

*The Hollywood Cinema Industry's Coming of Digital Age:
the Digitisation of Visual Effects, 1977-1999*

Volume I

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

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Abstract

By 1902, Georges Méliès's *Le Voyage Dans La Lune* had already articulated a pivotal function for visual effects or VFX in the cinema. It enabled the visual realisation of concepts and ideas that would otherwise have been, in practical and logistical terms, too risky, expensive or plain impossible to capture, re-present and reproduce on film according to so-called "conventional" motion-picture recording techniques and devices. Since then, VFX – in conjunction with their respective techno-visual means of re-production – have gradually become utterly indispensable to the array of practices, techniques and tools commonly used in filmmaking as such.

For the Hollywood cinema industry, comprehensive VFX applications have not only motivated the expansion of commercial filmmaking praxis. They have also influenced the evolution of viewing pleasures and spectatorship experiences. Following the digitisation of their associated technologies, VFX have been responsible for multiplying the strategies of re-presentation and story-telling as well as extending the range of stories that can potentially be told on screen. By the same token, the visual standards of the Hollywood film's production and exhibition have been growing in sophistication. On the basis of displaying ground-breaking VFX – immaculately realised through the application of cutting-edge technologies and craftsmanship – and of projecting such a significant degree of visual innovation and originality, certain Hollywood movies have established techno-visual trends and industrial standards for subsequent filmmaking practice.

While the production of VFX-intensive Hollywood motion pictures is by no means a recent phenomenon, Hollywood films have included progressively larger amounts of *digital* VFX, computer graphics and animation. This has been a result of intensive development and innovation in the industry. It began with the "simple" use of computers during VFX production in the late 1970s. Then brief sequences of computer-generated images began to appear; soon followed by more elaborate digital VFX sequences and spectacular digital VFX extravaganzas. This culminated in the production of entirely computer-generated motion pictures by the late 1990s. With the advent of digital theatrical exhibition, it had taken the Hollywood cinema industry just over two decades to fully embrace the digital realm.

Chronicling Hollywood cinema's entry into the digital realm constitutes a narrative that is intertwined with a number of others. Here we are referring to the intensification of conglomeratic practices within the movie business and the domain of techno-scientific R&D in filmmaking, and to the unification of corporate media, information technology and entertainment. Hence the standardisation of, and convergence toward, the digital medium is emblematic of Hollywood cinema's techno-industrial evolution in the late 20th century. Accordingly, we can identify various synergies and partnerships – between VFX providers, movie studios, research laboratories, graphic designers, computer programmers, software developers, computer and filmmaking hardware manufacturers – that have emerged

from a progressive growth of awareness in Hollywood of the digital medium's potential.

In the light of this, the main aims of this thesis are:

- (1) to investigate Hollywood cinema's techno-visual metamorphosis following the digitisation of VFX-related tools and of filmmaking technologies commonly used in the industry;
- (2) to locate the origins, nature and ramifications of the most important techno-industrial transition for Hollywood cinema since the advent of sound, colour and widescreen;
- (3) to examine the techno-industrial circumstances, motivations and outcomes of digitisation for Hollywood cinema;
- (4) to identify the impact on the Hollywood digital cinemascape of continuous techno-industrial innovation, research and development in the VFX domain;
- (5) to analyse and evaluate the impact of digitisation on VFX, on its practitioners, on filmmaking technologies, and on Hollywood film production practice generally.

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Notes on the Text

This thesis uses a variant of the MLA (footnote with short title) system of citations and references throughout. See:

Gibaldi, Joseph. *MLA Handbook for Writers of Research Papers*. New York: The Modern Language Association of America. 1999.

Australian English spelling and style conventions are used throughout, except in relevant cases of direct quotation.

Translations from the French are my own unless otherwise indicated.