

3 LESSONS FROM DESIGN

FOUR QUESTIONS ABOUT DESIGN

In this chapter, we will use four questions to guide us on a quick run-through of contemporary design practice. In answering these questions, we will encounter salient aspects of design, as they have been described and explained within design research. Then we will briefly dwell on the anatomy of design, creating an overview of design practices that helps position the particular practices we will focus on in the rest of the book. In the last section, we will draw five key lessons from these design practices. These lessons inform the frame creation approach that will be introduced in chapter 4. But first: the four questions.

WHAT IS DESIGN? MISUNDERSTANDING DESIGN

The reader will have noticed that in speaking about “design practice” in chapter 2 we moved far beyond the prevalent interpretation of “design” as merely the creation of beautiful things. The design professions have developed dramatically over the last twenty years, and design practices have matured into a real alternative to conventional problem-solving strategies. Unfortunately, the way design is presented in popular culture and in the media doesn’t do justice to the new reality of contemporary design practice. The design professions themselves have not worked very hard to dispel the old, self-servingly romantic, mysterious, and heroic images of the designer. For the purposes of this book, we need to clear up a few common misconceptions before we can begin to describe what design really is.

Design is not just about creating beauty

In many design professions, a pleasing visual aesthetic is important but is just one factor among many that need to be taken into account in the creation of

the design. In my own field of product design, designers are torn between the requirement to create a product that is technically viable and ergonomically sound and displays marketable value and the need to make it visually attractive. The idea that design should always be about the creation of something beautiful has deep historical roots: the very first professional “industrial designers” were needed because the first manufactured homewares produced during the industrial revolution were often overdecorated monstrosities (Heskett 1985). Until that time, before the advent of mass production, middle-class culture had been restrained in its tastes by the costs of craftsmanship. Ornaments were expensive, and thus were a status symbol owned by the few. But manufacturing suddenly made ornamentation very cheap, releasing a veritable flood of curls and patterns on every available surface. Manufacturers kept heaping it on, believing the more, the better. The 1853 world’s fair in London (held in the spectacularly modern Crystal Palace) was the first venue that brought these fruits of industry together, and the result was shocking to the beholder. The criticism in the world press was appropriately scathing. The exhibition served as a wake-up call for the need of a new aesthetic for industrial products, and spawned the profession of industrial design. Despite all the years of evolution away from these early form-focused beginnings, the image of beautification still accompanies the popular notion of design. As Foucault (2002) has shown, although ideas might follow one another in quick succession, the underlying “discourse” in society changes only very gradually. He was talking about mental health, but he could have taken design as an example.

Design is not all about ideas

This is another great and intransigent myth, and to be honest, it is one that the design professions have been reluctant to dispel. The popular notion about design is that it works like this: client gives brief to designer, brilliant idea is born, client is happy, designer becomes rich and famous. This virtually never happens. Only novice designers who haven’t yet developed the skill and amassed the experience to work in a much more deliberate way will have to rely on “the idea” to save them, resorting to the superficial scattergun approach of brainstorming to hopefully catch it (Lawson and Dorst 2009). Such a trial-and-error process is time-consuming, confusing, and hugely inefficient. When creativity techniques like brainstorming are used in a professional design context, it is always in a very specific manner, to explore solution possibilities within a constrained setting (see Sutton and Hargardon 1996; Sutton and Kelley 1997). Professional designers do not focus on the generation of “the idea”:

they approach problems in a very strategic, deliberate, and thoughtful way. This approach involves a lot of hard work, where inspirational ideas are helpful but never yield a complete shortcut to a quality solution. Yet the myth of the wonderful, magical, “divine spark” idea that suddenly occurs to the brilliant mind of the incredibly gifted has been quite irresistible to designers, and many of them when interviewed will readily reinforce this image. Unfortunately, it is too good to be true.

Design is not irrational

There is nothing “soft” or vague about designing. Despite a deceptive playfulness in the conceptual phase of a design project, design ultimately needs to be rigorous in its approach if it is to deliver results for the real world. An essential part of the design process is making educated guesses when proposing solutions; yet these guesses will be tested later on in the project, if not by the designer then by the confrontation of the design with reality itself. The best designers are all very strong analytical thinkers with an original and playful bent of mind. Exercising judgment based on a clear analysis is an integral part of the design disposition (Lawson 1994). People sometimes see design as irrational because designing is not a completely objectifiable, closed form of rationality: design is inherently open-ended, as there is always more than one solution to a design problem. Design is not about creating “solutions” in the same sense that we create solutions to mathematical equations, as absolute truths in an abstract world. Designers create proposed solutions that can be judged on a sliding scale of better or worse relative to the needs of stakeholders. To ensure the relevance of their proposals, designers have developed elaborate phase models and work processes to deal with the inherent ambiguity in their practices, building in checks and balances wherever they can. To quote Nigel Cross, paraphrasing Hamlet: “Yes, they are quite mad—but there is method to their madness” (Cross 1996).

Design is not mysterious

We actually know a lot about design: the activities it consists of, the sequence in which these activities often take place, the abilities needed to be a good designer (Cross 1990, 2004), and the path of development of these abilities (Lawson and Dorst 2009). Systematic design research has been around since the early 1960s, and there is a flourishing design research community that has amassed a wealth of knowledge. There is much more to be discovered, and the design professions themselves are presenting a moving target for research by continuously reinventing themselves (Dorst 2008, 2013b). Yet there is now a

core body of knowledge about design that is largely beyond contention. The reader should be assured that although this book will use design in unconventional ways and stretch it beyond the limits of the traditional design disciplines, we will be building on a solid knowledge base that has been amassed over all these years of design research. It is this strong foundation that gives us the self-confidence to build bridges to other disciplines that have become interested in design practices.

Not all design is good design

In pointing out the value of learning from “design practice,” we do not mean to suggest that all design is good or that all designers are equally skilled in these design practices. As in any profession, there is also superficiality and mediocrity in design—and many designs that make up our human-made world are hard to defend, even inexcusably awful. What we will be focusing on here is the practice of a select group of top professionals in the field.

WHAT IS THE PLACE OF DESIGN IN THE GREATER SCHEME OF THINGS? DESIGN AS A FORM OF REASONING

The case studies in chapter 2 show the strength and possibilities that a design-erly approach can bring to a wide variety of problems. As we’ve seen, it is very fruitful to look at problematic situations in a way that moves beyond conventional problem-solving approaches, and to consider these problem situations *as if* they were design problems. The designers and artists who were involved in the YD/ and DOC projects somehow regarded these very complex problems differently from the people who had tried to solve them before. But what, then, is the core reasoning pattern they apply when they design? Is it really that different from conventional problem-solving?

This is a fundamental question which cannot be answered by giving examples alone. We need a bit of logic to help us attain a much deeper understanding of the reasoning patterns behind design practice. We need to step back and suspend the “rich” descriptions of design that make the case studies such a good read, and take the question of design reasoning back to its very basics. Formal logic can provide us with a simple group of core concepts that describes the reasoning patterns behind design and other professions. This “poor” description of design helps us to understand whether design is different from other fields, and provides us with fundamental insight about the value of introducing design practices into other professional fields.