CHAPTER 1

Follow me!

The Kolonel Begaultlaan in Leuven, Belgium, is a straight, dull road, running parallel to a canal. Just across is *Stella Artois*—a huge industrial complex, where one of the most internationally successful lagers is brewed. Number 15, Kolonel Begaultlaan, is a building as non-descript as the road. After entering and climbing some stairs, you will find yourself in a low-ceilinged hallway leading to a room that resembles a multi-story car park. In one corner, a wall opens to a passage. The passage is painted black. Large candles show the way. Behind a wooden door at the end of the passage is *Luzine*, the restaurant of Joeren Meus, a Belgian cook with his own TV show—some call him the Jamie Oliver of Flanders. *Luzine* presents itself in the *Boudoir* style: luscious, decadent, grey, black, gold, and subdued lights. On the occasion I went there, the food was marvelous, my company was splendid, and the whole evening was a true success. However, what especially struck me and what I kept in mind, was the stark contrast between the actual interior of the restaurant and its environment.

Luzine was an experience. It was an episode, a chunk of time that I went through and I am going to remember. It was sights and sounds, feelings and thoughts, motives and actions, all closely knitted together and stored in memory, labeled, relived and communicated to others. Experiencing is the stream of feelings and thoughts we have while being conscious—a continuous commentary on the current state of affairs. Forlizzi and Battarbee (2004, p. 263) describe it as a "constant stream of self-talk" and are careful to distinguish *experiencing* from *an experience*. The latter is something with a beginning and end; it is something that can be named, whereas the former describes an ever-present stream.

While I am writing this passage, I feel excited and expectant. I am about to write a book! At the same time, frustration mounts, given the difficulty to find the appropriate words and expressions; it is made even more difficult by a nagging and distracting thought about a birthday present I have to find—"something with a princess, Daddy"—to bring to kindergarten before(!) my six year old daughter is darting-off empty-handed to her friend's birthday party. I am *experiencing*, and I can willingly make at least a part of it conscious and verbal (Kahneman, D., 1999, p. 7). In retrospect, writing the book will become *an experience*, that is, particular actions, feelings, thoughts tied to a particular place and time. Eating at *Luzine* was an experience, but the moment I entered the restaurant, I was struck by the surprising contrast between exterior and interior, or the moment I tasted the little fleck of cucumber sorbet, I was amazed by the incongruent feeling of salty ice cream I was experiencing.

Things—technology in its widest sense—made the *Luzine* experience possible: furniture, wallpaper, lights, all carefully designed and combined to create a particular atmosphere; a fully equipped professional kitchen set to prepare the delicious food; telephones to make the reservations

and to order the chicken, vegetables, chocolates, and wines; in addition, credit cards to make sure that the restaurant will not cease to exist. Interestingly, we rarely think of the technology behind all of this.

It is the same with interactive products. In a recent study, we asked people to share a positive personal experience with technology (Hassenzahl et al., 2009). A young woman wrote, "I was on a short trip to Dublin. In the early hours, my mobile phone woke me up. My boyfriend, who stayed at home, had just texted a sweet 'I love you'." This episode is not about a mobile phone. It is all about feeling related to others, feeling loved and cared about. It is about her annoyance and disorientation, being woken so early, and how these feelings turn into something warm. The mobile phone itself is only important insofar that it allows for this episode; it mediates and shapes the experience.

One may argue that without the mobile phone, this young woman would never have had this experience. This is at the same time true and not true. She would not have had this *particular* experience, but the couple would have found other ways to feel related over the distance. He would have given her a piece of jewelry, maybe a ring, before the journey, and she would have made a vow to touch the ring every morning at 8 o'clock sharp and think of him. In return, he would have promised to do the same. The product itself, mobile phone or ring, is only interesting because it mediates a personally meaningful experience. Without their love, and the couple's seemingly necessary but painful separation, touching rings or writing sweet texts is senseless. In other words, the actual product has no value beyond the experiences it allowed for became inevitably attached. Yet, through shaping what we feel, think and do, it has the power to create particular experiences. With the ring, embedded in the agreed upon ritual, the lovers have no chance to surprise each other. Their bond is rather the consequence of a moment in time, dedicated to each other, and the very idea of being "in sync." In contrast, the mobile phone allows for surprising the partner, it allows for instantaneous emotional expression. Here the bond is created through the receiver's knowledge, that—most likely—the sender just experienced what he wrote: "I love you and I can't hold it back." Both experiences get their meaning through a need to feel close to other people. The products in themselves are only instrumental to this. Nevertheless, they create qualitatively different experiences, which can be more or less appropriate and enjoyable.

This book is about *User Experience* (UX), Human-Computer Interaction's (HCI) version of experience (see Hassenzahl and Tractinsky, 2006 for an overview)—experience that comes about through the use of (interactive) products. Note, however, that I do not believe the phenomenon of User Experience and its underlying principles to be very different from experience in general. Experience becomes *User Experience* by focusing on a particular mediator of experiences—namely interactive products—and the according emerging experiences. Be it services, products, events or other people—to distinguish the emerging experiences is only important insofar as each source offers different ways to create and shape experiences. From a designer's perspective, the distinction is worthwhile, from a recipient's, consumer's, or user's perspective, experience remains experience, no matter whether mediated by an object, a service, or other people. The experience approach to designing interactive products, thus, starts from the assumption that if we want to design for

experience, we have to put them first, that is, before the products. Without a clear understanding of experience, the interactive products we design will never be able to properly shape experiences, let alone, to create novel experiences.

I close this chapter with further clarifying experience. In Chapter 2, I discuss the key aspects of experience and its implications for the design and evaluation of products. Chapter 3 will expand on reasons why we should bother with an experiential approach to interactive products. Chapter 4 presents a high-level model of experience and Chapter 5 takes a specific design perspective.

1.1 A FIRST GLANCE ON EXPERIENCE

In a seminal paper on emotions, James Russell (2003) advances the idea that emotional experience is the consequence of self-perception and categorization, a *construction*. In other words, if you find yourself being negatively aroused and running away from a bear, you may—unconsciously—integrate all this into a coherent experience of fear. Russell actually calls it emotional *meta*-experience because all its components produce low-level experiences in themselves—the felt arousal, the felt valence, the sensation of running, the smell of the bear and so forth—but a process on top, a *meta process*, creates a coherent whole. As Russell (2003, p. 165) puts it: "Emotional meta-experience is the construction of a coherent narrative, interpreting, packaging, and labeling the episode—thereby integrating this episode with general knowledge."

In the context of interactive products, we may use the same basic notion of experience as an emergent story, packaged, labeled, and integrated into our general knowledge of the world. But from what does experience emerge? What are the elements and underlying processes?

John McCarthy and Peter Wright (2004) offer the "emotional "as one of their four "threads of experience." Referring to John Dewey, an American Philosopher of the last century, McCarthy and Wright note that "emotions are qualities of particular experiences" (p. 83). To me, it is beyond question that emotion is at the centre of experience. The most compelling argument for this is the observation that emotion, cognition, motivation, and action are inextricably intertwined. Antonio Damasio (1994) made a persuasive case by exposing the consequences of physical severances, through accidents and so forth, of the affective and the cognitive system in the brain. Learning, decision-making and many other higher order intellectual functions crucially depend on emotion. Damasio (1994), for example, wrote about Elliot, one of his patients. Elliot suffered from a brain tumor. Upon removal of the tumor, damage was done to the physiological structures, which connect the cognitive with the affective. Elliot's intelligence and memory remained intact after the operation; however, he was suddenly unable to even make the simplest decisions. With the heritage of the Cartesian separation of body and mind and the longstanding dismissal of emotions as lowly, savage, and uncivilized, the central role of emotion *in* cognition was surprising, leading to a resurgence of the interest in emotions in itself and their function.

Emotion is further closely linked to action and motivation (e.g., Carver & Scheier, 1989), two aspects not explicitly addressed by McCarthy and Wright's thread account. However, it permeates their discussion of the emotional thread when they point out that emotions are best viewed from

the perspective of our goals (p. 84). This implies motivated action. Note that this is neither novel nor controversial (see Ortony et al., 1988, for an example), but nevertheless important.

All in all, the underlying elements and processes boil down to what Kees Overbeeke and colleagues (2002, p. 9) dubbed the "wholly trinity": perceptual-motor, cognitive and emotional skills. In other words, experience emerges from the intertwined works of perception, action, motivation, emotion, and cognition in dialogue with the world (place, time, people, and objects). It is crucial to view experience as the consequence of the interplay of many different systems. Russell's (2003) suggested meta-process, for example, does this. It easily integrates physiological processes (e.g., arousal), affective evaluation (e.g., valence), cognitive processes (e.g., attribution), and behavior (e.g., flight). While many processes together produce experience, emotion is at its heart and has an accentuated position. One may go as far as saying that emotion is the very language of experience.

1.2 A NOTE ON THE UNIQUENESS AND IRREDUCIBILITY OF EXPERIENCE

In their book *Technology as Experience,* McCarthy and Wright (2004) stress the *uniqueness* and *irreducibility* of experience. They argue that while we can certainly focus our analysis on certain aspects, such as the spatio-temporal structure of an experience, we must be careful to not *reduce* the experience to this aspect. By doing so, it will inevitably lose its very essence. Based on this, they argue for an approach, which describes single instances of experiences instead of modeling classes of experiences—the latter certainly a reduction of experiences to their common core. And they eschew attempts to understand experience as reducible to, predictable or explainable by their underlying processes and elements.

Interestingly, Russell's (2003) notion of experience as a meta-process allows for both, the focused analysis of single elements or processes and the notion of experience emerging as a unique, irreducible whole from the configuration of these elements. The difference is important, given the—from my perspective—odd debates in Human-Computer Interaction, repeatedly fuelled by papers, such as Kirsten Boehner and colleagues' (2007) piece on emotions. Emotions, they argue, are cultural constructions, different from and irreducible to physiological processes. True, however, it is not a question of either culture *or* physiology. Emotional experiences are both. They emerge fully-fledged as a narrative, how Russell puts it, heavily colored by our knowledge of the world. Nevertheless, they do not emerge from thin air. They are attempts to makes sense of ourselves, our bodily reactions, our behavior, other people's behavior and so forth. It is just a matter of complexity, the sheer amount of single aspects which are integrated into an experience, which let it appear so unique and irreducible. Without culture, emotions would not have the quality they have, but without our bodies, we would not have emotions at all. Again, it is not a question of either physiology *or* culture, it is to understand that emotions emerge by drawing upon, and actually "meta-processing" many different elements and sub processes. As emergent entities, emotions, such as experiences in general, may not be fully explainable and predictable from single underlying elements, but they are not detached from them.

1.3 EXPERIENCE FROM A DESIGN PERSPECTIVE

From a design perspective—and I understand Human-Computer Interaction as a discipline primarily concerned with the making of things—understanding experience as emerging, but emerging from something, is important. Because although we aim at designing an experience, we still have to manipulate single elements to craft the experience. Consider Johannes Vermeer's famous *Girl with a Pearl Earring* (see Figure 1.1).

Figure 1.1: Johannes Vermeer, 1632-1675, *Girl with a pearl earring*, c. 1665, Canvas, 44,5 x 39 cm, The Hague, Mauritshuis.

As a whole, this picture creates a strong impression. Especially, the sense of intimacy seemed to have inspired writers and filmmakers to embellish further on the relationship between the painter and his model. The intimacy is an emergent story, an experience; however, a good part of technique creates it. Johann Vermeer is often dubbed the "Master of Light," and his use of light and shadow adds immensely to the experience of intimacy. The website of the *Mauritshuis* (`www.mauritshuis.`

nl), the Royal Picture Gallery in Den Haag housing the picture, explains: "[...] important [...] are Vermeer's fresh colors, virtuoso technique and subtle rendering of light effects. The turban is enlivened, for example, with the small highlights that are Vermeer's trademark. The pearl, too, is very special, consisting of little more than two brushstrokes: a bright accent at its upper left and the soft reflection of the white collar on its underside." The careful crafting of light, shadow, colors, pose, and so forth, is an important ingredient to the experience. Or remember my *Luzine* experience: The contrast between exterior and interior, which seems to have played a crucial role, did not happen by accident. The chef and his interior designer created it deliberately through selecting the place and deciding on a particular way to decorate the restaurant.

Although one might try hard as a designer, an experience cannot be guaranteed. There are definitely people out there who do not relate in any way to Vermeer and his paintings. Similarly, others may not have been as surprised by *Luzine* as me. Experience emerges from a variety of aspects, many of them beyond the control of the designer. However, to design an experience should not be rendered as futile. Although a particular experience cannot be guaranteed, it can be made more likely by applying some of the already available knowledge (in part, presented within this book) to design and by further, design-oriented research.

Naturally, a design perspective on experience focuses on what can be deliberately created. Let me note, however, that some outstanding experiences may even come about without careful crafting. The beauty and fascination of an abandoned industrial complex, such as the *Zollverein Coalmine* in the north of Essen (see Figure 1.2), declared UNESCO world heritage site since 2001, was not created deliberately.

The site was a coalmine, its abandonment a necessity and not an intentional attempt to create a particular experience. As the website of *Zollverein* notes (`www.zollverein.de`): "Zollverein [...] fell victim to the crisis in the coal and steel industries. Despite all the rationalization measures introduced to reduce costs, the largest colliery in the Ruhr Area was unable to compete with coal mines abroad. On the 23rd December 1986 the last shift was hauled to the surface after 135 years of mining operations. The last remaining colliery in Essen had closed forever. [...] An era had come to an end." As colliery Zollverein died, but it made room for the fascinating and extraordinary experience of an abandoned industrial complex, often hailed as "the most beautiful colliery in the world."

1.4 EXPERIENCE AS EMERGENT, YET SHAPEABLE

It is useful to understand experience as both unique but at the same time emerging from distinct elements and processes which are open to study and deliberate manipulation in an act of design. One may dismiss this discussion as academic; however, for the present book, the notion of experience as an emergent quality, which is neither entirely reducible to its underlying elements and processes nor fully explainable by them, but which can be nevertheless shaped through careful crafting of elements is key. The latter is the essence of designing. Not living up to resulting challenges will render the concept of experience for Human-Computer Interaction. An account of experience,

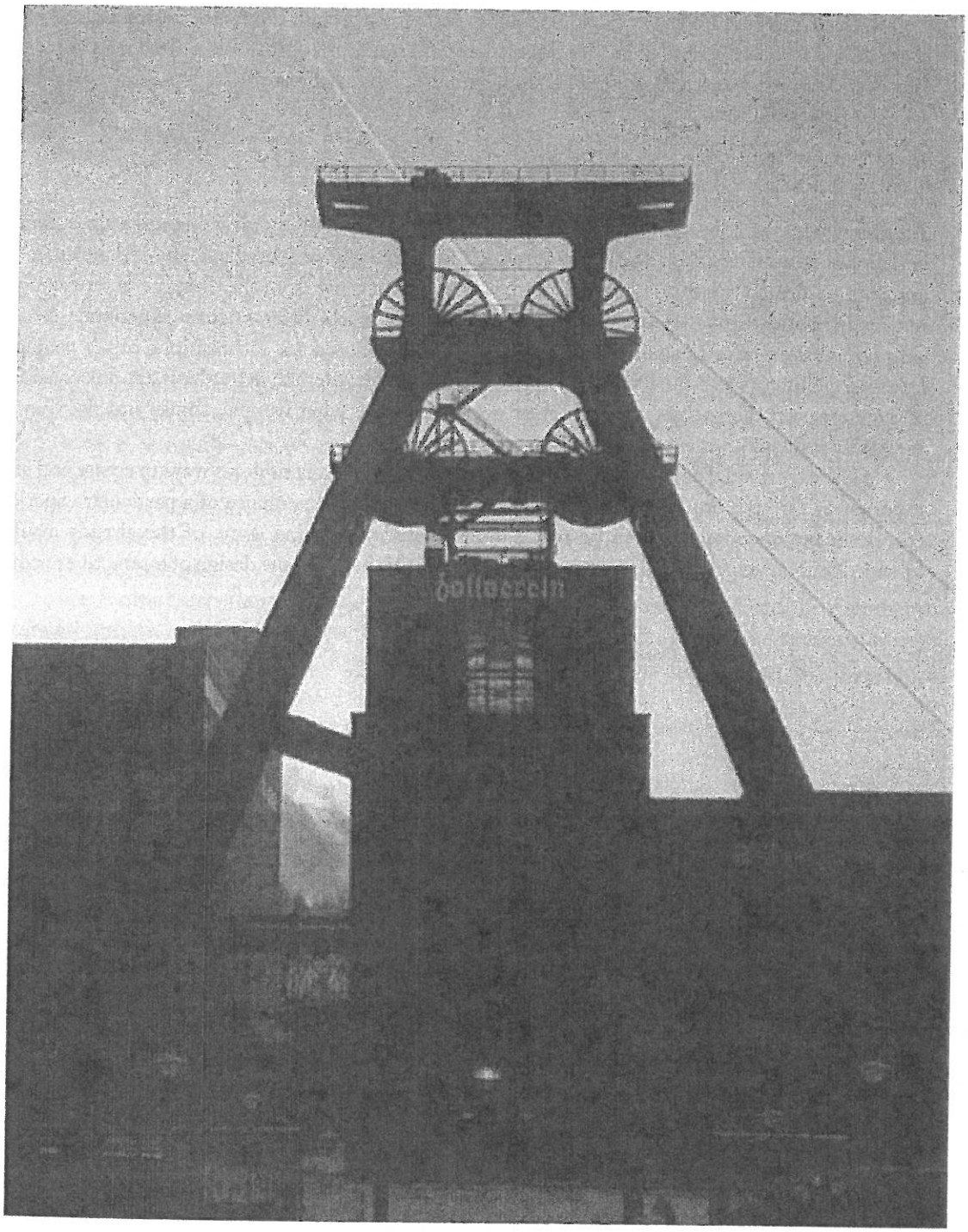

Figure 1.2: *Zeche Zollverein*, Essen, Germany.

which rejects the possibility to create and alter experiences through the manipulation of underlying elements in favor of emphasizing its uniqueness and unity, may turn out a dead end for design (see Mathiasen and Bødker, 2008 for an application of McCarthy and Wright's framework, which asks the right questions but fails to inform design).

1.5 ESSENCE OF THE CHAPTER

An experience is an episode, a chunk of time that one went through—with sights and sounds, feelings and thoughts, motives and actions; they are closely knitted together, stored in memory, labeled, relived and communicated to others. An experience is a story, emerging from the dialogue of a person with her or his world through action. *User Experience* is not much different from experience *per se*. It simply focuses our interest on *interactive products* (as opposed to, for example, other people) as creators, facilitators and mediators of experience. Although interactive products are not considered as experience in themselves, through their power to shape what we feel, think, and do, they will inevitably influence our experience.

The experiential approach to designing interactive products explores ways to create and shape experiences through products. This implies that although the emergence of a particular experience can never be guaranteed, it can be made more likely by applying some of the already available knowledge about experience (in part, presented within this book) to the design of interactive products.