

Experience of Time

Toolkit for experience design and speculation by Petra Hurai



Doctoral research:

Principles of Time Measurement and their
Development Using Intelligent Technologies
2016 – 2023

Realization:

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Text:



Petra Hurai's dissertation research thesis, *Experience of Time*, describes the complex concept of time from the perspective of the design process and social development. The perception of time is a phenomenon subjectively felt by a person and can be accurately described thanks to research advancements in physics, biology, cognitive psychology, neuroscience, and the like.

Hurai's research mainly focused on exploring the notion of 'subjective time' described through sensory perceptions. The project considers the subjectivity of time as a characteristic feature that should be included during the design process — 'designing with time'. The thesis proposes an inspiring tool for designers and the general public; it explores the relational context of subjective time and sensory perceptions through visual clues.

'Thanks' to technology, our days are longer, our loved ones are always within reach, and our work never ends. We hear about the imbalance between the biology of our bodies and the pace of modern times in the media every day. In his book *In the Bubble*, John Thackara begins the chapter on speed by quoting the English writer Bruce Chatwin, retelling a story of a group of white explorers in Africa who forced native porters to rush to their expedition's destination. At the point when the porters stopped

and refused to continue the journey, they argued: "We have to wait until our souls catch up with our bodies" (Thackara, 2006). In an era in which Stewart Brand calls long-term thinking 'challenging and rare' (Brand 1999, 2) and Douglas Rushkoff (2013) warns against 'the twenty-first-century presentism', designers have the opportunity to provide a counterpoint to the current acceleration culture and contribute to the expansion of the limited understanding of time.

“Objective time is the concept used worldwide on a daily basis using numbers and dials. It can accurately be described by mathematical and physical principles. On the contrary, subjective time is described as a perception of time tied to an individual experience. Subjective time can be perceived as duration of time, distortion of time or temporal illusion, such as perceived speed of time or length of time interval, Vierordt’s Law, oddball effect or chronostasis.”

The topic of subjective time already appeared in Hurai's diploma thesis, in which she describes a subconscious perception of time that consists of visual signals placed on a watch dial as a reminder of upcoming events. The diploma thesis resulted in two wristwatch designs, Ephemera I and II, with mechanical and hybrid movements. The Ephemera concept operates with anticipation — a psychological phenomenon that influences the subjective passage of time — if we know what awaits us = time passes faster.

The dissertation project Experience of Time initiates a much-needed conversation about the phenomenon of individual time perception. The core of the research carried out by Petra Hurai is based on changes in society after the period of the COVID-19 pandemic. In her thesis, Hurai draws attention to the still overlooked notion of subjectively experienced perception of time, which can be accurately described thanks to improving scientific research today:

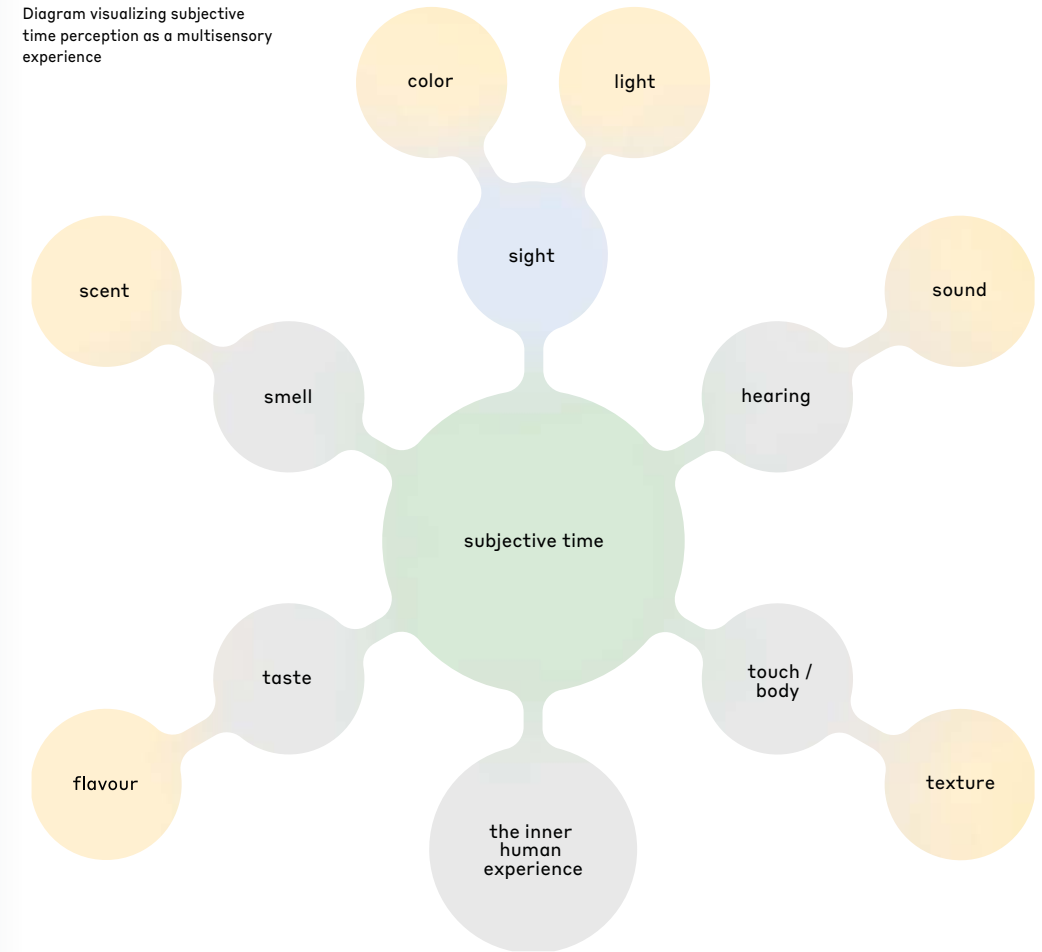
“Objective time is the concept used worldwide daily using numbers and dials. Mathematical and physical principles can accurately describe it. On the contrary, subjective time is a perception of time tied to an individual experience.

Subjective time can be perceived as the duration of time, distortion of time, or temporal illusion, such as perceived speed of time or length of time interval, Vierordt’s Law, oddball effect, or chronostasis (Foster, 2022). The basis of the concept of subjective time was created by the French philosopher Henri-Louis Bergson. The concept of time describes the duration of time — ‘durée’ — one of the temporal illusions perceived by a person” (Hurai, 2023).

The immediacy of communication technologies largely marks our perception of time, and it radically differs from how our ancestors in pre-industrial times perceived the current passage of time. The research considers the subjectivity of time as one of the important external characteristics of product design that should be included in the design process — rather than as the final touch or as an additional function.

One of the strong aspects of Hurai’s dissertation is visual representations of complex concepts in the form of representative charts and diagrams, similar to ‘images of philosophy’ used to express philosophical thoughts through a rich system of metaphors and other means of imagination (Zapletal, 2022, 246).

Diagram visualizing subjective time perception as a multisensory experience





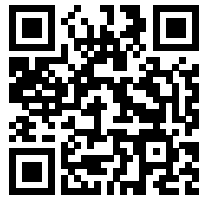
The dissertation thesis's main ambition is to contribute to describing different aspects of subjective time experience. One of the key charts of the thesis visualizes the concept of subjective time perception as a multisensory experience, assigning specific properties to each of the senses (e.g., 'light' and 'color' in the case of sight).

"The notion of subjective time can be described and further explored through sensory perceptions. Perception of time is defined as the multisensory experience based on an individual interpretation of internal and external stimuli. A set of stimuli then creates a space for the subconscious perception of the passage of time (duration of time). The research consequently deals with one of the temporal illusions — the duration of time that is possible to describe via scientific methods, such as measurement of the duration (and speed) of the perceived time interval. We explore different ways to define and measure this 'unit' of subjective time through a visual form of a conceptual chart containing basic senses, sensory dimensions, and their properties ('zeitgebers'). One example of subjective time perception is the situation when the time interval is perceived as shorter if the color of the perceived object or space is in warm hues (red or yellow hues) (Thönes et al., 2018)." (Hurrai, 2023).

The tangible outcome of Hurrai's research project — the Experience of Time toolkit — becomes an inspiring, ready-to-be-explored

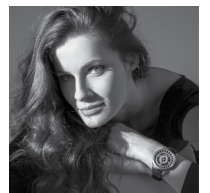
provocation targeted not only at design experts. As a designer, Hurrai successfully applies her creative training and art craft to distill her theories into tangible, open-ended visual clues. The universality of the cards allows interdisciplinary discussion, offering a new perspective on the concept of subjective time measurement through evocative visual guides, focusing specifically on the perceived speed of time interval.

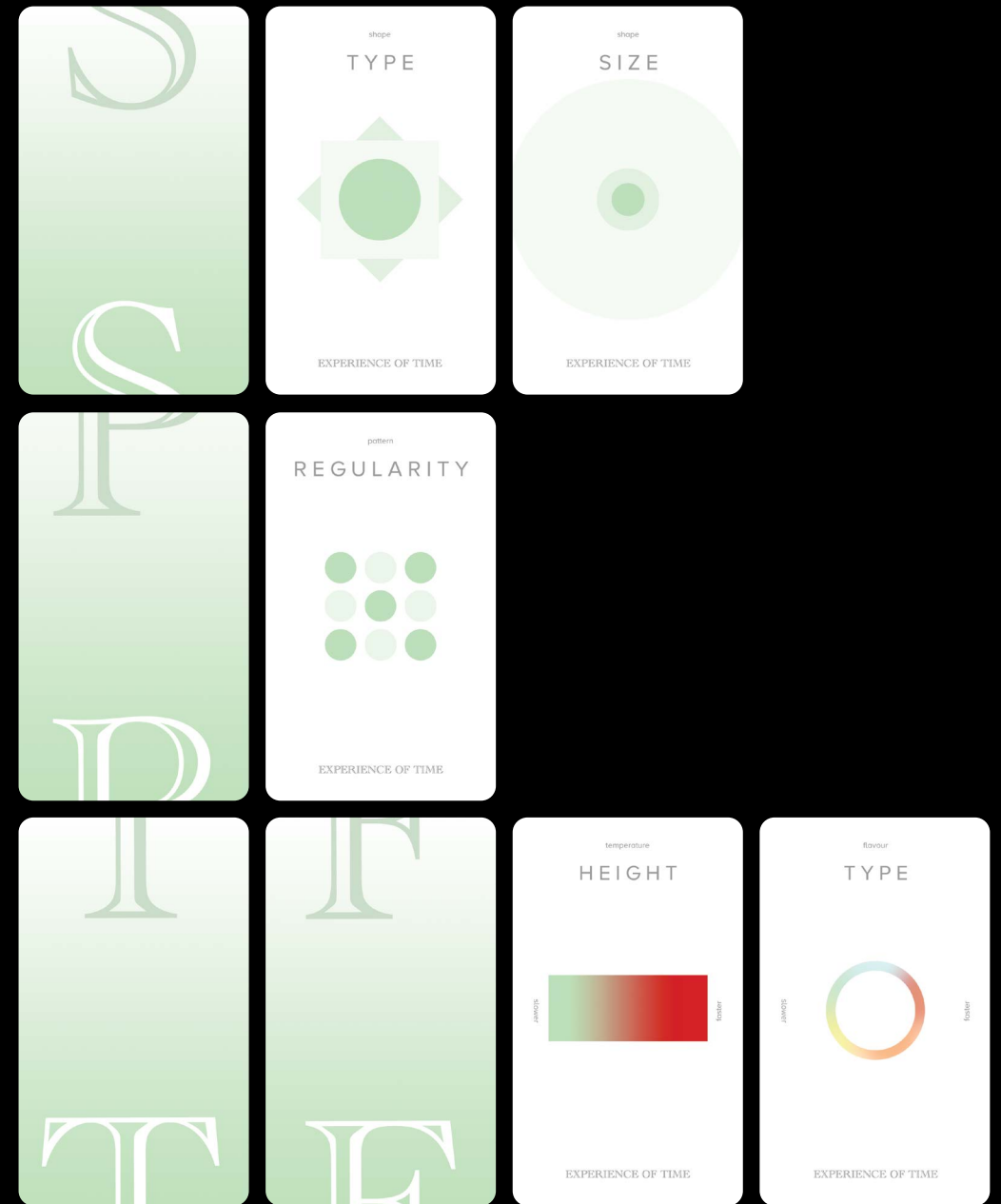
"The toolkit consists of a deck of cards, in which each card displays one property ('zeitgeber') of a sensory dimension and the length (speed) of a perceived unit of subjective time. The project brings a new viewpoint on the concept of time, initiates a conversation on the subjective time phenomenon, and highlights its importance as an essential dimension in the design process" (Hurrai, 2023).



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Petra Hurrai is a visual storyteller, creative director, and founder of The Shamrock Green Studio, focusing on bespoke photography and visual communication. She is an experienced product designer passionate about practice-based and theoretical research and the art of watchmaking.





Experience of Time toolkit:
a set of cards for the illustration
of subjective time perception,
focusing specifically on the
perceived speed of time interval

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