University of New England

UNDERSTANDING CINEMATIC STEREOSCOPY IN THE DIGITAL SCREEN PERIOD

Thesis submitted by

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A thesis submitted for the degree of

Doctor of Philosophy

of the University of New England.

2015

ACKNOWLEDGEMENTS

ABSTRACT

'How are we to understand the significance of cinematic stereoscopy in the digital screen period, 2004 to the present?' This question is at the 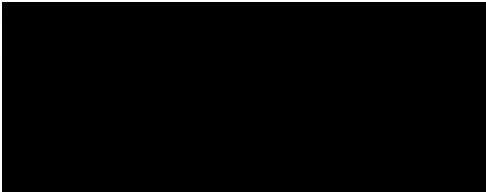heart of this thesis, and is primarily answered by an examination of the relationship between stereoscopic technology, and visual technique and visual style. This relationship illustrates a number of key elements of film and stereoscopy's significance in the digital screen period, such as the adoption of new and different digital technologies by various filmmakers, including *auteurs*; the commercial needs of industry; as well as the diverse aesthetic approaches to screen technology integration, many of which correspond to representations of 'reality'. This is to say the relationship between stereoscopic technology, and visual technique and visual style is a way to understand broader notions about screen technology in digital screen period cinema.

The digital screen period is defined in terms of the transition from analogue to digital technologies, while digital stereoscopic (D3D) production is defined in relation to this period as well as to previous periods of notable stereoscopic production, namely the 1910s and 1920s, 1950s, and 1980s. As a result, two significant areas of change and continuity to do with the digital screen period are explored. The first area concerns the broader history of film and its transition from analogue to digital, and the second is to do with stereoscopy's history of use in the film industry. . In relation to both of these areas, the Australian national cinema is used as an example to illustrate how the transition to digital has led to D3D being taken up and creatively approached in diverse ways. A key feature of the Australian example is that it has a recent history of stereoscopy that is primarily located within the 2004 to 2015 digital screen period. Its first stereoscopic feature film, *Cane Toads: The Conquest*, for example, was released as recently as 2009. In this respect, the Australian context shows, via the productions of *The Great Gatsby* (2013), *Cane Toads* and *Storm Surfers 3D* (2011), how digital screen period stereoscopy is similar to previous periods and also different from these periods; how technology, visual

technique and visual style have developed in this period; and how dominant social forces of the period have helped to shape this development.

Qualitative and quantitative methodologies are used to explore the topic and make the argument. These methodologies are derived from the three branches of film study: film history, film theory and film criticism. David Bordwell's largely qualitative analysis of classical Hollywood continuity and intensified continuity systems, and Barry Salt's largely quantitative 'practical film theory', for example, are combined to define and illustrate specific characteristics of D3D production. Both the combined methods draw on the three branches of film study to provide the thesis with a basis from which to compare and contrast D3D production in relation to conventional production.[1] In effect, they help to identify the visual techniques and visual styles that are specific to D3D. The combination of qualitative and quantitative methodologies, applied specifically to D3D, is the thesis's original contribution to methodology, and it plays a key role in exploring and answering the main thesis question, 'How are we to understand the significance of cinematic stereoscopy in the digital screen period, 2004 to the present?'

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[1] The term 'conventional' is preferred over '2D'. '2D' incorrectly suggests that all non-stereoscopic representations of objects and environments on screen are flat, whereas 'conventional' is a more inclusive term that reflects the long history of visual technique (including camera and character movement, three-point lighting, continuity editing, production and costume design) that illustrate three-dimensional spaces on screen.

CERTIFICATION OF THESIS

I certify that the substance of this thesis has not been submitted for any degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis and all sources used have been acknowledged in this thesis.

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