Parallax Relax: Expanded Stereoscopy

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Abstract

In recent years, stereoscopic films, virtual reality (VR) and augmented reality (AR) have matured and proliferated. This newly-emerging stereoscopic status quo operates within the same principles set out at the beginning of the technology: stereoscopy produces 3D depth-perception from the stereoscopic fusion of left and right images. Yet, beyond the normative practice of emulating human vision, stereoscopy can be leveraged to offer new perceptions and aesthetics.

While phenomena such as binocular rivalry are well researched within cognitive neuroscience and psychophysics, their artistic potential remains largely untapped. Artists such as Salvador Dali, Memo Akten and Blake Williams are among the few who have explored this territory. We propose the term *expanded stereoscopy* to describe stereoscopic processes which create spaces where depth relations are disjointed and paradoxical, where binocular rivalry is used to create unique visual effects or to guide viewer attention, or where new dimensionality and visual intensity are excavated from flat source material. Such expanded, technologically-aided uses of stereoscopy allow for ways of seeing that are *impossible* in the real world and can be seen as a true expansion of the senses.

Parallax Relax presents a discussion of some of the challenges and findings of our ongoing arts-based research into expanded stereoscopy, across the fields of single-screen projection, audio-visual live performance, and 360-degree immersive media, which began with the creation of *III=III* for Animamix Biennale 2015-16.

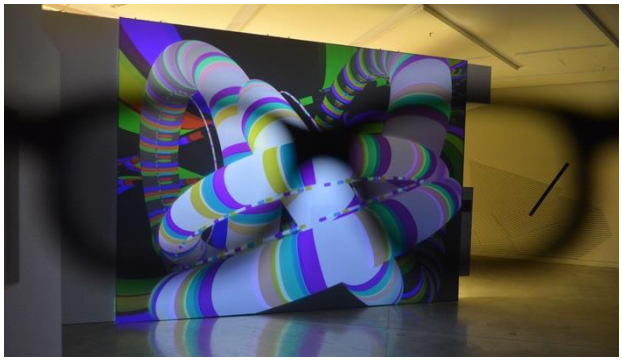

Fig 1. III=III, 2016, Max Hattler, stereoscopic digital animation.

Biography

Max Hattler is an artist and academic who works with abstract animation, video installation and audiovisual performance. He holds an MA in Animation from the Royal College of Art and a Doctorate in Fine Art from the University of East London. His work has been shown at festivals and institutions such as Resonate, Ars Electronica, ZKM Center for Art and Media, MOCA Taipei and Beijing Minsheng Museum. Awards include Supernova, Cannes Lions, Bradford Animation Festival and several Visual Music Awards. Max has performed live around the world including at Playgrounds Festival, Re-New Copenhagen, Expo Milan, Seoul Museum of Art and the European Media Art Festival. He is an Assistant Professor at School of Creative Media, City University of Hong Kong. Max's current research focuses on synaesthetic experience and visual music, the narrative potential of abstract animation, and expanded artistic approaches to binocular vision.