to make their experiences with the outcome of design discovering the possibilities it offers to their behavior and practice, beyond what designers had thought and imagined. Even if users participate in the design process, the latter can't determine what will happen once the outcome of design is delivered: it depends on the quality of the design process if the outcome will be coherent with the designers' aims. Appropriation is again performed creating an object, i.e. a web of things allowing stakeholders (inhabitants) to consider the objectified thing as part of their space of possibilities. Here space is used in a metaphorical sense, but not by chance: as recalled, for example, by Harrison and Dourish (1996), the objectification of spaces and things we do in our everyday experience transforms the *space* we inhabit in our *place* and characterizes the things populating it through the possibilities for action and interaction they offer to us (a space is our place if we are at home in it, knowing what we can do in it and how). But, it can't reduce the things from being »matters of concern«

(Heidegger 1971), to their specific functions. The object people associate to a thing has – again – a multiple constituency, where each constituent, characterized by its spatiotemporal coordinates and by the people who created it, offers a partial view of the thing and of its potential for action and interaction. The irreducibility of a thing, its complexity, therefore mirrors the multiple constituency of the object we create experiencing it.

What we have briefly sketched – for a more complete account, see Telier (2008) – is a picture of design practice, where design is characterized for its being a complex collective endeavor aiming to create something new, that other people will later appropriate. Playing with it, a designer will open herself to a new reflection on her practice, and therefore to a new way of practicing design which is able to deal with its growing complexity.

CONCLUSION: THE PHENOMENOLOGICAL STANCE OF THE DESIGNER

Following a recent tradition, that had one of its pioneers in Pelle Ehn (1990), I have searched in the European philosophy of the twentieth century, and in particular in its phenomenological and hermeneutical schools, the solid grounds for my »de-construction« of design[†]. It was the *linguistic turn*, through which Richard Rorty (1979) interpreted the inspiration that was common to quite different authors as Ludwig Wittgenstein (1922, 1953), Martin Heidegger (1962, 1971) and John Dewey (1934, 1938), that appeared to have the right perspective for me for refreshing our understanding of design. Going back to the very essence of any human practice, as well as of any fact of human life, is not possible directly, since our understanding is always mediated by language, and limited by it. We need, therefore, to reach the very essence of design by going beyond language, understanding how what is said couples with what is done. The linguistic turn, in fact, shows the fallacy of thinking that we can

† I use here the word *deconstruction* in a rather lazy sense. My excursus on design is a deconstruction in the sense that it tries to observe it without prejudices and looks for its constitutive elements and aspects. I hope that readers with a philosophical background will forgive me for it.

access facts apart from the propositional structure of the language, and that we can construct any assertion without making reference to other assertions. We are therefore trapped in language and there is no way to discover a direct correspondence between our thoughts and the world out of them. There is not a language proper to nature. Knowing does not mean »representing«, »copying« reality but coping with it, with its challenges and questions. The answers of nature are always indirect, bounded by the structure of our questions: the world is the totality of facts not of things (Wittgenstein 1922). It is made of the constraints we encounter in our struggle for knowing, foreseeing and controlling the events of our life. I was searching the grounds for my work in philosophy because it helped me to go beyond the rather naïve realistic assumption that design has to do with transforming matter in order to build things which have some pre-defined spatial and/or behavioral qualities that permeate the current debate on design. Such a simplistic view does not allow for understanding of the distance between the designers' intentions and the outcome of their practice, the ambiguity permeating their collaboration with other practitioners, how difficult it is to transfer the richness of the design process into the designed thing and the impossibility for them to limit the stakeholders in their appropriation of the designed thing.

On the contrary, basing my analysis on philosophy I could see the interplay between the mutual irreducibility of objects of design and design outcomes and the clear-cut distinction between the design process and the story beginning after the delivery of its outcome to the stakeholders: designers appear to me to be immersed in a process where their aims cannot be automatically transferred to the outcome of their work which, when it comes into existence, will have a new life where they can only have a minor and peripheral role.

In my view, the practice of design is intertwined in an inextricable way with the threads of conversations within the design team (with the richness of their diverse cultures) and between designers and stakeholders, without any possibility of granting the alignment between what is said and what is done. Words give sense to the designed thing, bringing forth its being a matter of concern, and not defining its nature in functional and/or behavioral terms; the object of design gives sense to the ongoing conversations. Even the problem of knowl-

edge sharing among all the participants in the design process cannot be fully understood in the realistic perspective: if design is transforming matter, then what is needed is to grant that participants share as much knowledge as possible about the planned/ongoing transformation, but the interplay between the knowledge created and shared and the evolution of the object of design is lost. Knowledge sharing is therefore reduced to a new occurrence of the »bounded rationality« problem (Simon 1957), losing the fact that it is a constitutive move of the design process and not an auxiliary activity necessary to overcome its limits.

I call the position from which I look at design a *phenomenological stance*. This term has been used to characterize a position allowing a »return to the very things«, looking at what there is in front of a person's eyes and not at that thing's existence. From the phenomenological stance things are accessible only through language: their very nature appears only beneath the words we spend on them, it manifests itself to the extent that the words we are sharing cannot be subject to different interpretations. The phenomenological stance enables us to keep our minds open enough to live any experience in its wholeness, trying to set aside any prior thoughts, conceptions or judgments about it. In doing so, a person will be placing the phenomenon in *epoché*; by working with the description of the experience the researcher focuses on searching for its essence, its most invariable parts, as it is located within a context. The essence, therefore, is the very nature of what is being questioned.

It has to be underlined that the phenomenological stance should not be reduced to any phenomenological school in philosophy: without entering into the subtleties of the discussions among its most relevant representatives and making reference to the work of Richard Rorty (1979), we can place in the phenomenological stance not only Edmund Husserl (2001) and Martin Heidegger (1962), but also Ludwig Wittgenstein (who claimed in the *Tractatus*: »The world is everything that is the case« – Wittgenstein 1922, 1.1 and in the *Philosophical Investigations*: »The meaning of a word is its use in the language« – Wittgenstein 1953, p. 43), John Dewey (1934, 1938), the exponents of contemporary hermeneutics Hans-Georg Gadamer (1989) and Paul Ricoeur (1981), the deconstructionists as Jacques Derrida (2003) and Jean Luc Nancy (1992), just

to name a few. I know that in some ways it is arbitrary to make broad generalizations like I do here, but I hope that the reader will understand my aim to indicate as broad a perspective as possible.

What unites all these philosophers, holding for the rest very different philosophical positions and frequently conflicting between each other, is their refusal of any assumption that what we experience is part of an external reality that we can access directly. When we speak of the »phenomenological stance«, we make reference to a viewpoint which distinguishes a thing from any object we may see in it, even while recognizing that the thing appears after the objects we see in it and not besides them. The phenomenological stance gives us tools to approach everyday life by returning to concrete things and occurrences rather than the abstractions describing them.

From now on we will use the term object to name experienced things, embodying the deep relationship with words that Ponge has richly characterized (1972). Objects, in fact, allow the things created and imported in the design process and their relation with its outcome, the designed thing, to be investigated: they have a transient life, limited socially and spatially by the human experience in which they appear.

In design practice the naïve assumption we are contrasting in these pages generates some misunderstandings that can dramatically affect the quality of design.

If what the designer delivers to their stakeholders is the object they have designed, the designer cannot pay attention to the mutual irreducibility between it and the thing being its outcome. The designer will therefore disregard one of the major aspects of the complexity of design: the fact that it is not a linear process where the transformation of intentions into outcomes is straightforward. Why should the designer listen to the stakeholder, or need to collaborate with other practitioners? The arrogance of designers that Nussbaum (2007) was denouncing is strongly grounded on the realistic assumption that design brings things to existence in accordance with the designer's intentions. Reflective designers fight against their potential for arrogance by being humble and

continuously questioning their practice: the phenomenological stance appears to me a good candidate for hosting them.

As said before, this chapter is immersed in a thread of studies where scholars of CSCW, HCI and Interaction Design have been working for more than 20 years, and it is strongly indebted to them. Let me recall the most relevant contributions characterizing this thread. Winograd and Flores (1986) dedicate the first part of their book to phenomenology and hermeneutics. They bring the reader to a new understanding of human experience and of the role of computers in it. It's a radical shift from the dominant naïve acceptance of a rationalistic and realistic approach to knowledge of modern science. The Language-Action perspective, characterizing the interplay between conversing and acting in human experience, opened a new horizon for the study of computer-based systems.

The discussion about *Understanding Computers and Cognition* declined after the mid nineties, but its influence has continued as shown by two different books – Paul Dourish's *Where the Action is* (2001), and Claudio Ciborra's *The Labyrinths of Information* (2002). Dourish proposes a phenomenological foundation for embodied interaction, offering new insights into the interplay between language and action. The book not only begins its presentation of embodied interaction by drawing on the contribution of *Understanding Computers and Cognition*, but continues in line with the theoretical style of their book, grounding its discourse on analysis and design of computer-based technologies on a careful reading of some texts of the phenomenological/hermeneutical school of European philosophy.

Claudio Ciborra uses the customer–performer cycle, proposed for the first time in *Understanding Computers and Cognition* and later developed in Action Workflow, to explain the Customer Relationship Management (CRM) strategy at IBM (where Flores and Winograd's ideas were taken into account). He also pays tribute to them for inspiring him to carefully read Heidegger's philosophy. Another thread of works reading philosophy to understand technology and/or design, intertwining frequently with the one opened by Winograd and Flores, has its root in Pelle Ehn's *Work Oriented Design of Computer Artifacts* (1990) and its last contribution in A. Telier's *Making Design Take Place* (2008). This

work should be considered as a partial account of Telier's book, where her findings are recalled in a tendentious way.

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