# Animation and the Programmed Abstract Aesthetic

# An Exploration into the Impossibly Real through the Medium of Particle System Simulation

# ABSTRACT AND ARTIST STATEMENT

by Michal Shachman Student number: 0602437F

Supervised by: Mr. Mileta Postic

Submission for the degree of Master of Arts by coursework in Digital Animation at Wits School of Digital Arts

University of the Witwatersrand

### ABSTRACT

#### Short Description

The impossibly real and its manifestations in Digital Abstract Animation are explored in order to experiment with the abstract, programmed aesthetics inherent in the computational logic of Particle System Simulation.

#### Long Description

The production of animated film content throughout the 20th and the 21st century has not only seen the progression of representational film and digital video works but also extensive explorations into the abstract. A trend that is evident is that what is real and what is not real in digital representation has since become increasingly intertwined into the abstract and so it is proposed that a further representation of the real needs to be considered and investigated. In this research project it is proposed that the idea of the impossibly real is this further representation of the real and is inherent in the role of abstraction and the computational logic of a digital system which calculates reality to constitute a simulated visual production. The author supports this with an investigation of the tradition of 20<sup>th</sup> century nonrepresentational animation up until and including the advancement into a digital medium in 21<sup>st</sup> century digital art and practice. As an entry point the author reappropriates the technology of the programming method of Particle System Simulation in the Softimage 2012 ICE (Interactive Creative Environment) Simulation Engine to explore the computational logic of data-parameter manipulation as a programmed abstract aesthetic with great potential artistic value. As part of the Creative Component of this research project is an exhibited series of experimental digital Abstract Animation video

artwork, produced to practically explore manifestations of the impossibly real. The impossibly real is not real, but in this research project it proposed as a further representation of the real that could surpass the need for realist representation and interpretation in digital productions in the future.

### **ARTIST STATEMENT**

*Proabsthetics*: An Exploration of the Impossibly Real through Particle System Simulation.

An exhibition of video artworks associated to the Digital Arts MA Research by coursework thesis project by Michal Shachman. Held on 19<sup>th</sup> July 2012 and curated by Maria Fidel Regueros at ROOM, 70 Juta Precinct, Juta street, Braamfontein Johannesburg.

What constitutes reality and the set of aesthetics used in the study and industry of Digital Art has been a matter of debate for many decades. Thus, in and amongst countless productions and reproductions of reality there seems to be a point at which the real ends and the impossible begins.

The exhibition *Proabsthetics* explores manifestations of the impossibly real through the style and computational logic of digital abstraction. The exhibition consists of three series of simulation experiments performed with the use of the technology of Particle System Simulation. This body of work exhibits the use of a programmed, abstract aesthetic and constitutes digital visual productions created as Abstract Animation. The artist uses an intuitive style of parameter data manipulation and presents a re-evaluation of the aesthetics of this method of simulation. From here, this body of work is based on a set of chosen Thematic Aesthetics; Volume, Light and Flux. In these series of experimental simulations it is proposed that the impossibly real is inherent in the role of abstraction. The Thematic Aesthetics chosen have significance with regards to the processes of experimentation implemented in this series and determines the abstract composition of the computational data exhibited. Upholding the integrity of the abstract aesthetic of this method of simulation is exhibited as an alternative means for portraying the real concepts that the Thematic Aesthetics describe. The products of these experimentations show that where a realist representation alone does not effectively interpret the resulting programmed aesthetic an impossibly real interpretation does. Ultimately, the results of these series of experimental simulations demonstrate the computational logic of the digital system which the programmed, abstract aesthetic is inherently and eternally linked to.

#### Artwork Description for VOLUME Series:

#### Official internet documentation of video artwork (2012) at: https://vimeo.com/46387630

VOLUME explores simulated particle systems through the lack of control over time. VOLUME is not only described in terms of digital space but also through the excess of the computational logical system which dictates simulation as a producer of perpetual impossible occurrences.

#### Artwork Description for FLUX Series:

Official internet documentation of video artwork (2012) at: https://vimeo.com/46360365

FLUX features attempts in strategy, synchronization and symmetry. FLUX manifests as regiments of control over the motion of self-organizing particle systems contrasted by

states of black and white and gives way to the potential flaws of calculation within the system, indicative of the impossibly real.

Artwork Description for LIGHT Series:

Official internet documentation of video artwork (2012) at: https://vimeo.com/46371348

LIGHT considers the emotive aspects of digital abstraction. LIGHT itself is not considered as a source but becomes a product of computational logic that develops and reveals an aesthetic with an emotive value without reference to the real but to the impossibly real founded upon abstraction.