

## **Digital Synesthesia**

### English abstract

The Digital Synesthesia project expands the range of scientific synesthesia research by introducing the possibilities of digital technologies as artistic research media. While science hopes to find answers to unresolved questions in memory and perceptual research by means of specially induced stimuli that the sense organs and human brain process to impressions, artists have contributed to an artistic evolution informed by digital art in the field of experimental perceptual art that in addition to its potential in the area of knowledge and aesthetics also sheds light on the accelerated pace of technological evolution.

Unlike synesthesia in traditional artistic media, digital art is distinguished by specific characteristics that set it apart from other artistic works: due to the fact that digital artworks are simultaneously based on multimedia and technology, they principally permit the artistic production of “objectifiable” synesthetic perception processes.

Past scientific research has barely concerned itself with the perceptive characteristics of digital artworks in relation to synesthetic factors. Due to its innovative approach to research, the Digital Synesthesia project fills this gap.

The objective of the research project is to provide an experimentation platform for the presentation of synesthetic mechanisms in the perception of digital artworks. This experimentation platform is meant to be arranged in such a manner that the observation of the project process by artists and scholars becomes part of the research process. The observation process is reflected by using communicative and aesthetic feedback loops in the form of a project website, two transdisciplinary workshops, research interviews, an interdisciplinary symposium, and an exhibition, and it is incorporated into the research process. The production process itself and the research results include technical, aesthetic, reflexive, and textual design elements.

The experimentation structure is configured jointly by the artists and scholars at the interfaces of perceptual and aesthetic research and digital art production. The artists research the synesthetic moment in the perception of digital artworks in consideration of the current state of knowledge in the neurosciences and cognitive sciences and therefore allow for new scientific knowledge in the field of synesthesia research. In the form of twelve interactive, multimedia digital artworks, the artists produce an experimental arrangement that enables the study of perception of synaesthetics in European and Asian recipients.