## **Editorial**

Dear Reader,

The spring 2012 number of the PhotoResearcher **The Dialectic of the Visible/Invisible: Science and Photography** is devoted to the photographic visualisation of those phenomena and objects of the world that are invisible to the human eye. From the point of view of scientific history, the principles of making the invisible visible could be observed from the early days of photography in the contextualisation of applications in the photographic/photo-artistic and scientific spheres. The contributions included here put forward a large number of explanatory models, covering a wide range of thematic and chronological territory, on the complex area of the developments of, and interactions between, visualisation techniques and cognitive processes: From experimental photographic attempts at the visualisation of the invisible, over new experimental visual aesthetics and ways of looking at unaccustomed visual worlds, as well as from microphotography to computer generated images (CGI).

Nadja Lenz examines the extent to which the inventors of photography dealt with cryptography and the relationship between it and photography. **Carmen Pérez González** deals with the development of lunar photography in the 19<sup>th</sup> century and how improvements in photographic techniques helped to realize mapping the surface of the Moon. In her essay, **Katharina Steidl** shows that an analysis of Talbot's early photograms of plants opens up discussions about how to visualize botanical compendia, as well as the extent to which the connection between botany and gender influenced the perception of the photogram. **Ulla Fischer-Westhauser** endeavours to shed light on three micro-cyanotypes considered to be the first evidence for the use of this printing technique in early microphotography. Her research investigates micrographs and the use of cyanotypes as aids in the sciences, as well as their aesthetic effects. **Heidemarie Halbritter** and **Michael Hesse** show – from the viewpoint of natural scientists – how the aesthetic of the image is applied in their field. They describe the visual beauty of pollen, which can only be made visible with the help of the modern scanning electron microscope.

**Kelley Wilder** recalls the, almost forgotten, *First International Exhibit of Scientific Applied Photography* organized by the Photographic Society of America in 1937. She deals with the discussion on advances in science and the transfer of the knowledge obtained to scientists via photographic exhibitions. **Jennifer Tucker** draws our attention to one of the lesser-known pioneers of industrial microscopy Philip O. Gravelle and the contribution he made to American scientific consulting and corporate advertising in the 1930s. **Heinz Michael Jostmeier** and **Christoph Schaden** analyse the phenomenon of computer generated images that have now become standard in photography and cinema. The question of whether we can still talk about photographs is raised seeing that, to a large degree, the digital image manipulation is invisible to the recipient.

The last contribution can be seen as a "metaphor of the invisible" of a too little known pioneer of photo history and publishing: In conversation with **Anna Auer, Allan Porter** provides a vivid review of the period of photographic history ranging from the 1960s to 1980s in which he played a decisive role as editor-in-chief of *camera* magazine. The full version of this interview can be found on the ESHPh's website: www.donau-uni.ac.at/ESHPh.

Ulla Fischer-Westhauser, Uwe Schögl Vienna, April 2012