

Chapter 7

An Aesthetics of Digital Virtual Environments

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ABSTRACT

This chapter examines digital virtual environments as a site for art and proposes a formal aesthetics for art in digital virtual environments. The study arises from the author's decades-long practice producing art in virtual environments and the related theoretical considerations that have arisen from that practice. The technical, conceptual and ontological status of virtual environments is examined in order to establish a base of intrinsic qualities that identify virtual environments as a medium for art. The philosophy of Gilbert Simondon is used to achieve this. The elements and principles the artist must employ to work with this medium are identified as data, display and modulation. The specificities of virtual environments as a medium for art are examined in order to establish a formal aesthetics. In particular, digital colour, visual opacity, digital sound, code, artificial intelligence, emergence and agency are identified as the primary qualities that the artist manipulates to bring forth art in a virtual environment.

INTRODUCTION: WHAT IS AESTHETICS IN DIGITAL VIRTUAL ENVIRONMENTS?

This chapter examines digital virtual environments as a site for art.¹ The study arises from the author's decades-long practice producing art in digital virtual environments and the related theoretical considerations that have arisen from that practice. The chapter attempts to theorise a genuine aesthetics of digital virtual environments, and in doing so, draws on aesthetics, philosophy,

contemporary media theory and affect theory in an attempt to define an aesthetics for the complex arena of art in digital virtual environments.

To establish an aesthetics of art in digital virtual environments, first we must examine the technical, conceptual and ontological status of these environments in order to identify intrinsic qualities that might identify such environments as a medium for art. In other words, what can be done with this medium that cannot be done in any other, and how? This occupies the first section of the chapter, starting by identifying digital virtual

environments as a *post-convergent* medium constituted by the elements of *data* and *display* and the principle of *modulation*. This is followed by an attempt to understand the consequences of this in terms, first proposed by the French philosopher Gilbert Simondon, of indeterminate *becoming*. The role of technical protocols, which are ostensibly highly determinist, are examined in the light of this indeterminacy. This is then brought to bear on the concept, much discussed in 21st Century media studies, of *autopoiesis*, to try to determine the status of digital entities in digital virtual environments. As well as Simondon, the thought of important contemporary scholars of media and culture is drawn upon, including Marshall McLuhan, Friedrich Kittler, Justin Clemens, Pierre Lévy, Gilles Deleuze, Claire Colebrook, Anna Munster, Felix Guattari, Rosi Braidotti, Luciana Parisi, Humberto Maturana and Francisco Varela.

Once this has been done, an aesthetics of digital virtual environments can be attempted, and this constitutes the second section of the chapter. Since digital virtual environments are a complex combination of many elements working together, it follows that an aesthetics will need to examine many different elements. First, the concept of *protocols* is revisited to examine the role of human and non-human agency in digital environments. This is achieved through programming code, which is identified as a major element of any aesthetics of digital virtual environments, and examined accordingly in relation to the Simondonian understanding, raised in the first section, of chains of modulation between data and display. This is followed by an examination of artificial intelligence and desire in relation to aesthetics, which leads to the important concept of performativity and its role in aesthetics of the digital, best articulated by art theorist Boris Groys. The role of time is then examined in relation to interactivity and digital networks, before a discussion of the role of colour and sound in the aesthetics of digital virtual environments. Besides Simondon and Groys, scholars and artists referenced in the

second section include Luciano Floridi, Gregory Chaitin, Stephen Wolfram, Luciana Parisi, Bernard Stiegler, N. Katherine Hayles, Elizabeth Grosz, Colebrook, Manuel DeLanda, Wendy Chun, Alain Badiou, Giorgio Agamben, Bill Viola, Quentin Meillassoux, Jon Roffe, Lewis Mumford, Yves Klein and Pierre Schaeffer.

Finally, as an appendix after the conclusion, I have included descriptions of some of the artworks I have had a hand in making in the past decade or so. These are placed in an appendix at the end of the chapter, as I would like the aesthetics I am trying to theorise in relation to digital virtual environments to stand alone, regardless of whether my own attempts at digital virtual art achieve any claim to aesthetic interest.

1. INTRINSIC QUALITIES OF ART IN DIGITAL VIRTUAL ENVIRONMENTS

The Status of Digital Virtual Environments as Post-Convergent Sites for Art

Digital virtual environments are *post-convergent*, that is, in McLuhan's sense (2001, p. 10), containing all prior media as content (Nash, 2012). A post-convergent medium is the dynamic whole that is created by the convergence of all prior media, plus the excess that is both created by, and is required to create, such convergence.

Such post-convergent moves can perhaps be identified throughout the history of media, but the digital is distinguished by converging all previously differentiable media into an undifferentiable continuum, that of digital data (Kittler, 1999, p. 2). Consequently, for media to be differentiated in the digital era, *digital data* must be *modulated* into some kind of sensible *display* state via protocols that virtually reassemble the required medium, be it a visible, audible or some other kind of sensible medium.

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