The Diasynchronoscope Project: Investigations in Screen-less Apparent Motion

Carol MacGillivray, Bruno Mathez and Frederic Fol Leymarie
Goldsmiths, University of London
New Cross
London SE14 6NW, UK
c.macgillivray@gold.ac.uk, bruno.mathez@gmail.com, ffl@gold.ac.uk

1. INTRODUCTION

The *Diasynchronoscope* is a hybrid artwork that pursues an aesthetic unmediated by the camera or screen, animating through attention to bring real objects to apparent life. See *Figure 1*. The project takes traditional craft media and processes and brings these to the digital age by relying on three modern software tools: (i) A 3D content generator, (ii) An image manipulation tool and (iii) A digital movie management platform. See *Figure 2*.

In the words of Getty Museum curator Barbara Stafford, current modern technologies often “glimmer with mysterious and sensual ancestors” (Stafford & Terpak (2001) and the *Diasynchronoscope* is no exception: the name *Diasynchronoscope* combines diachronic, (the study of a phenomenon as it changes through time), with synchronous and scope (view). In being so named, it evokes animation simulators from the early nineteenth century such as the phenakistoscope and zoetrope, direct ancestors of the project in that they too acted both as art objects and experimental media (MacGillivray & Mathez 2012).

This is an illustrated workshop featuring a live version of the *Diasynchronoscope* to demonstrate its hybrid qualities as perceptual tool and artefact. There follows a discussion of how the technique was developed and its potential as a novel tool for investigating aesthetics of movement.

2. THE DIASYNCHRONOSCOPE AS A POTENTIAL RESEARCH TOOL

The problem with screen-based kinetic experiments in attention and movement is that they can be psychophysically different to veridical perception of dynamics. Our preliminary work shows that it is possible to create screen-less animation in such a way that the observer perceives a continuous flow

of movement, supporting a communication with their environment that resembles, at a physiological level, interaction with a real-life moving object. This not only makes the created artworks a new and attractive phenomenon for viewers, but also holds implications for perceptual experimentation and training that could be profound (Roesch *et al.* 2013).

Our aim is to develop the *Diasynchronoscope* as a screen-less medium that eliminates flicker, and is veridical, in terms of perspective, focus and parallax, and offers a new experience to audiences (MacGillivray *et al.* 2012). The website for the Project is at: <http://www.doc.gold.ac.uk/diasynchronoscope/>

3. REFERENCES

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Figure 1: A virtual 3D sketch of the Diasynchronoscope artwork for EVA

Figure 2: Diagram of studio process