Yearbook of Moving Image Studies 2018

Image Evolution: Technological Transformations of Visual Media Culture

Lars C. Grabbe, Patrick Rupert-Kruse, Norbert M. Schmitz (eds.)

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The basic idea and the core concept of the *Yearbook of Moving Image Studies* (YoMIS) were systematically developed by the editors Prof. Dr. Lars C. Grabbe, Prof. Dr. Patrick Rupert-Kruse and Prof. Dr. Norbert M. Schmitz.

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Lars C. Grabbe, Patrick Rupert-Kruse & Norbert M. Schmitz
September 2018

About the *Yearbook of Moving Image Studies* (YoMIS)

The significant work that lead to the concept and idea of the Yearbook dates back to 2011 and is closely connected with the establishment of the Research Group Moving Image Science (RGMIS) in Kiel, Germany. Established as a doctoral seminar at the Christian-Albrechts-University in Kiel, RGMIS is now working on all topics of modern media theory, focusing on the essential role of visual media, technology and the structures of media in the context of multimodality and intermediality. The interdisciplinary research of RGMIS includes media and film studies, image science, philosophy of media and mind, phenomenological and semiotic approaches, art history, aesthetics, presence research, game studies, theories of perception and psychology and other research areas related to the moving image.

The academic engagement lead to a series of conferences termed "Moving Images" (in 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018), which intended to discuss and reflect the concepts and structures of images used in traditional image sciences (in terms of static pictures or images) and in a modern perspective; according to new media technologies.

The necessary consideration for the establishment of YoMIS is the interdisciplinary connection of German, European and international media research to improve the academic exchange of ideas. Therefore, YoMIS is innovatively conducted as an electronic and print publication (ePub and Book on Demand) to enhance the range of impact and to simplify the production process. The Yearbook is based on a prolific scientific cooperation of the University of Applied Sciences Kiel, the Muthesius Academy of Fine Arts and Design in Kiel, and the MSD – Münster School of Design in Münster, and is edited and published by

Prof. Dr. Lars C. Grabbe, Prof. Dr. Patrick Rupert-Kruse and Prof. Dr. Norbert M. Schmitz.

YoMIS is conducted as a periodic forum for international scholarly exchange and interdisciplinary discussion, not determined as a publication for a specific school or tradition. The editors are formulating the specific topic of each issue, but the members of the editorial board make the final decision for the publication of articles, in a double-blind peer review process. The content-related broadness of the different topics, and the variety of methodological approaches, forces a productive opposition of academic perspectives, which can certainly differ from the subjective perspectives of the editors.

Lars C. Grabbe, Patrick Rupert-Kruse & Norbert M. Schmitz
September 2018

Introduction

Lars C. Grabbe, Patrick Rupert-Kruse & Norbert M. Schmitz

The interdisciplinary perspective of a sovereign image science gets more and more influenced by the rise and power of digital images, and additionally by the circumstance, that digital images are very often moving, moved, arithmetic, interactive or simulative images. The Yearbook of Moving Image Studies (YoMIS) wants to provide an international forum for the complex range of images, media technology, reception and visual culture.

The fourth issue of the double-blind peer-reviewed Yearbook *Image Evolution: Technological Transformations of Visual Media Culture* explores the recent debates in the context of image advancement in the range of technology, image structure and reception.

The editors would like to understand the history of images as a history of technology and mediality, because material transformations have always had a great impact on form, structure or content of mediatized and often multimodal visual representations. It took many years from the origin of images in the caves of our prehistoric ancestors to the interactive, arithmetic and highly immersive images of the digital age. This development always seemed to be deeply rooted in the potentials of media technologies and the numerous human inventions in the range of traditional craftsmanship, engineering science, computer science, and art and design. This perspective is the beginning of a media theory, whether if it starts with leading thinkers like Walter Benjamin or Marshall McLuhan (cf. Benjamin 1991 and McLuhan 1964).

Nowadays, these academic discourses surely work with more profound and more detailed analytical tools, concepts and methodologies. But also, a modern media theory that analyzes, describes, and characterizes technological transformations surely receives new insights. The factual embedding of images in the historical-technological processes

constitutes a complex structure of an autonomous Image Evolution that must be highlighted, characterized and analyzed by the interdisciplinary academic discourses that are related to the functions and structures of visuality, pictoriality and the manifold technological forms of multi-sensoric representations. The chosen term Evolution is deliberately indicating structural laws that underlie historical events. These laws are not teleological or ontological driven, but more intentional and structur logical processes of an historical and technological interdependency. Such models of structural logic are set apart explicit from teleological and ontological models in Hegelian tradition in order to explain them instead from their immanent structures as well as their interplay with the most distinctive other developments. In this interdependency, the technology is not only evolving out of its inherent structures and at the same time embedded in anthropological conditions and sociocultural dynamics. This process of evolution is also intervowen with different cultural practices, which are scientifically addressed by media use studies, and innovation management, which concentrates on the economical bases for change in media stuctures and societies. These aspects taken together showing the complexity of image evolution and its impact on human beings, perception, cognition, society and culture. However, media studies are focusing on the perspective on the specific relevance of the media without, however, deriving a monocausal model from it (Kirchmann 1998).

In this context, the editors are explicitely arguing for the conceptual strategy working with the concept of an Image Evolution. They would like to understand images as visual, and further multi-sensoric, artifacts that are historically and technologically embedded within the developments and relations of materiality, mediality and reception. Beside the integration of this different aspects the issue is also expanding the time frame of the research topic: The development of mediality is not only a project for media historiographies in the context of a media archaeology, but also connected with the logic of recent developments in the context of prototypes, future ideas and innovations.

The interdisciplinary topics of the authors are addressing different aspects of the materiality and technology of images and visual media, sometimes with the focus of a specific academic approach on the history and logic of image evolution and media developments, and in other cases

referring on material and technological effects of the reception of dynamic representations. Image Evolution is a perspective and a structural component of images; therefore, some explorations are referring to the multimodality and multisensoriality of static, moving and digital images, which often goes beyond pure visuality, and some considerations were formulated with regard to the context of the historical, cultural, aesthetic, philosophical and transformational impact of existing image media and future innovations.

In a phenomenological driven viewpoint Fabrizia Bandi is highlighting in *The Aesthetics of Virtual Art: A Phenomenological Approach* the relation of virtual art with the human experience. This relation is described as an immersive space that relates the artistic creation, the aesthetic object and the recipient. The author focusses on the concepts of reality and unreality in the range of the imaginary and the possible with regard to Dufrenne, Sartre and Deleuze and argues for three comnponents of virtual art as immersive, technological and coinciding with human space and time.

Christiane Wagner is relating in *Art and Perfect Illusion: From Architecture to Cinema in the Era of Technological Convergence* the aesthetic and image theoretical dynamic of technological convergence. Images are described in an aesthetic and historical perspective as specific artistic ideas and architectural achievements in relation to the moving image. The author focusses on thinkers like Benjamin, Brecht, Deleuze, Baudrillard, Adorno, Hegel and Kant to evaluate the processual dynamic of image creation and to explore elements like imagination, illusion, reasoning and aesthetic judgement.

In *The Rise of Things is the End of Images: A Picture is Worth a Thousand Hands* Andreas Schelske describes the specific transformation of the image function from communication to production. The author addresses the development of image machines in the era of postmodernity and asks semiotically – with reference to Peirce –, what iconic function the object reference have in virtual reality and computer-aided design and how it can be justified that VR development proclaims the partial end of visual communication. The author argues that image machines are semantizing machines and image use is changing once again in media history.

Lars C. Grabbe argues in *Image Transformation: The Hyperaisthesis of Digital Images* that multimodal image media technologies are enhancing the processes of sensory media perception. The author is highlighting hapto-tactile media in the context of images and proclaims that a progressive image science has to develop analytical concepts for a deeper understanding of potentials and possible side effects of these multisensory images. This article develops image-theoretical concepts for the characterization of hyperaesthetic images, which means, that images as elements of interactive and hapto-tactile media technologies are more than clearly distinguishable two-dimensional picture surfaces and turn into multisensory images.

With *Orientation and Cartographic Imagination in the Age of the Digital Earth: Notes Toward an Aesthetics of Google Earth* Tommaso Morawski presents the specific epistemological transformations that are caused by diffusion of geo-media and their digital cartographic systems. The author retraces the cartographic genealogy of Digital Earth and outlines how the medialization of a Whole-Earth is connected with cartographic imagination. The author explains that maps function as specific media in which mythical geographies are incarnated and as a source of a history of cultural representation that encodes subjects.

Dario Cecchi is focusing on premediation in *Cinegrams of Premediation: Harun Farocki's Videograms of a Revolution and the Future of Cinema*. In orientation to Grusin the author is writing about dominant media processes as forms of a radical mediation and refers the argumentation to Harun Farocki's latest experimental documentary movies, as an example of political aesthetics. Furthermore, the author is highlighting the postmodern condition of the human spectator by referring to Lyotard and Flusser and underlines that there is still room for practicing imagination and theorizing its new manifestations by images.

With a specific view on spectatorship and reception Giorgos Dimitriadis is characterizing in *An Economical Model for Theorizing the Perception of Visual Narrative in Digital Cinema* the cinematic worldmaking. The author works with theoretical concepts of Hochberg and Brooks to give insights in the way how an active viewer's reception handles narratives taking place in movie universes potentially unseen before. The author underlines the use of narrative notation models with regard to the selective nature of perceptual capacities and argues that the depending

use of narrative breakpoints and event segmentation can support the comprehension of narrative moviemaking.

In *From Images of Lines to Images of Particles: The Role of the Film Camera in Flow Visualization* Mario Schulze and Sarine Waltenspül are focusing on scientific film and try to give insights into an unexplored research field. The authors examine the situation when film was implemented in the field of fluid dynamics while photos were standard method to visualize flows and they give an answer to the question of how the image evolution of scientific photos to film proceeded. Focussing on the first experiments by Ludwig Prandtl at Göttingen Institute the authors show that photos as well as films always occupied a precarious position between qualitative imaging and quantitative measurement.

The different and interdisciplinary approaches that are connected in the volume *Image Evolution* try to focus explicitly on the relation of visuality, technology and culture to locate and present specific findings and further problem areas that should be clarified in the future of analog and digital technologies, old and new media and specific prototypes. Media technology and its structural influence on media materiality has a specific role to play in the context of the dynamic development of old and new image concepts: The more a media technology is becoming a trigger for new forms of image materiality the cultural and historic experiences with these images are changing too. Image Evolution could be one structural component of the image discourse to connect the concepts of static and dynamic images with the approaches in modern media theory, history, design and art theory, aesthetics, and film studies as well as the complex range of image science.

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September 2018

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The Aesthetics of Virtual Art: A Phenomenological Approach

Fabrizia Bandi

Abstract

Virtual art has an essential relation with our experience: it is actually constituted by the subjective experience in the immersive space created by the artist. A description of virtual art makes it necessary to re-define anew both the aesthetic object and the spectator. The "virtual" elicits the question around the reality or unreality of this kind of art: behind this term one has to discover the relationship with the imaginary and the possible, along the thought of Dufrenne, Sartre and Deleuze. The peculiar role of the subject, who in this case has to be named literally "user", reveals three features of virtual art: it is immersive, a peculiarity which belongs not only to this kind of contemporary installations; it requires a technological medium in order to be experienced; it coincides with the user's lived space and time. In light of its experiential nature, virtual art has to be conceived as an art that can re-describe the world, "realizing" a representation that goes beyond the confines of the mere re-presentation, to once again tell the possible scenarios of the encounter between man and world.

Keywords

virtual art, experience, imaginary, immersivity

1. Introduction

Virtual and augmented reality are more and more present both in everyday life and in art. Starting from a phenomenological approach, the aim of this study is the analysis of the aesthetic experience offered by virtual art, underlining the theoretical complexities this art form expresses.

At first, the ontological status of virtual artworks has to be defined. It can be said that in this case fruition actually coincides with the work of art in itself, realizing, so to speak, Dufrenne's lesson according to which an artwork requires an experiencing subject to truly exist (Dufrenne 1953). The first element to clarify is in fact the experiential nature of this kind of art. Although the life of the other art forms is strictly connected to the experiential domain, this bond becomes more essential in virtual art.

Artworks have in general a material substrate from which everyone's subjective experience starts: since a painting is hung on a wall, anybody could have an aesthetic experience just passing by and standing in front of it. So, first of all, the object immediately appears handy, since I could directly see, hear, touch and even smell it[1]. Secondly, an art object such as a painting usually involves an object which doesn't evolve, which offers the spectators a static product, namely a craft-work in which the style of the creator is engraved. Virtual art, on the contrary, seems to overturn these two traditional features of art: on the one hand it offers a product that's not immediately enjoyable, because we have to utilize technical devices to experience it; and on the other hand, it's extremely changeable, because it strictly depends on the spectator, rather than on the artist. So, the main questions are: what is properly the essence of virtual art? And, so to speak, where is it? These two questions are intimately intertwined, as virtual art doesn't present a physical object placed in a physical space:

> The world conveyed by the interactive computer has been dubbed "virtual" because its location or features cannot be pinpointed in the

1 Several artworks evoke a stronger synaesthetic experience or are aimed at stimulating other senses but the sight: think about several of Anish Kapoor's wax works or the Cildo Meireles' Olvido [1987–1989], where an Indian tepee is surrounded by three tonnes of bovine bones emanating a strong smell while spectators are held by the incessant hum of an electric saw.

> tangible world. It exists within the relation between the machine and the user. We cannot place it inside the machine because it is not there unless we invoke it, and it is not wholly within our minds because we do not possess the hardware necessary to conjure it up—In the computer … we can move throughout a constructed universe of our own making, on virtual paths invisible even as we tread upon them. (Rothenberg 1953, 154)

Along Rothenberg's view about computer-generated worlds, we have to understand how virtual art comes alive literally in the very moment the experience starts. The aesthetic object traditionally is an ideal object that arises from the encounter between the substrate of an artwork and the sensory and intimacy of a subject and so virtual art seems to offer it directly. Indeed, in this case the only *other* but the subject is the experience in itself, therefore it constitutes the proper work of art. Let's try to change perspective: if an artist projected a virtual installation and nobody experienced it, could we affirm it truly exists? It would exist as a sequence of codes in a software, but we wouldn't name it an artwork. An artwork to exist and to be recognized as such needs to be enjoyable by a spectator, and that's true not just for virtual art: nobody would define a project of a statue or a sculpture, even a modern rendering of an object, the proper artwork.

Therefore, virtual art seems to resemble more cinema or music: the score of a music or a film are sequences of signs or images which need to be reproduced. An example could help to get this point: in 2015 a score of *Vivaldi* never heard of before was found. We actually were not aware of its existence before its discovery, but – even more radically – could we affirm it existed before it was reproduced? Before it became audible to a public? Furthermore, does it still exist after the end of the concert?

These queries highlight how such an aesthetic object exists just in the very encounter with a spectator and how it literally is a performative art. But differently from cinema or music, virtual art every time it happens, every experience it plays, is different because of the subject involved. A concert or a movie are fixed in a precise order or structure chosen by the musician or by the director. So, no matter what situation we are living in that moment, no matter how we approach the artwork, it maintains its objective core from which the spectator cannot escape. On the contrary