Silicon Spirit:
The Impact of
Digital Visual Effects
On Storycraft
In
Filmmaking

By
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CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Candidate

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This thesis grew out of research undertaken for my book, *So What's This All About Then: A Non-User's Guide to Digital Effects In Filmmaking.* The book itself came about from my being awarded the Kenneth Myer Fellowship upon graduating from the Australian Film Television and Radio School. So in the first instance, I would like to thank Andrew Myer and his family for the generous endowment of that award.

Following the publication of my book, I wrestled with an issue that needed, in my view, further examination; that being, the relationship between story and the use of digital visual effects. I approached Stephen Muecke and outlined my proposed research and he agreed to be my supervisor - an act of faith and generosity for which I have been enduringly grateful during the course of my research. I would also like to thank Margot Nash, my co-supervisor, who has also been a steadfast source of encouragement. Supporting my application to undertake the degree were the great stalwarts: Greg. Smith, Zareh Nalbandian of Animal Logic Film, one of the world's leading digital visual effects studios, Mike Chambers, Annabelle Sheehan, and Dr. George Miller, who agreed to be my mentor on this journey.

Throughout my studies I have enjoyed the support of friends who did not flinch at attending movies with a companion who would scribble notes throughout, by torchlight. My partner James Murty has my eternal gratitude for having endured not only multiple screenings of entirely terrible movies but the task of listening to my many drafts, verbalized mental debates and a writing schedule that lasted into the wee hours of the morning for most of this last year or so. I also have to thank my son Connor, born in the middle of this undertaking, who has been very tolerant of being read screeds of film theory instead of the fairy tales recommended by Bruno Bettelheim.

Finally, I would like to dedicate this PhD to two people who inspired this undertaking. Firstly, I dedicate this to Mrs. McVey, a woman who was both my grandfather's and my first grade teacher. She established in both of us a love of learning that endured. Secondly, I would like to acknowledge a debt of responsibility I feel toward my grandfather. He was a talented artist who had to sacrifice an opportunity to attend university because, as the oldest child, he had to go down the mines to support his family. I was the first of our family to have the privilege of a university education, something I have always appreciated. This latest great honour of being able to

undertake a PhD, is a reflection of the values I gained from my grandfather and the encouragement I have had from many great teachers who built upon the foundation laid by Mrs. McVey.

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A version of Chapter Nine - "Trick or Treat: a framework for the narrative uses of digital visual effects", has previously been published as part of the proceedings of the 2004 Hawaii International Conference on Arts and Humanities.

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ABSTRACT

Since 1984, there has been a growing use of digital visual effects in feature films. However, because the scope of digital visual effects and how they work is not widely understood, the primary focus of discussion has been on the spectacular nature of effects, an approach that follows from considerations of traditional optical and other special effects. Implicit in these discussions is the view that digital visual effects are self-reflexive and spectacular in some manner. However, in "Silicon Spirit: the impact of digital visual effects on storycraft in filmmaking", I argue that digital visual effects practice extends beyond apparent effects usage and I examine the narrative implications of the full range of digital visual effects practices.

To do this, how digital visual effects work, the scope of their application, and their relationship to classical narrative storycraft, are examined. Issues such as the role of the hero, remakes, genres, and franchise filmmaking are used as paradigms for examination of the impact of digital visual effects. Steven Spielberg's body of work is also considered in order to assess how a filmmaker considered to be 'an effects director' has used effects throughout the period of film history under review. Finally, the traditional applications of effects - the creation of imaginary worlds and images of the future - are looked at in light of the implications of using digital technologies to create these images.

It is my argument that digital visual effects practice offers more than self-reflexive and spectacular use of technology. While not dismissing those usages, my thesis examines the issue of spectacularity and expands upon these theories, drawing attention to other usages and their narrative applications. The argument that classical narrative cohesion and spectacular images are a point of tension, where digital visual effects has skewed the emphasis toward spectacularity, is shown to be an over-estimation, with flaws in narrative structure proving to be the primary reason for 'effects-laden' films. Further, the argument that effects are particular to the genres of science fiction and fantasy is shown to be an increasingly less common practice with digital visual effects becoming an integral part of storycraft and an effective means of presenting fundamental story information for all genres of classical narratives.

Yesterday Bites Man: introductory comments

In his paper, "Classic Film Theory and Semiotics", Anthony Easthope describes Saussurian semiotic distinctions and makes the comment, by way of example, that "'Snake' is a possible paradigmatic substitution for 'Dog' or 'Man'" in the oft quoted sentence "Dog bites man" but that " 'Yesterday' is not, since 'Yesterday bites man' is not a meaningful sentence."[1] Naturally, I disagreed. It may not be a common sentence but it is certainly one for which a variety of meanings immediately presented themselves, at least to me. For example, 'Yesterday' could be the name of a dog, snake, or teething toddler. The sentence could be making reference to karmic events where someone's past catches up on them or it could refer to the consequences of time travel. All quite acceptable meanings in a 'bite me' modern world where language is often used with nearly painful flexibility if for no other reason than to gain attention.

While the immediate responses cited are fairly fanciful and are not intended to contest the principle behind Easthope's example, the simple fact that the various meanings appeared - instantly - served to raise two rather salutary warnings. Firstly, the inherent danger in making absolutist statements, especially in regard to what is or will ever be possible, and secondly, when it comes to the matter of meaning, one should be particularly mindful of the inventiveness, flexibility and mutability of human expression and of humanity's capacity for interpretation, inference and elaboration on the meaning/s to be gained.

In the field of film - both its production and criticism - the consideration of 'meaning' has been the source of much conjecture, debate, and dispute. Indeed 'meaning' is a concept that has fuelled philosophical discourse from earliest recorded sources; these sources themselves providing further fuel to the many interpretations and theories until the volume of thought on the subject appears capable of expanding in a fashion perhaps comparable to that proposed by theories on the structure of the physical universe. However, for the purposes of this thesis, the focus of analysis will be upon

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[1] Anthony Easthope, "Classic Film Theory and Semiotics" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies*. (Oxford: Oxford University Press, 1998), p.53.

that sliver of total human achievement, filmmaking. Further, upon an emerging aspect of it that appears to be either misunderstood or at least undervalued in current discourses.

Filmmaking has enjoyed an interestingly adaptive evolution. Originating as a scientific tool,[2] film was swiftly adopted for the purposes of entertainment enjoying a brief period as a technical novelty before being adapted to the perennial human pleasure of story telling. In its earliest days, film theory debates found focus on the issue of whether or not film warranted acceptance as an art form and various practitioners and theorists embarked upon what has proven to be a successful campaign to have it accepted as such. This led to its consideration by the academy as an appropriate subject of study and it has enjoyed considerable intellectual and institutional resources, especially as its global output and reception has increased.

Film has reflected its century both as an artefact and as a focus of study. Its history and the theories on its development are well documented, indeed, staggeringly so. Texts abound on everything from practical skills, industrial structures, and collections of seminal essays by some of the greatest thinkers of recent history. As a result, reading any number of reputable editions covering the development of film thought will invariably lead to consideration of film as an artistic endeavour, a political expression, a psychological study, an industrial/economic product, a cultural artefact, and many multiple combinations of the above.

As trends and schools of thought have emerged throughout its history, film has proved an invaluable platform for theorists from many fields to examine their theses and propose new meanings and interpretations of the works produced by filmmakers. Indeed, at regular intervals essays have appeared that have opened new perspectives on the subject and initiated substantial reconsideration of previous discourses. For example, the works of Bazin, Metz and Mulvey have provided enduring references for film studies scholars. Likewise, there has been extensive review and documentation of the history of film production.

In undertaking a study of film practice and forming an argument for consideration within this very strongly established field there is little to be served in reiterating the substantial body of well-recorded thought and even less to be gained

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[2] Geoffrey Nowell-Smith, ed., *The Oxford History of World Cinema.* (Oxford: Oxford University Press, 1997), p.14.

from providing mere embroidery on otherwise clearly expressed conceptual work. Accordingly, this thesis does not seek to re-theorize narrative and meaning, nor take up discussion of the agreeableness of others' interpretations of particular films. What it does seek to achieve is a consideration of one aspect that has been poorly defined and little valued in the development of the wider studies of film.

This aspect, the use of 'special effects' and in particular, its relationship to narrative, has consistently been overlooked, dismissed, or raised as a point of proof that narrative integrity has been sacrificed for the benefits of spectacle. Often even those who are enthusiastic about current developments in the use of special effects discuss them in a contradictory manner. Furthermore, as digital effects are incorporated in more films, and more kinds of films, there is an increasing need to reconsider their place in contemporary filmmaking and how they have come to hold this place.

The term 'special effects' is generally used in a very broad fashion to cover an array of film techniques. Before any discussion of their usage can profitably be considered, it is prudent to identify what 'special effects' comprise and how they relate to digital effects. This is an important distinction because critics of digital effects usage often suggest that their use is a contemporary phenomenon and one which detracts from a glorious past of much better story telling. Accordingly, relevant discussion of special effects' development over the course of filmmaking will also be considered.

On that point, in giving her account of the history of filmmaking, Andrea Gronemeyer says of its early years, "...Hollywood had controlled the world market almost unchallenged since the 1920's. The sales of the large American studios were so astronomical that their directors controlled the largest production budgets in the world and could invest staggering sums in stars, costumes, sets, and special effects."[3] Yet the use of effects was not solely by those seeking to produce commercial projects. She goes on to discuss French Impressionism and states, "By using optical tricks, they (the Impressionist directors), attempted to illustrate the impressions of the film characters: Dreams, memories, visions and thoughts."[4]

Clearly, this illustrates not only the early use of effects but also the diversity of uses to which they were applied and that they were of interest for a range of

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[3] Andrea Gronemeyer, *Film: A Concise History*. (London: Laurence King Publishing, 1998), p.57.
[4] Ibid, p.58.

practitioners. It also raises the issue of what comprised effects usage. The reference to optical tricks is but one kind of 'special effect'. Pyro effects, mechanical effects, matte paintings, glass mattes, rear projection, miniatures, models, prosthetics, make-up, specialized props, and such were also well within the scope of early filmmakers and used to great result. These techniques, in addition to the optical 'trickery' of special lenses and optical printing enjoyed broad application from the earliest days of filmmaking and are still integral to 'special effects' practice. What has changed, and what will be the focus of detailed analysis in this thesis, is the advent of digital visual effects and the impact that this has had on narrative.

Thus, this long-standing foundation of special effects practice is valuable for two reasons. Firstly, it allows consideration of how digital visual effects have impacted on narrative structure by providing an opportunity to compare digital visual effects usage with traditional special effects practice. Secondly, it offers an opportunity to show how the theoretical placement of traditional special effects in the larger body of discourse informs our current understanding of the impact of digital visual effects usage in contemporary filmmaking.

Vivian Sobchack, in her paper entitled, "The Fantastic" makes reference to "foregrounding a range of cinematic practices identified as 'special effects'."[5] She does this in the context of discussing films which "defy or extend verisimilitude by portraying events which fall outside natural confines."[6] Her thorough discussion of the development of special effects usage from Méliès (1902) through fantasy adventures from the 1930s to the 1950s and the biblical epics of the late 1940s and 1950s raises valuable commentary on narrative content but also highlights the 'special' tag attached to the use of 'special effects' and the association of these effects with certain kinds of narrative.

Martin Barker's discussion of special effects better demonstrates how these issues prevail. In his book, *Anzt to Titanic: Reinventing Film Analysis*, he quotes LaValley whose stance supports that of Sobchack's and summarizes LaValley's view that "...special effects must always be about the borders between the possible and the

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[5] Vivian Sobchack, "The Fantastic" in Geoffrey Nowell-Smith, *The Oxford History of World Cinema*, p.312.
[6] Ibid.

impossible."[7] He goes on to say, in reference to LaValley's statement, "Special effects thus dramatize not just the thematic materials of science fiction and fantasy plots, but also illustrate the 'state of the art'...",[8] that this stance, according to Barker, "...arbitrarily limits special effects to the realm of the celebration of technology...."[9]

Barker's argument is that special effects serve to indicate "moments where modality shifts take place..."[10] in a narrative and says that, "to become 'special' in any film, some moments have to be signalled apart."[11] He is persuasive about this view in his analysis of the film *Antz* and goes on to observe that,

> Special effects have to be both narratively integrated and convincing representations of a realistic fictional world here for the audience to believe in them sufficiently, and so to engage with the resulting dilemmas posed for the film's characters. On the other hand, the simultaneous self-reflexivity of effects solicits attention in a more direct fashion, inviting the audience to see them as effects, and to react with awe and wonder at the capacity of the cinematic apparatus.[12]

These issues are also considered by Joel Black in his book, *The Reality Effect: Film Culture and the Graphic Imperative*. He comments that, "A growing number of science-fiction and action-adventure films.... don't just use special effects; they are special effects"[13] and also observes that, "Whereas special effects were formerly reserved for isolated scenes except in the case of full-length animated features, such effects are now routinely used throughout the entire picture."[14] In raising the issue of impacts he comments that "...while special effects once allowed filmmakers to present glimpses of the unreal world of dreams (*Un chien andalou, The Wizard of Oz, Spellbound*), today's sophisticated effects are increasingly used to produce a heightened

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[7] Albert LaValley quoted in Martin Barker (with Thomas Austin), *From Antz to Titanic: Reinventing Film Analysis.* (London: Pluto Press, 2000), p.83.

[8] Martin Barker, *From Antz to Titanic: Reinventing Film Analysis*, p.83.

[9] Ibid.

[10] Ibid., p.81.

[11] Ibid., p.83.

[12] Ibid., p.171-172.

[13] Joel Black, *The Reality Effect: Film Culture and the Graphic Imperative.* (London: Routledge, 2002). p.11.

[14] Ibid., p.10.

illusion of reality itself (crashes, disasters, wars, space travel, etc.) - of truth as visible spectacle, of reality as anything that is filmable....".[15]

Yet he goes on to speak about using digital effects "in place of shooting the image"[16] as if this were in some way an extraordinary practice. In my view, this is indicative of what I call pre-tech paradigms, where the idea is that digital image creation is somehow exceptional, distinct from 'real' filmmaking. As the diverse case studies will show, this is a misconception as the use of digital effects is increasingly integral to the filmmaking process.

Further, Black's discussion is an example of another common practice - the conflation of digital effects with other digital practices and technologies. In his discussion he places digital effects within post-production and slides from discussion of effects to digital technology such as editing and storage.[17] This lumping together of all things digital is a common misunderstanding, as can be the enshrining of 'digital' as necessarily symbolically representative of 'the digital' as a concept.

In his paper "History and cinema technology", Duncan Petrie makes the distinction between "technical invention" referring to the development of specific tools or devices and "a systematic technology of 'film' or 'cinema' "[18] referring to specific goals or uses of technology by filmmakers. Within this thesis, the use of digital effects will be considered as a goal specific use of technology that is a fundamental part of the *production*, not the *post*-production process.

The reason for this distinction is that it is a more accurate positioning of the tasks and role digital effects hold within the industrial practices of film production and that this has importance for its consideration in relation to narrative in the same way that other image creation practices do within the classic industrial structures of film image production. This will be delineated in the chapter that documents digital effects development and practices. However, in the meantime, the matter at issue is that previous discourses tend to hold separate and 'special' the physical practices, tend to confuse a variety of technical inventions under the heading 'digital' and, in so doing,

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[15] Ibid., p.8.
[16] Ibid., p.10-11.
[17] Ibid., p.17.
[18] Duncan Petrie, "History and cinema technology" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies*. p.238.

they do not offer a full opportunity to properly consider the true impacts of digital effects usage in creating narrative.

For example, Barker remarks that, "Special effects...are pointless if they don't evoke at least a component of the reaction that fireworks can catch from us: 'Wow!'."[19] Then, in summarizing his own arguments states, "there cannot be a general theory of special effects since the 'special' can only be defined by its difference from the ordinary modality of viewing proposed by the particular film in which FX occur."[20]

These commentators demonstrate the misconceptions that prevail, even though they at the same time make valid and, indeed crucial points about the use of effects in film. The observation that special effects are used to great value in certain types of narrative is quite correct as will be shown in later chapters. Further, the view that the use of effects must be integrated with narrative is a comment my research is also able to support; as is the argument that special effects can be used to mark certain moments in the narrative as 'special'.

However, to limit effects to certain kinds of narrative, to moments of self-reflexive spectacle, to say that they must have a 'Wow!' factor is to underestimate the scope and power of digital effects practice and contribution to contemporary film. As to the statement that there can be no general theory of special effects, while this thesis will not propose a general theory of special effects *per se*, its findings will certainly point to opportunities for a wider understanding of effects within the general theory of film and provide a framework for analyzing their narrative functions.

As Anthony Easthope has remarked, "the achievement of film theory to Metz is to establish the principle that in cinema any visual element may be turned to expressive purpose, converted into 'poetic speech'. This renders the whole visual, aural, and narrative effect of cinema available to inspection for its significance, the meaning it produces."[21] This assertion, I would argue, points to the validity of examining digital effects impacts and returns us to the concept of meaning.

As observed, the discussion of meaning, interpretation of films and their significance - socially, industrially, politically, psychologically, artistically - is an area of endless and mutating discourse. This thesis will not be capable of following each of

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[19] Martin Barker, *From Antz To Titanic: Reinventing Film Analysis.* p.191.
[20] Ibid., p.201.
[21] Anthony Easthope, "Classic Film Theory and Semiotics" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies.* p.55.

these potential lines of consideration for themselves but where these issues arise within the context of narrative, appropriate discussion will ensue. Which raises next the definition of narrative itself and the context it provides for discussion of digital effects impacts.

Again one confronts an area of discourse that has an extensive history and range of theoretical approaches. From Aristotle to Bordwell, discussion by theorists has considered issues of structure, reception, theories of physical perception, and the purposes of narrative itself in the broader cultural, political and artistic frameworks. The relationship of semiotics and metalanguage to film enjoyed extensive critical influence. as have issues of spectatorship and authorship.

In contemplating narrative and specific texts, film theory has often been intent upon comprehending broader, universal paradigms of language, politics, economics and functioning of the mind than it has on examining story itself. The focus of scholars examining meanings produced by texts certainly has provided a foundation for film studies theorizing however, as a consequence, storycraft issues themselves have largely been considered the technical and mechanical provenance of writers' manuals.

Thus, in considering the positioning most likely to allow objective consideration of the impact of digital effects on storycraft in filmmaking, choosing an appropriate theoretical framework formed an important part of the research. Having consulted the works of theoreticians and their arguments and various interpretations of texts, the observation by David Bordwell in *Narration in the Fiction Film*, that "...too many theories rely on weak analogies with pictorial or verbal representation, emphasize certain film techniques, concentrate on isolated narrational devices at the expense of the whole film, and impute a fundamental passivity to the spectator"[22], rang true for the broad consideration necessary in this thesis.

It should be made clear that there is no intention to dismiss the value of the wide discourse on narration and spectatorship that has evolved. However, after consideration of many factors, such as the film production context of those films that represent the widest range of digital effects practice, it was apparent that the foundational basis of their development lay most closely within the Classical Hollywood Cinema as defined

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[22] David Bordwell, *Narration in the Fiction Film*. (London: Methuen & Co., 1985), p.xiii.

by Bordwell, Staiger and Thompson[23] and as recently re-examined in Thompson's *Storytelling in the New Hollywood: Understanding Classical Technique.*[24] These studies take up the challenge of examining the technical and structural factors at work within storycraft and demonstrate their defining role in the major categories of film narrative. Furthermore, they establish the norms at work within the various categories and provide a well-documented framework against which broader, theoretical issues can be measured.

Certainly, the vast majority of early digital effects-laden films were developed and produced by the Hollywood system, as it exists today. Furthermore, the examples and criticisms that must be examined through this thesis, are ones which are directed at the products of studios and so-called 'blockbuster' filmmakers, although this examination of digital effects will not be limited to these films, exclusively.

For example, in *The Oxford Guide to Film Studies*, as part of a discussion of new technologies, the comment is made that, "New computer software such as the infamous 'morphing' technique of *Terminator 2* (1991), become the stars of the big new blockbusters, which now tend increasingly to be written around new special effects rather than special effects being used organically to help tell a compelling story."[25] Here is as clear a statement about the perceived impact of digital effects on storycraft as one could ask for. Implicit in its criticism is the view that blockbusters, especially the ones incorporating digital effects, are not aimed at telling a compelling story - which it is implied, they *should* be in order to fulfil their function as a film.

This presupposes the aim of the films cited is to serve the classic Hollywood narrative goal of telling an easily understood, linear story with cause and effect structure, a goal-oriented protagonist and a clearly resolved ending. This classic structure, defined and demonstrated by the work of Neo-Formalists is a standard against which one can readily examine the achievement of the filmmakers in instances of particular films as well as an assessment of the validity of criticisms such as the one cited above.

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[23] David Bordwell, Janet Staiger, and Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960.* (London: Routledge, 1985).
[24] Kristen Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique.* (Cambridge, Massachusetts: Harvard University Press, 1999).
[25] Laura Kipnis, "Film and changing technologies" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies.* p. 603.

In Bordwell, Staiger and Thompson's *The Classical Hollywood Cinema* and Thompson's follow up study, narrative is described as "...telling stories clearly, vividly, and entertainingly"[26] and it is argued that "Hollywood continues to succeed through its skill in telling strong stories based on fast-paced action and characters with clear psychological traits."[27] These stories should establish the diegetic world and its disruption, the character's traits and goals and move forward through a series of actions that causally and linearly lead to a resolution of the character's goal and re-establishment of a balanced world.

Criticisms of the use of digital effects often pertain to their alleged failure to contribute to the narrative structure outlined above and the assertion that they exist solely for the purposes of spectacle. In *Narration in the Fiction Film*, Bordwell asks the question, "Is there anything in a narrative film that is not narrational?" and raises Barthes' concept of "fellow travellers" and Kristen Thompson's "excess" materials.[28] He does not engage in comprehensively answering this question as he views it beyond the scope of his intent to examine the process of narration itself. However, in analyzing the use of digital effects and their contribution or lack of contribution to narrative, there exists the opportunity through case study analysis to take up at least some aspect of the question of excess.

In his own examination of contributors to narrative Bordwell observes that "...narration can in fact draw upon any film technique as long as the technique can transmit story information."[29] Thus analysis of the extent to which the adoption of digital visual effects are used to transmit story information will be considered indicative of its impact, or at least, utility, in achieving the established norms of Hollywood storycraft.

It should be borne in mind, as Bordwell states, "Hollywood (from its earliest days) has eagerly employed spectacle and technical virtuosity as a means of artistic motivation" for the purpose of narration and while he goes on to state, "...exploitation of special effects all testify to a pursuit of virtuosity for its own sake...." he adds that

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[26] Kristen Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique.* p.1.
[27] Ibid., p.8.
[28] David Bordwell, *Narration in the Fiction Film.* p.53.
[29] David Bordwell, Janet Staiger, Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960.* p.21.

"...digressions and flashes of virtuosity remain for the most part motivated by narrative causality or genre.... If spectacle is not so motivated, its function as artistic motivation will be isolated and intermittent."[30]

These assertions can also be tested in examination of the use of digital visual effects and will test the veracity of the criticisms about digital effects usage and allow exploration of whether there is growing non-narrative use of them, how and why they are used i.e. spectacle for spectacle's sake or an expansion of the stylistic devices available for *syuzhet* or, for instance, expansion of a genre's canon.

Overall, Bordwell's assertion that narrative is dominant should inform assessment of the extent that digital visual effects have been integrated as a stylistic device for the purposes of *syuzhet*. Indeed, Kristen Thompson comments in *Storytelling in the New Hollywood*, that, "Dazzling developments in special effects have made flashy style much more prominent, especially in science-fiction and action films. Yet these techniques have not broken down the principle that style's most fundamental function is to promote narrative clarity."[31]

Digital visual effects are not the first instance of technology requiring accommodation to suit the needs of the classical Hollywood cinema. In their first analysis of this school of filmmaking, Bordwell observed that there were camera angles which were considered unsuitable in earlier Classical Hollywood Cinema[32] until, as the authors themselves observe, where it suited their requirements to be innovative, Classical Hollywood Cinema filmmakers rapidly adopted and adapted experimental, art cinema and avant garde techniques.[33]

Bordwell identified three factors that influence the adoption of technology - production efficiency (economy), product differentiation (novelty) and adherence to standards of quality/aesthetic norms.[34] Examination of the adoption of technical innovations for image creation such as virtual camera moves or the narrative use of flashforwards will show there has been integration and exploitation of these techniques for storytelling purposes over the last twenty years and that this is quite in keeping with

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[30] Ibid., p.21.
[31] Kristen Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique.* p.19.
[32] David Bordwell, *Narration in the Fiction Film.* p.163.
[33] David Bordwell, Janet Staiger, Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960.* p.72.
[34] Ibid., p.340.

Bordwell's criteria. It should also be noted that - as a proportion of 100 years of cinema - the last twenty years represents a significant period of influence, one that has allowed the use of digital effects - which emerged in the early 1980s - to establish its own norms and cues for filmmakers. As Kristen Thompson observes "...the science-fiction film often features special effects over stars as its major draw, as *2001* and *Star Wars* demonstrated."[35] In considering the impact then that these practices have had, such an observation points to even more reason to accord digital visual effects scrutiny comparable to that directed at stars or any other variable represented as a 'major draw'.

Again, in undertaking this scrutiny, care will be taken to distinguish where there is use of digital effects for a *type* of film since criticism of effects usage is frequently addressed as an issue about digital effects rather than an issue about the type of film. The focus of such criticism overlooks the fact that digital effects have vast potential and are used in a wide variety of films and storycraft practices. Criticism of the kind of films cited often reflects but one story option yet are repeatedly considered to represent the one digital effects option and the narrative deficiencies of the type of film are frequently blamed on the use of the effects. It is entirely possible, and worth examining, the extent to which the poor use of technique lies with the scriptwriter and director. However, this does not allow denial that digital effects can be used to make a bad story worse and, where it is shown to be the case, this will also be the focus of assessment of digital effects impacts.

In discussing areas of study open for further analysis, Bordwell comments that, "We lack a subtle and principled history of narrative forms. We don't know enough about such mundane matters as dialogue, scene construction and optical effects."[36] In essence, he is making the point that there is much to be done and in giving direction to the work yet to be achieved he states, "...the poetician starts from the concrete assumptions embedded in the filmmaker's craft. Sometimes these are articulated by practitioners; sometimes they must be inferred from the product and the mode of production. The poetician aims to analyze the conceptual and empirical factors - norms, traditions, habits - that govern a practice and its products."[37] It is the intent of this thesis

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[35] Kristen Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique*. p.284.
[36] David Bordwell, *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema*. (Cambridge, Massachusetts: Harvard University Press, 1989), p.274.
[37] Ibid., p.268.

to attempt this in relation to but one area he has raised as offering potential - optical effects - but in regard to their most powerful form - the digital visual effect.

It should be noted that what follows covers a broad area of film discourse. Chapter Two addresses issues of narration and storycraft looking both at the academy's views and the scriptwriting manuals. The literature referenced in this discussion includes: Richard Kearney's *On Stories*, James Monaco's *How To Read A Film*, the works of David Bordwell and Kristin Thompson as mentioned above, Tom Gunning's "Narrative Discourse and the Narrator System", Christopher Williams' "After the classic, the classical and ideology: the differences of realism", Peter Wollen's *Signs and Meaning in the Cinema*, Aristotle's *Poetics*, Walter Benjamin's *Illuminations*, Bruno Bettelheim's *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*, Joseph Campbell's *Hero With a Thousand Faces*, Viktor Frankl's *Man's Search For Meaning*, and Tom Stempel's *FrameWork: A History of Screenwriting in the American Film*. In the area of scriptwriting the works of Robert McKee, William Goldman, Christopher Vogler, Denny Martin Flinn, Linda Seger and Syd Field provide an account of scriptwriting practice and approaches. The intention is to establish a common ground of understanding of the questions: 'what is story' and 'what is a good story'.

This is followed by Chapter Three which looks at the history of computer graphics and the technical grounding necessary to appreciate the achievements and usages undertaken to create digital visual effects. References include the ACM-SIGGRAPH documentary, *"The Story of Computer Graphics"*, the industry text, *CG 101: A Computer Graphics Industry Reference*, and *Digital Domain: The Leading Edge of Visual Effects*. The industry's main journal, *Cinefex* is also cited as are Leo Braudy and Marshall Cohen from their text *Film Theory and Criticism*, James Monaco as previously cited, David Bordwell & Kristin Thompson's *Film Art* and Bordwell's *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema*, Maya Deren's "Cinematography: The Creative Use of Reality", Vivian Sobchack's *Meta-Morphing: Visual Transformation and the Culture of Quick-Change*, Scott Bukatman's *Matters of Gravity*, Joseph Campbell's *Myths To Live By*, André Bazin's "The Ontology of the Photographic Image", Stanley Cavell's *The World Viewed*, Brian Henderson's "Toward A Non-Bourgeois Camera Style", and Walter Benjamin's *Illusions*. Film and television texts cited include: *'The Lord of the Rings'* series, *Fight Club*, *Star Trek 2*,

Tron, The Matrix, Enterprise (Series 3), *Titanic, Blade II, Final Fantasy: The Spirits Within, Matrix Reloaded, Willow,* and *T2: Judgement Day.*

Having established the foundation of storycraft and technical information needed to ground the discussion, argument turns in Chapter Four to the role of the hero in films and Joseph Campbell's Hero's Journey. Much of the literature cited in the storycraft chapter is revisited and six case studies - *Star Wars, Mission To Mars, Final Fantasy: The Spirits Within, Gladiator, Swordfish,* and *American Beauty* - are undertaken in order to examine how digital visual effects have influenced the development of this crucial story element and the portrayal of the hero.

Attention then turns to ways of telling stories with Chapter Five concentrating on a comparative analysis of a story 'three times told' - the story being Shirley Jackson's *The Haunting of Hill House.* This novel, adapted for film by Robert Wise in 1963, provides a Classical Hollywood Cinema example by which the 1999 remake by Jan de Bont can be compared. As the remake employs extensive digital visual effects techniques it serves as a 'typical' example of the much-maligned 'digital visual effects' Post-Hollywood blockbuster/event film. This comparative analysis examines the storycraft as well as the effects usages to determine how the films differ and the role effects have played in forming these differences.

The next aspect of story to be considered is that of kinds of stories, or genres. Chapter Six takes into account the arguments of Thomas Schatz's *Hollywood Genres,* Stephen Neale's "You've Got To Be Fucking Kidding: Knowledge, Belief, and Judgements in Science Fiction", Robert McKee, David Bordwell, Annette Kuhn's commentaries on science fiction in the Alien Zone essay collections, Albert LaValley, Angela Ndalianis' "Special Effects, Morphing Magic and the 1990s cinema of Attractions", Martin Barker's *From Antz to Titanic: Reinventing Film Analysis,* Brooks Landon's "Diegetic or Digital? The Convergence of Science-Fiction Literature and Science-Fiction in Hypermedia", James Monaco, Vivian Sobchack, *Cinefex,* Hugh Ruppersberg's "The Alien Messiah", Scott Bukatman, Bruno Bettelheim, and Roy Vallis' "The Future of Popular Film Tradition: More Real, More Fantastic, More Ancient".

In this chapter, discussion focuses on the tendency to associate special effects with science fiction films and the argument that the use of digital visual effects is changing their narrative structure. The issue of spectacularity - especially in relation to

scenes of action and violence - is given consideration as it the way effects are used to realize story elements in keeping with genre traditions. The question of the display of technology is also addressed as this forms a major part of the discourse on the use of effects in filmmaking. Finally an analysis of the major feature films that have been the landmark special effects films during the last twenty years is undertaken looking at genre considerations and the narrative basis for the effects used.

The discussion of genre is followed in Chapter Seven by analysis of the phenomenon of franchise filmmaking with a case study of the *Alien* films. Invaluable to this consideration is Stephen Mulhall's *On Film* which undertakes a detailed study of each of the *Alien* films and the works of their directors. Also of interest are observations from Will Brooker's "Internet Fandom and the Continuing Narratives of Star Wars, Blade Runner, and Alien", Kristin Thompson, Bruce Kawin's "The Mummy's Pool", Joseph Campbell, Christine Geraghty, James Monaco, and Thomas Schatz. This analysis reveals a meaningful nexus between the technology used to create the imagery of the films, the themes of the films and social conditions current during the period over which the films were made.

This discussion moves from a particular franchise to Chapter Eight's consideration of the body of work of Stephen Spielberg, one of the major contributors to filmmaking during this same period and whose films employ a broad range of genres, a franchise, and several critical works of significance to the field of digital visual effects. The analysis of Spielberg's films offers ample evidence of a variety of narrative uses of digital visual effects. Accordingly, drawing upon this evidence Chapter Nine presents a framework of narrative uses of digital visual effects that addresses the range of ways effects are used by filmmakers. Of interest to this discussion is Stephen Prince's "True Lies: perceptual realism, digital images, and film theory", Kristin Thompson's *Storytelling in the New Hollywood: Understanding Classical Narrative Technique,* Annette Kuhn's "Cultural Theory and Science Fiction Cinema", and Vivian Sobchack's "At the Still Point of the Turning World". An earlier draft of Chapter Nine has previously been published in the proceedings of the 2004 Hawaii International Conference on Arts and Humanities where it was presented as part of the conference.

Chapter Ten returns to the issue of spectacularity and the traditions of science fiction's future cities and visions of the future. It is here that the relationship between the

technology used to create the representations and what the representations mean thematically becomes most apparent. Crucial to this discussion is the idea that knowledge of technical tools and mastery of the narrative uses of CG can offer new techniques to support storytelling. The observations of Annette Kuhn, Scott Bukatman, Seymour Chatman, Daniel Dervin's "Primal Conditions and Conventions: The Genre of Science Fiction", H. Bruce Franklin's "Visions of the Future in Science Fiction Films from 1970 to 1982", Janet Staiger's "Future Noir: Contemporary Representations of Visionary Cities", Sobchack's "Cities on the Edge of Time: The Urban Science-Fiction Film", Andrew Serkis' experience of performing the role of Gollum in Peter Jackson's 'Lord of the Rings' films, Joseph Campbell and Bruno Bettelheim.

As has been stated, these arguments cover an extensive range of film storytelling angles. In some instances the discussion can only raise the broader issues and, in general, argument is not raised to challenge basic film theories except in relation to the discussions of special effects. However, as previous comments have indicated, while this study will not proffer a general theory of special effects, it will address fundamental questions about the purpose, quality, evolution and narrative functions of digital effects. This will also offer insight into the extent that digital effects are by nature self-reflexive and that they have aesthetic or ideological consequences that should also be of value to other scholars and theorists.

In *The Classical Hollywood Cinema*, Bordwell quotes cinematographer John Seitz's observation that, "Motion picture photography of the silent era was an optical and chemical business. The addition of sound changed it to more of an electrical business."[38] As this thesis will show, the adoption of digital visual effects - and other digital technologies - has moved filmmaking into a data business. The business side of filmmaking has been a source of considerable commentary and the digital/data nature of this new stage in cinema's evolution has raised many provocative issues for film theorists. The focus of this thesis is limited, as it must be to fulfil its terms. However, the global, political, and social issues that this step forward with technology will raise are not irrelevant to the discussion that follows. Hopefully, this consideration of narrative functions will offer useful insights for further consideration of these broader interests. The full impact and meaning of filmmaking having become a data business

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[38] David Bordwell, Janet Staiger, Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960.* p.287.

will in all likelihood provide much creative scope for filmmakers and theorists alike and how we go on to use this 'data' is open for broad, but overdue, consideration.

Once Upon A Time: story and storycraft

In order to determine that which digital visual effects might possibly have had impact upon or how their use might have altered or enhanced narrative storytelling in film, it is crucial to clarify the parameters for the analysis being undertaken. Although this would appear to be a fairly straightforward task, as this chapter will show, volumes have been written on the subject of story, and a great many more on the qualities needed to create a good story.

In his paper, "Ancient Philosophy", Stephen R. L. Clark begins his account with consideration of storytelling and its role in the development of philosophy. He states that the first storytellers "became...philosophers and the mythologies we find recorded by later, literate thinkers are the distorted record - Aristotle was later to say - of past philosophy".[39] In *On Stories*, Richard Kearney, in a play on Socrates' famous statement, goes so far as to say that "the unnarrated life is not worth living".[40] As these comments would suggest, it is certain that storytelling is fundamentally important to our cultures, our sense of identity - as individuals and societies - and to our deepest thoughts and emotions.

Storytelling takes many forms. We have traditions of oral storycraft, written storycraft, and in this last century, film storycraft. In discussion of the nature of art, James Monaco defines the spectrum of the arts as comprising the performance arts, the representational arts and the recording arts; this latter category encompassing filmmaking. In confronting the changes being wrought in film production by digital technology, he asserts that it "...is about to revolutionize our attitude toward the recording arts."[41]

In the case of digital visual effects, one of the many digital technologies impacting upon filmmaking, I would agree with Monaco's observation. Digital visual effects bring to the recording arts the power and the expressiveness of the visual

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[39] Stephen R. L. Clark, "Ancient Philosophy" in *The Oxford History of Western Philosophy*. (Oxford: Oxford University Press, 2000), p.2.
[40] Richard Kearney, *On Stories*. (London: Routledge, 2002), p.14.
[41] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition. (Oxford: Oxford University Press, 2000), p.27.

representational arts. The implications of this can be considered in the context of the extensive histories that therefore inform this hybrid form. A broad range of discourses, including art history, narrative and literary theories, cultural studies, to name but a few, can be considered to have bearing upon this development in filmmaking. In this chapter, the foundation of narrative storycraft will be the focus of discussion with issues of visual representation being addressed in the chapter that follows.

Discussion of narrative storycraft raises two questions: what is story and what is a good story? At the most simplified level there are definitions such as the one by Kearney who states that, "every story shares the common function of someone telling something to someone about something".[42] Academy Award winning scriptwriter and novelist William Goldman submits the definition, that a "good story is something with an interesting premise that builds logically to a satisfying and surprising conclusion."[43]

The most enduring treatise on storycraft is Aristotle's *Poetics*. In this work, (circa 360-355 BCE), he states:

> We have established, then, that tragedy is an imitation of an action which is complete and whole and has some magnitude (for there is also such a thing as a whole that has no magnitude). "Whole" is that which has beginning, middle, and end.[44]

This "beginning, middle, and end" has inspired a great many theoretical discussions and 'frameworks' for storycraft manuals. It was Aristotle's view that "the poetic art" originated because "the habit of imitating is congenital to human beings from childhood...and so is the pleasure that all men take in works of imitation."[45]

He defined "six constituent elements" of tragedy: "plot, characters, verbal expression, thought, visual adornment, and song-composition".[46] Further, he stated that, "The greatest of these elements is the structuring of the incidents".[47] It was his premise that "plot is the basic principle, the heart and soul, as it were, of tragedy, and the

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[42] Richard Kearney, *On Stories*. p.5.
[43] William Goldman, *Which Lie Did I Tell? More Adventures in the Screen Trade*. (London: Bloomsbury Publishing, Plc., 2000), p.462.
[44] Aristotle, *Poetics*. Translated, with an introduction by Gerald F. Else. (Michigan: Ann Arbor Paperbacks/University of Michigan Press, 1990), p.30.
[45] Ibid., p.20.
[46] Ibid., p.26.
[47] Ibid., p.27.

characters come second....".[48] He argued that plots should be "easy to remember"[49] and that a shift in fortunes should occur. He admired structures where the events took place "contrary to one's expectation yet logically, one following from the other...", and asserted that "developments must grow out of the very structure of the plot itself....".[50] He advised that "...one should be artistic both in inventing stories and in managing the ones that have been handed down."[51]

In discussing character he held that "...one should always strive for either the necessary or the probable...(and) that the denouements of plots also should come out of character itself, and not from the 'machine'."[52] He wrote the much quoted, but often unattributed, advice that, "One should...choose events that are impossible but plausible in preference to ones that are possible but implausible..." adding that "...one's plots should not be made up of irrational incidents."[53]

One has only to read a handful of scriptwriting manuals to observe that while Aristotle has often been rewritten, he is rarely, if ever, improved upon. The best, at best, elaborate upon his succinctly defined principles. However, there is more to story than the craft manuals address and, writing in the 1930s, Walter Benjamin observed that "...the art of storytelling is coming to an end. Less and less frequently do we encounter people with the ability to tell a tale properly."[54] Writing of the great legacy bestowed by the oral tradition he observed that "the nature of every real story...contains...something useful."[55]

On this point, Benjamin observed that "In every case the storyteller is a man who has counsel for his readers" and went on to note that from his observation of modern times, "we have no counsel either for ourselves or for others".[56] In this, he is echoed by Robert McKee, one of the most influential storycraft writers in Hollywood,

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[48] Ibid., p.28.
[49] Ibid., p.31.
[50] Ibid., p.35.
[51] Ibid., p.41.
[52] Ibid., p.44.
[53] Ibid., p.66.
[54] Walter Benjamin, "The Storyteller" in *Illuminations*, Translated by Harry Zohn. (London: Fontana Press, 1992). p.83.
[55] Ibid., p.86.
[56] Ibid.

who observes that the problem with Hollywood storytelling is the "great blurring of values".[57]

In his essay, *The Storyteller,* Benjamin states that, "The art of storytelling is reaching its end because the epic side of truth, wisdom, is dying out."[58] He argues that this is due to the prevalence of the novel and the fact that it has no connection with the oral tradition but relates instead to the dissemination of information.[59] He makes the distinction that information is valuable only in its own time but that story transcends time offering value beyond the moment of its creation.[60]

It was Benjamin's view that, "The first true storyteller is, and will continue to be, the teller of fairytales."[61] His statement suggests that perhaps storytelling will continue after all, if only in the form of fairytale telling and it is to this form that Bruno Bettelheim brought his profound insights. Bettelheim, like his fellow Survivor, Viktor Frankl, believed that the search for meaning was "our greatest need and most difficult achievement".[62] This is the wisdom that lies within the fairytale. As Bettelhiem said, "...only hope for the future can sustain us in the adversities we unavoidably encounter."[63]

In keeping with Aristotle's view, Bettelheim states that "...the fairy tale has a consistent structure with a definite beginning and a plot that moves toward a satisfying solution which is reached at the end."[64] Quoting Tolkien, he lists "the facets which are necessary in a good fairy tale as fantasy, recovery, escape, and consolation - recovery from deep despair, escape from some great danger, but, most of all, consolation."[65] He adds that Tolkien said of the happy ending, "that all complete fairy stories must have it."[66] In Bettelheim's view, a child has a "...deep need for justice to prevail"[67] in a story's

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[57] Robert McKee as quoted by Brett Thomas in "Memo Hollywood: You've Lost The Plot" in the **Sun-Herald**, February 23, 2003, p.1, Sunday Metro, col.3.
[58] Walter Benjamin, "The Storyteller" in *Illuminations*, pp.87-89.
[59] Ibid.
[60] Ibid., p.90.
[61] Ibid., p.101.
[62] Bruno Bettelheim, *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*. (London: Penguin Books, 1991), p.3.
[63] Ibid., p.4.
[64] Ibid., p.57.
[65] Ibid., p.143.
[66] Ibid.,
[67] Ibid., p.144.

account and added an element to Tolkien's list, "...a threat to the hero's physical existence or to his moral existence".[68]

This element of threat is crucial as "...only by struggling courageously against what seem like overwhelming odds can man succeed in wringing meaning out of his existence".[69] In his view, it was the role of the story to provide a child with the opportunity to examine the battle between good and evil forces in order to "make choices about who one wants to be."[70] The stake in these choices must be suitably high - with survival being the ultimate reward. For, as Benjamin has also noted, "Death is the sanction of everything that the storyteller can tell. He has borrowed his authority from death."[71] Fear of death, in Bettelheim's opinion, could only be countered by "forming a truly satisfying bond to another."[72] Essentially, only by overcoming the odds and winning the love of a female can the hero hope to live happily ever after.[73]

He compares this basic story structure with that of myths and makes a number of important distinctions. Acknowledging that they have many similarities and indeed, that fairy tales in some instances grew out of earlier myths, he argues that myths describe the events of superhuman heroes whereas fairytales "...are always presented as ordinary, something that could happen to you or me or the person next door when out on a walk in the woods."[74] He adds that the myth is more likely to end tragically whereas it is crucial that the fairytale end happily.[75] As he puts it, "While the mythical hero experiences a transfiguration into eternal life in heaven, the central figure in the fairy tale lives happily ever after on earth, right among the rest of us."[76]

This distinction is essential for the fairytale to be effective. To convey the message that if you persist you will succeed, the fairytale must position itself in the arena of life 'among the rest of us'. It is only by convincing the child that the tale has wisdom, that it can be 'useful', as Benjamin asserts it must, that it will be able to help the child choose what kind of person to be, thus fulfilling the purpose of story.

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[68] Ibid.
[69] Ibid., p.8.
[70] Ibid., p.9.
[71] Walter Benjamin, "The Storyteller" in *Illuminations*, p.93.
[72] Bruno Bettelheim, *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*, p.10.
[73] Ibid., p.111.
[74] Ibid., p.37.
[75] Ibid.
[76] Ibid., p.39.

The struggle is between the omnipresent evil and good that are found in every society and in every person and the story serves to guide the child in making the personal choice between good and evil, providing a foundation for meaningful behaviour for one's own life. However, Bettelheim distinguished between myths and religious legends that sought to convey "...the social ideals a child could pattern himself after"[77] and those stories that "...embodied the cumulative experience of a society as men wished to recall past wisdom for themselves and transmit to future generations."[78]

The difference between myth and fairytale, as has been noted, is the scale, the relationship to life in the cosmos versus life on earth. As Bettelheim notes, "Whatever strange events the fairy tale hero experiences, they do not make him superhuman, as is true for the mythical hero."[79] He argues that, "In fairy tales, unlike myths, victory is not over others but only over oneself and over villainy."[80]

In the field of filmmaking, myths gained a new level of interest when Christopher Vogler's interpretation of Joseph Campbell's *Hero With A Thousand Faces* gained popularity in the 1990s. Campbell's original text, published in 1949, is a reputable study of heroic mythology, analyzing hero stories of many cultures and identifying a significant number of common elements. It was this discussion of common elements that formed the basis of Vogler's distillation, *The Writer's Journey: Mythic Structure for Storytellers and Scriptwriters.*[81]

However, Campbell's work covers a much broader, more meaningful range of concepts than Vogler's text. In Campbell's view, "The happy ending of the fairy tale, the myth and the divine comedy of the soul is to be read, not as a contradiction, but as a transcendence of the universal tragedy of man."[82] This tragedy, the aforementioned date with death, makes an ironic statement of every happy ending. The triumph of the moment, indeed filmmaking's ability to capture and thus manipulate time by being able to replay these moments, is perhaps a truer measure of its craft than the many invented 'mythological' tales that have gained so much attention. However, without getting

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[77] Ibid., p.24.
[78] Ibid., p.26.
[79] Ibid., p.40.
[80] Ibid., pp.127-128.
[81] Christopher Vogler, *The Writer's Journey: Mythic Structure for Storytellers and Scriptwriters.* (Studio City, CA: Michael Wiese Productions, 1992).
[82] Joseph Campbell, *The Hero With A Thousand Faces.* (Princeton, New Jersey: Princeton University Press, 1973). p.28.

distracted by this aside, it is important to observe that where Vogler's work takes a fairly superficial approach to the hero tales of mythology, Campbell's work is an attempt to capture the deeper purposes such tales serve.

The study and interpretation of mythology has been a staple in the intellectual diet for quite some time. In summarizing this body of work, Campbell states:

> Mythology has been interpreted by the modern intellect as a primitive, fumbling effort to explain the world of nature (Frazer); as a production of poetical fantasy from prehistoric times, misunderstood by succeeding ages (Müller); as a repository of allegorical instruction, to shape the individual to his group (Durkheim); as a group dream, symptomatic of archetypal urges within the depths of the human psyche (Jung); as the traditional vehicle of man's profoundest metaphysical insights (Coomaraswamy); and as God's Revelation to his children (the Church). Mythology is all of these.[83]

Campbell argued that, "The standard path of the mythological adventure of the hero is a magnification of the formula represented in the rites of passage: separation - initiation - return...."[84] Campbell's accounts describe not only the various steps in the journey but the significance that these stages have for the developing personality and the individual's society. As he observes, the value of these stories is that they capture not only the conscious but the unconscious knowledge of humanity.[85]

He also takes note of the changes that have taken place in focus of human attentions and how mythology has captured this move from wonder at "...the animal world, ...(to) the plant world, (to) the miracle of the spheres, (and finally, to) man himself who is now the crucial mystery".[86] Man who, according to Benjamin and McKee, has reached a stage where the wisdom of the ages appears to have no relevance and the experience of one generation is little valued and understood by the next. As Bettelheim defines it, "Wisdom is the consequence of inner depth, of meaningful experiences which have enriched one's life: a reflection of a rich and well-integrated

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[83] Ibid., p.382.
[84] Ibid., p.30.
[85] Ibid., p.257.
[86] Ibid., p.391.

personality."[87] Benjamin argued that this lack of counsel, of wisdom, was due to the fact that the "communicability of experience is decreasing."[88]

This might have been a reason Campbell's theories were given such credence and following in the filmmaking community; the sheer weight of authority that can be attached to tales from every culture since the beginning of time must have offered a seductive power in an environment where the values of the day are hard to determine. It hardly needs to be said that it is difficult to tell a story, which calls for a struggle between 'good' and 'evil', if one does not have a grasp of the difference between the two. To draw upon mythological standards and co-opt them to solve the problem of 'the great blurring of values' must certainly have seemed an easy answer. However, the appropriation of the mythic structure does not solve the problem of having nothing of 'use', or nothing wise, to offer.

The Hero's Journey is therefore one of the aspects of storycraft that will be examined more closely in Chapter Four. At this point it is sufficient to note that in *The Hero With A Thousand Faces*, Campbell has captured the structure of enduring story elements. Like Aristotle, Benjamin and Bettelheim, he is of the view that stories have something important to convey, that they create patterns and structures out of our life events and that they reflect the unconscious needs of humanity as much as they do the craft skills of the individual storyteller.

However, where storycraft manuals happily apply themselves to reworking the Aristotelian Three Act plot structure and have readily adopted the Hero and the arc of its character development, the academy's consideration of film stories - narratives - has been considerably more complex.

David Bordwell, in his book, *Narration in the Fiction Film*, documents three ways to study storytelling: as a representation, as a structure, or as a process.[89] He describes representation as addressing portrayal and broader meanings, structure as addressing "a particular way of combining parts to make a whole" and process as the way story materials are used to provoke a response from the viewer.[90]

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[87] Bruno Bettelheim, *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*, p.110.
[88] Walter Benjamin, "The Storyteller" in *Illuminations*, p.86.
[89] David Bordwell, *Narration in the Fiction Film*, p.xi.
[90] Ibid.

As the foregoing would suggest, theories of narration are less concerned with how to create a story (either to originate or to re-present a story) and are more concerned with how stories work, that is how they are understood by their audiences. The mechanics of craft, such as the placement of the camera, are of interest in terms of how this provokes a response, how that response resolves, and what patterns or significance such placements of camera, such responses, and outcomes of response might indicate.

This objective approach to story is quite different from the approach used by the story manual writers. Where the manual writers seek to instruct prospective creators of stories in practical application of say, Aristotle's theories, the theorists seek to understand why, for example, imitative behaviour is congenital to humans. They seek to define imitative behaviours and the way they are understood. Questions such as how we understand stories and why we understand them are quite properly the province of the narrative theorists. Their studies however are, quite naturally, after the event. They rely upon the output of creators to provide them with the materials of study and so it is an interesting exercise to consider just where the point of power resides, in terms of storycraft.

As regards narration theory, it would seem that Aristotle is again a source of inspiration and authority. Bordwell, addressing Aristotle's distinctions between "the means of imitation...the object of imitation...and the mode of imitation"[91] summarizes by stating that, "The basic difference is between telling and showing. The secondary difference lies within the category of telling: does the poet speak in his own voice or through a character's?"[92] He notes that these questions remain open to consideration but goes on to clarify between theories of telling (diegetic) and theories of showing (mimetic).[93]

Another distinction, as expressed by Gunning, lies in "...the double nature (of storytelling) involving both a story to be told and the telling of that story".[94] Bordwell addresses this when describing the principles of narration, referring to the work of the

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[91] David Bordwell, *Narration in the Fiction Film*, p.3.
[92] Ibid.
[93] Ibid.
[94] Tom Gunning, "Narrative Discourse and the Narrator System" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition. (Oxford: Oxford University Press, 1999). p.461.

Russian Formalists. This school of theory defined story as "a chronological, cause-and-effect chain of events occurring within a given duration and a spatial field",[95] referred to as *fabula*. The plot, or the *syuzhet*, Bordwell defines as "the actual arrangement and presentation of the fabula in the film."[96]

Gunning goes on to describe the work of Gérard Genette who defined "...three different meanings for the term *narrative*."[97] These meanings include: "the language of the text",[98] the content; and "the act of narrating itself"[99]. He then refers to Todorov's revision of Aristotle's story structure quoting that, " 'The minimal complete plot consists in the passage from one equilibrium to another.' "[100] and cites Bordwell's canonical story.

Bordwell himself describes this as a "common template structure"[101] which can be summarized as: "introduction of setting and characters - explanation of a state of affairs - complicating action - ensuing events - outcome - ending."[102] It is his view that this canonical story is "learned from one's experience of stories"[103] and his study of its modes and norms provided the foundation for his narrative categories of: classical narration, art-cinema narration, historical-materialist narration, and parametric narration.

Of these categories, classical narration is the one that most closely adheres to the Hollywood model of storycraft. This model, defined in *The Classical Hollywood Cinema: Film Style and Mode of Production to 1960* (Bordwell, Staiger and Thompson), developed from film's earliest days and predominated in the American film industry - although it was not exclusive to that nation, nor was classical narrative the only narrative form used by American filmmakers.

The earliest cinema, described by Gunning as 'the cinema of attractions', did not draw upon storycraft but relied upon the attractiveness of the spectacle of projected images, displayed without much narrative structure. However, as Roberta Pearson as

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[95] David Bordwell, *Narration in the Fiction Film*, p.49.
[96] Ibid., p. 50.
[97] Tom Gunning, "Narrative Discourse and the Narrator System" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition. p.461.
[98] Ibid.
[99] Ibid., p.462.
[100] Ibid.
[101] David Bordwell, *Narration in the Fiction Film*, p.35.
[102] Ibid.
[103] Ibid., p. 149.

noted, "There was a crisis in transitional cinema around 1907 signalled by the complaints in the trade press about lack of narrative clarity....".[104] As Michele Pierson has documented, special effects were regularly used in scientific lectures in the nineteenth century and that it was common for narrative structures to be used in order to display these scientific presentations of effects.[105] Brian Winston has also observed that there were many popular forms of entertainment that foreshadowed the development of cinema and that these forms served to prepare audiences for receptivity to cinema by 'addicting' them to spectacle and narrative.[106] The early success of the spectacle of moving imagery quickly gave way to the need to satisfy audiences' expectations that the images convey something more. It was from that point in the history of cinema that narrative structures were developed by filmmakers, leading to what Bordwell et al. have defined as the Classical Hollywood Cinema.

Characterized by a cause-and-effect chain of events with a psychologically motivated main character who is revealed through goal-driven action in a double plot line of heterosexual romance and action, the Hollywood film has become the dominant film story structure. Supported by production techniques such as continuity editing, classical narratives sought to ensure the domination of the narrative and the subordination of the 'apparatus'. This theory of narration is not without its challengers in the field of film theory, nonetheless, Bordwell, Staiger and Thompson have documented what is sometimes referred to the 'golden age of Hollywood'. It is upon this model that the vast majority of storycraft manuals seek to advise.

Formal scriptwriting can be dated from as early as 1897.[107] Although it would take another ten years before scriptwriting became an established practice, from that point it would take only a few more years before 'spec' material would number in the thousands.[108] Tom Stempel in his history of screenwriting identifies one of the earliest scriptwriting manuals, *How To Write Motion Picture Plays,* dating from 1912.[109] He

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[104] Roberta Pearson, "Transitional Cinema" in Geoffrey Nowell-Smith, ed., *The Oxford History of World Cinema.* p.29.
[105] Michele Pierson, *Special Effects: Still in Search of Wonder.* (New York: Columbia University Press, 2002), pp. 16-31.
[106] Brian Winston, *Technologies of Seeing: Photography, Cinematography and Television.* (London: British Film Institute, 1996), p.25.
[107] Tom Stempel, *FrameWork.* (Syracuse: Syracuse University Press, 2000), p.3.
[108] Ibid.,p.13.
[109] Ibid.

goes on to credit Thomas Ince as the force behind the narrative structure documented by Bordwell, Staiger and Thompson,[110] and argues that Ince's use of screenplays gave him the level of control needed to ensure the best results - from a storycraft as well as a production efficiency perspective.[111]

The screenplay quickly became the foundation document of the Hollywood film and by the 1980s the influence of the writers of manuals, would begin to be felt. According to Stempel, "You can tell by the narrative rhythm of an American film that it was written under the influence of Syd Field."[112] Syd Field's *Screenplay*, published in 1979, did not present anything of remarkable innovation in terms of describing storycraft techniques. What it did achieve was to make basic Aristotelian principles accessible using feature length fiction film as a template.

Outlining the Three Act structure with recommended durations for each act (helpfully illustrated with diagrams and suggested approximate page numbers), this manual provided guidance at a simplified level. It required little knowledge or experience in filmmaking as it was aimed to help anyone and everyone with the inclination to write a screenplay. It also had the impact of encouraging quite a few others in the film industry to write their own 'how to' manuals.

In *How Not to Write A Screenplay: 101 Common Mistakes Most Screenwriters Make*, Hollywood reader Denny Martin Flinn deftly summarizes the influential texts of the 1980s and 1990s. He cites "Field's three act paradigm...McKee's five part narrative...John Truby's seven major steps...(and) Linda Seger's eight sections within three acts."[113] To his credit Flinn also acknowledges Joseph Campbell's Monomyth from *The Hero With A Thousand Faces* and Aristotle's original, *Poetics*.[114]

While a few of these authors address story structures that do not seek to conform to the classical narrative structure (McKee in particular compares what he calls "classical design" with "minimalism" and "anti-structure"[115]), the main focus of these

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[110] Ibid., p.25.

[111] Ibid., p.48.

[112] Ibid., p.263.

[113] Denny Martin Flinn, *How Not to Write A Screenplay: 101 Common Mistakes Most Screenwriters Make.* (Los Angeles, CA.: Lone Eagle Publishing Company, LLC., 1999), p.153.

[114] Ibid., p.154.

[115] Robert McKee, *Story.* (USA: ReganBooks/HarperCollins Publishers, Inc., 1998), p.45.

manuals is on how to write a screenplay that will be attractive to producers of Hollywood films. In fact, Linda Seger, in her own classic manual *Making A Good Script Great*, writes that a script needs "(1) marketability; (2) creativity; and (3) script structure."[116] It is probably reasonable to assume these elements are listed in order of perceived priority as well as value, although Seger argues forcefully about the importance of structure.

Furthermore, while many of the manuals make reference to scriptwriting as the fulfilling experience of creating art, they also declare the importance of their insights to crafting a product of commercial value. The back cover of Syd Field's *Screenplay: The Foundations of Screenwriting* states that the book is intended to help writers "turn ideas into scripts that will sell and succeed on the screen".[117] Each of the craft manual authors draws authority from the credits of their reviewers or followers and each seeks to advise on how to crack the code, as it were, on crafting a 'good' story, a compelling cinema experience and a unique offering in the marketplace.

It is interesting that in spite of this quite remarkable examination of storycraft (with its substantial offer of financial reward for definitive answers and good scripts), with rare exception, there has been little advance in defining the qualities and the structures of the canonical story since the time of Aristotle. Both theorists and craft writers describe in not dissimilar terms the need to set up the initial state of the hero's world, move quickly into the state of disruption, and resolve the disruption either happily or not.

Further, although it is popular in current times to consider the notion of non-linearity as a narrative form, the dominant structure in commercial feature length fiction film remains reasonably faithful to Aristotle's beginning-middle-end, even if in some instances the *syuzhet* is such that only in the last frames is the spectator in a position to make the linkages to form the whole. The whole itself, however its portions are presented, most often will conform to the classical narrative structure.

In "After the classic, the classical and ideology: the differences of realism", Christopher Williams challenges Bordwell's theory of Classical Hollywood Cinema, but primarily on the grounds of its claims to 'realism'. Williams questions whether there

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[116] Linda Seger, *Making A Good Script Great*. (Hollywood: Samuel French Trade, 1987), p.78.

[117] Syd Field, *Screenplay: The Foundations of Screenwriting*. (New York, New York: Bantam Doubleday Dell Publishing Group, Inc., 1994), back cover.

ever truly was "...a meaningful entity, effective on either the practical or the theoretical level which could honestly or adequately be called Classic Hollywood cinematic form" and makes the point that "...(Hollywood's) work is by no means so unified in its language as to function as one style. And even if it were, there are other styles culturally, socially and even economically different and vigorous enough to make the labelling of Hollywood as mainstream a crude and misleading reduction."[118]

At the basis of this argument is the view that the very definition of the Hollywood film is not so straightforward as might be thought and that films emanating from Hollywood are not so rigidly bound by the tenets of Bordwell's theory. However, while Williams might argue with the scope and the pervasiveness of the Classical Hollywood Cinema's model and principles, the structural aspects of Bordwell's theory are not at issue.

In describing the Classical Hollywood model, Bordwell builds upon the arguments presented in his text *Narration in the Fiction Film* in regard to the category of classical narration. While there may indeed be wider issues about the ideological assumptions based upon Bordwell's model (as Williams is more interested in addressing in his paper), the definition of the canonical story, those narratives that conform to the structure of a beginning, middle and end, is essential to the consideration of fiction film storycraft.

As study of the craft manuals readily reveals, fiction film storytelling techniques adhere quite closely with the principles identified in the *Poetics* nearly two and a half thousand years ago. It is also fairly clear that no matter how many authors have since tried to elaborate upon these principles, for the creators of new and re-workers of inherited story materials, the task of creating 'a good story well told' is far from simple or formulaic. Thus, while it has been established that a beginning, a middle and an end, a journey from one state of equilibrium to another, can be identified as *an* answer to the question, 'what is story', the answer to the question, 'what is a good story', remains.

In addressing the auteur theory in his work "Signs and Meaning in the Cinema: The Auteur Theory", Peter Wollen remarks upon "the problem of evaluation".[119] He

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[118] Christopher Williams, "After the classic, the classical and ideology: the differences of realism" in Christine Gledhill and Linda Williams, eds. *Reinventing Film Studies*. (London: Arnold/Hodder Headline Group, 2000, p.214.

[119] Peter Wollen, from "Signs and Meaning in the Cinema: The Auteur Theory" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.534.

states that, "The good work is one which has both a rich meaning and a correspondingly complex form, wedded together in a unity (Romantic) or isomorphic with each other (Classical)."[120] He adds that "an artefact can...convey to us a meaningful truth, an insight, which enables us to go back to the real world with a reordered and recycled experience which will enable us to cope better, live more fully, and so on."[121]

These comments stand well beside the views raised earlier and give support to the structural observations made by both theorists and craft manuals. However the issue of evaluation remains a problem as many standards can be formed and applied in support of different arguments. By way of example, it can be argued that the box office results are the ultimate test of a film's success, giving an objective measure of how the film has been valued by audiences. Another measure is the degree of critical acclaim a film can earn in the form of awards and prizes either through the film festival circuit or in numbers of Oscars™ and Guild awards.

Evaluation methodologies, standards, and theories present yet another substantial field of study and grounds of considerable contention. The difficulty in providing a universally appropriate and definitive answer to the question -'what is a good story' can be gauged by the wealth of analysis and examination undertaken by the best in the fields of theory and craft. Certainly, for the purposes of considering the impact of digital visual effects on storycraft the qualities of 'a rich meaning and complexity of form' pose a credible framework. The consistently made point that a good story have something of value, counsel and wisdom also speaks to matters of quality and will be considered as a measure where it is appropriate to the discussion.

The Classical Hollywood Cinema described by Bordwell, Staiger and Thompson is often recalled as the 'golden age' of Hollywood and great filmmaking. The authors themselves consider that this period ended in the 1960s with the break-up of the studio production system. The period that followed is referred to as the New Hollywood and is characterized by the growth of independent production and experimentation with structure and themes. Material that would not have been permitted in the studio system found support from independent producers and the 1970s have been described as another great period in American filmmaking - great because it did *not* conform to the strictures of the Hollywood studio style.

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[120] Ibid.
[121] Ibid.

This raises an important matter. For many the studio films were the time when story telling was its finest. For others, the independent films of the 1970s presented the best era of American film. Yet the 1970s are often cited as the decade when quality filmmaking ended due to the rise of the blockbuster and the event film - especially the special effects-filled event or action film.

For every author who argues that in the days of the studio system scriptwriters did their best work because they had the support needed to develop and polish a script there is another who will argue that the more competitive pressures of the independent market ensure a higher standard of writing. Critics have argued that star vehicles, businessmen owners, the emphasis on deal-making, teams of writers, anxious executives and a lust for franchises are new factors that are destroying the quality of films but this overlooks the facts of history. None of these criticisms is unique to the New Hollywood. Star vehicles did not emerge when Bruce Willis, Arnold Schwarzenneger and Sylvester Stallone arrived in Hollywood although it may be fair to observe that they earn more money than Gene Kelly, Judy Garland and Doris Day. Likewise, the *Thin Man*, *Charlie Chan*, *Nancy Drew* and other franchise films pre-date *Lethal Weapon*, *Halloween*, and *Star Trek*.

In her book, *Storytelling in the New Hollywood*, Kristen Thompson examines the post-studio era and assesses to what extent the classical narrative has altered. She finds that what are often called post-classical traits - for example, "high concept" films and the goal of making universally appealing and comprehensible films - are not departures from classical narratives. In fact, she argues "that modern Hollywood narratives are put together in much the same way they were in the studio era.".[122]

The changes she notes are that in the post-studio Hollywood "...A and B filmmaking gave way to...a more hit-or-miss blend of big-budget, superstar-oriented "event" movies with lower-budget fare, including the occasional "sleeper" that hits box-office gold."[123] Thompson observes that there has been an increased reliance upon violence and sex scenes, particularly in action films and considers this a factor in their overseas success.[124]

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[122] Kristen Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique*. p. x.
[123] Ibid., p.4.
[124] Ibid.

Further, she states that "there is some evidence that by the mid-1990s some of the more formulaic advice of ... (storycraft) manuals was actually having a negative effect on the films coming out of Hollywood".[125] In her analysis of this effect she discovers the rigid adoption of page counts over the dramatic needs of moving action through the development of goals and their cause-and-effect linkages (qualities cited as the cornerstone of classical narrative structure) appears to be the basis of the problems arising from formula-based storytelling.[126]

Analyzing the use of digital visual effects within the context of general special effects practice, she concludes, as noted in Chapter One, that narrative clarity dominates, regardless of the increasing use of special effects.[127] Addressing the criticism that " 'post-classical' films favor spectacle over causal logic"[128] she analyzes Steven Spielberg's film *Jaws* - a particularly apt choice in view of the fact that this film, together with *Star Wars*, is often cited as the reason blockbuster/summer-event films have enjoyed such great success to the detriment of 'real' films with stories. She concludes that the action scenes in *Jaws* conform to classical narrative structure and says that "...we are a long way from seeing formless series of pure action sequences...".[129]

However, she does recognize that, "In recent years...some films in genres dependent on action and suspense have added more high points after the climax has apparently already resolved the action."[130] This problem could be a consequence of filmmakers seeking to add 'twists' to take audiences by surprise, foiling their expectations and providing an element of surprise or uniqueness to an otherwise standard genre piece. Or it may be the result of poorly judged pacing, especially in those stories that commence with fairly high octane action sequences and thus require that the rest of the story keep 'topping' the previous scenes. Thompson's conclusion is that these endings "...seem to reflect Hollywood's traditional search for novelty within standard formulas, but taken to an occasionally ludicrous level."[131]

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[125] Ibid., p.11.
[126] Ibid., p.27.
[127] Ibid., p.19.
[128] Ibid., p.35.
[129] Ibid., p.36.
[130] Ibid., p.245.
[131] Ibid., p.247.

She also raises the "whammo" factor recounting an anecdote[132] that supports Syd Field's claim to having invented the whammo chart.[133] According to Field, his employer Fouad Said demanded a whammo chart be created identifying how often something occurred in a script that propelled the action forward, setting the ideal rate at one whammo every ten pages.[134] This method of assessing scripts apparently gained considerable currency, with both Thompson and Field claiming that Joel Silver continues to rely upon whammo charts for his productions.

Both piling on of climaxes and the application of the 'whammo' are pacing factors that may relate to some digital visual effects practices. Digital visual effects can be used to create a whammo and can also assist in helping to drive up climactic action scenes. As a consequence, they are frequently cited as the *reason* for these kinds of narrative structuring. Thompson assesses the allegation that "...the primary traits ascribed to "post-classical" filmmaking are the breakdown of coherent plot development and character traits by the increasing dominance of spectacular action and special effects."[135] She adds that, "(her) analyses of representative films have shown that this breakdown is far from widespread."[136]

Thompson makes a compelling argument that the issue is one of narrative competence. Thus it can be drawn from her discussion that these kinds of narrative structures may indeed be the reason for the use of digital visual effects, and not the other way around. She also argues that "...the action-packed special-effects film may have been one of Hollywood's usual cycles rather than a new approach that has permanently replaced classicism."[137]

Annette Kuhn, on the other hand, in her introduction to the second *Alien Zone* collection of essays comments upon the self-reflexivity at work in science fiction films that rely upon state-of-the-art technology and states, "...when such displays become a

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132 Ibid., p.306.
133 Syd Field, *Going to The Movies: A Personal Journey Through Four Decades of Modern Film*. (New York, New York: Dell Publishing, 2001), p.152.
134 Ibid.
135 Kristin Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique*. p.344.
136 Ibid.
137 Ibid, p. 350.

prominent attraction in their own right, they tend to eclipse narrative, plot and character. The story becomes the display; and the display becomes the story."[138]

In "After Arnold: Narratives of the Posthuman Cinema", Roger Warren Beebe suggests that, at least in the genres of science fiction and action films, special effects offer a new kind of narrative. This is one that asks the audience to observe the pacing and the images as a new kind of narrative, and in particular, it is a narrative that does not require the "...plights and adventures of a single human subject".[139] His arguments return consideration to Tom Gunning's original theories on the "cinema of attractions".

Referring to early cinema's pre-narrative form, Gunning's theory is frequently cited in discussion of digital visual effects and, indeed, the wider special effects practice. Arguing that effects sequences fulfil the purpose of interrupting the narrative, of stopping it and forcing the spectator to observe and acknowledge the technology of cinema, this theory has been fundamental to much of the discourse on special effects, an issue that will be given specific attention in Chapter Six.

As Williams notes, "Awareness of the operations of the devices may also be part of the pleasure of the spectators."[140] He raises this to challenge Bordwell's theory that Classical Hollywood Cinema's use of technical devices seeks to be self-effacing, preserving the 'realism' of the diegetic world. However, one of the measures of spectacularity for digital visual effects is the extent to which they are 'realistic'. On the one hand, the effects are designed to meet the highest standards of photorealism so that they can maintain the diegetic world without drawing attention to themselves yet, on the other hand, even the desire to examine the images to determine whether or not they have attained a sufficient degree of convincingness, serves to distract from the narrative engagement.

This tension between spectacular usage and self-effacing usage, which is examined in greater detail in Chapter Nine, is of interest not only to theorists but to filmmakers. For example, in an interview about his film *The Sixth Sense*, M. Night

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[138] Annette Kuhn, ed., *Alien Zone II: the spaces of science fiction cinema.* (London: Verso, 1999), p.5.

[139] Roger Warren Beebe, "After Arnold: Narratives of the Posthuman Cinema", in Vivian Sobchack, ed. *Meta-Morphing: Visual Transformation and the Culture of Quick Change* (Minneapolis: University of Minnesota Press, 2000), p.171.

[140] Christopher Williams, "After the classic, the classical and ideology: the differences of realism" in Christine Gledhill and Linda Williams, eds. *Reinventing Film Studies.* p.214.

Shyamalan discusses horror film special effects and remarks, "You're just watching it as spectacle, and because it could never happen to you, you won't feel any kind of connection with it, so you're just observing it as you would observe a laser show or fireworks."[141] For Shyamalan, spectacular usage of effects is an acknowledged practice but his comments suggest that spectacularity is an option for a filmmaker, not necessarily an unavoidable consequence of using effects.

Of further interest is Shyamalan's comment that 'it could never happen to you', which makes the same sort of distinction that Bettelheim made in comparing fairy tales with myths. Bettelhiem's view that fairytales, unlike myths, concern people much like ourselves also resonates with the kind of advice provided by the manuals. Writers are encouraged to make characters believable, consistent and someone the audience can relate to and understand.

Although the events that happen after the state of equilibrium is disturbed may be quite beyond the ordinary, and are expected to be so in order to test the character, the characters themselves should be convincingly real. For example, Indiana Jones, although introduced as an adventurer, is also established as a Professor of Archaeology whose adventures might reasonably unfold from his line of work. His capacity to deal with these adventures may be closer to fantasy than reality, but his decisions and his actions show him to be courageous, quick witted and resolute. And while his behaviour toward sites and artefacts probably does not demonstrate the standards and values required of a good archaeologist, his other qualities might recommend him as a role model in the manner of a fairytale hero.

There are many respects in which classical fiction films bear a closer resemblance to fairytales than they do to myths. Accordingly, this examination of digital visual effects impacts will consider the extent to which the stories analyzed are of fairy tale or mythic dimensions. It will also test the accuracy and appropriateness of the assertions about the role of spectacle and digital visual effects, analyzing the extent to which they draw away from the narrative (i.e., constitute spectacular usage) or add to it in order to preserve narrative integrity (*a la* classical narrative model).

In summary then, while storycraft writers and narrative theorists may approach the issue of story with different agendas, an area of common ground to their disparate

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[141] M. Night Shyamalan in Annie Nocenti, "Writing and Directing *The Sixth Sense*: A talk with M. Night Shyamalan", **Scenario**, Vol.5, No. 4, p.52.

approaches is the canonical story; the classical narrative with a beginning, middle and end. Thus, it has been shown that the structure of the classical narrative, despite 'New Hollywood', is an enduring form. Its quality is related to its ability to convey some wisdom or 'rich meaning' and this depends upon engaging the audience with a convincing, recognizable, yet unique story that they can understand and relate to their own experience (whether as lived or at least consistent with how they perceive or imagine experience might be in the extraordinary circumstances presented).

Richard Kearney describes storycrafting as, "A tale...spun from bits and pieces of experience, linking past happenings with present ones and casting both into a dream of possibilities."[142] Here he captures again the issue of wisdom and the necessity of hope. He observes that, "There is no narrated action that does not involve some response of approval or disapproval relative to some scale of goodness or justice - though it is always up to us readers to choose for ourselves from the various value options proposed by the narrative."[143]

In the commercial world of classically structured feature length fiction film one might ask, how does wisdom arise if commerce is focussing on form over substance? The application of whammos and piled on endings and their adoption by the form must raise the question of whether they are a measure of poor craft or a substitute for wisdom in a time of confused values. This confusion of values in Hollywood films, where stories attempt to have an each-way bet in the resolution and there is a prevalence of acts that do not have consequences, may be arising in stories because they are arising in our lives.

Aside from the very large issues that this raises philosophically, it has implications for our assessment of 'what's wrong' with film storycraft. The glib allegation has been that special effects-filled blockbusters have undermined 'real' stories by substituting spectacle and empty action sequences for substance. Kristen Thompson asserts that the classical structure has not been altered by the use of digital visual effects - at least not to the point that there have emerged films that are simply an unmotivated and unlinked series of spectacular and action sequences.

Therefore, it seems clear that this matter of values is fundamental to the discussion of storycraft and the consideration of how digital visual effects may have had

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[142] Richard Kearney, *On Stories*, p.5.
[143] Ibid., p.155.

influence. The purpose behind storytelling is the conveyance of something of value, of use, of wisdom. The storycraft writers hold this form as an ideal toward which to work, the narrative theorists recognize the significance of value in forms of narration and have critical discourses to examine the ideological masking of values, or their subconscious repression, and so on.

This thesis does not dispute the approaches taken by either the theorists or the craftmasters. Rather, it seeks to address the areas of common ground in classically structured Hollywood films, holding that this is where the point of power resides, regardless of the descriptive approach and purposes for which the differing groups (the theorists and the craftmasters) apply their observations. It is on this common ground that it will be possible to consider how digital visual effects are being used and to what story purposes, if any.

As for the future of story, Kearney makes the following interpretation of Walter Benjamin's declaration:

> (Benjamin) was signalling the imminent demise of certain forms of remembrance which presupposed age-old traditions of inherited experience, seamlessly transmitted from one generation to the next. This indeed has come to an end. We can hardly deny that the notion of continuous experience associated with traditional linear narrative, has been fundamentally challenged by current technologies of the computer and the internet.[144]

Kearney concedes that "...such innovative experiments are still linked to the extended narrative family"[145] "(and the) simple fact that story-forms mutate from age to age does not mean that they disappear."[146] However, to challenge is not to conquer - a challenge may force a combatant to find new strengths, new resources to survive and emerge triumphant. Thus it would seem that story too must make its heroic journey.

As Kearney notes, "One of the most basic tasks of storytelling, argues Tolkien along with Levi Strauss and others, is to provide narrative solutions to conundrums of time and death."[147] Thus, in our stories are our philosophies and so we must return to some of our earliest recorded philosophers. According to Anthony Kenny,

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[144] Ibid., p.125.
[145] Ibid., p.126.
[146] Ibid., p.127.
[147] Ibid., p.160.

"Philosophy...goes in pursuit of truth, and hopes to make discoveries."[148] And so it would seem do we in our lives and in our stories.

Plato argued that, "we have the capacity to see such truths because we carry the image of truth in us, and we do so not by chance and natural selection, but from our origin, which is also the world's origin."[149] As Joseph Campbell's many works reveal, this origin and this essential truth are things about which we have eternal questions. Therefore it would seem appropriate that we continue to ask questions about truth, realism and so forth and that the very materials of our storytelling reflect these larger issues.

This questioning and creative exploration of our deepest concerns seems as congenital to our state as does our pleasure in examining our condition. If we are now in a time of change that makes us question our values or fail to enunciate them, this does not mean that we will not emerge from this time with a clearer sense of what we believe in or aspire toward. Therefore, it is likely that we, and story, will continue until the truth is found or we have ceased to be bound by time and death.

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[148] Anthony Kenny, ed. *The Oxford History of Western Philosophy.* p.v.
[149] Stephen R. L. Clark, "Ancient Philosophy" in *The Oxford History of Western Philosophy*, p.28.

I'm Sorry Dave, I'm Afraid I Can't Do That: the technology of digital visual effects

One of the greatest misconceptions about modern movies is that visual effects are generated by computers. Nothing could be further from the truth. Human inventiveness is the most important ingredient and it always will be. Piers Bizony, *Digital Domain: The Leading Edge of Visual Effects*[150]

Having identified an enduring story structure as a basis for analysis and having suggested that this structure's quality lies in its capacity to express values (in effect, to philosophize), how then does the use of digital visual effects make a difference to either the structure or the quality of storycraft. To consider this, it is important to give at least a brief account of the history of computer graphics and how they came to be such a significant part of film production.

Computer graphics emerged from scientific studies in the 1940s and 1950s when computers were used to drive mechanical means of producing graphic images. In the early 1960s, Ivan Sutherland's Sketchpad graphic interface would lead to the CAD (computer assisted design) and CAM (computer assisted manufacture) applications of the automotive, naval and aeronautics industries. Sutherland is a pivotal figure in the development of computer graphics - and his students from the University of Utah graduate program include the leading developers of the major computer graphics advances that have changed the world.

It wasn't long before architects and artists adopted these new techniques to their own uses. The brothers James and John Whitney Snr. are recognized as being among the first artists to adopt the computer to create computer-assisted art. Interested in the relationship between music and abstract imagery, they built their own equipment from re-purposed computers and optical printers to create short films combining music and images, developing techniques that would be used by those who followed in their footsteps.[151] Most famously, the star gate sequence of *2001: A Space Odyssey* used

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[150] Piers Bizony, *Digital Domain: The Leading Edge of Visual Effects*. (London: Aurum Press, Ltd., 2001), p.9.
[151] Frank Foster, *The Story of Computer Graphics*. (ACMSiggraph, Video Review #137, documentary film, 2000).

Whitney's slit-scan system of holding open the shutter while moving the artwork held behind a slit in a screen to create the flowing images of light.

Corporate, military, scientific and academic research all contributed to the establishment of computer science and the breakthroughs needed to make it one of the most powerful influences in the latter half of the twentieth century. For example, Bell Telephone Laboratories funded an extensive research and development program in communications technology. The brief was broad including everything from visualization of satellite technologies to artists and researchers working together to create new uses for the technology.[152] In the late 1960s and early 1970s a number of short film works using computer assisted art techniques gained recognition, with Peter Foldes' *Hunger* being nominated for an Academy Award in 1974 and winning a jury prize at Cannes.[153]

At the same time, key figures such as Ed Catmull, Alvy Ray Smith, and Jim Blinn were developing the programmes and graphic imaging techniques that would lead to fine art and feature films created with computers. Another key figure to shape this developing use of computer graphics was Robert Abel who was an early adopter and pioneer using computer generated images at video resolution for use in advertizing. In 1983, Able's company created an ad called *Sexy Robot* that used live action footage with markers for reference by the computer artists to create an animated robot, that was something of a *Metropolis homage.* Thanks to early hierarchical programming techniques, its performance was convincingly human.[154]

Feature films were also making tentative use of computer graphics but it was not until *Tron* (1982), that computer graphics were a main component of a movie. While the "first all-digital computer-generated image sequence"[155] was created by ILM for *Star Trek II: the Wrath of Khan*, the shot itself was embedded within a franchise that was characterized by special effects usage. Thus, the Genesis Effect - as the sequence was called - fit neatly into the film's narrative, whereas the computer images in *Tron*, while essential for the film's premise, were not supported by the strong narrative needed to engage audiences.

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[152] Ibid.
[153] Ibid.
[154] Ibid.
[155] Steve Weiss ed., *CG101: A Computer Graphics Industry Reference.* (USA: New Riders Publishing, 1999), p.416.

One of the CG team involved with the project, Richard Taylor, observes in Frank Foster's documentary, *The Story of Computer Graphics*, that "if (a film) doesn't grab you by the heart, it doesn't matter technically how it looks. In the end, a film is a story ... and the density of visuals in films or the look of the film doesn't guarantee success at all."[156] Robert Abel, who also contributed to the film says, "...the bottom line of *Tron*, I think that we all learned ... it's the story and the involvement with the characters that really makes or breaks a film."[157]

Many blamed the failure of *Tron* at the box office on computer graphics and it would take films like *Willow* (1988) and *The Abyss* (1989), to persuade filmmakers to risk using computer generated images in other projects. Thereafter, the firsts and the greats followed in rapid succession. *Terminator 2, Jurassic Park* and *Toy Story* all established that computer generated images could do better at the box office than films made with exclusively human stars. Indeed, by the mid 1990s, films vied to achieve greater and greater breakthroughs in digital computer imagery - both in terms of technological significance and spectacle.

As computer capacities grew to meet the data load for film resolution images, and effective ways of getting film in and out of the digital medium became readily available, the cost efficiencies of doing digital optical work came within reach. With the volumes of work growing and as training programs proliferated, providing a base-level skilled workforce, production costs dropped making digital solutions attractive to many more filmmakers. Dust-busting (removal of dust and specks from negatives), wire removals, simple composites and very basic computer generated (CG) enhancements of live action footage became commonplace.

Errors such as booms in shot, crew reflections in windows, inappropriate signage, and changed weather conditions creating continuity problems could all be addressed with a quick and relatively easy digital fix. As these kinds of practices infiltrated the production process, more imaginative and creative approaches also became common. For example, making cost comparisons of digital set extensions and composites of second unit live action plates with bluescreen studio performances versus the price of location shooting became a reasonable way to find budget savings.

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[156] Frank Foster, *Story of Computer Graphics*.
[157] Ibid.

For lower and mid-range budgets, script elements that might once have been discarded because they would be beyond production funding - such as snow scenes, boating scenes or wilderness shots - could be weighed in terms of story value because digital visual effects might make it possible for such images to be attained at a reasonable expense. The growing expertise and number of effects houses also made it possible for productions to shop around and find experienced effects artists who were prepared to take on projects for the value of a feature film credit on their showreels.

Summarizing the impact of this period, Carl Rosendahl of Pacific Data Images says, "... what we've seen happen is special effects films have gone from films that have ten, twenty, thirty special effects shots to films that have 800 special effects shots in them and more and more you know you're seeing not just that the films are using the technology but they're using them in huge ways. So live action films are becoming more and more computer generated."[158]

To what extent this is apparent is another matter altogether. In a list of special effects films one would expect to find films such as *Star Wars, Jaws, Jurassic Park*, and the Terminator films. One would not expect to find films such as *Citizen Kane, Gone With the Wind* and *The African Queen*, all of which used opticals. Herein lies an important point. What is identifiably 'spectacular' is not the full measure of special effects usage, let alone digital visual effects practice.

In keeping with the long tradition established by the use of opticals and other special effects throughout the history of film, digital visual effects are not the exclusive domain of certain genres or styles of films even though they may feature more heavily in some. What has happened is that digital visual effects have taken the special effects techniques of traditional filmmaking and added to the repertoire, expanding it and giving means to broaden the representational tools of filmmaking as a whole.

Although many in-camera techniques are still preferred, digital visual effects very quickly replaced the majority of traditional optical and photographic techniques. Digital visual effects offered an opportunity to extend traditional techniques and allow them to be used with greater complexity, flexibility and precision. Similarly, 3d modelling built upon a tradition of animation, claymation and puppetry to create new kinds of images. In simple terms, digital visual effects allow image manipulation by removing from, adding to, scaling, warping and grading photographically obtained

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[158] Ibid.

images. They also allow the creation of entirely digital images of a standard that is virtually indistinguishable from photographic images. Further, computer graphics allow the addition of camera moves, lens effects, colour manipulations, digital lighting and other details such as grain to simulate photographed imagery.

In applied terms, digital visual effects can be used to achieve a range of narrative purposes some of which are self-effacing, others of which are created to achieve deliberately spectacular results. Traditional special effects also served narrative purposes in similar ways, however the exceptional level of control over the image and the invisible nature of many digital visual effects techniques has extended the self-effacing qualities of effects work in much the way it has extended its spectacularity.

At the most basic level, simple image corrections such as removal of dust specks or repairs to scratches on negatives of otherwise standard photographic images are among the most common of invisible practices. Generally, these techniques are used to restore the quality of a damaged image and to make it useable and their application is virtually undetectable.

Effects are also used to remove unwanted portions of images such as wires used in stunt work or inauthentic elements for period detail in films (e.g. TV antennas, power cables, etc.). Removal of advertising information for which clearances cannot be obtained or other brand name and public signage from images is also common (as is the insertion of product placement information). These kinds of treatments seek to preserve the diegetic world or amend images for commercial and legal purposes.

This first usage fits with the consideration of narrative uses of digital visual effects, the latter example serves to highlight the many, pragmatic instances that arise in filmmaking that might call for the use of digital image manipulation. It has been argued that the introduction of product placement raises ideological issues. However, the use of digital visual effects to support this practice is not demonstrably different from any of the other means of introducing commercial interests into movies and thus this application of digital visual effects is simply an extension of this larger practice and is not specifically characteristic of digital visual effects *per se*, although it is indicative of yet another means by which commercial and marketing influences can be advanced.

Returning to the range of effects techniques and some of the reasons why they are used, in removing elements from an image, it becomes necessary to add to the image - either by painting over the unwanted element or by compositing another image in its

place. Composites are one of the most extensively used digital visual effects. A composite is a way to take separately obtained images and create a new, united image from the separate elements. This technique can be used to insert sky replacements (substituting night skies, sunsets, weather changes, etc.) or to add synthetic realities (such as computer generated sets or landscapes) and performers (for example, bluescreen footage of actors or CG performances and characters). Some films have contained composites with over 100 separately obtained images, a level of complexity that would have challenged the greatest of optical technicians. In the case of these kinds of effects, assessment of their usage requires contextual analysis to determine their role as their usage extends across genres and kinds of narrative. Examination of the different kinds of narrative uses of digital visual effects is the focus of Chapter Nine, but suffice to say at this point, these kinds of effects are as capable of being self-effacing as they are of being spectacular.

Digital visual effects can also entail computer generated elements that range from enhancements and manipulations of photographically obtained materials to fully generated environments, objects and performers. The narrative usage of these elements must also be assessed contextually as even fully computer generated characters can appear in films without their synthetic qualities being readily apparent. Where characters such as Gollum in the *Lord of the Rings* trilogy celebrate the animators' achievements, many films have fully synthetic performers interpolated between stunt performer and actor footage with such success that even the digital effects house's element tapes have to slow down the frame rates for the subtle blending of images to become trackable by the human eye.

Unique Techniques

The range of digital effects practices and the instances of them are vast. As Carl Rosendahl has indicated, the prevalence has grown not only in numbers of shots but also in numbers and kinds of films. A contributing factor to this is the unique techniques that digital effects offer. The techniques include: virtual camera moves and digital lighting, synthetic realities, full CG imagery of photoreal standard, motion capture of performances, and computer generated characters.

For film theorists and filmmakers, the virtual camera is probably one of the most significant features of digital visual effects.* The aforementioned Genesis Effect for *Star Trek II: The Wrath of Khan*, according to Alvy Ray Smith, won approval from George Lucas because it was comprised of a 60 second virtual camera move that simply could not be achieved with a real camera.[159] The ability to move from sub-atomic level to outer space in a single shot without any constrictions on shot duration transcends the limitations of standard cinematography and offers an array of storytelling benefits.

For example, in the film *Fight Club*, David Fincher opens with a shot that commences deep inside the lead character's brain and ends at the barrel of the gun he has jammed in his mouth. Thus, the shot provides a clue in the title sequence that much of what will be seen in the film is happening inside the character's head but, as the images are so uncommon, the audience does not have the chance to understand that this is what is being shown until the shot ends. As for the significance of the shot in terms of what it reveals about the story, this is not clear until the last act of the film where the revelation has the most dramatic power and the first shot's set up delivers its pay-off.

Another example of a story-driven virtual camera shot and seamless use of CG images can be found in the *Panic Room*. As the mother and daughter settle in to sleep in their new house for the first time, the camera flows from one storey to another, ranging through the house observing the intruders and their attempts to break in. The camera tracks smoothly through walls and floors, into keyholes and back up to the roof, unrestrained by the physical world. This omnipotent point-of-view, this transubstantiation, frees the storyteller, allowing images to flow smoothly and seamlessly, drawing the narrative point-of-view where it needs to go without being limited by the of the amount of film in the can or scope of a physical set or location. The tension that this shot creates for an audience is quite powerful and engaging. The ability of the camera to intrude, impervious to physical barriers, signals that the woman and child are vulnerable, that the locks and bars will not keep the men from being able to get inside the house.

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* Within the context of this thesis, virtual camera refers to those computer generated camera effects including movement, lighting, lens effects and so forth. It also refers to the fact that the length of shots generated or enhanced by the computer are not constrained by the amount of film a camera magazine can hold.

[159] Frank Foster, *Story of Computer Graphics*.

The acceptance of these kinds of virtual camera moves has been conditioned by physical cinematography using aerial, steadicam, tracking and crane shots. These techniques have explored many ways of creatively moving the camera and established cues for audiences over a number of decades. For example, the technique of using a crane shot to push in through a window to enter a scene, sets up the stylistic convention that makes a digital shot like the one used in *Panic Room* a reasonable point-of-view for a spectator.

However, physical limitations are exactly that - they are limitations. Leo Braudy and Marshall Cohen quote René Clair who observed, " 'If there is an aesthetics of the cinema...it can be summarized in one word: "movement" '."[160] Up until the advent of digital visual effects, the movement of the camera was realistic at least in the sense that there had been a camera in relationship to the material being filmed but it was limited by the fact that it had to be placed somewhere. With the advent of virtual camera moves, microscopic and telescopic views, x-ray and God's eye point-of-view shots are now integral to the canon and thus, in keeping with René Clair's observation, so must the aesthetics of the cinema have been enhanced dramatically.

The Virtual Camera and CG Performances

In discussing the computer generated camera positioning in *Tron*, Scott Bukatman comments that "the camera finally serves to give the viewer a place in this computerized world, *a place* defined almost solely in terms of spatial penetration and kinetic achievement."[161] He argues that this kinesis is "fundamentally bound to narrative"[162] and it is certainly a factor that is considered to contribute to spectacularity and 'excess' by some critics.

An example of how the virtual camera has changed cinematographic storytelling conventions can be seen in the fairly standard shot of tracing a telephone call. Where shots have often been made tracking down from the telephone receiver, along the cords and up against a wall then along more wires, then from an outlet in a wall, back along

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[160] René Clair quoted by Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.177.

[161] Scott Bukatman, "There's Always...Tomorrowland: Disney and the Hypercinematic Experience" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*. (Durham & London: Duke University Press, 2003), p.27.

[162] Ibid., p.29.

another telephone cord to the receiver in another character's hand, the digital version - perhaps like the digital transmission of calls themselves - has changed.

In a digital version of the shot, the camera POV is capable of entering into the mouthpiece, travelling through the wire and through a visualization of inside a computer chip and the transmission of data, back out from the phone perhaps into the ear and brain of the other character, taking the point-of-view of the character looking out at his image in a mirror as he holds the phone; the perspective as if the camera were placed inside the character's head.

Consider then the different kinds of story information that these two shots can convey. In a story that calls for the voice on the phone to have great significance for the receiver, the first shot described using the traditional method of shooting would require some other means, perhaps as part of the dialogue, to indicate that the caller's words had the power to effect the receiver in such a way that they looked at themselves differently. Whereas, in the digital shot described, it would be possible to show this, to provide a representation of this idea, by visuals alone.

This concept was at the heart of the film, *Being John Malkovitch* where effects sequences were used to link the travel through a portal to the masked camera view from within the consciousness of John Malkovitch. The combination of effects and camera point-of-view readily communicated the concept of the 'journey' from the physical world to the physical perception from within the consciousness of another. The narrative makes a parody of the spectacularity by openly commenting on the voyeurism through the medium of having the characters go into business 'selling' the opportunity to be John Malkovitch.

Thus on a practical level, almost every kind of difficult shot can now be undertaken imaginatively and creatively using digital suture to blend live action with CG enhancements, creating convincingly photoreal environments and mise-en-scene. Underwater shots, subterranean shots, extraordinary angles, transitions to and from one point-of-view, and links between one setting and another in a form of montage can be made without any restrictions except that of the director and DP's imagination. The value that this freedom has for filmmakers is difficult to overstate. James Monaco has noted, "(Camera) movements and their various combinations have...an important effect on the relationship between the subject and the camera (and therefore the viewer), ...

(and so) camera movement has great significance as a determinant of the meaning of film".[163]

Monaco's discussion of meaning draws upon semiotics and he states that the paradigmatic and the syntagmatic as represented by the decisions: how to shoot (paradigmatic) and how to present what has been shot (syntagmatic) are the key elements in determining what a film means.[164] In addressing the matter of framing, he refers to Rudolf Arnheim's work citing balance, shape, form, growth, space, light, color, movement, tension, and expression as key qualities for analysis of film images.[165] Monaco is of the view that "two aspects of the framed image are most important: the limitations that the frame imposes, and the composition of the image within the frame....".[166]

He also identifies three sets of compositional codes: plane of the image; geography of the space photographed; plane of depth perception stating that "...the closer the subject, the more important it seems".[167] He goes on to discuss the various camera moves and lens techniques and maintains that their uses indicate relationships and cues needed to read the images presented.

Bordwell has also undertaken this kind of thorough documentation of camera movement and shot composition. In *Film Art,* he and Kristen Thompson have defined film form as "...the total system that the viewer perceives in the film" drawing particular attention to narrative and stylistic elements.[168] Further, they suggest the following criteria in order to "...assess films as artistic wholes: complexity, originality, coherence, and intensity of effect (i.e. vividness, strikingness, and emotional engagement)."[169]

In terms of cinematographic qualities, they define this as "control over three features: (1) the photographic qualities of the shot; (2) the framing of the shot; and (3) the duration of the shot."[170] In respect of these qualities they make the following observations pertinent to the argument at hand. Firstly, they note "that framings have no

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[163] James Monaco, *How To Read A Film: Movies, Media, Multimedia,* 3rd Edition, p.96.
[164] Ibid., p.163.
[165] Ibid., p.183.
[166] Ibid., p.83.
[167] Ibid., p.186.
[168] David Bordwell and Kristin Thompson, *Film Art: An Introduction.* (New York: McGraw-Hill Publishing, 1990), p.334.
[169] Ibid., p.44.
[170] Ibid., p.156.

absolute or general meanings...(that) meaning and effect always stem from the total film, from its operation as a system. The context of the film will determine the function of the framings, just as it determines the function of mise-en-scene, photographic qualities, and other techniques."[171] They also observe that, "Camera movement illustrates very well how the image frame defines our view of the scene."[172]

As these writers show, extensive analysis has been undertaken into the way cameras are used, how images are created and the qualities that these images possess. Nonetheless, as with the discussions of the storycraft writers and the narrative theorists, the interests of cinematographers and film theorists are related but are not the same. Cinematographers and filmmakers, like writers, are concerned with the creation of the shot and how to tell the story. Film theorists seek to analyze the how and why of this achievement.

Much of the documentation and analysis of camera techniques and their effects pertains to computer generated camera practice if for no other reason than the fact that these techniques and the artefacts of the physical technology have set the standard for how the virtual camera is used. Yet the scope of the camera in the digital environment is considerably greater and thus, opens up whole new vistas of creative opportunity and room for theoretical analysis.

This raises a number of interesting questions. Do CG artists and directors with a good understanding of digital visual effects define their shots with a freer sense of camera movement? In the broader debate about norms of classical narrative, should classical cinema moves be preserved or do the supernatural abilities of the CG camera add to our perspective/film language?

David Bordwell argues that classical narrative is essentially omniscient and comments that, "The most evident trace of the narration's omniscience is its *omnipresence*. The narration is unwilling to tell all, but it is willing to go anywhere. This is surely the basis of the tendency to collapse narration into camerawork...."[173] And while he has noted that night shoots were once an expensive novelty[174] and that

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[171] Ibid., p.177.
[172] Ibid., p.183.
[173] David Bordwell, Janet Staiger, Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960.* p.30.
[174] Ibid., p.263.

camera movement was once a form of spectacle,[175] the capacity for classical narration to appropriate the unusual to serve narrative purposes can be seen to be applying to virtual camera moves also.

In *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema*, Bordwell notes some of the major critical stances made in regard to camera use. In particular he argues that the "camera construct allows the critic to posit the image as a perceptual activity...as a trace of mental or emotional processes...(and that) the critic personifies the camera in order to link it to the narrator."[176] He also summarizes Laura Mulvey's critical work on visual pleasure and quotes " 'There are three different looks associated with the cinema: that of the camera as it records the profilmic event, that of the audience as it watches the final product, and that of the characters at each other within the screen illusion.' "[177]

For Mulvey, the significance of the looks she defined offered a means to examine feminist issues, just as other theorists have used her framework to identify racial issues. Applied to the consideration of digital effects usage, where digitally created images apply the same methodologies and techniques of physical camera practice, the same analytical approaches hold. Where the camera is used in new ways, new questions arise. For example, in the shot described earlier, where the camera looks out through the eyes of a character at their reflection in a mirror there is more than one 'look' in operation. This is especially the case given that such a shot can have many computer generated cues tied to it, enhancing the verisimilitude of the idea of looking through the character's eyes. Thus there is the look of the camera and the look of the character but the images preceding this final shot have made it clear that the camera (we) are looking out from within another - or at least, we are to gather this as having happened.

Traditional filmmaking has also undertaken shots of this kind, using framing to suggest that the camera is a character looking into a mirror, and camera movements such as pans and tilts, can be associated with these mirror-image shots to enhance the impression that the camera is the character's point-of-view. But the physical limitations of the camera itself mean that these images are indicative not accurate in the way that a

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[175] Ibid., p.307.
[176] David Bordwell, *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema*, p.163.
[177] Ibid., p. 164.

computer generated camera image from within a character's point-of-view can be. Where traditional shots can suggest such a look, a digitally enhanced shot aided by images that set up the concept of entering the brain can more accurately portray this point-of-view.

How such camera usage could be interpreted in light of the kinds of issues Bordwell notes in regard to states of mind and the narrator's view, is one of the matters that needs to be addressed by theorists prepared to look beyond the spectacle of camera movement freed from physical constraints. Given that the Genesis Effect, with its impossible camera move, was made twenty years ago and that many, many more films have used digital visual effects to extend camera movement, it seems reasonable to propose that such camera moves are now an integral part of the classical narrative's storytelling technique.

The virtual camera with its freedom and omnipotence, is but one of the new qualities digital visual effects bring to filmmaking. It is also possible for shots to be digitally re-lit changing the direction and source of the lighting in a shot. Digital effects can be used to re-grade the image and create day-for-night footage and manipulate the colour of images and to do this selectively within the frame.

It is also possible to manipulate qualities of the photographic image and add camera moves to manipulate time, extending the traditions of slow-motion and speeded up images, including time lapse photography. The so-called Bullet-Time images in *The Matrix* are possibly the most readily recognized instances of this kind of time manipulation but the slow-motion shootout has featured in films that pre-date digital technologies.

As James Monaco succinctly summarizes:

> Film...is a tool that can be applied to time in the same ways that the telescope and the microscope are applied to space, revealing natural phenomena that are invisible to the human eye. Slow motion, fast motion, and time-lapse photography make comprehensible events that happen either too quickly or too slowly for us to perceive them, just as the microscope and the telescope reveal phenomena that are either too small or too far away for us to perceive them.[178]

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[178] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition, p.94.

In her paper, "Cinematography: The Creative Use of Reality", Maya Deren examined slow-motion imagery and described it as "...a time microscope".[179] She described the use of reversal of motion photography as "...an undoing of time".[180] She discussed the optical processes that can be used to extend time by adding additional frames and editing techniques such as those that use different takes from different angles to extend scenes thus giving the sensation of an act or a moment being prolonged. These techniques and her observations of them remain relevant to digitally created images but the ability of digital visual effects to go beyond the techniques she noted offers additional scope for examination.

Digitally created images permit the revelation of sub-atomic or extraterrestrial images, the ability to stop an image in time and space and examine it from any angle, any level, and to do so at any speed and degree of detail. These abilities and the capacity to move between any of these states with fully visualized representations can confer supernatural powers of observation. It is a time and space 'hyperscope' that allows time and space to be tangible, elastic and controlled. As the *Fight Club* and *Panic Room* examples cited earlier shows, it is possible for the point-of-view to be taken from positions that no camera and no human can possibly occupy.

One of the best demonstrations of this power is the interactivity that digital visual effects shots allow between levels of time and space. It is possible for an element to allow for interactivity between live action footage and CG imagery composited into the frame to a degree that traditional methods did not allow, with elements frozen in time becoming accessible and manipulable by other portions of the image; portions allegedly in a different time/space.

By way of example, in the third series of the *Star Trek* television series *Enterprise*, Captain Archer re-enters his cabin where a cup of coffee is suspended in mid-air, the coffee spilling into the air, frozen in time. This image is offered as visual proof of the time/space anomalies taking place on the ship, a narrative construct indicating danger to the crew. Archer walks into the room, his image visible through the liquid suspended in mid air. He walks around the cup and the trail of coffee as if it were a physical object then, to show his annoyance, reaches out and plucks the cup from mid-

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[179] Maya Deren, "Cinematography: The Creative Use of Reality" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.222.
[180] Ibid., p.223.

air, putting it back down on his desk. The spill of coffee remains suspended in time and space, its perspective changing as the camera moves.

This scene conveys important story information. It visibly demonstrates the presence of a strange force on the ship. It plays with time, giving symbolic indication of the 'out of the ordinary world' environment of the *Enterprise* and her crew, pointing to the larger questions and theories about what is to be in space should we ever venture so far. It also reveals the character's state of mind by giving him an action to demonstrate his frustration and desire to be back in control of the events on his ship. In storycraft terms, the ability to show spatial distortion - a fairly complex concept for mainstream television series - and the state of a character's emotions and thoughts, would suggest that this digital visual effects shot provides a valuable storycraft tool. It is more than a simple composite of CG elements with a live action shot because in addition to being convincingly achieved, it imparts crucial story information.

Another significant addition to storycraft offered by digital visual effects is the ability to digitally generate images either totally or by enhancement of live action footage. The range of shots that this would encompass is extensive, including: establishing shots; scene and set extensions; composites of generated images such as screen graphics or models; treatments of images such as the addition of smoke, particle effects, or weather elements. These examples are not exhaustive but should serve to indicate the broadness of the application of these kinds of digital visual effects.

One of the most common of these practices is the digitally enhanced or full CG establishing shot. A good example of how CG elements can become blended into live action footage is one that plays upon the established technique of an aerial flyover but adds computer generated elements to create the diegetic world. A scene can commence with a live action aerial shot over a field and river, the camera movement flowing smoothly toward a town that nestles in the bend of the river. The shot can linger to reveal the town undergoing the changes of seasons, with the camera flying closer and closer to the buildings, revealing the narrow streets, establishing key buildings and exteriors and then, without any cuts, enter into a building where the first scene of live performance commences.

This shot might be composed of real aerial footage of a river and surrounding fields, motion control images of miniatures of the town backed by a CG matte painting that draws upon some of the photographic elements of the aerial photography, CG shots

of specific buildings created in 3d and CG treatments of the miniature shots to allow gradual revelation of the seasonal changes. This can all be composited, with CG camera moves masking the transitions from one form of image creation/capture to another, ending on a transition to traditionally obtained on set performances.

If the time and place of the story are fantastical then it is likely that the techniques described above will be assumed to have been used, although the expertise of the effects house may make it difficult to discern exactly which means were used without a supporting behind-the-scenes special 'documentary'. If the time and place of the story are contemporary, 'real world' settings then the entire sequence may pass unnoticed as a digital visual effects sequence.

It is by noting this range of digital visual effects context that one can move from simple categorization of digital visual effects as conforming to either spectacular usage or reflecting the self-effacing devices of Classical Hollywood narrative. The technology and the practices used to obtain, create and combine could be the same in either case. For the fantastical setting the intention would most likely be to create a spectacular delight. For the contemporary setting, the intention might be to establish the diegetic world in a convincing manner with the resort to digital visual effects being driven by the impossibility or impracticality of obtaining suitable location footage, the desire to create an opening sequence that cannot be obtained with traditional cinematographic methods or the intention of maximizing production efficiencies.

Between these two examples lies a range of narrative settings and requirements that can be achieved with the same range of techniques. It is in this way that the story determines the digital visual effects. Common to all stories using the techniques described would be the camera movement and the sensation that it provides in easing the story from the wider setting of the world that surrounds the specific circumstances and needs of the actors in the room, to the drama that unfolds between them.

These settings, these worlds surrounding the drama, might range from Middle Earth to modern middle classes, but they are important to the storyteller and to the audience. 'Where is the story taking place', 'to whom is the story taking place', 'when is the story taking place', 'why is it taking place' - all of these questions address the story elements that need to be pulled together just as the physical elements of the image must also be created.

The ability of synthetic realities and full CG imagery to 'pass for real' is not simply a conceit of digital visual effects artists. Piers Bizony quotes Digital Domain's Scott Ross saying,

> We went through a phase with *Apollo 13* and other projects where it wasn't obvious to audiences that we'd done such marvellous work. Even some veteran lunar astronauts who maybe should have known better, congratulated us on having cleaned up NASA archive shots so beautifully, which, of course, is not at all how we did that movie.[181]

The 800 shots quoted by Carl Rosendahl may have a number of obviously spectacular sequences that draw attention to themselves as digital magic but there are possibly hundreds of other shots in such a film that do not betray their digital origins. This photoreal quality extends itself to performers as well as buildings, vehicles and geographic vistas.

Digital performers, once the subject of extensive discussion and concern in the industry, are now so prevalent that they no longer merit remark unless they hold a major character role. While the debate as to whether a digital performer will ever hold a starring role has been bypassed by the achievements of characters in the *Star Wars* and *Lord of the Rings* films, the question of whether such a character could 'pass for real', remains.

In the devices of CG bit parts, stunt performance, digital crowd extras and live action manipulations, such as the performances by the animal characters in the *Babe* films or the historical characters in *Forrest Gump*, the achievements are many and readily accepted. Although the resort to rows of painted cotton buds or cardboard cut-outs is not entirely a thing of the past, CG crowd replication is now a standard production practice and it is the kind of effect that can be used with seamless precision in virtually any film that has call for a great number of background extras. One of the more famous instances of digital extras is that of passengers on James Cameron's *Titanic*.

Although the film *Titanic* enjoyed a high level of interest because of its use of digital visual effects, in any other filmmaker's hands, and with a less spectacular budget, a period film that used the digital visual effects techniques in *Titanic* might have been

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[181] Scott Ross in Piers Bizony, *Digital Domain: The Leading Edge of Visual Effects*, p.131.

able to enjoy less scrutiny for its technical standards, with many of the effects being accepted at image value. Thus, the same digital visual effects used in any other shipboard romance for say, a movie-of-the-week, would pass almost without notice, so closely do the effects fit with the classical narrative traditions.

For the most part, it was traditional special effects (including enormous feats of practical, mechanical and modelling effects) and simple matters such as building an entire studio, that took the budget and the spectacularity of *Titanic* into the history books and beyond the scope of most productions. The digital visual effects however, although executed with superlative precision and experience, are not ground-breaking *per se*, nor are they now beyond the means of most period films.

As James Cameron himself has noted, *Titanic* is not a blockbuster style film. It is a period romantic drama. In the *Cinefex* special edition on the film he is quoted as saying, "...we do a movie that has no franchise potential whatsoever, no merchandising potential, that's about people and emotions, and not one mindless action sequence after another - and we get pilloried for being typical of what's wrong with Hollywood."[182]

Primarily, it was viewed as an effects extravaganza and while *Titanic* is a technical masterpiece - and one would hope with such budgetary largesse that it was spectacular - the truly impressive use it makes of digital visual effects are the ones that were least likely to have been noted by audiences. As it turns out there was only one fully CG shot in the film (an underwater view of the ship). The remainder of the work involved motion capture and character animation, the digital ocean, data integration, the digital ship (although a great proportion of the shots involved physical models and sets), and digital finishing - those elements needed to blend the variously created and obtained images and finesse them to an integrated photoreal standard.[183]

While a number of these shots involved elements that have already been discussed, such as virtual camera moves and establishing shots or set extensions, one of the outstanding capacities provided by digital visual effects is that of motion capture and CG characters. Motion capture is a means by which the physical performance of an actor (or dancer, gymnast, martial arts expert, etc.) can be recorded as data and then plotted to a wireframe model to form the basis of a CG character's performance. This data is amazingly accurate and persuasive.

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[182] James Cameron in Don Shay, "Back To Titanic", **Cinefex** 72, December 1997, p.76.
[183] Don Shay, "Back To Titanic", **Cinefex** 72, p.92.

Character animation is one of the most difficult of the visual representational arts. Every human being is capable of reading and understanding the minute detail of body language and physical communication. Of course, there are many factors that affect such awareness and communication, but from an animator's point of view, the task of creating a believable, engaging character is an enormous challenge. Motion capture, however, offers a direct tap into that certain something that communicates a human essence that can be read and be believed by a viewer.

Digital Domain used motion capture as the basis for extras in *Titanic* and André Bustanoby has commented on the subtlety the technology records.

> When a real mother picked up her equally real young child, the mother's body instinctively relaxed when the youngster was safe in her arms, and the performance-capture system picked up on a subtle nuance that even the most experienced traditional animator might have found hard to create from scratch.[184]

He goes on to discuss the recording of friends and co-workers in extras roles and the experience of animating them and discovering that as the data is used, the individuality of the people shines through revealing, as he puts it, "the humanity that you've captured".[185] Remington Scott, responsible for the motion capture for both *Final Fantasy: The Spirits Within* and the *Lord of the Rings* trilogy, commented on the performance obtained and created for the CG character, Gollum. "The power of motion capture, as demonstrated through Andy's (Andrew Serkis) performance, is one in which an actor can expand beyond traditional typecasting and play a character that is completely different in physical appearance. This is pushing the boundaries of film technology and the relationship between the actor and the audience."[186]

The blending of animation and motion capture is often used to persuade audiences that what they see is a human performance and not a computer generated animation and, to some extent, it is true. There are implications for the use of interpolated CG images in stunt work that will be addressed in the next chapter, but the key point here, is that performance is no longer an image on screen that reflects solely

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[184] André Bustanoby in Piers Bizony, *Digital Domain: The Leading Edge of Visual Effects*, p.128.
[185] Ibid.
[186] Remington Scott in Andy Serkis, *The Lord of the Rings GOLLUM: How We Made Movie Magic*. (New York, New York: Houghton Mifflin Company, 2003), p.86.

the qualities of the recording arts. Increasingly, the representational arts are factored into what is seen and believed to be photography.

Although digital visual effects cannot lay first claim to having fooled an audience (indeed, Stanley Kubrick's *2001: A Space Odyssey* is believed to have failed to get an Academy Award nomination for costuming because it was assumed that the film had used real apes),[187] it has introduced synthetic performances that are not recognizably digital. Even for performances that are fairly fantastical - such as the stunt work in a film like *Blade II* - it is likely that an audience familiar with digital visual effects techniques might consider the performance as primarily comprising composite, wire removal and frame rate manipulation devices, when in fact, digital performer interpolation is used.

The use of computer generated performances bring into question assertions such as John Ellis' statement that, "... what the film performance permits is moments of pure voyeurism for the spectator, the sense of overlooking something which is not designed for the onlooker but passively allows itself to be seen."[188] In the case of digitally created performance, everything is designed for the onlooker, absolutely every nuance is created with the express purpose of being seen and being believed. While Ellis' comments retain pertinence for live action performances, the increasing use of CG characters raises other questions and considerations in regard to theories of performance in filmmaking.

Full CG characters and performance, once thought to be either a dire threat or a complete impossibility, have also become an accepted practice. As with their human counterparts, they are limited by the quality of the role as developed in the script, the performance itself and support provided by the other performers and the mise-en-scene. Animated characters have a tradition of acceptance. Mickey Mouse, Bugs Bunny and Lara Croft have legions of fans who are little influenced by the fact that the characters are not 'real'. CG characters, however, have been subjected to considerably greater analysis.

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[187] Michael Stern, "Making Culture into Nature" in Annette Kuhn ed. *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema.* (London: Verso, 1990)p.66.
[188] John Ellis, from "Visible Fictions" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.544.

The film *Final Fantasy: The Spirits Within*, an entirely CG generated feature film narrative based on a computer game, represented the first attempt to present CG characters as photoreal human character performance. This hyper-real representation drew a great deal of interest simply because it was an attempt to introduce human CG characters and test their acceptance by audiences. Other notable CG performances such as Jah Jah Binks, the Troll in *Harry Potter and the Philosopher's Stone*, or the Balrog and Gollum in the 'Lord of the Rings' films did not attempt to 'pass for human' although there was intention to 'pass for real'. By 'real', these performances sought to persuade viewers that the characters were convincing representations of alien, fantasy monster, or epic fantasy characters.

As indicated, CG performances are as dependent upon script and direction as are live action human performances. However, the desire to create a CG human indistinguishable from live action performers remains a goal of digital visual effects, one that is being achieved bit by bit, and, in so doing, is creating the cues needed to convince audiences to accept that what they see is so. One way this is being effected is by subtle manipulations of live action materials. For example, in *Matrix Reloaded*, Trinity's stunts involved not only wire removals but digital extension of her legs to create a smoother line of action. This kind of manipulation is not uncommon, indeed, is becoming increasingly prevalent in feature film work and all manner of photographic retouching.

Clearly this raises an extensive array of philosophical issues as what we view in images departs from recording to representational technologies, substituting idealized and stylized imagery for the photoreal. In an article in the *Age*, these matters are raised in relation to the growing use of hyper-real digital models in games, telecommunications media, and photographic stills. The article makes the point that many advertising images have been retouched to the point where the original human image is not necessarily the greater portion of the final product and that, increasingly, our acceptance of these representations informs our expectations.[189]

Needless to say, such factors should be of interest to feminist theoreticians for, as the article in the *Age* notes, "...all but one of the digital models (in an exhibition) are

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[189] Sean Dodson, "Creating Kaya" in **The Age**, November 18, 2003. (http://www.theage.com.au/articles/2003/11/17/1069027046664.html).

women and all of the creators are men."[190] In his discussion of female superheroes in comic books, Scott Bukatman has observed (in relation to these characters), "Female desire is absent - when male creators design women characters, they continue to indulge male fantasies. The new power of the female hero is cosmetic surgery, and the halo of power just adds a further level of exoticism to the spectacle of the female form."[191] Yet, as the next chapter will elaborate, these fantastical images, and their redefinition of expectations, extend male and female performances beyond human physical reality and they do so with the convincing power of photorealism.

In some respects, this extension is related to one of the earliest digital visual effects techniques used to create digital performance - the morph. A morph involves manipulating imagery, which in 2d is warped and cross-dissolved to conform to another image, or by using 3d techniques that can be blended with a variety of animation and optical treatments to move from one image to another, and can persuasively represent the concept of shape-shifting and physical transformation of extraordinary magnitude.

Vivian Sobchack and her authors have addressed many of the theoretical implications of the morph in the classic text *Meta-Morphing: Visual Transformation and the Culture of Quick-Change*. Tracking the conceptual history of the morph from myths about shape-shifting and Cartesian mathematics, the authors have identified the morph as significant, pointing to its relationship to wider issues of self- and cultural-identification in a changing world.

In "Taking Shape: Morphing and the Performance of Self", Scott Bukatman observes that "...morphing is a way of seeing over time".[192] He notes that "...images of reality, identity, and history are put up for grabs...." and that "...movement becomes *effectively* continuous...an act...of consciousness."[193] The first use of the morph in a feature film was in *Willow* where it was used to represent shape-shifting in a fantasy adventure set in a pseudo-mythic time. Accordingly, its use fit narratively and conformed with a long history of shape-shifting mythologies. The technology made another breakthrough with the creation of the T1000 Terminator model in *Terminator 2*

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[190] Ibid.
[191] Scott Bukatman, "X-Bodies: The Torment of the Mutant Superhero" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.66.
[192] Scott Bukatman, "Taking Shape: Morphing and the Performance of Self" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.134.
[193] Ibid., p.135.

and its monster image of a machine that can be what ever it chooses to be, including convincing and superior versions of humans.

Yet as morphing became almost cliché, its use for obvious shape-shifting was restricted to narrative contexts that called for such images. As Mark Wolf noted in his article, "A Brief History of Morphing", "The fantastic nature of the morph and the need to rationalize its occurrence in the narrative have until now limited the genres in which it is found to animation...horror...and fantasy."[194] This bears true for its use as a technique to visualize physical alteration of a character due to supernatural purposes. However, morphs can also be applied to transformations in time and place, albeit usually through a more subtle application of the technique.

Two examples of this technique can be drawn from *Titanic*. The first instance, the transformation of an individual in time is demonstrated by the transition from the Young Rose posing for Jack Dawson on board the Titanic to Old Rose recounting her experience to the crew of the salvage team. The shot moves from a close up of the young woman's eye to that of the old woman's, with fine wrinkles deepening to demonstrate the passage of time, its metamorphosis of the human body, and, in this case, creating a physical linkage for narrative purposes to sell the two actors as one person. That the shot was achieved by digitally integrating the eye of the young actor in the older woman's face as part of the morph, deepens the linkage and the physical bond for narrative as well as representational purposes.

The second example is of the set of the Titanic which twice transforms from old into new and new into old - an image made more poignant by the fact that the footage of the ruin is of the ship itself where it came to rest at the bottom of the Atlantic Ocean. The digital morph between its ruined present and its glorious past give a sense both of travelling in space as well as in time, much as Bukatman has observed the morph has the power to achieve. While it is true such emotive and narrative images have been alluded to in traditionally crafted films through the use of dissolves, the experience of watching the physical transformation of a place, the physical impact of time appear rather than be implied, is wonderfully expressive.

These tools of visual expression that digital visual effects have brought to filmmaking, extending the traditional special effects practice, are the means by which

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[194] Mark Wolf, "A Brief History of Morphing" in Vivian Sobchack, ed. *Meta-Morphing: Visual Transformation and the Culture of Quick Change*, p.100.

filmmaking has become both a recording and representational art form. Although representational art has been recorded in film to create images, many of the images created by digital visual effects never appear before a camera even if they do incorporate photographically obtained elements. In effect, the process has been reversed with recording art media being digitized for representational enhancement.

In an interview for the *Alien* DVD box set release, H. R. Giger, whose art provided the basis for the *Alien* films, observed that "in this century movies are more important than paintings".[195] This may be so not only because they have "exhibition value" as Walter Benjamin has described it[196] but also because they provide epic scope and a capacity to work in time-based media with all the sensibilities of fine art.

In *Myths To Live By*, Joseph Campbell described the six canons of the painter's art defined by the Chinese. These comprised of: organic form, trueness to nature, color, placement of the object in the field, style.[197] Each of these canons applies directly to the creation of CG imagery.

In some ways, the evolution of our ability to create convincing CG elements has mimicked natural evolution and in others it has been reversed. It is fairly straightforward to create a convincing insect, fish or reptile but still out of reach to create a convincing human being for any sustained period of screen time. Yet, on the other hand, CG buildings and interiors, vehicles, and other man-made objects are extremely persuasive where the elements of nature have been harder to achieve.

In "The Ontology of the Photographic Image", André Bazin describes the impact of perspective drawing on art and states, "Thenceforth, painting was torn between two ambitions: one, primarily aesthetic, namely the expression of spiritual reality wherein the symbol transcended its model; the other, purely psychological, namely the duplication of the world outside."[198] His discussion is in relation to photography but, with the advent of digitally created images, these ambitions remain of influence. Rudolph Arnheim also refers to the "...striving after likeness to nature which has

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[195] H.R. Giger in *Alien Legacy: 20th Anniversary Special Edition* Box Set DVD collection. (Twentieth Century Fox Film Corporation, 2000).
[196] Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" in *Illuminations*, pp.218-219.
[197] Joseph Campbell, "The Inspiration of Oriental Art" in *Myths To Live By*. (New York, New York: Penguin Books, 1993), p.117.
[198] André Bazin, "What is Cinema?" " in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.196.

hitherto permeated whole history of the visual arts. Among the strivings that make human beings create faithful images is the primitive desire to get material objects into one's power by creating them afresh."[199]

This has certainly been an impetus in the development of computer-generated imagery. At the very outset, it was used to visualize leading-edge scientific models for the express purpose of gaining control over the physical world, even if only on a conceptual basis. That the film industry has appropriated the technology to create new worlds, populate those worlds and manipulate the recorded images of the world in which we live, gives support to Arnheim's observation. Stanley Cavell has said that "a painting *is* a world; a photograph is *of* the world."[200] What then is a digitally enhanced photographic image?

Brian Henderson compared painting and cinema and said that:

> Cinema, like painting, is a two-dimensional art which creates the illusion of a third dimension. Painting is limited to its two dimensions; cinema is not. Cinema escapes the limits of two dimensions through its own third dimension, time. It does this by varying its range and perspective, by taking different views of its subject (through montage and/or camera movement).[201]

He went on to observe that:

> ...the difference between montage and collage is to be found in the divergent ways in which they associate and order images.... Montage fragments reality in order to reconstitute it in highly organized, synthetic emotional and intellectual patterns. Collage does not do this; it collects or sticks its fragments together in a way that does not entirely overcome their fragmentation. It seeks to recover its fragments as *fragments*. In regard to overall form, it seeks to bring out the internal relations of its pieces, whereas montage imposes a set of relations upon them and indeed collects or creates its pieces to fill out a pre-existent plan.[202]

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[199] Rudolf Arnheim from "Film As Art" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.213-214.

[200] Stanley Cavell, from "The World Viewed" " in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.334.

[201] Brian Henderson, "Toward A Non-Bourgeois Camera Style" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.62.

[202] Ibid., p.61.

Yet digital visual effects rise above these distinctions allowing composites (collage) to have the impact of montage and for painting to incorporate different views of its subject. The impact digital visual effects may offer then, is of a highly significant order. As further chapters will show, for narrative purposes, digital visual effects and the synthesis of recording and representational arts offer new means of expression that allow greater imaginative and expressive means by which to transmit straightforward narrative material as well as complex thematic and conceptual materials.

It may be that one of the impacts of digital visual effects is the achievement that Walter Benjamin described in "The Work of Art in the Age of Mechanical Reproduction": "The history of every art form shows critical epochs in which a certain art form aspires to effects which could be fully obtained only with a changed technical standard, that is to say, in a new art form."[203]

Before proceeding to the next chapter it would be remiss to overlook one of the other major factors in the adoption of digital visual effects in filmmaking, that is, the production benefits and impacts upon the production process itself. As previously mentioned, David Bordwell has identified three reasons technology is taken up: it leads to greater efficiency, it offers an edge in the market through product differentiation, and it allows the product to meet the prevailing quality standards. In the case of digital visual effects for Hollywood filmmaking, this means that they would have to: allow a film to be made more efficiently in terms of shooting time, expense or difficulty; be able to point to the effects usage in the marketing of the film; and support classical narrative traditions. As the discussion has indicated so far, digital visual effects appear to meet these criteria with ease. In fact, they could not have been better designed to meet the needs of Hollywood filmmakers.

In the first instance the impact of digital visual effects on production practice is driven by the script elements. In traditional filmmaking for example, a shot that calls for a dangerous wild animal to appear in frame with performers might involve staging the shot in such a way that perspective or editing could be used to bring the creature and the performer into the same frame without requiring risky proximity. Using digital visual effects the ability to obtain the animal performance and the actor performance

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[203] Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" in *Illuminations*, p.230.

separately and then digitally combine them in an apparently close interaction has a number of distinct advantages. Safety is an obvious advantage, as are the cost efficiencies that might be possible in shooting the animal element in second unit where the use of a smaller crew and studio environment saves time and money. The main advantage is that the final image, done well, allows a more convincing and engaging narrative outcome, as later examples will show.

Another major difference in the production process is that digital visual effects are *not* a post-production practice like optical work. Digital visual effects, because they require a different kind of planning than standard post-production practices - i.e. a shooting schedule for the digital production - means that they are part of the initial storyboarding practice, are influential in determining the camera position, movement, and mise-en-scene. They can inform production design decisions on matters ranging from make-up to costuming. They can set standards for props, set construction and design, and set dressing. They will be the determining factor by which it will be decided which shots are animatronic, which shots will be miniatures, models and so on. They will also influence direction of actors and stunt work where there are extensive digital components in a scene.

What is fundamentally important to grasp is that digital visual effects are *image creation* and differ very little from physical studio practices. The structure of a digital studio is very much like the structuring of the work undertaken on a sound stage or location although the work is undertaken using computers. Digital crews are set up to create sets, performances, camera and lighting departments and their collaboration is very much like that of 'real' crews shooting physical elements. The Visual Effects Supervisor on a feature film is a key creative department head ranked alongside the cinematographer and production designer. Their input is as crucial to the realization of the story as the camera and production design departments. If there are digital character elements, then the animators have performances to contribute just as the actors do on the set.

What might once have been an extension of the post-production process is now a fully-fledged production environment that can have considerable power in determining the conditions and schedule of the physical crew and performers on the film. In some ways the introduction of digital visual effects can be compared with the introduction of sound. It has had a similar impact on the physical practices of the set. For example, as

with the introduction of sound, it was common for digital visual effects, in the early days of their use to restrict camera movement. However, as the technological prowess and techniques of digital visual effects changed, comparable to the separation of sound recording, mixing and editing, then too did digital visual effects allow for greater camera freedom and increased expressiveness in the elements that form the final image.

Another factor, based on spectacular digital visual effects usage, is the box office return. When films converted to sound, box office returns doubled within two years.[204] However, box office is not simply the money handed over at the cinema cashier. Box office now takes into account home viewing rentals and DVD purchases. In a speech delivered to the Screen Producers Association of Australia in November 2003, Mark Pesce reported that DVD sales are higher for those films that feature extensive digital visual effects and that this is influential in whether or not a project will be greenlighted for production.[205]

As further examples will show, digital visual effects do not necessarily mean explosions, outer space fight scenes or 3d sci-fi environments but as Mark Pesce has observed, the DVD has become a financially powerful delivery mechanism and their digital visual effects special features are a key marketing product. This of course returns discussion to the point that filmmaking is now a data industry and DVD sales, game spin-offs, and other re-purposing opportunities are now a consideration in feature film production. Indeed, in some cases, the theatrical release is becoming an abridged version of the film with DVDs offering the full 'extended' versions and alternative versions; the Special Edition releases of the *Lord of the Rings* trilogy being a good example of this phenomenon.

Thus the development of digital visual effects has had impact upon the production process, changing the way films are planned and shot. They can have either a positive or negative effect on a film's budget, allowing economies if used judiciously or they can take a film's budget into the history of film financing. They can determine to what extent the material will have a second life in the DVD and other media markets.

They have also broadened the scope of narrative expression, offering the best of recording and representational tools to storytellers. By extending control over every

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[204] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition, p.575.
[205] Mark Pesce, "The New Reality for Producers". (Keynote address: Screen Producers Association of Australia Conference, 18 November 2003).

aspect of the image, digital visual effects offer additional means of visually representing concepts and creating environments and performances. Their usage has become part of the language of cinema, drawn upon by writers in the scriptwriting process, relied upon to find ways to show not tell, as forthcoming examples will reveal. They are accessible to most filmmakers - even low-to-no budget productions - so that directors no longer need to have the vision and experience of Stanley Kubrick to create visual effects and provide the kinds of mise-en-scene that, in the last twenty years, have become integral to the world of film images.

Where James Monaco states that camera movement equals meaning in film, David Bordwell states that narrative context provides meaning for camera movement. It is narrative context that also provides the function, meaning and, by and large, motivation for digital visual effects usage.

Further, digital visual effects, and the processes by which they are created, require us to examine, in the finest detail, the world around us so that we can better understand how it works, how it is structured and then use this to imagine new creations, things we have not seen nor experienced. To create the dinosaurs of *Jurassic Park* or detailed images of the solar system, so common to science fiction films, detailed research must be undertaken, calling upon the latest theories and findings of the scientific community. Through this process of researching and imagining, we are again philosophizing and creating in the truest sense of the word. No matter what the dystopian foreshadowings of the T-1000, it is not the machine that is capable of being whatever it chooses to be, it is us imagining what else, where else, and who else we would choose to be.

If You Are Falling, Leap: the hero's journey

Having identified the kind of narrative structure under discussion and the means by which digital visual effects have developed and are able to have an impact upon storycraft in filmmaking, consideration turns now to one element of story that allows us to examine some of the most telling impacts of digital visual effects. That element is the hero.

The hero's role is an aspect of storycraft upon which the writing manuals have differing views. For some, like Aristotle, plot - the ordering of the events - is the crucial factor in the story. For others character is story. This difference of view need not be resolved to assess the role of the hero as, in real terms, focus on either plot or character is but one choice in how to approach scriptwriting or analysis of texts. Nonetheless, whatever the approach taken, at some point the hero's role, the values that the hero's struggle represent, and the qualities of the hero's character will be significant to the story.

Hollywood has always been in search of heroes. Although the distinction between the star persona and the character-as-written is often a difficult one to make, at the storycraft stage, creating a character who is compelling and believable is no small feat. It is possible to consider this task from two of the most common dramatic structural situations: extraordinary characters in an ordinary world or ordinary people in extraordinary circumstances. In either instance, the character will be required to make choices, ones that will reveal their integrity and values and thus, convey much of the meaning to be found in the story.

As Robert McKee states, "Values, the positive/negative charges of life, are at the soul of our art. The writer shapes story around a perception of what's worth living for, what's worth dying for, what's foolish to pursue, the meaning of justice, truth - the essential values."[206] He adds, "...ours has become an age of moral and ethical cynicism, relativism, and subjectivism - a great confusion of values."[207] He later cites the modern values, remarking, "The compulsive pursuit of contemporary values - success, fortune,

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[206] Robert McKee, *Story*, p.17.
[207] Ibid.

fame, sex, power - will destroy you, but if you see this truth in time and throw away your obsession, you can redeem yourself."[208] Significantly, he argues that, "the choice between good and evil or between right or wrong is no choice at all."[209] In his view, as Aristotle also indicated, tragedy is a choice between two desirable outcomes where only one can be achieved.[210]

Kristen Thompson also discusses heroes, focusing mainly on the classical narrative's goal-driven quest to restore equilibrium and the action that arises from this pursuit. James Monaco considers the political implications of the hero in the Hollywood film and notes that, "...the best evidence we have that film has radically altered traditional values lies in the phenomenon of celebrity."[211] He describes how film fused the formerly heroic models of fictional characters and real people of achievement by making fictional characters of real people.[212] Monaco indicates that, "Star cinema - Hollywood style - depends on creating a strong identification between hero and audience."[213] He also turns to the matter of values and the relationship between the hero and values, stating, that, "To a large extent, at least in nations in which film is dominant, the cinema helps to define what is permissible culturally: it is the shared experience of the society."[214]

Robert Warshow, analyzing the Western, discusses the hero of these films and observes that "...it is not violence at all which is the 'point' of the Western movie, but a certain image of a man, a style, which expresses itself most clearly in violence...(a style that shows) how a man might look when he shoots or is shot. A hero is one who looks like a hero."[215]

Peter Wollen also addresses the issue of the hero in classical narrative film in his analysis of the work John Ford, Budd Boetticher, and Howard Hawks. He makes the observation that:

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[208] Ibid., pp.126-127.
[209] Ibid., p.248.
[210] Ibid., p.249.
[211] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition, p.263.
[212] Ibid.
[213] Ibid., p.265.
[214] Ibid.
[215] Robert Warshow, "Movie Chronicle: The Westerner" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.667.

All these directors are concerned with the problem of heroism. For the hero, as an individual, death is an absolute limit which cannot be transcended: it renders the life which preceded it meaningless, absurd. How then can there be any meaningful individual action during life? How can individual action have any value - be heroic - if it cannot have transcendent value, because of the absolutely devaluing limit of death?[216]

He summarizes these directors' answers to the questions stating that, "Hawks, unlike Boetticher (who looks for values in the encounter with death itself), seeks transcendent values beyond the individual, in solidarity with others. But, unlike Ford, he does not give his heroes any historical dimension (Ford's answer), any destiny in time."[217]

This choice between two goods - the needs of the community versus the needs of the individual - provides an enduring conflict that arises repeatedly in film. For every story where the individual learns to sacrifice their individuality and find harmony with the community there is another where an individual finds the strength to resist the coercive power of the community and discover their own path.

Joseph Campbell, whose work inspired a rediscovery of the term 'hero', analyzed the myths and folktales of cultures from every age and society and distilled a number of common factors. In a lecture he gave in 1966, he commented on the shift from community as the ideal focus to "...the development and protection of the individual - the individual, moreover, not as an organ of the state but as an end and entity in himself. This marks an extremely important, unprecedented shift of ground...".[218] He relates the heroic tradition of the individual as unique to European cultures[219] and defines the hero as "the man of self-achieved submission."[220]

The Monomyth he defined in *The Hero With A Thousand Faces* traced the journey of the hero from the moment adventure presents itself to the hero's return bearing the Elixir needed to restore the world. On the journey the hero encounters helpers, endures tests, and undergoes a death and rebirth that allows him (and it is usually a *him*) to return with the means to save his community. In this way there is a

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[216] Peter Wollen, from "Signs and Meaning in the Cinema: The Auteur Theory" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.521.
[217] Ibid., p.522.
[218] Joseph Campbell, "The Emergence of Mankind" in *Myths To Live By*, p.24.
[219] Joseph Campbell, *Transformations of Myth Through Time*. (New York, N.Y.: Harper & Row, Publishers, Inc., 1999), p. 210.
[220] Joseph Campbell, *The Hero With A Thousand Faces*, p.16.

marriage of both the individual path and the return with the boon for the community, resolving the two potentially opposing drives.

Campbell's focus was on heroes of folktale, legend, and mythology and included ones that tended to be superhuman, possessing from birth extraordinary gifts and he analyzed the phases they represented from childhood to death. Christopher Vogler's approach in *The Writer's Journey*, however, conformed more to the standard advice about creating characters generally found in storycraft manuals, a focus primarily on the qualities needed to create believably human roles. There is a considerable gap between these two standards although Campbell's other writings do not suggest that heroic behaviour is beyond the reach of ordinary mortals. Quite the contrary. Yet there is still a gap that needs be addressed.

As indicated earlier, the scope of mythology is cosmic whereas the scope of the fairytale is mundane, in that the fairytale deals with humans and their experiences on earth and their desire to live happily ever after. In film, the lead role - the character who is the answer to the question, 'who's story is this?' - is not necessarily an heroic individual. However, as Vogler's text gained popularity and Joseph Campbell's work enjoyed a new level of fame, the term 'hero' and the 'hero's journey' became a highly influential template applied to a wide range of films and scripts.

The application of the heroic journey to all story structures was perhaps ambitious and unnecessarily proscriptive. Generally, it justified simplifications of character development and a focus on a fairly predictable and largely action-driven 'journey'. Thus, characters' inner journeys, that is the reveal of emotional or spiritual growth, gave way to a proliferation of action/adventure style stories with physical dangers being foregrounded over internal turmoil and moral dilemma. The face-to-face encounters with death - an easily scriptable and filmable scene - became the order of the day, with the Monomyth's 'steps of the journey' a ready validation.

However, it is essential to overcome more than physical danger in order to meet the standard of truly heroic behaviour. The degree to which a character undertakes decisions and acts in a manner that reveals values - the wisdom that forms an important quality in a 'good' story - is also integral to the quality of the canonical tale, especially those following the fairytale structure and is certainly of fundamental importance to mythic tales.

In order to assess whether the use of digital visual effects has had an impact upon this aspect of storycraft, a number of films will be examined identifying the nature of the protagonist's role and how these roles have been established, realized and enhanced by the use of digital visual effects. One of the most obvious examples to examine is the originally released version of the film *Star Wars: A New Hope*, which has been considered by many to be a perfect match for the Hollywood version of the Hero's Journey.

Star Wars in its first iteration was a pre-digital effects feature film although computer graphics were used in the film, primarily as on-screen computer graphics. Nonetheless, one of the important achievements the film realized was the use of moving camera effects shots using motion control to document camera passes for composites. Ultimately the look of the film, and the resurrection of many long-discarded optical effects techniques, led to the establishment of Industrial Light + Magic (ILM), as the world's premier effects house. With the success of *Star Wars*, ILM was sought out by many other filmmakers eager to realize stories that could not be told pro-filmically.

Star Wars has been summarized as: "...(Lucas') script reworked old movie themes and fairy tales, incorporating essential precepts of Joseph Campbell's essays on myths and their power. The result was a story of...Luke Skywalker embarking on the hero's journey to rescue a princess and vanquish an evil fortress, along the way discovering his true nature and the power of the mystical 'Force'."[221]

The effects are used primarily to establish 'a galaxy far, far away' as pretty much an ordinary place where young boys stuck on farms in the middle of nowhere dream of studying at 'the Academy' and of becoming a pilot. The weapons used, the starships and the extra moon on the horizon seem only a tad exotic once the impressive opening shot has firmly placed us in the diegetic world. There are treats - the hologram message from the princess, the stop-motion hologram chess players superimposed over the live action sequence, the speeder scenes and the moving camera dog-fight, zooming along the trenches with computer displays of the targeting. Yet there is enough about Luke's world and adventures that are sufficiently familiar to allow the action to start with little story time being expended on setting up the world and how it works.

In terms of the hero's journey defined by Campbell, Luke who yearns to escape the farm, refuses the first call to adventure when Obi-Wan insists Luke must learn the

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[221] Kevin H. Martin, "War Stories" in **Cinefex** 65, March 1996. p.72.

ways of the 'Force' if he is to accompany Obi-Wan on the quest to find the princess. Only when Luke returns to his home and finds his Uncle and Aunt killed by Imperial forces does he agree to join Obi-Wan. Thereafter, Luke is committed to the quest, he harbours no doubts, makes no choices that call upon him to demonstrate any moral stance - he is simply on the side of the princess and uses ingenuity and courage to free her and destroy the Death Star.

Han Solo, on the other hand, is required step away from his mercenary, individual path and join the Rebels, which he does at the last moment, saving Luke from Darth Vader so that Luke can fire the winning shot. Together, these two roles fulfil the heroic journey although, at the end, Han Solo remains an ordinary man while Luke, with the benefit of his father's light sabre and Obi-Wan's training, is on the path to attaining superhuman gifts. Thus Han Solo is the everyman of the fairytale where Luke Skywalker is cast as the one who will become a Jedi who, later in the series, will offer his own sacrifice to save the rebel cause and redeem his father, gaining the ability to commune with those who have transcended death. Luke will become a figure of mythic proportions, always at one remove from the lives of those around him.

The success of this film in story terms is that it mixes both the fairytale and the mythic elements. It presents the moral dilemma requiring the hero to choose his path and addresses both the needs of the individual and the community. Luke is able to undertake his individual quest because it fulfils the needs of the greater good and Han Solo finds the moral stamina to abandon his solitary ways and join the Rebel cause. This choice between individual and community is elegantly drawn into unity when the solution to destroying the Death Star is the realization that its fatal flaw lies in that the Imperial forces have not anticipated the threat that can be posed by 'one man who can save us all'.

Further there are other characters who also undertake heroic choices - Princess Leia is forced to choose between her home planet and the rebel base as the target for the Death Star's destruction, and is betrayed when she apparently gives up the location of the Rebel base to Darth Vader. Obi-Wan Kenobi, in facing Darth Vader willingly sacrifices himself, allowing the others the opportunity to escape the Death Star and take the Elixir (the Death Star plans) to the Rebels so that the Galaxy can be freed of Imperial tyranny.

The effects used in the film serve to demonstrate Luke's talent with the 'Force' - for example, his practice session with the light sabre on board the Millennium Falcon. The computer graphics of the Death Star are used to explain the fatal flaw that will let them destroy it. The models and the planet imagery, all these effects serve to establish a convincing setting yet do so without being so spectacular, so cosmic, as to remove the story from human scale.

Thus, while many consider this film to be an exemplar of all that special effects do to detract from classical filmmaking, in real terms, it has, as Kristen Thompson notes, elevated the 'B' film to 'A' film status but it is not a new kind of narrative made up solely of spectacular effects shots that lack narrative basis. *Star Wars* followed classical narrative structure and used its effects to make real the world of its story, to convey elements about the characters and to make the fighter scenes as realistically like World War Two dogfights, and therefore human experience, as possible.

Twenty-two years later, another film would set its story in space, in an even more believable diegetic world; that of astronauts on a mission to Mars. Set in 2020, *Mission To Mars* seeks to tell the story of Jim McConnell, a top astronaut who has been selected to lead the first crewed mission to Mars. He and his wife Maggie, another top astronaut who is especially committed to the Mars mission, do not get to make the trip as Maggie develops a terminal illness and Jim sacrifices the career opportunity of a lifetime to nurse her through her last days. The film opens at the party being held to send another team instead and Jim shows himself to be a decent guy, well-wishing his best friend, Luke who will lead the mission in Jim's place.

On Mars, the first mission is wiped out by a sandstorm and reduced to but one survivor - Luke - and so a rescue team is dispatched from the World Space Station. This time, the team includes Jim and there are many scenes where Jim demonstrates 'the right stuff' and is praised by others as 'the best we've got'. The team as a whole seem like remarkably wonderful people and they repeatedly demonstrate their commitment to the project and each other. When trouble hits and sacrifices are called for, they all show great resolve and courage, with the leader of the rescue mission quickly sacrificing himself so that no one else in the team will risk themselves or the others to rescue him. That the team includes his wife, his would-be rescuer, and that this display of bravery is

watched by his close friend Jim, who knows all too well the pain of losing a soul mate, is a set-up calculated to raise the emotional stakes of the scene.

Finally, once they have landed on Mars, worked out the test left by the original inhabitants and discovered that the Martians seeded earth with DNA, Jim makes the decision to board the Martian spacecraft and find out where the Martians went when they left their once fertile but meteor-destroyed home. The rest of the team head back for Earth, seeing Jim on his way to discover what lies at the other end of the universe. In their farewell scene, Jim repeats Maggie's prophetic words - and the message of the film - "It's what I was born for...to stand on one world and look beyond it to the next one" - and the theme that 'Life reaches out for Life'.

The digital visual effects used in this film are of a high standard. They range from the requisite planetary and model shots, enhanced by digital camera moves and NASA images to maximize verisimilitude. There are digital set extensions, CG character replacements for some of the outer space shots, extensive compositing of live action with motion control and background plates, sandstorms using real dust and digital particle effects, CG elements blended interactively with live action - such as the blood particles that free-float in the cabin of the spaceship, morphing of Tim Robbins' face when he sacrifices himself by removing his helmet in outer space, and an impressive visualization of evolution of life on earth from paramecium to hunter-gatherer humans. There is also a CG representation of a holographic Martian.[222]

The relationship of these effects to their usage in the film is primarily to create a sense of verisimilitude and reasonably accurate visualization of scientific concepts - i.e. accurate starfields, atmospheric conditions on Mars, DNA, and representations of the planetary system and evolution - as needed to provide the expositional information required to follow the narrative.

There is also expositional use of computer graphics and what I describe as 'the magic computer', a story device where a computer provides graphic images and text that helpfully gives authority to plot points or other story information needed to justify the action. For example, in this film, the crew is equipped with computer armbands that convey information such as fuel capacity, trajectory status, and, at one point, the phrase 'point of no return', so that the dramatic stakes are clear.

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[222] Kevin H. Martin, "Mission Accomplished" in **Cinefex** 81, April 2000, pp.61-80.

As an aside, this film also provides an excellent example of the 'data' industry aspect mentioned in the opening chapter, the view that the industry is entering a new phase of evolution, one based on data instead of chemistry or electronics. In this instance, the images of the sandstorms were built using data sets of sandstorms created for other films. Thus, the images we see represent data - a commercially valuable asset - that can be reused and manipulated endlessly in the manner of most digital assets.

Using negative from other films - such as stock footage, out-takes, or reprinted footage is unlike data-based reusage as, with a negative, the original material remains recognizable as itself, even if it fits nicely into other footage. For example, even the digitally reworked images used in *Forrest Gump*, retained their essence (a factor somewhat necessary for the purposes of the narrative). However, digitally reused images can be reworked so as to be unrecognizable from their previous incarnation and printed image. Similarly, scans of actors, models, sets, terrains, and so on also form data sets that can be drawn upon and manipulated for resuse. Motion capture data, therefore performance, can also be re-presented in this way. The digital visual effects in a film are not simply a piece of negative that forms part of an original film, they are a database and an endlessly reusable and mutable resource. In *Mission To Mars* the re-use of data does not draw attention to itself as a reflexive incorporation of another film's material. Its use is invisible, even though the images are spectacular.

Returning to the matter of storycraft, the hero of the film is ostensibly Jim, played by Gary Sinese. Yet, in spite of his having faced a moral dilemma in the backstory to the film (the decision to sacrifice his place on the mission to care for his dying wife), he does not really encounter any other such decisions in the course of the narrative contained within the film. The choice to enter the Martian ship rather than return to Earth is almost a foregone conclusion. It is not presented it is not presented as a matter of great weight for his conscience.

None of the characters is called upon in this way. There is a moment when one of the characters is under instructions to leave for Earth if the team has not returned by a set time, but the crew make it back as he is preparing to leave, sparing him the need to choose between following orders or following his loyalties. In conclusion, the hero's journey does not appear to apply to this story although there is certainly an attempt to convey mythic themes.

The encounter with the Martian is, in effect, an encounter with The Creator and Jim's decision to take the Martian spaceship and be reunited with the Martian ancestors is an attempt to fulfil the charge: if falling, leap. Yet it is made clear throughout the film that Jim is disassociated from life since the loss of his wife. He goes through the motions and gives his all to help others and be a good friend but there is an emptiness that cannot be filled with continued existence on Earth.

His experience of being readied for the journey to meet The Makers, is symbolic of rebirth, he is re-wombed in a cylinder filled with fluid and then he is beamed into the ship in a tunnel of light. He is to be elevated beyond humanity, to be re-united with the Cosmos and make the journey between one world and the next. This is part of heroic mythology, but it is not a journey of action/adventure; it is a tale of quasi-religious/pseudo-science. There is no sense that he will return to tell the world of its Martian heritage and cousins at the other end of the universe. He is simply leaving Earth behind to discover what is next - an answer only he will know and one that will not be shared as wisdom for the benefit of the audience.

As for those who return to Earth, they are essentially a swell group of people who will face danger bravely, each will do their part to save the team - at great risk to their own personal safety, and they demonstrate nothing but respect, understanding and really good manners in their dealings with each other. In essence, this is a film without conflict. There is no real antagonist. There are minor arguments about whether the rescue mission will be approved and whether Jim is ready to take on such a mission having failed to undertake the necessary psychiatric clearances but these are mere obstacles not major forces of opposition.

The planet itself and the sandstorm might be presented as a Man against Nature struggle, except that none of the traditional set ups for such a narrative structure are employed. Essentially, there is a disaster that wipes out the first mission but the aim is not to colonize Mars and tame its sandstorms, it is simply to rescue Luke and answer the mystery of the face in the sand. No force operates against these goals except the inherent difficulty in making the journey to Mars and the question of whether or not they have the ingenuity to figure out the mystery (which happens with astonishing ease). The film instead strives for the mythic and the epic and it makes clear its theme of 'Life reaching out for Life'. The hero starts out as a great guy and then becomes One

with our alleged Cosmic inheritance; a guy who represents 'the best of us' is elevated to the Cosmos.

The visuals are spectacular, the camera work is powerful, but the story is not there to be supported by the well-crafted verisimilitude. Great care has been taken to ensure that the images reflect what would occur on such a mission and so the purpose of the effects is to support the diegetic world, at least while the characters are within the bounds of current experience of space travel. When the story moves to its Martian setting, however, the fantastical elements and visuals are given greater dominance. The image of the face on the planet, the interior of the face and the visualizations of Mars' history and human evolution are clearly intended to be spectacular - but not with the intention of stopping the narrative. The spectacularity *is part of the narrative experience of the characters and so is part of the story*, with the images being artistically motivated, a quality in keeping with the classical narrative form.

Thus, in spite of the spectacularity of the images in the latter half of the film, it is hard to argue that the film aims to present a new form of narrative, a form comprised of spectacular images that build upon each other to create their own narrative structure. There is too much exposition, too much time dwelling on the human moments, too much dedication to setting up the relationships between the characters to place this film in such a new narrative category, although it must be noted that the narrative structure fails to offer the dramatic tension expected of classical narratives. Even the moments where characters sacrifice their lives to save the others - as noble and heroic an act as one could ask for - there is little sense that they have any choice in this act.

This is not an uncommon kind of dramatic vacuum where, although values are stated, and there is extensive dialogue clarifying the thematic content of the film, there is little in the action that shows characters making choices that force them to grow from one state of internal equilibrium to a new and different state as a consequence of their decisions.

The film *Final Fantasy: The Spirits Within*, a completely CG feature film, follows a similarly narratively weak path. Based on a computer game, the characters inhabit an Earth that has been maimed by a meteor hit that has brought to Earth phantoms capable of infecting humans. The remaining uninfected humans live in Barrier Cities and use advanced technology to fight the phantoms with one exception -

Dr. Aki Ross and her mentor, Dr. Sid. In their search for a non-violent way to remove the threat, they have found six spirits that possess wavelengths that can be used to contain the infestation and, once the two remaining spirits needed to give them a complete set of wavelengths are found, this will provide a cure.

Opposing them is General Hein who, motivated by the desire to revenge the deaths of his wife and child, wants to use the Zeus cannon to violently eradicate the phantoms from Earth. In an attempt to force the Council to support his plan, Hein introduces a phantom to the Barrier City but his plan goes awry and the city is quickly overcome. The drama then unfolds as a race between Aki Ross and Hein to complete their solutions and save or destroy the Earth.

The film is completely generated by computer graphics technology. Although human performance is on screen in the form of motion capture, the characters themselves are animations with very closely photorealistic qualities. Many of the images in the film are outstandingly beautiful, demonstrating a high standard of artistic representation. However, the story and the representations do not 'work'. There is something inherently lacking in terms of emotional engagement, a quality that has been described as a consequence of the computer generated humans failing to connect convincingly with the audience.

However, the lack of emotional connection, in my view, has more to do with the limitations of the story than the images themselves. If it was simply a case that audiences do not engage with CG representations of characters, films such as *Toy Story*, *Shrek*, and *Monsters Inc.*, would have failed at the box office, not set new records. Although it is easy to reflect on the extent to which the characters do not convincingly represent humans to a photoreal standard, at the heart of the film's difficulties is the fact that the characters do not undergo any personal dilemmas about their roles anymore than do the crew of *Mission To Mars*.

Like *Mission To Mars*, in *Final Fantasy* there is also a scene set up to be emotionally engaging when Aki and Grey, finally reconciled, are separated by his sacrificial death, yet it has no more resonance than the scene where Woody and Terri Fisher are parted. Other, similar, dramatic ploys are used, such as the scene where it is discovered that Grey has been infected and Aki has only minutes to kill the phantom and save Grey's life but there is no sense that she will fail or that there are other pressures that might influence the outcome. Although there is more conflict between the

characters than in *Mission To Mars* and there are apparently forces against them, Aki, Grey and his crew appear to be acting out roles more than experiencing risk, threat, and emotional growth.

The characters in *Final Fantasy* are given no moral dilemmas to face. Although Grey is told to arrest Aki and refuses, it is fairly clear that, in spite of their personal history, Grey is unlikely to turn against her given that he risks his life to save her in the opening sequence. Unlike *Mission To Mars*, there is an antagonist in the film, General Hein, and there are obvious attempts to round out his character by introducing the backstory elements about his wife and child having died, so that his manic obsession with destroying the phantoms is motivated. Yet again, perhaps because the film seems to be working through the standard elements of a storycraft formula, there is little sensation that there will be any outcome except that Aki will be able to understand what her dreams mean in time to save the Earth. Grey's death is not so much a 'twist' as a token provided to demonstrate the theme that even in death one is part of Gaia.

Final Fantasy seems neither myth nor fairytale. It follows the classical narrative structure, almost to its disadvantage, but if it fails, it is not because its form - computer generated animation - is not a form that can successfully work to convey story. Nor can the quality of the animation - the fascination with whether or not the characters can 'pass for human' - be held to blame for the film's deficiencies, for the same storycraft problems exist in live action projects that also seek to convey epic themes of great wisdom (i.e. Life reaches out for Life; even in death one is part of Gaia), without the necessary underpinnings of a well-crafted story. Thus, it would seem that these films give examples that for a film to resonate with meaning, the explicit statement of its thematic intents will not be communicated satisfactorily unless the actions of the characters resonate with the consequences of making decisions that impact upon them in ways that reflect those larger values and themes.

In the case of *Final Fantasy: The Spirits Within,* it is not so much a matter of CG realism versus classical narration as much as Western Studio influence versus Japanese traditional animé narration. In an interview with members of the *Final Fantasy: The Spirits Within* CG team, (including the co-Director Motonori Sakakibara, CG Artist Roy Sato, and CG Producer Junichi Yanagihara),[223] it was revealed that much

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[223] Motonori Sakakibara, Roy Sato, and Junichi Yanagihara, in an interview with the author, 7 January 2004, Honolulu, Hawaii.

of the original story was altered in the revision process brought to bear on the project by the distributors. As a consequence of this intervention, the project found itself in the extraordinary position of being forced to make significant storyline changes and reworking of performances right up to the final delivery date.

According to the *Final Fantasy: The Spirits Within* CG team, the changes were made to move the story toward a more conventional Western structure and ending, with much of the meaning of the original story being altered. It is worth noting that such changes are less likely to have been made in a live action film so late in the production. Where such alterations are made throughout shooting and into the editing process in a live action film, it is not generally considered a good sign and rarely results in an outstanding film. However, as *Final Fantasy: The Spirits Within* was wholly CG, such changes were infinitely more achievable than would be the case in live action filming. That they could be achieved, however, does not mean that they should have been made; at least not without a clear sense that story integrity was being served. These problems must also be taken into account in the assessment of the film, but it would appear that, in this case again, the flaws in the film can be traced to the scriptwriting - and re-writing - process and are not integral to the use of the effects themselves.

The three previous examples are drawn from the genre of science fiction, a genre long associated with special and digital visual effects - especially the achievement of new technological feats in these areas. The examples shown thus far indicate that even in this genre, which is known for its spectacular use of digital visual effects, the underlying practice is to have these effects serve the narrative - even when these effects are openly fantastical and spectacular. However, to give full consideration to the use of effects and the relationship they can have to the role of the hero, it is important to look to other film genres, ones not necessarily associated with effects.

The next example is an epic - so-called 'large canvass' - period drama with an openly classical narrative structure. The story is of a man who serves his community, subjugating his personal desires to fulfil the needs of his nation, who is betrayed, loses everything yet, through individual strength and courage, rises once more and again, sacrifices himself to serve his nation, dying a hero. The film is Ridley Scott's *Gladiator*.

The Roman Empire has featured in Hollywood films from its earliest days with some of the most well-known of these films calling upon all manner of special and

optical effects to realistically convey the majesty of a time long past. While *Ben Hur* drew on optical techniques, Stanley Kubrick's *Spartacus* limited itself to a few matte paintings and thousands of extras.[224] In some respects, although *Gladiator* is a triumph of digital visual effects usage, Ridley Scott's approach was quite in keeping with that of Kubrick. In summarizing the film for *Cinefex*, author Kevin H. Martin remarks, "For all its epic scale, *Gladiator* was deliberately designed as a film that would not call attention to its visual effects."[225]

The film uses effects because, as Martin has noted, "...the rising cost of filmmaking virtually eliminated the option of mounting a period epic using traditional approaches."[226] To recreate the Roman Empire, Scott and Mill Film used synthetic realities (to extend sets and create images of Rome), digital characters (to replicate crowds and add bit parts), composites of animal work with live action (to enhance proximity and danger), virtual camera moves (to stitch together extended scenes), digital extension of action elements (for safety reasons and verisimilitude), colour treatments (to mark out Maximus' visions of his wife and dying), sky replacements and animation of cloud sequences, a digital point-of-view shot of Maximus' perspective in the Colosseum and vultures composited over scenes to add a symbol of "foreboding and death".[227] The film also had to use composites to cover the untimely death of Oliver Reed who portrayed one of the major characters.

The effects, if not altogether invisible, are at least seamless, a factor heightened by the fact that many of the elements that might have been done on sets or digitally were actually filmed on locations, with the action sequences being undertaken with little enhancement. As a consequence, it is difficult to identify when effects are being used and, if scrutiny is not being applied, most scenes would pass unnoticed except for those that logically cannot take place without digital effects - i.e. the rebuilding of the Colosseum and the image of Ancient Rome on the hillsides.

Of special interest are those shots that enhance the proximity of the tigers in the arena during one of the most important fight sequences. This usage is one of the most frequent narrative uses of digital visual effects - the heightening of the danger posed to the hero. One of the key aspects of the hero's journey is the risk encountered by the hero

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[224] Kevin H. Martin, "A Cut Above" in **Cinefex** 82, July 2000. p.14.
[225] Ibid., p.31.
[226] Ibid., p.14.
[227] Ibid., p.27.

on his journey, the sense of danger that must be evoked. While it was once possible to put performers into genuinely dangerous situations, Jackie Chan's stunts aside, it is generally the practice either to use doubles and shoot wide, or use digital visual effects to cheat the proximity of danger and exaggerate the magnitude of explosions, falls, and perilous states.

This is crucial to the pacing of action sequences, portrayal of the character's courage and fortitude, and also enhances the emotional stakes, showing the nearness of the brush with death. In *Gladiator*, Maximus is fighting against the only Gladiator never to have been beaten but, to tilt the playing field, the Emperor has arranged for trap doors to open, releasing tigers whenever Maximus comes within certain areas of the stadium, giving his opponent an additional weapon. It is necessary that these tigers be seen to be both ferocious and a direct threat to Maximus so that the Emperor's treachery is magnified and Maximus' danger is heightened, increasing the tension in the scene and the level of the action.

Nonetheless, it is simply not practical to have a dangerous animal in close proximity to the lead actor. Nor, in the case of *Gladiator*, was it proving to be a satisfactory on-set result as the tigers were not acting sufficiently ferocious. A digital effects approach ensured that performance issues could be carefully selected and that proximity could be brought convincingly close to the actor in order to achieve a result not practicable in front of the camera. For the story, it created an exciting moment and a way to add another level of drama to differentiate this scene from other Gladiatorial matches in the film.

As a character, Maximus is the epitome of the heroic individual. He is extraordinary in that he has achieved greatness yet he longs only to be a simple farmer, at home with his wife and son. Having finally won the decisive battle that will end the fighting on Rome's border to the north, Maximus believes he will be allowed to return home. Then Commodus kills his own father in order to become Emperor - the power of which has been offered to Maximus, who is reluctant to take it. Commodus offers Maximus the opportunity to acknowledge him as Emperor but Maximus' integrity will not allow him to countenance Commodus' act. For this decision, Maximus is sentenced to death and Commodus orders that Maximus' wife and son are to be slain. Only Maximus' desire to reach them before the soldiers do and his fighting skills save him from death but he is too late to save his family.

Having lost all, he again faces a choice - to give into his grief and die or to live and fight on. He chooses life and, once he has attained greatness as a Gladiator, is given the chance to avenge himself against the Emperor. Yet he does not do so out of anger, he does so only when the Emperor challenges him, cheats, and the act of slaying the Emperor becomes the only, and the necessary, way to save Rome.

The film has many instances where characters face moral decisions and their actions lead to consequences that demonstrate the values of strength and honour that underpin the film's themes of mortality and family. However, to single out one of these instances in the interests of brevity, there is a scene where Maximus and his fellow Gladiators are sent into the arena to face a certain death. They are to re-enact the fall of Carthage and a deal has been struck to ensure that Maximus and the Gladiator slaves will be slaughtered. But Maximus does not accept this pre-arranged defeat, and so he uses his skills as a general, leading them saying, "If we stay together we survive", then takes them to victory, rewriting the pages of history.

Both his act and his statement make it clear that he is not simply fighting to save his own life, he is, at heart, a man who defends his tribe, his community, and knows how to inspire those around him to be the best of themselves. Again the opposing themes of individual path versus duty to community are worked together in a unity - in order for Maximus to fulfil the duty to the community placed on him by Marcus Aurelius (the murdered Emperor who has been like a father to him), Maximus must rediscover himself as a champion in the arena and earn a personal following from the people of Rome. It is this following that will stay the Commodus' hand against him - at least in any overt manner.

Although the effects are hard to identify, as previously mentioned, they are essential to position the story in time and to demonstrate the sheer scope and power of what once existed. Here spectacularity works to provide a representation of history and the magnitude of the force that Maximus confronts. The digital visual effects serve the narrative to give perspective to the question that Maximus asks, "I'm a slave. What difference can I make?". They also work to establish the context so that he can prove true his own call to battle: "What we do in life echoes in eternity." In this way, the acts of individuals are given scale in this story of one man who in defying the Emperor stood alone in the defence of the glory of Rome.

The film uses digital visual effects to represent the enormity of the Empire's mobs and armies, its monuments and the peril into which it placed its martyrs and warriors. Where period dramas are often limited to tight shots on location and costume displays in carefully decorated sets, *Gladiator* uses the power of digital visual effects to offer synthetically crafted but historically persuasive environments in ways that can be invaluable for establishing and maintaining the diegetic world. In the case of *Gladiator*, the narrative is sustained and strengthened by this capacity to craft the world in which the story takes place.

Another example for consideration of the hero's role, from a more typically effects-based genre, is the film *Swordfish*. An action-thriller, the script plays with the conventions of filmmaking not only by opening with a flash-forward, something David Bordwell has identified as being out of character for classical narrative, but also self-reflexively within the story itself.

The film opens with a discussion of how *Dog Day Afternoon* ends with John Travolta/Gabriel proposing an amoral ending only to be told that it won't work because the bad guy can't win. In this way, and throughout the film, the moral dilemma is thrown open for discussion with debate of the value of individual lives compared with the value of the greater good. Representing the individual is Stanley, a hacker who has been reduced to trailer trash because he acted against the government in his attempt to destroy a plot to track the email of all Americans. Stanley is literally living in a trailer, unable to keep his daughter out of the danger posed by his ex-wife's having taken up with a pornographer, and he is forbidden by court order   to use his amazing gifts as a hacker. Stanley's gifts are depicted as superhuman - he simply sees the code in his head - he doesn't know how he does what he does.

His opponent is Gabriel, a man described as "existing in a world beyond your world; what we fantasize, he does". He possesses incredible wealth, power and ruthless determination. When he meets Stanley he forces him to decrypt a code within an impossible time frame while a gun is being held to his head and one of Gabriel's female accessories is giving Stanley oral sex. Stanley proves that he is extraordinary by being able to achieve this impossible result.

Amid a high-action, slick production full of violence, sex and extravagant displays of material wealth, the argument is presented that Gabriel's bank robbing,

coercion, murders and high-living lifestyle are justified because he is defending the American way of life and it is his mission to seek out and punish anyone who threatens it - specifically terrorists who strike out at American targets. Contrasting this view is Stanley who, for all his genius, without money, is nothing; he is a man unable to protect the only 'innocent' female in the film - his daughter - because the Government (which is repeatedly shown to be corrupt and prepared to sacrifice the American Way for personal gain and security) has deprived him of the right to use his gifts.

Stanley is repeatedly forced to act to fulfil Gabriel's requirements or lose all hope of saving his daughter. He is offered the best lawyers, wealth, and then finally, forced to do as Gabriel requires because his daughter is being held hostage by Gabriel. The task is to steal the money earned by a covert drugs fund set up by the Government so that Gabriel can fund his missions. Stanley does this and, although he is led to believe that Gabriel does not get away, that Stanley has shot down the helicopter Gabriel was escaping in following the bank robbery, Stanley has doubts. Yet they do not hold him back from enjoying his new wealth and the custody of his daughter (Gabriel having helpfully murdered the mother and the pornographer in order to take the child hostage). As Stanley and the daughter take an idyllic Route 66 discovery tour of America, his daughter assures him that everything is going to be fine. Meanwhile, Gabriel has duped everyone and escaped with the money and the girl and is pursuing his mission to preserve the American Way - the bodycount of terrorists mounting in the wake of his luxury yacht.

Swordfish is a film that demonstrates the blurred values McKee cites as being fundamental to the problem with New Hollywood storycraft. As McKee would have it, it's not just that the bad guy can't win, but that the winner can't simply be the least bad of the guys. Produced by Joel Silver, *Swordfish* packs in the whammos. Opening with the bank robbery and an impressive digitally enhanced explosion, it races from sexually charged scene to action scene with brief moments of pause for discussion of how film endings should happen and set-ups of the stakes, such as the scene where Stanley visits his daughter.

The digital visual effects are primarily used to seamlessly enhance the danger and the action levels of the film. Using composites and stunt support, it exaggerates the risk posed and undertaken by the key actors - who are most certainly not heroes - in order to ramp up the pace and the spectacularity of the action. For example, in the car

chase, the bus with Gabriel and the hostages does not simply weave through the traffic and undertake a few fancy manoeuvres, it is airlifted onto a rooftop where helicopters await Gabriel and his henchmen.

The film also makes extensive use of 'the magic computer'. In order to give authority to Stanley's talents, computer graphics are used to 'show' how he is decrypting the codes that are set as tests of his skills. The flashy graphics and set designs are important as the action of these scenes is little more than typing, (i.e. see the hero type then, see the hero type faster while he remonstrates with the computer). This is hardly the stuff of champions and does not compare with fighting undefeated warriors in the Colosseum. Thus, the graphics need to convey not only expositional information but some sense that there actually is something happening in the scene.

The values in this film are exactly the ones McKee lists as the ones that will destroy - success, fortune, fame, sex, power. Everything is done to establish Gabriel as a charismatic, powerful man who can do anything he wants because he has money and represent Stanley (who is impoverished), as incapable of doing anything; not even those things he most desires to do. In the end, Stanley has been complicit in supporting Gabriel's mission, ostensibly because he had *no choice,* if he wanted to save his daughter.

Ultimately it is suggested that the only way Stanley's daughter can be kept innocent is if the Gabriels of the world are allowed to undertake their secret missions to defend the community. This is a stark contrast to the publicly supported and fought contest between the Emperor and the Gladiator. Both stories convincingly portray societies where politics and corruption are rife but the central characters of these stories fulfil quite different ways of acting, based on quite different codes of honour.

It is possible to argue that *Gladiator* is, if not mythic, at least in the realm of fairytale whereas many would consider *Swordfish* to portray a more likely outcome, a reality where the father will have to compromise himself, have to sully himself, and accept monetary reward instead of personal integrity. However, as the film has observed in its own discussion of film values, this is not in keeping with classical narrative standards. In canonical story terms, the need for justice to prevail or at least for the story to reveal wisdom that offers hope for the future, is considered essential to crafting of a good story.

This isn't to say that other kinds of stories cannot be told, and most certainly not all classically structured narratives achieve the imparting of wisdom. Nonetheless, in this case, no one wins in the sense of 'rightness' triumphing but the characters get away with it because on the one hand the artifice (as represented by Gabriel) has been successfully deployed and on the other, no one cares (as represented by Stanley's willingness to let himself be hoodwinked). So in this sense, the digital visual effects are thematically congruent and therefore a good use of effects; they serve the story, such as it is. They work to lull us with style and deploy novel bursts such as the airlifting of the bus in an attempt to suggest clever plot twists and a new take on the cliché of the car chase. And yet these effects do not succeed entirely perhaps because they so cynically - as the opening dialogue suggests - seem to convey the view that audiences are so conditioned by genre clichés and narrative traditions that they are easy to surprise and impress.

Thus it would seem that *Swordfish* is simply an example of poor storycraft (in spite of its regular distribution of whammos). There is no argument that the film's digital visual effects work to provide impressive imagery with photoreal representations of substantial acts of violence and demonstrations of physical destruction. However, as the team that created the graphics for *Tron* found, story overrides stylistic excellence and *Swordfish*, in spite of its highly stylized use of digitally enhanced action and violence, does not, from a scripting level, deliver a story with a clear thematic statement of its values.

A final example of how digital visual effects can be used to support the hero's role in film is *American Beauty*. Lester Burnham is not typically heroic. He is an ordinary person in an ordinary world. He has no supernatural gifts, no mentor, no adversary that he must face. Yet he has extraordinary insights into this world that transform it from venal, mundane existence into something of beauty.

The three acts of the film are marked out by an aerial shot and a voice-over by Lester. The dramatic tension is set up in the first narration when Lester reveals that in less than a year he will be dead. The equilibrium of Lester's world is characterized by a morning masturbation session in the shower that will be the highlight of his day. His wife and daughter hold him in contempt, his job is under threat from the scrutiny of a

new efficiency expert and he has the choice to write a job description for the position he has held for years or face termination.

His life changes when he, reluctantly, goes to his daughter's cheerleading performance and sees Angela - a moment that makes him feel like he has awakened from a coma. He then meets Ricky, the young dope dealer next door, who casually blows off his job, impressing Lester while they share a joint. That night Angela stays over with Lester's daughter and Lester overhears what it would take to win Angela's interest - muscles. Later, a fantasy of Angela leads to a masturbatory session which results in a confrontation with Carolyn, his wife. Lester finally stands up for himself and is changed by the experience.

At the beginning of the Second Act, Lester has a new goal - he wants to look good naked and so he makes more decisions - he starts working out and buys some dope from Ricky. He recalls the happiest summer of his life when all he did was flip burgers and get laid and so decides to quit his job, managing to extort a year's salary from the efficiency expert who, shocked by Lester's threats, is surprised to hear that Lester is 'just an ordinary guy with nothing to lose'. The Act unfolds revealing the tensions in all the character's lives and the changes in Lester, who is back to flipping burgers and spending all his time working out and getting high. His wife is having an affair, his daughter is falling in love, and Angela is disconcerted to find that her sidekick friend is the one in Ricky's spotlight.

At the top of the Third Act, Lester is transformed, he runs like a machine. He finds out that the object of his hopes - Angela - will be staying over that night and, due to the discover of his wife's infidelity, he is free to pursue his desires. Topping it all off, his new friend Ricky brings him some more dope. Then, just as Lester's fantasies all seem to be unfolding into possibility, in the background, the madness of others is seeking to undo him. There is a strange encounter with Ricky's father, Mr. Fitz, who misunderstands Lester's compassion in the face of Mr. Fitz's awkward sexual overture. Lester's response reveals to the audience how alive he has become, not only to himself but also to the pain in others, but this is not how it reads to Mr. Fitz. And just as this has occurred, Angela becomes available.

The love scene provides Lester with his final opportunity to choose what he should do - fulfil his desires or act with understanding and compassion for another. Angela reveals that she is a virgin and Lester's response is to give her the love she

needs. He holds her tenderly, unable to take advantage of her. He covers her nakedness, cooks her a meal and talks with her, discovering that his daughter has found love. Delighting over this revelation, and the realization that he is finally 'great', he is murdered.

The conclusion to the film is Lester's voice-over, where he confides to us his discovery (the wisdom) of the preciousness of life and the inevitability of death, and that somehow, this is ok.

Although Lester is considered by some to be an anti-hero, his moral choices and his discovery of the kind of wisdom that applies no matter how morally blurred the values of the day, make him heroic. His journey is to arise from his coma, to discover life and connect with those around him, to rediscover himself and to transform his life - his body, his relationships, and his perspective. In his forty-second year (the number novelist Douglas Adams has identified as representing the meaning of life), Lester Burnham, like Jim McConnell, steps from one world into the next, but he speaks to us from that last second, the one that stretches out like an ocean, and he comforts us with the insights he has gained, telling us not to worry, that someday, we will understand.

Lester's journey is supported by a major digital visual effects shot - the moment that transforms his life and awakens him to the journey. When he sees Angela for the first time, in his fantasy she does a sensuous striptease, opening her top and revealing, not tits, but rose petals. In this scene, in the First Act, it is revealed that Lester is not looking for mortal pleasure but transformative romance; for love and beauty. The petals spill out of her top, blood red - the colour of the door to Lester's house, the colour of his wife's roses that line the picket fence, the colour of the Firebird (the symbol of the phoenix - representing his new life), the colour of the roses in the vase on the table as Lester and Angela come together in the last Act, backed by the rainy night and the curtains that frame them in the act Joseph Campbell has called the meeting with the goddess in a mystical marriage - appropriately, she is his ultimate test.

The use of digital effects in this case is surreal. They are used to convey a poetic thought, symbolic material and to surprise the audience, not with voyeuristic pleasure of the young woman's breasts, but with a moment of lush beauty. In this usage the digital effects are spectacular; they do stop the narrative but not for thrill ride escapism, but for the sublime wonder needed for the truth of Lester's insights to have something against which to resonate.

The heroes in these examples are quite different. Luke Skywalker fulfils his aim to leave the farm and find adventure, ending on the path to greatness beyond everyday human powers. Han Solo steps away from his mercenary individual path and supports the needs of others. Jim McConnell is spared the emptiness of life without his partner and is elevated to Cosmic union. Aki Ross finds the answers to her dream but loses her lover so that he can finally see the truth about the power of the life energy in all things. Stanley Jobson types very quickly using a gift he doesn't truly understand to fulfil the dreams of a mass murderer in order to gain custody of his daughter and enough money to live independently. Maximus sacrifices his life to save his nation, rewarded for having fulfilled his duty by reunion with his dead wife and son. Lester Burnham learns how to live and understands how to die.

Confrontation with death is dealt with in these films. Obi-Wan's sacrifice, Woody Fisher's sacrifice, Grey's sacrifice, Maximus' sacrifice are all in the order of heroic offering up of one's own life for the benefit of a greater good. Lester Burnham's death is not a sacrifice in the same sense, but it is a representation of the ultimate truth - the death that comes to find us in our ordinary lives (albeit a considerably more dramatic realization than most of us face). For Stanley Jobson there is only the threat of death and the false death of Gabriel. *Swordfish* seeks to face moral issues with an each-way bet, a sophistry that does not dare to come to terms with either of the issues that underpin great stories: how to live wisely and how to die well. If Campbell and Bettelheim are right, stories work when they address how to live in the face of the inevitability of death.

Viktor Frankl, the author of *Man's Search For Meaning*, survived Auschwitz and became a renowned psychiatrist. He describes an epiphanous moment he experienced in the depths of that hell, the realization of "...the meaning of the greatest secret that human poetry and human thought and belief have to impart: The salvation of man through love and in love."[228] His experiences taught him that "... everything can be taken from a man but one thing: the last of the human freedoms - to choose one's attitude in any given set of circumstances, to choose one's own way."[229] He observed

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[228] Viktor E. Frankl, *Man's Search For Meaning*. (New York, NY: Pocket Books/Washington Square Press, 1959), p.57.
[229] Ibid., p.86.

that "...the sort of person the prisoner became was the result of an inner decision, and not the result of camp influences alone."[230] Frankl asserted that, "It was this spiritual freedom - which cannot be taken away - that makes life meaningful and purposeful."[231]

He discussed the value that can be achieved through creative work that expresses this truth but adds, "...there is also purpose in that life which is almost barren of creation and enjoyment and which admits of but one possibility of high moral behaviour: namely, in man's attitude to his existence, an existence restricted by external forces."[232] His argument is that, "Life ultimately means taking the responsibility to find the right answer to its problems and to fulfil the tasks which it constantly sets for each individual."[233]

His statements that, "No man and no destiny can be compared with any other man or any other destiny. No situation repeats itself, and each situation calls for a different response",[234] would resonate with many of those who write storycraft manuals but fall on deaf ears of those who read those manuals in order to use them as formulas. Where the stories in the case studies presented here work, they work because they have found a way to communicate something unique yet universal. Those that fall short do so because they have not told stories that connect, that show the characters facing their individual destiny with the courage to make the choice of what kind of person to become regardless of the external forces.

Frankl also notes that, "What man actually needs is not a tensionless state but rather the striving and struggling for a worthwhile goal, a freely chosen task."[235] He describes three ways one can discover meaning in life as: "(1) by creating a work or doing a deed; (2) by experiencing something or encountering someone; and (3) by the attitude we take toward unavoidable suffering."[236] These can also be considered three options open to the hero, three purposes that can be fulfilled in a hero's story. Thus the idea that a hero is a man who can convey how he would look when he shoots or is shot, is perhaps an expression of iconic imagery but hardly a definition that encompasses the range and depth of our cinematic heroes.

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[230] Ibid., p.87.
[231] Ibid.
[232] Ibid., p.88.
[233] Ibid., p.98.
[234] Ibid.
[235] Ibid., p.127.
[236] Ibid., p.133.

The greatest screen hero in the American cinema[237] fires a gun only once, and does so reluctantly. He does not kill the antagonist. He does not kill in a blaze of fury. He kills to protect his children and his community from a mad dog. His name is Atticus Finch and his heroic act is to be a man of decency and integrity in a world of blurred values.

The selection of Atticus Finch by the American Film Institute is an interesting choice. In a scene that appears only in the book, Atticus requires his son Jem to read to an elderly neighbour, a terminally ill morphine addict, who wishes to die free of her addiction. Atticus explains himself to Jem saying, "...I wanted you to see what real courage is, instead of getting the idea that courage is a man with a gun in his hand. It's when you know you're licked before you begin but you begin anyway and you see it through no matter what. You rarely win, but sometimes you do."[238] The tenor of this sentiment is reflected in Atticus' demeanour in the film and he is described by Miss Maudie to Jem when she says, "I simply want to tell you that there are some men in this world who were born to do our unpleasant jobs for us. Your father's one of them."[239]

Often heroes in films are depicted leaping from danger and undertaking quests in a vaguely thrill-seeking, apparently unassailable manner. Digital visual effects work to accentuate this, with composites of explosions and leaps allowing a perceptual realism that may not be reflected by a performance realism. To convey that the hero's task is a difficult and unpleasant one requires more than mere representation of physical danger. Some sense of the inner struggle and desires is necessary to give meaning to the encounter with danger.

In *To Kill A Mockingbird*, Atticus is confronted by the hateful Mr. Ewell and also by the mob. In the confrontation with Mr. Ewell, who insults him by spitting in his face, Atticus does not betray his dignity by responding. When he is faced with the mob, he is resolute but his fears are made apparent when his children run to his side and are thus also facing danger. Atticus is a man who will readily face danger himself but when his children are at stake, his fear for their safety makes him vulnerable. Then his values save him. His daughter - Scout - acting on what he has taught her in the opening scenes of the movie, is polite to one of the men in the mob. This simple act, reminding him of

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237 American Film Institute, June 2003. News broadcast, CNN, 13 June 2003.
238 Harper Lee, *To Kill A Mockingbird*. (London: Arrow Books, 1997), p.124.
239 Ibid., p.237.

the relationship she has with him and his son, (a relationship that has come about solely because Atticus has demanded that she act with the grace and dignity he himself possesses), is all that it takes to turn the mood of the mob.

If there is doubt about the quality of New Hollywood films that rely upon exaggerated images of danger to evoke emotion maybe it is because such images, while visually stimulating, do not compare with resolutions that arise out of the plot itself, as Aristotle has described it. In the scene with the mob in *To Kill A Mockingbird* there is a resolution that has been sown and tended throughout the story without being obviously set up. Yet when such a resolution happens it rings true. Similarly *Gladiator*, *Star Wars*, and *American Beauty* are crafted with a fine sense of resolutions that emerge from the plot and the characters - to greater and lesser degrees, depending on the conventions that fit with their genres.

As these case studies have demonstrated, digital visual effects can serve narrative purpose but even when they serve the narrative, they are as limited by the script as any other major creative element. There are films that have brilliant cinematography, amazing production design, astonishing performances, or clever editing yet lack story substance. Just as an aside, it is interesting that these films are rarely described as instances where the production design or the cinematography have become the reason for the films and that they are, by their usage, detracting from the film. Yet digital visual effects, perhaps because they comparatively new or often used to market a production, do get considered in this way. However, as the discussion thus far has shown, the examination of effects usage would suggest instead that poorly crafted scripts cannot be overcome with technical excellence alone.

There are many films that follow the whammo approach to filmmaking and it is perhaps in relation to those films - especially if they draw upon digital visual effects to pack the punch - that the argument is made that a new narrative form is being developed. However, even the most flimsy of these films seeks to establish a narrative premise that justifies the events and while they may not do so with excellence, they attempt to conform to the classical narrative structure. Their use of effects - even when they are spectacular - are often there to represent: spectacularity that is part of the story; spectacularity that is about the diegetic world (as in the glory of Rome); spectacularity that exaggerates violence and elevates it; and spectacularity that stops the narrative not

necessarily to celebrate the technology or draw attention to it but to let the deeper thematic material resonate.

There is another factor in the presentation of the hero that has been influenced by digital visual effects - the female hero. One need only compare the So/ummers girls to see the difference that can be achieved with wire removals and composites. Jamie Sommers - The Bionic Woman - was a creature of technology. Her machine-enhanced, man-made powers gave her extraordinary physical prowess, most usually demonstrated by slow-mo and editing, with a few sound fx to indicate that she was using her superpowers to overcome a villain.

Buffy Summers, twenty-five or so years later, is a much more convincing warrior. Supernaturally fitted with the destiny of being The Chosen One, she has the duty to protect the world from vampires, demons, and a variety of other sinister forces, (including a Government-funded mad scientist). Hers is a power granted by the Universe, part of the 'natural' order of things, something that is her birthright.

The fight sequences these two women engage in are demonstrably different. Jamie Somers uses karate chops and super-hearing skills to defeat her antagonists. Buffy is typically described as 'kicking ass'. She uses all manner of martial arts, gravity defying leaps, wall-cracking physical force, and convincing demonstrations of superior strength to overcome evil from any dimension - earthly or otherwise. While her physical feats usually fall somewhat short of those of say, Trinity in the *Matrix* series, she is an example of the new female warrior. She can fight like a man - better really - and she has physical power that allows her to take on feats of extraordinary danger. Buffy is one of many new female fighters on the screen. These women have one thing in common, they are not women who will struggle futilely when tied to the railroad tracks.

The reason these female warriors are able to fight with such impressive force is that they do so with the benefit of digital visual effects techniques that allow a representation of performance beyond what is physically achievable. Admittedly, their male colleagues also enjoy this benefit, but the representation of male physical strength is as old as story itself. Great acts of physical strength are expected of male heroes. Great acts of physical strength are new qualities for females unless they are achieved by supernatural effect - and even then, it is not common practice for this power to be demonstrated by having the female become masculinely active.

Barbara Paul-Emile raised the matter of the female warrior in her paper, "Warriors of the Spirit: Women's Mythic Inner Journey". [240] She observed that the qualities of the hero/warrior are not traditionally considered the attributes of women. Yet she argues that the *character* qualities are not different, that women must also be strong, show courage, fortitude, endurance and integrity. She asserts that these are *human* qualities, not solely those of male heroes. It is her argument that the hero must demonstrate alignment with who they really are or, as Lester Burnham stated, have the ability to look good naked - spiritually naked.

While the emphasis has often been on physical nakedness for women portrayed in film, the new physical prowess demonstrated by female cinematic heroes can be looked upon as a fight for a different kind of regard. In *Crouching Tiger, Hidden Dragon* there are three female roles - the young woman who faces the choice between love, marriage or adventure as a warrior; the older warrior woman who has lived a life of duty and honour which is compromised by the young woman's theft of a sword entrusted to her care; and the nanny who has trained the young woman and who is the arch-rival of the warriors the young woman most admires. Each of these women has extraordinary physical powers. They are equal to or better than the men they face and the story honours their moral dilemmas and the consequences of their actions. Their nakedness is emotional, their journeys - although demonstrated by physical acts - are spiritual.

While most of the new female warriors do not enjoy scripts any better than those offered their male counterparts, a film like *Crouching Tiger, Hidden Dragon* demonstrates that female heroes can be crafted without merely being female versions of standard action-hero fare. However, in most cases, the physical prowess digital visual effects offer female characters is deceptive, not only because it is digitally altered performance, but because, much like the 'jobs but not equality' of the corporate and corporeal world, the images of power demonstrated are often unachievable. The ideological intents of these displays can be looked upon with suspicion and it is hard to argue against the inherent voyeurism offered when almost inevitably, these women warriors are fighting in figure-hugging, flesh-revealing outfits. When a female character

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[240] Barbara Paul-Emile, "Warriors of the Spirit: Women's Mythic Inner Journey", paper presented at the 2004 Hawaii International Conference on Arts and Humanities, January 8-11, 2004.

fights in a mini-skirt and four-inch heels comment is being made about expectations of her that are different from James Bond fighting and emerging with his tuxedo unsullied. Both represent fantasy images but where a man can emerge from a fight unruffled and in cool self-possession, a female is expected not to lose her sexual appeal even if she is brawling in the street.

Two female heroes that do seem to stand on their own power are the characters of Sarah Connor in the *Terminator* films (Linda Hamilton) and Ripley from the *Alien* franchise (Sigourney Weaver). In both of these cases, these women possessed physical stature: Linda Hamilton's transformation from spunky young woman on the run to hard-bodied mother/protector fighting machine and Sigourney Weaver's height and demeanour fitting perfectly with her role even though it was originally written for a male. As these women do not display extraordinary feats of physical strength exaggerated by digital visual effects, they present convincingly in their roles.[*] Furthermore, there are deeper motivations for their acts and this speaks to the emotional and spiritual aspect of the hero that Barbara Paul-Emile has described.

Thus, the real issue is that, whether male or female, a hero must be able to achieve more than physical prowess and a close escape from danger, which is the primary quality provided by digital visual effects in most action films. And in those cases it would appear that digital visual effects are regularly used to enhance and prop up action sequences in otherwise poorly developed stories. Yet this is not the limit of their contribution or potential, as the case studies have shown. In the hands of a good storyteller, digital visual effects can add enormous expression to a film, can extend its diegetic world and heighten drama, but only if the drama is there to arise out of the plot as a natural consequence of the decisions made and actions taken by the characters.

If a character is beamed aboard a spaceship and transported to another world, the hero's journey requires that we benefit from this sacrifice. The individual path must return to the community - if not in physical terms, at least in terms of a legacy that will endure for the benefit of others. No amount of photoreal compositing can make a fall from a great height the leap of faith and self-achieved submission needed to make a hero worthy of our admiration. Only great acts of character can earn this respect.

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[*] With the exception of Ellen Ripley's performance in the fourth film in the series. This performance is discussed in detail in a later chapter.

The Teller and The Tale: a case study of a story three times told

"Never trust the teller, trust the tale." D. H. Lawrence[241]

So far the focus has been on the broader issues of the narrative structure under discussion, outlining the development and scope of the technology, and examining how it has impacted upon the role of the hero. Consideration now turns to tracking variations in the narrative structure of a specific story and analyzing whether the incorporation of digital effects has materially altered the story itself from one version of the tale to another.

In this case study the narrative structure of the novel, *The Haunting of Hill House* by Shirley Jackson[242] will be compared with two film adaptations. The first adaptation is Robert Wise's 1963 production of *The Haunting*.[243] This is a classical Hollywood film shot in black and white and uses only the barest of traditional special effects. By comparison, the 1999 Jan de Bont remake, also called *The Haunting*[244], makes extensive use of the most technically advanced digital effects available at the time of production.

Detailed synopses of these three versions are contained in Appendix 1 identifying the extent of the variation that occurs between the tellings of the tale. They provide fairly lengthy descriptions of the narratives and, where appropriate, comment is made on the significance of the differences and, in some instances, the flaws in the structures that arise from the alterations made to accommodate the convenience of dramatic tension over internal story consistency.

The original novel, published in 1957, is a slim volume that draws upon a familiar story structure. A haunted house tale, it conforms to the common attributes found in Bordwell's canonical story format. Across the three versions, a group of strangers is brought together in an old house with a bad reputation. There is, in at least

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[241] David Bordwell, *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema*, p.210.

[242] Shirley Jackson, *The Haunting of Hill House*. (New York: Penguin Books, 1984).

[243] Robert Wise, *The Haunting*, an MGM film, 1963.

[244] Jan de Bont, *The Haunting*, a DreamWorks film, 1999.

two instances, a sinister history of previous habitation and the group is comprised of individuals selected for their traits and past experiences rather than joining the project for professional reasons. In all cases, in charge of the group is a man of science whose researches are considered unconventional and whose goal is to prove something as yet to be confirmed by science. Upon arriving at the house, the strangers meet, form tentative relationships and then find themselves confronted by events they cannot explain. The sense of danger becomes palpable, escalating until it ends tragically.

In this sense, it could be argued that the lack of a happy ending would suggest that the story does not meet the requirements of the classical Hollywood cinema. However, classical Hollywood films do not stipulate *only* happy endings - even though they may predominate. What is required is that the story plotlines be resolved, that the fabula be complete, that it make sense. It is also, to be hoped, that regardless of an unhappy ending, the film's thematic premise has been expressed and that it resolves in the communication of either hope or wise insight.

Hollywood's adaptation of well-regarded novels is a practice common from its earliest days.[245] In this instance, as with most adaptations, changes were made in the first film version and again in the 1999 remake. Across the three versions certain factors are consistent for each telling of the tale. The house, built by eccentric Hugh Crain, is the setting for a scientific experiment. Eleanor, homeless after eleven years dedicated to looking after her recently deceased mother, arrives before the others to find the gates locked. She is passed in through the gates by Dudley, the caretaker, and meets his wife and then the next guest to arrive is Theodora. Mrs. Dudley, in each version of the story, introduces the guests with a warning that they will be alone and beyond help from outside, and uses the key phrase - 'In the night. In the dark'.

Eleanor's relationship with Theodora is always a curious mix of attraction and repulsion and it is Theodora who is most aware of Eleanor's moods and thoughts. The events in the house are so apparent to Eleanor that she feels she is the focus of the house's intentions and her engagement with and, indeed, surrender to the house is such that the others fear for her and insist upon her leaving. Eleanor never leaves the house.

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[245] Janet Staiger, "The Central Producer System: centralized management after 1914" in David Bordwell, Janet Staiger, Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960*, p.131.

In every version of the story, she dies and remains there, in the place she came to believe she truly belonged.

It is possible to read the Jackson story at many levels and - at the most basic - it can be interpreted, in strict story terms, to be a tale about a house that genuinely harbours unfortunate qualities but, in this instance, the experience of Eleanor is that of a mental breakdown. Even though Theodora is witness to the most distressing of unexplained events, Eleanor's behaviour and final act can be understood as having been instigated by her guilt about her mother's death, her terror of a future that cannot offer even the most reasonable prospect, and her reliance upon fantasy proves to be her undoing. In this way, the story appeals to two resolutions; her death can be seen as an act of self-destruction or a result of the house's malign intentions.

The novel's sub-texts offer a mine of possibilities for psychological, literary and visual interpretation. In keeping with the traditions of the genre, there are rich cues in omens and symbols: the woman who offers to pray, the field of oleanders, the scene in the diner before Eleanor goes up to the house. These details demonstrate the author's mastery of her craft. The parallels between the fathers and daughters, the reference to Eleanor's childhood as having been a sunny idyll until her father's death, the timing of which is closely related to the mysterious poltergeist rain of stones, and so on, are skilfully woven into the text and only partially explored in the film adaptations. There is, of course, a degree of excision necessary for any film adaptation but the fundamental changes to story detail have important impacts upon the versions that follow.

Robert Wise, who undertook the first adaptation, met with Jackson and discussed her intentions, changing the title based on her own suggestion.[246] He remains faithful to the novel's casting of Eleanor as the hero - in the sense that it is her story and author Bryan Senn has gone so far as to suggest that, "...recognizing the self-destructive path she's taking, Eleanor sees herself as having no alternative and so intentionally steps into the lion's den."[247] In effect, Senn is describing the heroic act of leaping into the void, accepting what will befall, the self-subjugation of the hero.

Yet this act is not one of sacrifice of a hero on behalf of the community but an act of one whose guilt takes her beyond redemption and union with community.

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[246] Bryan Senn, "The Haunting" in Gary J. and Susan Svehla, eds. *Cinematic Hauntings.* (Baltimore, Maryland: Midnight Marquee Press, Inc., 1996), p.73.
[247] Ibid., p.80.

Eleanor's sacrifice of her youth has culminated in a death for which she feels inescapably guilty and she is unable to take up her life with the faith that she has fulfilled a duty and is now free to begin again, fresh and innocent. This troubled inner turmoil is the true essence of the story, the haunted house and the fellow members of the occult investigation are simply the form that allows the complex examination of a troubled soul. Robert Wise deals with this inner turmoil by maintaining Jackson's narrative voice, giving access to Eleanor's troubled thoughts and false perceptions.

There are many touches of virtuosity in Robert Wise's handling of the first film version of Jackson's novel. The casting allows for parallels to be drawn - the similarity of the young Abigail's appearance to that of Eleanor's, the likeness between the actors playing Hugh Crain and the Doctor. The crucial relationship of fathers and daughters is also dealt with by shifting Eleanor's romantic hopes from Luke to the Doctor. The Doctor's marital status and age present him as the distant and unattainable figure of the father, deepening the psychological forces at play within Eleanor's guilty conscience. She *has* killed her mother, the act traditionally associated with the childish desire to obtain the father. This guilt and the fear she harbours that it will be revealed and condemn her, drive her to respond to the experiences in the house in a way that ultimately sparks her self-destruction.

The camera work and lighting are also used to disorient and destabilize perceptions thus feeding into the assertion that the house has been built at odd angles to create constant distortion. In the opening shot of Hill House a light comes on, showing there is something in there while the narrator states that the house is bad. Wise used infra-red film to capture the exteriors and give them a disturbing, unnatural look.[248] He also negotiated the use of an, at that time, experimental 28mm lens to enhance the distortion of images.[249] The effect of climbing the spiral staircase was achieved with a specially built railing to accommodate a small dolly capturing footage that was then reversed to create the disorienting images for one of the most powerful scenes.[250]

The foregrounding of statues and the implication that they represent past inhabitants is used effectively as are the moments when the occupants are under attack. The subtle use of special effects, the doors that close of their own account and the one

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[248] Ibid., p.92.
[249] Ibid.
[250] Ibid., p.94.

that bulges during the siege in the parlour, are practical effects that are used sparingly but with excellent timing. The motif of the mirror, which in 1963 was not such a well-worn device, is used to show Eleanor's deterioration - the timid arrival, the embrace with Theo in the bedroom, the distraught woman under attack and finally, the shattered image at the end.

This last image symbolizes Eleanor's psychological break, the shattering of her fragile ego. The subsequent shot, where she walks away from the others and they fade to black, with only Eleanor and her thoughts revealed, is a significant moment. It demonstrates her complete separation from them, a state of having stepped beyond their reach, and their help. In a novel this state is more easily expressed. In a film this kind of inner turmoil is particularly difficult to convey but is an important factor in portraying the complete characterization of the hero, especially if that hero is a tragic one.

All of these means are used to construct a tight version of the story with fairly minor variations to the original. The truncating of the story, such as the cutting away of exterior scenes, for example, the garden path experience between Theo and Eleanor, is replaced by the scene on the verandah where Eleanor remarks on Theo's sexuality. Indeed, the introduction of the sexual tensions between Theo, Eleanor and the Doctor, is probably the most significant variation.

In the original novel, Theo is quite affectionate to Eleanor which leads to Eleanor's mixed reaction, but there is no romantic relationship between Eleanor and the Doctor. As mentioned earlier, if there is any suggestion that Eleanor harbours romantic illusions, they are directed at Luke and it is he who is on hand to save her on the verandah, on the path at night, and on the staircase in the novel. In this film, the Doctor is the one to come to Eleanor's rescue and these moments are used to portray intimacy and Eleanor's growing infatuation.

Further, in the novel, the Doctor is open about his marital status whereas this information is kept from Eleanor's character in the film, but made known to the audience in the early scene with Mrs. Sanderson. The diminishment of the sisters' role in the story is another, but not crucial factor of difference, although the fight over the property in the novel allows the dual themes of the negligent companion and the relationship of the sisters to be reflected in the book's character of Eleanor. In the film, the sexual undercurrents and the role of companion, highlighted by Theo's toast and the climb up the spiral staircase, allow more limited but still effective comparisons to be

drawn. This is made apparent by Theo's comments about Eleanor's feelings toward her mother and the confession Eleanor makes to the Doctor.

The change in the Doctor's wife's role is also significant and appears to be constructed to strengthen the idea of sexual competition and to introduce the psychological subtext of desire for the father; ultimately the lover that Eleanor's journey brings her to is the house, where she can remain innocent and apart from the physical world, in a childlike state not unlike that kept by the spinster Abigail killed by the companion.

In considering the suggestion made by Kristen Thompson that lead characters' goals change and that these changes reflect turning points in the story it can be read that Eleanor's goals move from wanting to escape her past, to wanting to win the Doctor's affections, to wanting to stay at Hill House, the latter of which she achieves. The last two goals run parallel for some time as Eleanor struggles with her fear/attraction to the events in the house and her need to be cherished, culminating in her making a choice at the climax of the film, when the revelation of the Doctor's marital status forces her to surrender to the house. In effect a decision to remain a child and reject the necessity of accepting adult life; the only means of avoiding which being death.

The other aspects of the variations in the story from novel to first film adaptation are not extraordinary. The reduction of quiet moments where the characters have respite from the events in the house, the reduction of numbers of characters and the focusing of characters' roles are common practices made for practical as well as storycraft purposes. Eleanor's journey to the house, a largely internal process which is reverse described at a number of points of crisis in the novel would have made for a slower pace in the film's adaptation. The details of the third wife's death would have added nothing of material advantage to the reputation of Hill House, and the excision of the sister's role leading to a stronger alignment of Eleanor with the companion works well to reinforce her guilt about her mother's death. The reworking of the Doctor's wife's role, the dropping of the scenes with Arthur and the planchette also help keep the tensions and the pace at optimum levels.

In summary, Wise's version is a mature and considered adaptation which draws upon the deeper psychological matters that underpin the novel and which respects the structure and premise, using it to advantage. His use of effects is similarly constrained but effective, showing mastery of psychology and cinematic craft. He does not rely

upon shock tactics or extensive chase and action elements to add pace, but slowly builds the tension and the stresses within and between the characters until a climax arises out of the events themselves. His camera placements and use of optical techniques (such as the fading out of the other characters when Eleanor walks away from them), support the narrative at crucial moments, revealing inner states of significance for the story's action and interpretation.

Jan de Bont's 1999 remake, although sticking to the broad outline of a haunted house tale has made substantial alterations to the story, even though the credits insist that it is based on the book by Shirley Jackson. The entire history of the house has been changed and the characterisation of Eleanor is altered from unstable victim to self-possessed, crusading martyr. The introduction of the Doctor's deception is also a curious twist that is never resolved and there is absolutely no suggestion of romance, except in the most tangential way through Luke's attraction to Theo. The references to Theo's sexuality are made when she is first introduced but have no further bearing on the story and certainly do not contribute to sexual tensions that underpin Eleanor's motivations.

In the October 1999 issue of *Cinefex,* it is stated that "Jan de Bont considered the house itself - imbued with the spirits of both Crain and the murdered children - to be his movie's main character."[251] Interestingly, this film foregrounds the house less than either the novel or the previous film. Where the previous film and the novel made it clear that Hill House was a bad house - an abstract force of evil, the exterior shots of the house in the de Bont film are misty and benign. The reaction of the characters to the house are positive instead of ones of absolute and immediate dislike as in the earlier versions, thus losing the powerful psychological aspect of characters trapped in a deadly place. The focus is instead placed squarely on the character of Hugh Crain and his evil deeds.

Further, the image of Hugh Crain, and his reinvention as a child murderer, is presented as the antagonist against whom Eleanor must pit herself. Another significant change is that Eleanor is no longer guilty of neglecting her mother's needs on the night of her death. Gone are the links between the house's history of a neglected aged spinster/child deceived by a lustful, uncaring companion whose guilt drives her to

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[251] Christine Sandoval, "The House That Roared", in **Cinefex** 79, October 1999, p.46.

suicide. Reduced to insignificance are the themes of sexual desire, worldliness, and innocence that can only be preserved by death.

Where previous versions have allowed the view that something was wrong in Hill House to work alongside the idea that Eleanor's guilt and fear drove her to her own destruction, this last version does not offer that latitude of interpretation. Certainly there are many scenes where only Nell is privy to the supernatural events, such as the appearance of the ghost children and the image of the first wife (not the companion), hanging in the conservatory, but there are other events - such as the stone giant's attack on the Doctor - which make explicit the physical the forces at work in the house. Yet it is made clear that these forces are driven by Hugh Crain's evil, not an inherent evil built into the very fabric of the house, as both the novel and the previous film assert.

It is this literal, confrontational approach based on an anthropomorphized spectre that is fundamental to the difference between the three versions. In altering the storyline so profoundly, the de Bont version is forced to use the digital effects to realize action and events to keep escalating the story's drama. This is a story structure problem given great consideration by Kristen Thompson where she addresses the trend toward escalating crises and climaxes in action and thriller films.[252]

Certainly this version of the story moves as quickly as possible to reveal supernatural events and then works to increase the pacing by adding more and more threatening and overt attacks on the group. The gentle approaches of the ghost children that lead to Nell finding out the truth are replaced by the attacks of Hugh Crain which from the moment Nell sees the dead Mrs. Crain, are made with increasing ferocity.

Nell runs from this scene to the discovery of the skeletons, then to the attack by the nursery door and on to the frost face in the window. She then runs from this to the scene at the top of the iron staircase - the purpose of which is left unexplained and cannot be tied to her parallel role as a guilty, suicidal companion. Even more significantly, the scene is altered from previous versions by *her saving the Doctor*, again characterizing her as a strong, self-possessed woman.

Left alone in her room she is then attacked by the bed and the ceiling. Even though the group escapes from the house following this attack, their efforts to leave are frustrated by the locked gates then Luke's being trapped and nearly killed in the car. The

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[252] Kristin Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique*. p.245.

return to the house and the second escape provide another roller-coaster of action sequences - where doors slam on them, Luke is decapitated, bones fly out at them from the fireplace, the portrait of Hugh Crain attacks the Doctor and Theo, the statue of a griffyn attacks Nell, the monster image of Hugh Crain emerges from the portrait and attacks, and then the passage into the gates of hell. This chain of action scenes provides an excellent example of Thompson's assertion about escalating final acts.

Thompson has commented that, "An imbalance induced by a lack of information and a superabundance of action runs counter to the guidelines of established classical storytelling."[253] It is suggested that, in this instance, these escalating events in the final act are not a challenge to the structure of classical storytelling so much as a failure to achieve its standards. For want of real dramatic tension driven by character development and psychological motivation, the story relies upon racing from one thrill-ride scare to another. When Luke is decapitated, the others are barely affected. When Hugh Crain reveals himself, he is unable to do more than rage and swirl in menacing confrontation like a fairground horror train ghoul.

The selection of this film as an example of digital effects usage was first made because it seemed to conform exactly to the criticisms that effects are driving the stories instead of being used to tell stories well. However, closer analysis of the film revealed that the weaknesses were inherent in the script and stem from the decision to make substantial changes to the structure and characterizations of the original novel. In my view, the film would have been just as limited had traditional effects, or judicious cheats through camera and editing techniques, been used.

As the Robert Wise version demonstrates, special effects can work powerfully in a well crafted story. What differs in the 1999 digital effects version is that the effects are used to realize a poorly constructed denouement and resolution. It can be argued that the changed focus of the story led to an inability to go anywhere but a direct, face-to-face confrontation by Eleanor with the animated image of Hugh Crain.

This in itself presents one of the problems faced by digital visual effects. The creation of computer generated characters is one of the most hotly discussed issues. Questions as to filmmakers' ability to create a sufficiently convincing character are still open to debate. So far, successes have largely been in the area well-proven by traditional animation. Yet Woody & Buzz Lightyear (*Toy Story*), Shrek, Sully

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[253] Ibid., p.247.

(*Monsters, Inc.*) and the squirrel in *Ice Age* owe more in their appeal to Mickey Mouse, The Little Mermaid and Bugs Bunny than they do to Aki in *Final Fantasy* and Jah Jah Binks in the *Star Wars* epics.

In the classical Hollywood film, as Kristen Thompson states, "...characters are expected not only to motivate causal action but to do so in an engaging way."[254] Ian Brown, 3d Animator and CG artist, has commented that it is extremely difficult to create a believable CG character that our brains will respond to as truly frightening.[255] Certainly the visual representation of Hugh Crain showed the range of interactions that make the credibility of, and response to, the character difficult.

In the first instance, there is always a problem in seamlessly blending the live action elements (the environments and the actors) with the CG creation. They are created in different spaces (one the physical world and the other the world of data) and the uniting of them in digitally enhanced 2d space requires subtlety and planning for effective storytelling. The main issues are the realism, credibility, and interactiveness of the images. It is crucial that there be no sense of the elements having originated in separate realms and sensation that they are only somewhat combined, that is, present together, in the final image. Verisimilitude, in this case, is absolutely essential for credibility and suspension of disbelief. There is simply nothing to be achieved in an attack by a force observably unable to connect with the characters at risk.

Another, consideration is that it is possible that at some level our cognitive skills are able to track and measure minute details that keep us from being fooled by digital creatures and certainly by their representation as 'present' and real. Thus, by choosing to represent the forces of Hill House with a physicality, de Bont had to work with a bogey man image made apparent instead of the quiet, creeping dread of something that sneaks up and can be seen only from the corner of the eye - the approach used in the first two versions of the story.

As Joel Black has observed, "the graphic imperative in present day cinema whereby everything must be shown and as little as possible left to the viewer's imagination"[256] forces filmmakers into tighter and tighter corners. If they then construct stories that are going to test even the highest technical standards of the day, the story

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[254] Ibid., p.14.
[255] Ian Brown, in an interview with the author, 20 May 2002, Sydney, Australia.
[256] Joel Black, *The Reality Effect: Film Culture and the Graphic Imperative*, p.211.

will suffer if the preservation of the diegetic world relies upon perceptual and cognitive verisimilitude and *both* of these requirements are not achieved. At the moment of crisis, it is imperative that the danger to the protagonist be accepted as genuine, inescapable and potentially fatal.

By comparison, the realization of Gollum in the *Lord of the Rings* series has elevated the degree of acceptance of fully digital characters and the morph of his transformation from hobbit (portrayed by an actor) to corrupted lost soul assists in audience acceptance of the CG performer. Further, he is beautifully realized, using motion capture, animation and, in most shots, verisimilitudinous compositing. Another good example of CG character animation is Gollum's ally Shelob. The CG spider that attacks Frodo is also impeccably married to the live action performances demonstrating perfect dramatic timing so that when the spider bites, those members of the audience not already squirming in their seats are given good reason to jump with surprise as the timing of the action is matched between live and CG performance in a way that is innately consistent with a physical attack.

However, in the case of the de Bont literalization of the Hugh Crain character, the degree to which this level of timing and matching with live action is achieved, is questionable. This poor visual representation is further weakened when Eleanor defeats of the apparition simply by direct confrontation and a speech about it 'all being about family'. The monstrous Hugh Crain, it would seem, simply needs a good telling off to be overwhelmed and destroyed. Thus, even though the apparition does pull Eleanor into the doors with it, her sacrifice and death are not perceived as *its* triumph, but *hers*. The confrontation is almost token and the physical threat of the monster is secondary to the need to defeat him morally. The stake is the release of the children's souls from purgatory, not Eleanor's life. Thus, all the action scenes that have preceded this final act are of almost superfluous value.

Making physical the imagined is one of the great abilities of the computer generated image, and as the *Lord of the Rings* example shows, this can work effectively within story. However, in the de Bont version of *The Haunting*, the CG sequences do, as Martin Brown has noted, create a modality shift in the narrative. The digital effects are quite distinct from the live action sequences and the piling on of them at the end (to meet the demands of the script's structure) serves to make the events in the house seem less real than needed to inspire full engagement with the fate of the protagonist.

Another factor that worked against the script and its reliance upon digital effects is that by making literal and graphic the force in the house, the filmmakers insist on an acceptance that the supernatural events are real and not psychological. It is possible, as the Robert Wise version offers, to present the events at the house in such a way that the audience can resolve the fabula in keeping with a belief system that they support: mental breakdown versus supernatural force. In the 1963 version, Luke's suggestion that Eleanor acted deliberately is as strongly supported by the narrative as are the supernatural theories proposed by Theo and the Doctor. This clever support of the alternative approaches is quality classical storycraft that allows for a resolution of the plotlines by a wide demographic.

Whereas the de Bont version with its goal-oriented Eleanor may appear to be in line with contemporary classical Hollywood cinema, (she wants a new life, she goes to Hill House, she fathoms there is a mystery to be solved, she discovers the truth and acts to save children from an eternal purgatory of torment), its straightforward conformity does not suffice. It insists that the house and the events that unfold can only happen one way and the graphics are used to make this 'real' instead of allowing that they may be possible. Much is made of Hollywood classical cinema depending on believable stories - albeit exaggerated versions of them. In this instance, the literality works against credibility when it was reaching to enhance it.

The Robert Wise version, certainly at its time, pushed the boundaries of the classical cinema. As noted above, the story does not have only one resolution, nor a happy ending. It uses extremely unconventional (for its time) camera angles and lighting but they are subordinate to narrative purpose and their usage occurred at the edge of one of Hollywood's adaptive cycles where the influences of the avant garde and art house filmmakers were incorporated into mainstream cinema. Furthermore, the story changes are effective, the character motivations are clear and plausible, and the story follows a strong cause-and-effect structure that is well-paced, convincing and generally credible.

Thus, in the final analysis, it is the story structure changes that impact upon the quality of the 1999 film more than the digital effects. There may be any number of reasons for making changes to a story - as has been shown in the first adaptation - but many of the changes made in the 1999 version are hard to rationalize.

It is possible that the issue of Eleanor's guilt about neglecting her mother was removed from the story because it was felt that contemporary audiences would not relate to the character. However, removing this aspect made much of the backstory about Hill House irrelevant thus motivating the need to create another, new reason for what happens in the house. The creation of the child murdering Hugh Crain is one that would resonate with a contemporary audience but the linkage of Hugh Crain to Eleanor forced the tenuous details such as the mysterious phone call, the necklace, and the identical room in the house which present as rather obvious expositionary devices that prove almost nonsensical upon examination. Further, the removal of Eleanor's guilt, the issues of absent fathers, and daughters incapable of finding a place in the real world, is a removal of much that the first and second versions have benefited from in thematic and the related symbolic value.

The devices of the child guides, the photo album, and the hidden room all require an audience to suspend disbelief from a great height. The alterations to the words on the wall serve only to make even more explicit the single line of action. The inclusion of the mystery hand-holder is wasted when we know Eleanor is alone in the room and the comment that the house is watching her seem tokenistic inclusions occurring so late in the chain of events as they do. Having her climb the staircase without any clear motivation, and without the tension of seeing her make her way up the dangerous staircase, suggests the scene may have been included for the sole purpose of putting the Doctor at risk, and having a reason for his cell phone to be destroyed. It is a wasted scene as, although Eleanor's saving the Doctor demonstrates her strength, the next scene shows her bedridden with distress, almost - in this case, uncharacteristically so - suggesting again that her being bedridden is merely a device to set her up for the attack in her bed.

All in all, these instances reveal the impact of the departure from the original story and demonstrate the effect of taking away most of the dramatic moments and themes that work in both the novel and the Wise film. As to the impact of the effects themselves, it is fair to observe that their usage demonstrates a poor understanding of what CG does well. The literalness of the imagery makes the threat more of a cartoonish, thrill-ride bogey-man than a real peril. Nonetheless, the representation of Hugh Crain and the other supernatural events occur because they are *events* structured in the script not because the *effects* are constructed in this way. This, combined with the

escalating climaxes, meant the resolution - built upon fairly slim motivation and coincidence more than classical cause-and-effect - was relying upon imagery that is not convincing for *the purposes of this story.* It would appear that the digital effects usage in this film supports the argument that if you want to have good effects, you have to have a good script.

It Goes Like This: the relationship between digital visual effects and genre

When a story evolves and becomes a type of story, it is often considered a genre. Once again, there is a gulf between the filmmakers' approach to defining genres and the academy's approach. Genre theory is one of the most extensively developed areas of film studies. Although there are numerous texts addressing the subject and the breadth of the discussion is quite vast, in summary, genre is often defined in terms of "...repeated plot motifs, recurrent image patterns, standardized narrative configurations, and predictable reception conventions."[257]   According to Tom Ryall, "Most critical writing, however, has concentrated on historical genres, on groupings of actual films inductively linked on the basis of common themes, styles, and iconography."[258] He makes the further distinction of those analyses that: define the generic system; concentrate on individual genres; or analyze specific films relative to genre categories.[259]

These generic categories and the various studies that seek to define them, identify the social, ideological and cultural issues that arise from within the films that conform to the categories, and reflect upon the historical implications of those categories that have enjoyed particular favour at certain times, are a quite different approach to that of the marketplace. In the marketplace, genre is a categorization aimed at securing a kind of deal, demographic and publicity. Indeed, Steve Neale has observed that the "industrial and journalistic labels...offer virtually the only available evidence for a historical study of the array of genres in circulation or of the way in which individual films have been generically perceived at any point in time".[260]

Another approach to the matter of genre, is that of the writer. When Robert McKee talks about genre, he identifies those qualities a scriptwriter needs be aware of to develop a good script that will fulfil the audience's expectations for the kind of story

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[257] Rick Altman, "Cinema and Genre" in Geoffrey Nowell-Smith, ed., *The Oxford History of World Cinema*. p.277.

[258] Tom Ryall, "Genre and Hollywood" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies*, p.329.

[259] Ibid.

[260] Steve Neale quoted by Christine Gledhill, "Rethinking Genre" in Christine Gledhill and Linda Williams, eds. *Reinventing Film Studies*. p.224.

the script is seeking to tell. In his view, genres are "a system that's evolved from practice, not theory, and that turns on differences of subject, setting, role, event, and values."[261]

This view is supported by Thomas Schatz in his study, *Hollywood Genres*. He observed that a particular film's popular success will lead to its emulation by others, creating a style or generic pattern. He observed, in realization of the influence of the marketplace, that, "Film genres are not organized or discovered by analysts but are the result of the material conditions of commercial filmmaking itself, whereby popular stories are varied and repeated as long as they satisfy audience demand and turn a profit for the studios."[262]

Schatz has also noted that "our familiarity with any genre seems to depend less on recognizing any specific setting than on recognizing certain dramatic conflicts...",[263] an observation that is consistent with Ronald B. Tobias' scriptwriting text *Twenty Master Plots* which outlines story structures based on the nature of the conflict and argues that these basic structures form the foundation of classical narratives.[264] Schatz considers the "identifying feature of a film genre is its cultural context, its community of interrelated character types whose attitudes, values, and actions flesh out dramatic conflicts within that community."[265]

David Bordwell has observed that, "There is no single principle by which genres can be defined."[266] He goes on to say that "the best way to identify a genre is to recognize how audiences and filmmakers, at different historical periods and places, have intuitively distinguished one sort of movie from another."[267]

Thus, while the topic of genre could quite profitably be examined as a thesis in itself, for the purposes of this discussion, interest lies in the commentary that has emerged about the use of digital visual effects, most notably in the area of science fiction films, but obviously in genres such as action-adventure, fantasy, and horror, also. This discussion will clearly rely upon the assumption that, whatever the continued

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[261] Robert McKee, *Story*, p.80.
[262] Thomas Schatz, *Hollywood Genres*. (New York: Random House, 1993). p.16.
[263] Ibid., p.21.
[264] Ronald B. Tobias, *Twenty Master Plots (and how to build them)*. (Cincinnati, Ohio: Writer's Digest Books, 1993).
[265] Thomas Schatz, *Hollywood Genres*, pp.21-22.
[266] David Bordwell and Kristin Thompson, *Film Art: An Introduction*, p.69.
[267] Ibid.

debates about certain generic definitions, historical and ideological rationales that may pertain to the emergence and popularity of certain kinds of films, the broad categorizations such as those listed above, can be used without necessarily challenging genre theory as a whole.

At issue is the widely held perception that digital visual effects are primarily used by science fiction, action-adventure, fantasy and horror films and that their use is changing the structure of the narrative form in these genres. In this chapter, the focus will be on those arguments that have been presented in support of the idea that digital visual effects are limited to, or at least most influential in, certain kinds of stories. Further, that spectacularity is an integral part of the usage of digital visual effects and that classical narrative norms are, as a result, being challenged by the use of digital visual effects in these genres.

As the previous chapter has shown, the use of digital visual effects offers filmmakers tempting new tools to approach an old story. Where Robert Wise relied upon little more than sound effects and shadows and angles, Jan de Bont pulled out the digital visual effects toybox and spared us nothing - except the good story he abandoned. It is argued by some that this happens because of the primacy of the desire to use digital visual effects and that story itself is becoming secondary to the display offered by spectacular sequences in certain kinds of genre films.

Yet, as has already been noted, there is an increasing graphic imperative to show, to visualize and represent story elements and not just fantastical elements such as ghosts, monsters and alien places. Indeed, this graphic imperative applies equally to sex, violence, and action sequences such as chases. The observation has already been made that sublime cinematography and production design are less likely to be cited as the grounds for which narrative has been stopped so that the images presented can work to arrest audience attention for solely spectacular purposes. Similarly, sex and violence also tend not to be examined on the ground of spectacularity, perhaps because they have given rise to so many other lines of discourse. Sex, at least at this point, has managed to hold its place on the screen without the enhancement of digital visual effects but the screen representation of violence is a significant part of digital visual effects practice.

So much the case that it has to be asked: are scenes of violence that rely upon digital visual effects, a demonstration of the effects or an indulgence of the

spectacularity of violence? Similarly, one could ask: Do science fiction and fantasy films enjoy popularity because of the effects or because the effects show something integral to those genres that is particularly attractive to their audiences?

In relation to the genre of science fiction, there has been ample academic discussion of its conventions and the use of effects by science fiction filmmakers. For example, in the *Alien Zone* essay collections Annette Kuhn, editor of the series, remarks in her opening discussion for the first book in the series, that "science fiction cinema distinguishes itself...by its appeal to special effects technology in creating the appearance of worlds which either do not exist, or cannot for one reason or another be recorded, as it were, live...."[268] While she admits that "not all science fiction films use special effects...",[269] she argues that, "For the fans, special effects are the *raison d'etre*[*] of the genre."[270]

She notes that science fiction uses effects to ground the diegetic world in keeping with classical narrative traditions, yet she also argues that "special effects in science fiction films *always*[*] draw attention to themselves, inviting admiration for the wizardry of the boffins and the marvels of a technology that translates their efforts onto the screen."[271] [my emphasis] She further argues that "there is *never*[*]any pretence that special effects spectacles are anything other than artefacts; and yet at the same time...the illusion of classical cinema works to persuade us otherwise."

In "You've Got To Be Fucking Kidding: Knowledge, Belief and Judgments in Science Fiction", Steve Neale makes the same point - that special effects in science fiction films are meant to draw the spectator's attention for the effects themselves and that this is part of playing with the levels of awareness that exist for the spectator.[272] It is his view that suspension of disbelief, which is intrinsic to narrative fiction, is especially crucial to science fiction because the events that unfold are usually

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[268] Annette Kuhn ed. *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p.148.
[269] Ibid.
[*] My emphasis.
[270] Ibid.
[271] Ibid.
[272] Steve Neale, "You've Got To Be Fucking Kidding: Knowledge, Belief and Judgments in Science Fiction", in Annette Kuhn ed. *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p.161.

extraordinary to human experience.[273] He refers to Metz's 'trucages' using this to make the distinction between the kinds of effects that are meant to be seen and those that are not. In relation to this he comments, "...while there is always a degree of duplicity, of secrecy, of the hidden attached to the use of special effects, there is always also 'something which flaunts itself' ".[274]

As previously mentioned, these discussions arise from the foundation laid by Tom Gunning's "cinema of attractions." This concept has been adopted by theorists in their considerations of cinema's special effects imagery. While originally addressing the attraction of the cinema's spectacle in and of itself prior to its development as a narrative medium, the concept of the cinema of attractions is now applied to film's voyeuristic opportunities and those instances where the visually sublime qualities of film are suggestive of excess, of rising above the dominance of narrative purpose.

There is extensive discussion of the 'spectacular' nature of special effects in the analysis of their usages, particularly in relation to science fiction films. For Gunning, the cinema of attractions "...addresses and holds the spectator, emphasising the act of display".[275] These qualities have been applied to special effects usage arguing that the very purpose of special effects is to stop the narrative and draw the spectator's attention to the technology of the cinema. Albert LaValley proposed this when he stated that, "Special effects thus dramatize not just the thematic materials of science fiction and fantasy plots, but also illustrate the 'state of the art'..."[276] of the technology itself. In Angela Ndalianis paper, "Special Effects, Morphing Magic and the 1990s Cinema of Attractions", she posits that "contemporary cinema asks its audience to be astonished at its special effects, and to reflect on the way special effects films have become venues that display developments in new film technology."[277]

These arguments succinctly capture the broad relationship that exists between effects and the pleasures of spectacle and the display of cinema's technological prowess.

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[273] Ibid., pp.163-164.

[274] Ibid., p.166.

[275] Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)credulous Spectator" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.825.

[276] Albert LaValley quoted in Martin Barker (with Thomas Austin), *From Antz to Titanic: Reinventing Film Analysis*, p.83.

[277] Angela Ndalianis, "Special Effects, Morphing Magic and the 1990s Cinema of Attractions" in Vivian Sobchack, ed. *Meta-Morphing: Visual Transformation and the Culture of Quick Change*, p.256.

Further, as indicated earlier, Martin Barker has expressed the view that "special effects have to be *signalled* as special, in whatever film they are used".[278] Reiterating the views that effects stop the narrative for spectacular purposes, Barker, as mentioned, goes on to state that effects also serve to mark out moments in the narrative where "modality shifts *take place*...(and) we are invited to respond to the films at a new level".[279]

Concurrent with these theoretical positions is the view that special effects are more than stopping the narrative, they are becoming a substitute for it, upstaging actors and plot lines, becoming a reason for the film itself - as Beebe has suggested, a new form of narrative structure.[280]

In "Diegetic or Digital? The Convergence of Science-Fiction Literature and Science-Fiction Film in Hypermedia", Brooks Landon cites Stephen Neale's assertion "that in the science-fiction film 'narrative functions largely to motivate the production of special effects, climaxing either with the "best" of those effects...or with the point at which they are multiplied with greatest intensity'...".[281] Landon goes on to argue that, "In this sense, science-fiction film's special effects can be thought of as existing not to support the narrative or the plot, but to provide their own formal rhythm and logic - the special effects story that the film is 'really' built around."[282] Thus, he asserts, "...a series of special effects interruptions may also be seen as a kind of counter-narrative or competing techno-narrative in its own right."[283]

Yet, for all the many assertions by these authors that special effects are an emerging narrative form, none of them propose the narrative structure that this new form demonstrates. Thus it should follow that one could ask if the elements of this counter-narrative are sufficiently patterned to form a definable usage. To examine this idea, it is possible to propose a series of typical narrative events and the kind of digital visual effects techniques that might be required to realize the events. This list of

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[278] Martin Barker (with Thomas Austin), *From Antz to Titanic: Reinventing Film Analysis*, p.85.
[279] Ibid., p.81.
[280] Roger Warren Beebe, "After Arnold: Narratives of the Posthuman Cinema" in Vivian Sobchack, ed. *Meta-Morphing: Visual Transformation and the Culture of Quick Change*, p.171.
[281] Steve Neale quoted by Brooks Landon in "Diegetic or Digital? The Convergence of Science-Fiction Literature and Science-Fiction Film in Hypermedia" in Annette Kuhn, ed., *Alien Zone II: the spaces of science fiction cinema*, p.41
[282] Brooks Landon, Ibid.
[283] Ibid., p.40.

narrative events and effects techniques can then be examined to determine what it is that might present as a common pattern or an emerging narrative structure. Such a series might be comprised as follows:

Narrative Events	Effects Techniques
the establishing shot of the diegetic world - the fantastic city of the future	CG matte painting with virtual camera move through models and integration with live action bluescreen and background plates
a display of the amazing vehicle of the future	composites and 3d models
a scene presenting the basic premise of the narrative with some 'magic computer' exposition, giving authority to the stakes	composite of various CG images and graphics of the expositionary materials
an interruption to the scene resulting in a chase sequence - demonstrating the powers of the amazing vehicle of the future	more composites with matte paintings, model work and set extensions, perhaps pyro shots added where required
a period of respite - perhaps in an astonishing synthetic reality	CG set extensions and composites of live action
a decision to pursue the matter at stake leading to a confrontation and the demonstration of the firepower of the amazing weapons of the future	pyro shots and composites of live action, 3d elements, rotoscoping of firepower elements
many explosions and a close call for the main characters, perhaps the loss of minor characters	composites of pyro and live action elements, potential for 3d elements to visualize spectacular death and injury in supplement of on-set practical and make-up effects
another escape sequence	composites of live action and background plates
reveal of information crucial to the stake, another pursuit leading to confrontation	composites of computer screen images, the computer screen graphics, and composites of live action and background plates
another fight with even more impressive weaponry with greater explosions and highly choreographed physical fighting	CG stunt performer interpolation, wire removals, composites of live action and background plates, CG models of weapons and rotoscope of firepower elements, pyro plate composites
the main characters are in jeopardy, at the mercy of the antagonist	CG set extension, possible composites of 'dangerous' elements
an escape, explosions, more chase sequences, a confrontation, culminating with a face-off between the protagonist and the antagonist (quite often a fist fight, even in the most high-tech of environments)	CG stunt performer interpolation, wire removals, composites of live action and background plates, CG models of weapons and rotoscope of firepower elements, pyro plate composites

the escape, the destruction of the antagonist's lair	wire removals, CG stunt performer interpolation, composites of live action and background plates, CG models of lair with composites of pyro plates with live action of models being blown up
return to the fantastic city of the future	CG matte painting with virtual camera move and composites of live action, crowd extensions, and background plates

As this list of plot elements demonstrates, the first part of each of the preceding points provides a narrative outline not uncommon for a typical science fiction/action film. The list of elements in the brackets would thus represent the typical digital effects sequences that could be used to create or realize these plot elements. The first part of the list could be handed to a scriptwriter (although one would suspect they would find it a fairly dubious honour). The second part would be meaningless. Indeed, if this is the foundation for Landon's 'competing techno-narrative' it is a fairly weak foundation as not only does it mean nothing descriptively, excised from the narrative motivation, visually it has no more to offer than a screen saver or shots reel.

On the other hand, the first part of the list it could be argued, is in keeping with the previously described 'whammo' approach to storycraft and points again to Kristin Thompson's and Tom Stempel's observations about the impact of formula on storycraft. As James Monaco has commented:

> By far the leading genre of the 1980s and 1990s has been the Action-Adventure film, which, because it relies so little on character and character development, lends itself so well to sequels, and which exploits to the limit the rapidly developing sophistication of Hollywood's now digitized special effects industry. Characterized by a thin veneer of science fiction and fantasy, which gives the effects specialists the excuse to ply their trade, contemporary Action movies succeed by exploiting a deeply felt need for visceral excitement and the thrill of violence.[284]

This summary raises a number of interesting points. Firstly, the notion that the genre does not depend on deep script development. Monaco is not the only one to make this observation. Annette Kuhn has also remarked that, "narrative content and structure

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[284] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition, p.361.

per se are rarely their (science fiction films') most significant features."[285] Thomas Schatz has argued that "a genre film...involves familiar, essentially one-dimensional characters acting out a predictable story pattern within a familiar setting."[286] Thus, it would appear that a poor standard of storycraft is an accepted practice for the science fiction/action-adventure genres or, as Schatz has it, for most genres. This, in itself suggests that the attraction for the audience must lie in other factors. The main arguments suggesting that, in the case of science fiction, it is the spectacularity of the effects, or as Annette Kuhn has suggested, the appeal of other worlds on display.

Vivian Sobchack suggests that science fiction's characteristic themes "(have) to do with technologies on the one hand and with modes of societal organization on the other."[287] While the matter of technology will be considered more fully below, her other theme - the modes of societal organization, supports Kuhn's other worlds theory. These comments might give some suggestion as to the attractiveness of science fiction as a genre that is not wholly based on visual spectacularity and aspects of this concept will be discussed in the concluding remarks of this chapter and be the subject of further discussion in Chapter Ten.

The second point worth noting is Monaco's assertion that the genre exploits the talents of the growing digital visual effects industry, although, in the next breath, he remarks that a thin veneer of science fiction or fantasy is 'an excuse' for digital effects artists to ply their trade. It is hard to assess from this if filmmakers are exploiting the talents of the effects professionals to tell their poorly developed stories or whether canny effects artists are taking advantage of the filmmakers by laying on the effects. Regardless, the matter most of interest is the implied symbiotic relationship between the creative elements: that the inherent weakness of the scripts gives scope for the 'exploitation' of the effects. Yet, it should also be noted that a weak script may rely upon the other means of 'filling the screen': extended love scenes, car chases, fight scenes or pop song montage sequences.

Another phrase to mark is the 'thin veneer of science fiction or fantasy' he asserts is used to dress up basic action/adventure stories. This suggests that the classification of some films as science fiction is not necessarily accurate, that their stories are not in

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[285] Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.11.
[286] Thomas Schatz, *Hollywood Genres*, p.6.
[287] Vivian Sobchack quoted by Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.3.

keeping with the underlying themes attributed to the genre. Essentially, he appears to be stating that setting a film in space or having scientifically grounded premises for a story are often little more than colourful set dressing, as it were, for ordinary action/adventure fare. This would suggest that the factors that make action/adventure films successful must also have some impact on the genre of science fiction - or those films using the trappings of science fiction to serve up the standard action/adventure story. It would seem that this common factor is at the heart of the next point.

Finally, in his last line, Monaco's observation that action films succeed because of their exploitation of the 'need for visceral excitement and the thrill of violence' should be noted. Barry Keith Grant argues that, "Because of the science fiction film's emphasis on special effects, the genre's primary appeal has been the kinetic excitement of action...".[288]

However, Monaco's observation fills out Grant's comment by adding to visceral, kinetic excitement, the 'thrill of violence'. As previously mentioned, Kristin Thompson has not discovered any breakdown in the basic structure of the classical narrative, but she has noted that there has been an increase in scenes of sex and violence. As Sobchack has noted in her paper, "The Virginity of Astronauts: Sex and the Science Fiction Film", sex is not a subject matter that abounds in science fiction films[289] (although reproduction most certainly is). Violence, on the other hand, is so prevalent we have come to accept and expect the physically impossible iconic imagery of explosions in space where there is no atmosphere to permit the pyrotechnical displays that are so very prominent and dutifully rendered by the CG teams.

Violence in film, as in life, is often the easy answer. The scriptwriting manuals express the need for scenes to have conflict, for expositional material to arise from conflict, for character revelation to arise from action - the old maxim, *show don't tell.* Action - such as chase scenes - can give a story pace, and is a ploy that has been a staple of films from its earliest days. Further, many digital visual effects techniques are used to extend scenes and images of violence. These scenes can be extended by creating

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[288] Barry Keith Grant, " 'Sensuous Elaboration': Reason and the Visible in the Science-Fiction Film" in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.22.
[289] Vivian Sobchack, "The Virginity of Astronauts: Sex and the Science Fiction Film" in Annette Kuhn ed. *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, pp.103-115.

proximities of danger that are otherwise, physically impossible to survive. For example, those shots that show actors being thrown through the air by the force of an explosion which, in reality, has been composited against their stunt jumps onto an airbag. Scenes of violence are also extended by temporal and spatial manipulations such as the slowing down of bullets or the tracking of bullets through space.

Violence - be it an epic battle scene or the customary Third Act Fist Fight - is perhaps an element that can account for some of the attraction of action/adventure and many science fiction films. What Bukatman, Grant and Monaco recognize and describe as kinetic thrills is often tied to acts of violence or chases and escapes related to threats of violence. This, of course, makes perfect sense since the very foundation of many stories is the risk of death and some representation of how to deal with this threat. It is my view, as presented in Chapter Four, that many effects are used to heighten this sense of threat and exaggerate the closeness of the brush with death that heroes can escape. However, while the effects are materially responsible for creating the images and heightening the verisimilitude of the representations, they are not the *reason* for the shot; they are the *means* by which it is achieved. The reason for the shot - the protracted scenes of violence and physical peril - is considerably more complex and is, in all likelihood, fundamental to our natures. Yet in the instance of filmmaking, the reason for the shot is that it is a scripted element and it is from this that the kinetics arise.

By way of example, the first film in *The Matrix* series sis considered to be but one of many Messiah stories that enjoy popularity in the science fiction genre. This film, however, presents a Messiah who cartwheels while he kills with awesome firepower and little apparent concern that - by the film's own reasoning - he is killing innocent, unaware, virtually embryonic humans. While the Messiah dispenses death with acrobatic flair, the spent cartridges rain down, the sound effects providing a metallic *Ave*. For all its philosophical exposition, *The Matrix* is a celebration of violence - almost a pornography of violence - and its effects work to support the idea of how a man looks when he shoots or is shot, indulging in a kind of Ghost Dance/Boxer Rebellion fantasy of how bullets might miss someone who has attained the right level of induction.

While the effects in the film are not solely directed at supporting visions of violence, they do provide ample demonstration of the difficulty in separating effects from violence and the graphic imperative that drives contemporary filmmaking. It is this

graphic imperative and Kristin Thompson's previously mentioned tendency of escalating climaxes that is more likely the pattern that is presenting as a new narrative form. As Neale has noted, the best effects are often saved for the most climactic moment or are multiplied with the greatest intensity[290] but I suspect the effects being noted are often effects that represent an escalating violence, a kinetic thrill associated with a close brush with death, or the violent destruction of an enemy. In such instances, these effects are motivated by story-based elements and are simply a more graphically realized and detailed representation of fairly classic story elements.

Turning to the issue of the relationship between effects usage and the science fiction genre, an examination of the films featured in *Cinefex* provides an interesting breakdown of the kinds of films that have been recognized as landmark achievements in special effects filmmaking since the 1980s. *Cinefex* is perhaps the most widely known of professional special effects industry journals and thus provides a reasonably straightforward resource for considering the predominating genres featuring major effects sequences and a means of assessing - in broad terms - the content of the effects employed.

Of the 265 films* reviewed by *Cinefex* from its inception, 106 of them would likely be classified as science fiction films. Of these, 58 films were straightforwardly sci-fi and the remaining 48 films were at least some hybrid of science fiction (i.e. sci-fi/comedy, sci-fi/horror, sci-fi/thriller). The rest of the films covered by *Cinefex* would be categorized as fitting into the following broad genres: children's (38 films); action (29 films); horror (28 films); fantasy (25 films); drama (18 films); period (12 films); and comic book adaptations (9 films).

This breakdown appears to support arguments that rely upon a relationship between science fiction films and effects but it also highlights that 159 of the 265 films featured are *not* science fiction films and that 30 of these groundbreaking effects films are period and drama productions. This speaks to the diversity of films using digital visual effects and, as the list reveals, the move from effects being primarily of

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290 Steve Neale quoted by Brooks Landon in "Diegetic or Digital? The Convergence of Science-Fiction Literature and Science-Fiction Film in Hypermedia" in Annette Kuhn, ed., *Alien Zone II: the spaces of science fiction cinema*, p. 41.
* A full list is provided at Appendix 2.

groundbreaking nature in science fiction films in the early 1980s to the more diverse spread of genres that exists now, something which began to occur in the 1990s.

This diversity, embracing films that are squarely within the classical narrative tradition, tests the idea that digital visual effects are necessarily bound to the genre of science fiction and its companions of the horror and fantasy genres. The arguments that favour this relationship seem to be built upon the tying of effects to certain science fiction genre trademarks: the aforementioned kinetics, the reveal of other societal structures or worlds, and the self-reflexive display of technology.

The sample of films provided by the *Cinefex* features shows that most of the science fiction films undertake effects to provide convincing representations of outer space, alien worlds, aliens/creatures, the future (including representations of earth, its technology/vehicles and weapons), or representations of natural phenomena (such as the interior of the human body or the core of the earth).

The action films use effects to create verisimilitudinous situations of danger and destruction, as do many of the fantasy films, which also often depict exotic sets and locations, creatures and supernatural events. There are also a number of films that depict physical transformation and altered mental states, but the majority of effects are aimed at crafting a convincing diegetic world, enhancing performances in dangerous situations, and depicting extraordinary events or forces, often of a supernatural quality. Thus it would appear that the general practice of digital visual effects is to realize story information and story elements in keeping with the basic traditions of the specific genres.

In relation to the discourse on science fiction, however, there remains the matter of the display of technology that has been argued as fundamental to the genre of science fiction, an element that does not have comparable relevance to other genres. Annette Kuhn, referring to Brooks Landon, has stated that, "...in science-fiction cinema the point is not so much the story as the response invited by the film's visual surface and the ways in which the film depicts technologies and deploys them in its production."[291] She goes on to cite his conclusion "that science-fiction narrative is both discovered in, and shaped by, special effects technologies."[292]

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[291] Brooks Landon quoted in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.12.
[292] Ibid., p.13.

The purpose of this foregrounding of technology and the self-reflexivity of its use is to underpin the thematic matter of the narratives themselves. Science fiction often presents a conflicted stance for its representations of technology. In some narratives technology is presented as the potential saviour i.e. the 'magic computer' that uploads the virus into the alien spaceship in *Independence Day*. Conversely, in others, our meddling - especially against nature - is viewed as a kind of Icarus' wings, and our technology undoes us or at least puts us in grave danger, as in *Jurassic Park*. Hugh Ruppersberg states this more strongly when he says:

> Science fiction cinema often assumes a rather confused attitude toward science and technology. On the one hand, it views them as redemptive forces that can lift humanity out of the muck and mire of its own biological imperfections. On the other, it sees them as potentially destructive forces, inimical to humanity. What small hope there is, here on earth or elsewhere, lies in the human imagination and heart.[293]

He argues that contemporary films indicate doubt about our ability to solve our problems and are an expression of a need for superhuman aid.[294] His discussion is in relation to the Messiah figure in science fiction film and how effects are used to represent the technological marvels that provide the Messiah figure with its remarkable powers. As an aside, it is interesting to note that the popularity of the *Matrix* series almost seems like a direct response to Rupperberg's observations.

This relationship between science fiction and technology is long-standing. Yet, while not wanting to miss the point about the relationship between technology and the role it has played in science fiction - especially in an historical context - it is worth considering to what extent these observations have currency for technically sophisticated audiences, at least in relation to the use of effects.

Many of the effects that were once foregrounded in a synthesis of theme and content are now the stuff of everyday experience. The images of outer space that were extraordinary in 1967 are, if not the day-to-day experience of most individuals, accepted as such for some. Space travel, and a world in which live footage from Mars can be viewed on one's laptop while waiting for a bus, no longer holds the same sense of

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[293] Hugh Ruppersberg, "The Alien Messiah" in Annette Kuhn ed. *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p. 32.
[294] Ibid., p.37.

'someday', but 'of course'. As technology becomes so thoroughly integrated with daily experience, its presence in science fiction films has to be of an increasingly exceptional level to be thematically remarkable.

Space travel, views of other planets, creatures, vehicles, technology, dystopian future earth representations are common, well known, and much a part of popular culture. Film representations of technology are not so much startling as suggestive of what's next. This is so much the case that advertizers have sought to interpolate their ads for technology among cinema trailers in an attempt to suggest that their current products are 'the future here, today'. Thus science fiction is confronted with need to return to its roots and present stories that deal with the themes behind the technology or be reduced to hybridized versions that use the genre's iconography to present action films or creature flick versions of *Ten Little Indians.*

All this is perhaps on the way to digression, but the point needs be made that technology's advance into the commonplace of the family loungeroom during the period that digital visual effects have been evolving has rendered technological displays rarely sufficiently awesome for their own sake. Well-rendered images of space have become expected in a world where people have their own 'magic computers' that can pull up images from the far reaches of the galaxy. Increasingly there is a need for the narrative to draw out the thematic conflicts between technology as a potential saviour, and technology as our greatest threat. Simple displays of technology for the sake of spectacularity are becoming difficult to achieve and hard to use without some inference being drawn.

Accordingly, the matter of narrative, the means by which the thematic issues and images are given context and expression, again presents as of fundamental concern to the use of digital visual effects. Once more, the *Alien Zone* commentaries on science fiction capture the arguments that need to be addressed.

> Whenever cinema exhibits its own distinctive matters of expression ...there is a considerable degree of self-reflexivity at work. Indeed, when such displays become a prominent attraction in their own right, they tend to eclipse narrative, plot and character. The story becomes the display; and the display becomes the story. Does it really matter, for example, that a film like *2001: A Space Odyssey* effectively lacks a plot? The enticement is not narrative involvement, nor even identification with characters, but rather the matters of expression of cinema itself, and this film's awe-inspiringly unfamiliar imagery.

Spectators are invited to gape in wonder and abandon themselves to the totality of the audiovisual experience.[295]

The argument in favour of the non-narrative science fiction spectacularity of special effects is often cited in the case of *2001: A Space Odyssey*. However, looking through the major effects achievements of the last 20 years, documented by *Cinefex*, the following observation presents: overwhelmingly they employ classical narrative structures. Some are better realized than others yet there is almost always an intention to address classical narrative and, as has been noted in the introductory comments, these films are ultimately judged on their having met classical narrative standards. In effect, when they are judged to be poor films it is usually because they do not deliver a satisfactory standard of classical narrative storycraft.

This does not detract in any way from the impact that *2001: A Space Odyssey* has had on the iconography of science fiction nor does it deny that these once awe-inspiring images have become the simple standard by which even low-budget films are measured. That these images can be achieved by meagrely funded productions is an indication of the extent to which digital visual effects have become an established and accessible level of technology.

In discussing the academy's approach to mass culture as realized through theme parks, science fiction, Hollywood blockbusters and comic books, Scott Bukatman argues that these studies have a "...reliance on (or faith in) highly linear narrative structures as the overriding, deterministic, and teleological locus of 'meaning'. Objects involving multisemic forms of address are routinely reduced to their narrative 'functions' or, worse, the stasis of narrative 'closure'."[296] His argument is not with narrativity *per se* but the refusal to consider these media from a non-narrativist approach. In relation to this he raises the view that the term 'excess' is misused because the "entertainments do not exceed themselves but rather the arbitrary conditions of narrative's hierarchical dominance....".[297]

The tendency to measure a film (and other entertainments) by narrative standards is a frustration for those who seek to consider these forms by new approaches.

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[295] Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.5.
[296] Scott Bukatman, *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.5.
[297] Ibid., p.6.

However, in the context of a discussion on the impacts on storycraft, such measures are necessary. What must still be answered is the question: is spectacularity at odds with classical narrative?

Discussion of spectacularity and the foregrounding of the technology on display and at work, which has dominated the discussion of science fiction, argues both for the fact that this is a means of stopping the narrative and also a means of fulfilling the purpose of the science fiction story; that is, the wonder and magnificence of the material presented. However, as with the earlier example of *Mission To Mars*, the intention can be not only to create a visual wonder for the audience, but to have the visual wonder of the experience for the characters be implicit within the action of the story.

Bukatman himself comments, "The precise function of science fiction, in many ways, is to create the boundless and infinite stuff of sublime experience and thus to produce a sense of transcendence beyond human finitudes....".[298] As the increasing diversity of films using effects indicates, this is not the function of science fiction only. Other genres also create moments of the sublime and arrest the narrative to allow contemplation.

David Bordwell has stated that special effects were essential to the creation of the genre of science fiction[299] but he has also cited that special effects have been "crucial to the development of not only science fiction and fantasy genres but historical epics as well."[300] As the *Cinefex* filmography indicates, the vast opulence of the Titanic, the glory and tragedy of the Colosseum, and the impossible odds of doing battle against the armies of Mordor are digitally created and enhanced cinematic representations that also seek to 'create the boundless and infinite stuff of sublime experience'.

What is perhaps singular in the discussions concerning the use of digital visual effects and science fiction films is the embedded relationship between science fiction themes and technology used to create the films. Bukatman comments in relation to this, "The reflexivity of special effects (a technology of technology, a cinema of cinema) indeed encourages some sense of identification and mastery. The effect is possessed of its own hypnotic grandeur: it is designed to inspire awe, but always within a reassuring

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[298] Scott Bukatman, "The Artificial Infinite: On Special Effects and the Sublime" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.93.
[299] David Bordwell and Kristin Thompson, *Film Art: An Introduction*, p.202.
[300] Ibid.

sense of play....".[301] While much of Bukatman's discussion is aimed at the need to look beyond the narrative purposes of the effects usage and consider "a phenomenological approach", he summarizes the categorization of effects usage as 'spectacular' as the principle consideration given them in the discourses. In his view, "Despite the seemingly inexorable movement toward a narrative structure that could ground these effects, this "aesthetic of astonishment" should neither be discounted nor relegated to the realm of "excess". Special effects emphasize real time, shared space, perceptual activity, kinesthetic sensation, haptic engagement, and an emphatic sense of wonder."[302] In my view, this is not at odds with narrative.

There appears to be a view that narrative - especially classical narrative in film - requires an exclusive engagement of the spectator in the experience of the story and that somehow this precludes that experience having moments of sublime, spectacular contemplation. Bordwell has acknowledged the artistic motivation that is at work in the classical narrative and narratives themselves, as the *Mission To Mars* example shows, also require of both characters and audiences moments where spectacularity is the story element. In such instances, where these moments are achieved through the use of digital visual effects, it can be argued that this is not necessarily an intention to stop narrative and engage the spectator on a non-narrative level, but to fulfil the purpose of spectacularity as part of narrative.

To support this argument, the following comment by Bukatman bears further discussion:

> The cosmic displays of science fiction cinema, produced by technologically advanced optical effects, surely derive from a similar drive for scopic mastery. The overwhelming perceptual power granted by these panoramic displays addresses the perceived loss of cognitive power experienced by the subject in an increasingly technologized world.[303]

Bukatman argues that the function of science fiction as a genre is "to compensate for the loss of the human in the labyrinths of blip culture by transforming it into an arena

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[301] Scott Bukatman, "The Artificial Infinite: On Special Effects and the Sublime" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.109.
[302] Scott Bukatman, "The Ultimate Trip: Special Effects and Kaleidoscopic Perception" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.115-116.
[303] Scott Bukatman, "The Artificial Infinite: On Special Effects and the Sublime" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.82.

susceptible to human control,"[304] a view that would no doubt be supported by examination of the *Matrix* films. At the essence of his observation is the realization that films can offer a means to confront those aspects of life that are most distressing and historical analyses of genres have given much attention to the social and cultural concerns that have informed the development of the films in their time.

Bettelheim has noted that, "Many young people...who in some other fashion escape from reality into daydreams about magic experiences which are to change their life for the better, were prematurely pressed to view reality in an adult way."[305] The rising popularity of films with fantasy themes and suggestions of a desire to secure superhuman aid speaks to Bukatman's observation on the 'loss of the human' and the desire to regain a sense of power or assistance and is perhaps an indication of the social and cultural forces that have been informing filmmakers during the development of digital visual effects. That this technology presents the most perfect means to realize such stories is unlikely to be coincidental.

Schatz has commented that "... a film genre is both a static and a dynamic system. On the one hand, it is a familiar formula of interrelated narrative and cinematic components that serves to continually re examine some basic cultural conflict.... On the other hand, changes in cultural attitudes, new influential genre films, the economics of industry and so forth, continually refine any film genre."[306]

In *Alien Zone II*, Annette Kuhn paraphrases Barry Keith Grant who "... argues that the distinctiveness of science fictions, in whatever medium, lies in their *expansiveness* - their opening out of new worlds, new ways of seeing and being."[307] As already noted, she has cited these new worlds as being one of the key appeals of the genre. The argument that science fiction has aimed to change world views, either to influence cultural attitudes or to inspire contemplation is not unique to the genre although the iconography and thematic material it has employed may indeed be so.

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[304] Scott Bukatman, "There's Always...Tomorrowland: Disney and the Hypercinematic Experience" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.14.

[305] Bruno Bettelheim, *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*, p.51.

[306] Thomas Schatz, *Hollywood Genres*, p.16.

[307] Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.12.

Scott McQuire has argued that, "cgi is largely being deployed to remake older genres 'more realistically'."[308] In agreement with this, Roy Vallis, in his paper, "The Future of Popular Film Tradition" has argued that "...the role of advancing technology has forced even greater reliance on traditional narrative structure"[309] and that older kinds of stories, and he cites *Star Wars* and the *Lord of the Rings* trilogy, are now more capable of being realized because of digital visual effects. It is his observation that, "...the more we are technically able to represent the real, the more we are attracted to the fantastic."[310] These fantastic stories are often exemplars of classic narrative, *The Lord of the Rings* being but the most recent.

Further, while many authors feel narrative is over-privileged in the considerations of various film texts, their desire to see other aspects given recognition does not remove the standard of narrative coherence, thematic contexts and deeper readings that are inherent to storycraft and interpretation. They are, instead, an additional measure or means of interpretation. As Bukatman has argued that we should look beyond narrative to appreciate the kinetic thrill of the spectacular display, I would argue that we must also look to the spectacular display to consider its narrative import. This does not negate those moments of sublime rapture nor the need for them but suggests that they also can have narrative context and purpose, especially on repeated viewings and as the images move, with time, from the extraordinary to the iconic and expected. This incorporation of the spectacular into the mundane is a process that has speeded up over the last decade. Hollywood's capacity to absorb and re-present the novel approach or technique is well documented. To quote David Bordwell:

> One inventor put it well: 'The persistent demands upon motion picture production for novel effects and broader methods of story-telling have necessarily instituted rapid and revolutionary developments in technique.[311] (quoting Otto Durholz - inventor of camera lens technology)

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[308] Scott McQuire, *Crossing The Digital Threshold*. (Brisbane, Queensland: Australian Key Centre for Cultural and Media Policy, 1997), p.59.
[309] Roy Vallis, "The Future of Popular Film Tradition: More Real, More Fantastic, More Ancient" presented at the Hawaii International Conference on Arts and Humanities, January 8-11, 2004.
[310] Ibid.
[311] Otto Durholz quoted in David Bordwell, Janet Staiger, Kristen Thompson, *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960,* p.243.

This holds true not only for the development and adoption of technology but for ways to play with story structure also as many of the recent 'non-linear' but classically complete narrative films have demonstrated.

The rise of the popularity of genre films, the elevation of the 'B' film to the 'A' list is perhaps not so much due to the spectacularity of the effects but the straightforwardness of these genres in dealing with societal concerns. Schatz has commented that "...the sustained success of any genre depends upon at least two factors: the thematic appeal and significance of the conflicts it repeatedly addresses....".[312] He has also pointed out that the oppositional conflict - such as the community needs versus individual path of the hero - is an aspect that genre films address as a matter of course.[313] Given his view that Hollywood film genres work ."... as formal strategies for renegotiating and reinforcing American ideology",[314] it follows that films that allow such negotiation to be enacted would gain popularity at a time when the very values of American society were undergoing, if not massive re-working, certainly massive challenge. This also speaks to the matter of 'blurred values' and it might be reasonable to consider this as another reason for genre films' rise in popularity. Films that offer clarity and identifiably 'good' and 'bad' oppositional discussions are likely to find an audience seeking something that addresses their expectations in the way that genre films do. In summary, as Schatz has observed, "...movies are made by filmmakers, whereas genres are made by the collective response of the mass audience."[315] The rise of the hybridized genres - the horror/comedy and the sci-fi/action film might also be a reflection of the each-way-bet approach to themes and values; another sign of the times.

Although Schatz was dismissive of *Star Wars*, *Jaws*, *The Godfather* and *The Exorcist*, considering their success due more to marketing than content,[316] the fact is, time has proven each of these films to have reached classic status with two of them enjoying theatrical re-releases with digital visual effects updates. The 'collective response of the mass audience' of which he speaks has voted strongly in favour of genre films and their use of digital effects has largely been in support of genre traditions.

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[312] Thomas Schatz, *Hollywood Genres*, p.31.
[313] Ibid., p.30.
[314] Ibid., p.261.
[315] Ibid., p.264.
[316] Ibid., pp.265-266.

In summary then, the perception that digital visual effects are primarily used by science fiction, action-adventure, fantasy, and horror films is only conditionally correct, and it is a condition that is undergoing change. Over the last decade, digital visual effects have been taken up by films that are not from these genres and it appears to be a growing trend. As for the argument that the use of digital visual effects is changing the structure of the narrative form, my research suggests that the escalation of scenes of violence has more to do with the kinetic attraction than the technology by which these scenes are crafted. There does appear to be a relationship between the formulaic 'whammo' approach to scriptwriting and the rise of violence in films but, as this is not the direct focus of this thesis, it is only possible to observe that this relationship appears to be borne out in the course of the research undertaken here.

In answer to the question: are scenes of violence that rely upon digital visual effects a demonstration of the effects or an indulgence of the spectacularity of violence? - I would suggest that the spectacularity of violence is the substance of the many digital visual effects shots that appear in films. This does not argue with the spectacularity of the shot but it does specify that it is the content of the image that is spectacular not the technology behind its realization. Such an examination is a secondary appreciation and, perhaps a short hand way of indicating that the images are impressive. The use of the term 'good effects' to convey 'really awesome explosions' is perhaps closer to what is really meant by spectacularity being 'effects driven'.

However, in answer to the question posed: do science fiction and fantasy films enjoy popularity because of the effects or because the effects show something integral to those genres that is particularly attractive to their audiences? - the argument is not as clear cut. Where the effects work thematically to underpin the science fiction narrative there isn't any need to make a distinction between the effects and other factors integral to the genre. However, if the effects are simply used to add kinetic thrills for scenes driven by action/adventure thematics and do not enjoy the thematic relationships associated with science fiction *per se*, then other attractive factors probably prevail.

Although this thesis is not an assessment of the science fiction genre there does appear to be a greater attraction for audiences than simply the effects. Many authors have proposed quite convincing alternative attractors and, in considering the use of the effects, I have found the issues of technology and expansiveness to retain a number of relevant influences. I am of the view that the display of technology may have, if not

changed, broadened to include issues that are less concerned about the brave new technology of the future but the implications of living in a highly technologized world. This may be a factor in why the technology used to create so many film images are now being used across genres, including their use in what appear to be fairly typical dramatic films. Technology is simply an integral part of our way of looking at the world. Thus, where sci-fi once gave us new ways of seeing and new ideas/worlds to see and did so through the use of effects, effects now also offer us a way to express what we are experiencing and, in the case of period films, understand where we have come from.

So Here's The Deal: a case study considering the influence of franchise filmmaking and its relationship to digital visual effects

When a particular film is reprised in the form of a sequel it opens the way toward becoming a franchise - one of the most lucrative and highly prized of Hollywood products. Franchise films, although not new to Hollywood, certainly became attractive to investors in the 1980s and the opportunity to make a sequel became a standard consideration for many successful films. As sequels became quite common it led to story structure changes and one of the main criticisms that arises in connection with the franchise film - the issue of the open-ended narrative that is considered to be contrary to the classical narrative structure which traditionally requires narrative closure.

In this chapter, the issue of franchise will be examined in a case study focussing on the *Alien* films - a genre-crossing series that evolved from 1979 to 1997 - the period during which digital visual effects came to prominence in filmmaking. This franchise is of interest for a number of reasons. Firstly, it was not created with the intention of establishing a franchise. The original script was penned by Dan O'Bannon and co-writer Ronald Shusett in 1976 and was called, at that time, *Star Beast*.[317] The script, which had quickly been retitled, *Alien*, was optioned by Brandywine Productions within the year, largely on the strength of the chest-buster scene.[318] Picked up by Twentieth Century Fox, the project was put into development and passed on to Ridley Scott. By this stage significant design work had already been undertaken by Ron Cobb and H. R. Giger and the script then underwent further revisions by Walter Hill and David Giler who made the recommendation that two of the crew could be played by females and that one of them be cast as Ripley.[319] As the many analyses of the film have agreed, Ridley Scott's inspired direction and the masterstroke of his casting Sigourney Weaver in the role of Ripley created a landmark in filmmaking. The film owes its success to many factors but

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[317] Paul M. Sammon in Dan O'Bannon, *Alien: The Illustrated Screenplay*. (London: Orion Books, Ltd., 2000), p.8.
[318] Ibid., p.9.
[319] Ibid., pp.9-14.

one thing is likely, at its inception, neither Shusett nor O'Bannon could have imagined the impact their low-budget sci-fi thriller speculation script would have on the history of film.

The second factor that makes this franchise of interest is that four different directors have brought their quite disparate talents to bear on the original premise. This arrangement does not always apply to franchise productions but is one aspect of their nature that makes the strength of the original premise particularly important. Unlike genres, which start with a fresh story within an established generic style, franchises must work within the boundaries set by the original story. If Chapter Five has examined the three different versions of a single story, and Chapter Six has examined kinds of films that have evolved into generic groupings, this chapter examines a middle ground - different stages of a story, often based on a central character and the sometimes genre-jumping, stylistically unalike variations that can arise over the course of the franchise's history.

The third factor of interest is that the *Alien* franchise has been the subject of considerable critical analysis and therefore can be argued to represent a body of work that is substantial and thematically remarkable as well as immensely popular.

In "Internet Fandom: The Continuing Narratives of *Star Wars*, *Blade Runner* and *Alien*", Will Brooker states that as a consequence of the four different directors' visions, "Ripley is therefore flung not just across massive gulfs in time and space but from one aesthetic and generic universe to another, with only her alien nemesis providing continuity."[320] He goes on to say that, "The four films are united by two central characters, Ripley and the xenomorph in all its forms, and by a science fiction setting and mise-en-scene, beyond this, however each is a mutant crossbreed of genres.[321] He describes *Alien* as a horror film, *Aliens* as a Vietnam war film, *Alien 3* as "Porridge" meets "Jeanne de Arc", and *Alien Resurrection* as, "something of a European science-fiction art-horror with an injection of black comedy." [322] Stephen Mulhall writes of the four films that "...each film sits more or less uneasily within the genres of science

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[320] Will Brooker, "Internet Fandom: The Continuing Narratives of Star Wars, Blade Runner and Alien" in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.53.

[321] Ibid., p.62.

[322] Ibid., pp.62-63.

fiction, with more or less strong ties in any individual case with the adjacent genres of horror, thriller, action, war and fantasy movies....".[323]

In her examination of the post-classical Hollywood, Kristin Thompson observed that, "Both *Alien* and *Terminator 2: Judgement Day* are based on the idea of a cold, grasping firm that is willing to tinker with a species (*Alien*) or a technology (*Terminator 2*) that could be fatal to humanity."[324] She goes on to analyze *Alien*, describing it as "a shooting gallery in space"[325] and notes the skill with which Scott kept secret the identity of the potential survivor[326] - observing that the marketing for the campaign focussed not on the actors but on the image of the alien egg,[327] which, it can further be noted, was lit as if were a planet in space, an image not too far removed from the iconic embryo shot in *2001: A Space Odyssey*. Thompson also recalls her experience of believing that the director might go so far as to let there be no survivors and the impact that this had on suspensefullness of the film.[328] Indeed, when the most obvious lead character, Dallas, is killed, Thompson notes, "Traditional science-fiction conventions came to seem unreliable guides as to what might happen next."[329]

Thompson comments of the ending that it "hints at the possibility" of what was to come, citing the posing and lighting of Ripley's hand on her chest as a potential prefiguration of her future.[330] It is an image that with hindsight does suggest the future but it does not, of itself, constitute an unfinished, open ending to the narrative, and so it would appear that the first installment, at least, conformed to classical narrative structure. Of the final film in the series (to date), Thompson notes: "The action-packed, overblown, and inexplicably overrated third sequel to *Alien*, *Alien Resurrection* (1997), suggests that the exponential need to raise the level of action with each successive season of filmmaking has by the late 1990s reached absurd heights."[331] As she remarks,

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[323] Stephen Mulhall, *On Film*. (London: Routledge, 2002), pp. 3-4.
[324] Kristin Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique*. p.13.
[325] Ibid., p.283.
[326] Ibid., p.284.
[327] Ibid., p.286.
[328] Ibid.
[329] Ibid., p.298.
[330] Ibid., p.304.
[331] Ibid., p.306.

Alien Resurrection's "...concentration on action does not represent a post classical approach so much as incompetence."[332]

The response to the individual films has also followed a fairly typical pattern for franchise products. The first film (1979) was a box office success but it was not followed up until 1986. This second film's success rivalled the original's and has become a classic Collector's Edition DVD release. The third film (1992) was considered to be a disappointing addition to the series and the death of Ripley gave audiences reason to believe that the franchise was at an end. When the most recent version was released in 1997 initial interest was swiftly followed by almost rancour at the interpretation on offer. This pattern of surprise success, followed up by repeat success and then disappointment leading to outright dislike, is not unusual. Franchises are often sparked by an excellent originating premise that deserves further development but winds up being milked of its originality and promise.

In this case, across the series, the films touched on issues that prevailed in the wider community: technology, corporate greed and amoralism, globalization, mad science, and the ongoing popularity of prehistoric monsters. The first film followed hard on the heels of a horror film that is considered to be responsible for triggering a new cycle of the horror film genre: that being John Carpenter's 1978 classic, *Halloween.* As *Alien* combined the already popular science fiction genre with the emerging cycle of horror, it satisfied two trends and cleverly used a marketing tag line that signalled this: *In space no one can hear you scream.*

When the second film came out in 1985, action films were enjoying great success and the sequel's director, James Cameron, had earned his reputation with his science-fiction/action success, *The Terminator.* The film's tag line, *This time it's war,* promised plenty of firepower and a monster that had already pushed a great number of psychological buttons. The film delivered its promise, taking the sequel to box office success. James Cameron remarked that while Ripley survived physically in the first film, the second film offered psychological survival;[333] her accepting responsibility for the child, Newt, and the image of the 'family' escaping the threat to its survival

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[332] Ibid.
[333] James Cameron in *Alien Legacy: 2oth Anniversary Special Edition* Box Set DVD collection. (Twentieth Century Fox Film Corporation, 2000).

suggesting both resolution of her inner qualms and restoration/preservation of the family unit.

Once again, with the substantial financial return of the sequel, it is surprising that it took a further seven years for the third in the series to reach the screen, given the enormous popularity of the previous films. In keeping with the approach of taking on directors early in their careers, *Alien3's* director came from music videos and commercials but the tag line's promise that *The bitch is back,* did not deliver the level of action, horror and spaceship vulnerability of its predecessors. Its downbeat ending while offering narrative closure did not offer a happy resolution and it did not attain the level of support achieved by either of the first films. It is therefore somewhat understandable that *Alien Resurrection* would have to invite audiences to believe the impossible - *Witness the resurrection* - its tag line challenging the legions of fans to believe that they could bring back not only Ripley but the franchise from the dead. As Will Brooker's many-genred description suggests, the generic hybrid/clone fourth film was as ill-conceived as its versions of Ripley herself.

Alien relied upon traditional special effects to achieve its results, something Ridley Scott comments upon in the DVD release.[334] Indeed, at a number of points he remarks that with the benefit of CG so much more could have been done. James Cameron also comments that to push the effects further, he used every trick in the book - camera speed manipulations, wires, and turning the camera upside down to push the action in *Aliens*.[335] However, by 1992 digital visual effects were beginning to come into their own. *Alien3* used a strong mix of traditional effects and digital visual effects to achieve its results. The alien was a combination of puppets and actors in a suit. Matte paintings, rotoscoping, virtual camera moves, miniature and models, composites and motion control were also used. The most notable use of digital visual effects, though, is the image of Ripley diving into the liquid fire in the furnace, clutching her alien spawn to her bosom, fulfilling the heroic challenge to leap if falling.

Alien Resurrection was the first in the series to be a full-scale digital visual effects film while still relying, where appropriate, on all the usual traditional special

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[334] Ridley Scott in *Alien Legacy: 2oth Anniversary Special Edition* Box Set DVD collection. (Twentieth Century Fox Film Corporation, 2000).
[335] James Cameron in *Alien Legacy: 2oth Anniversary Special Edition* Box Set DVD collection. (Twentieth Century Fox Film Corporation, 2000).

effects.[336] Although this version also used puppet/animatronic aliens and actors in suits to create its monster, *Alien Resurrection* was the only film in the series to have a fully CG creature blended into the action. The film also used digital visual effects to sell the idea of Ripley's hybrid/clone nature: the morphs of her maturation; the CG of her hand being pierced by Call's knife; the acidic properties of her blood; and her super-human leap from the docking pier to the ship. In broad terms the digital visual effects were used to convince that the CG alien was natural and that Ripley was not. The other uses were of a more commonplace nature - matte paintings and set extensions needed to provide the scope of the interiors, the diegetic world of outer space, and composites enhancing the level of danger posed to the humans, including in this last instance, a virtual camera move providing an internal view of a chest-buster scene.

It is not only in its extensive use of digital visual effects that *Alien Resurrection* is a work in contrast to the previous films. Where the *Nostromo* was claustrophobic, the *Auriga* is huge; where the computer in *Alien* is called 'Mother', in *Alien Resurrection* it is called 'Father' - a highly suitable choice given that the alien and Ripley are man-made offspring - the monstrous hybrid/clones of science. Where *Alien* dealt with the irrepressible urge of Nature to reproduce, *Alien Resurrection* deals with the irrepressible urge of Man to meddle.

Bruce Kawin in his paper, "*The Mummy's Pool*" comments that "Horror emphasizes the dread of knowing, the danger of curiosity, while science fiction emphasizes the danger and irresponsibility of the closed mind. Science fiction appeals to consciousness, horror to the unconscious."[337] *Alien* - as a science fiction/horror film offered something to both conscious and unconscious needs. That it set up a powerfully attractive 'world' for so many variations on its themes is hardly surprising.

Stephen Mulhall has examined the series in his book, *On Film*. He comments that, "From beginning to end, the 'Alien' films present us with small, isolated groups of human beings framed most immediately against the infinity of the cosmos."[338] The appeal of such films to audiences in a world that has entered the space age and that has been the first privileged with a view of earth from space, is fairly obvious. Against this cosmic background is another theme that links the four films: reproduction.

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[336] Bill Norton, "Cloning Aliens" in **Cinefex** 73, March 1998.
[337] Bruce Kawin, "The Mummy's Pool" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.683.
[338] Stephen Mulhall, *On Film*, p.8.

The first film emerged when feminist influence was finally beginning to make an impact and the most recent film was made when the impacts of feminism were beginning to be measurable. Central to both the films and feminist interests is the question of reproductive power. It is interesting that the casting of a woman in the lead role for these films shifts the context from fairly straightforward arguments of Nature versus technology or simply monsters versus humanity to more complex issues or aspects of these issues.

Critical studies of the series have assessed the themes of motherhood; Nature versus science; fertility/celibacy; masculinity and rape/femininity and purity. Much has been made of the sets for the first three films comprising as they do of so many tunnels dripping with the monster's mucous. Yet the stake in these films is always survival and it takes survival of the female to guarantee this. As Joseph Campbell has noted, women are born heroes with their heroic journey clear: the trial of birth and motherhood which has traditionally been a woman's proving ground, whereas men need rings to destroy because they cannot give birth.[339]

Ripley, in the first film, is indistinguishable from the males. All of the characters are treated with nominal workplace equality although the gender tensions are allowed to surface. As a member of the crew she demonstrates competence, loyalty to the protocols (over which she is challenged and defeated), and there is no romantic plotline to interfere with the main task of escaping from the alien and defeating it. In the first film it is a male who 'gives birth' and Ripley, at the end, is safe in the womb of the Emergency Evacuation Vehicle (EEV), like an egg in her hypersleep capsule. All of these images and themes conform well with the issues that faced women in the late 1970s - the expectation that motherhood was best avoided while one achieved one's equality in the workplace and the popular idea that things might be different if it was men who had to give birth (an idea that obviously worked well as a horror film concept

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[339] Joseph Campbell in Fraser Boa, *The Way of Myth: Talking With Joseph Campbell.* (Boston, Massachusetts: Shambhala Publications, Inc., 1994), pp.88-89. Campbell has said, "In rituals and myths, most of the problems involved in finding male adulthood come about because the male has to intend to become an adult. It is different for the female. For the young woman, it happens to her. With her first menstruation she's a woman. Next thing she knows she's a mother. She doesn't have to work this thing out. It's working itself out on her and the problem of the woman is to realize who and what she has already become. The problem of the male, on the other hand, is to become what he can be. All the myths know this and all the myths build it up."

for the men in the audience). For many women the goal was to prove that one could indeed be equal to men in their own arena and that one of the ways to achieve this was to downplay femininity and accentuate technical competence.

By the mid-1980s things had changed slightly and reconciliation of the demands of motherhood and career were attempted in the film by Ripley escaping into the EEV with a 'nuclear family'. The bitch fight between the two mothers, where Ripley is given advantage by assuming her place in the machine (at which she has demonstrated her technical prowess earlier in the film) helps sell the idea that a masculinized woman is a better mother, better able to protect her young. In this film the android is her ally and her fight is with the Queen, the monster that breeds in great numbers.

In the third film the brute realities of the masculine world are brought to the fore. Bereft of her 'family', Ripley is stranded in a double-Y chromosome populated frozen hell where the dregs of the world are awaiting their end, engaged in a self-sustaining brotherhood that considers her 'the intolerable'. Her mere presence is anathema to them and the Company - the firm that has always prized the weapon-potential of the alien over the lives of the humans - is en route to take her prisoner. Where in the previous films Ripley has always been able to defeat the Company's ploys and maintain her integrity, this time she must destroy herself because she - having finally become sexually active - is bearing the monster and will not surrender her offspring to the Company. By 1992 statistical information was beginning to emerge that while women were employed in a wider range of fields their representation and their remuneration had not attained the level of equality feminism had argued could be theirs. Furthermore, a generation of women was facing the possibility that significant numbers of them may never have children.

Seven years later, as IVF becomes common practice and clones become a viable technology, *Alien Resurrection* brings forth its own version of Ripley and this time, she is the monster and the monster is her. In this film, the alien must now reproduce through gestation and delivery of live young. Once more, Ripley must kill her kin. Gone are the sets full of dark wet tunnels. In their place are laboratories and gleaming technology.

Thus the choice of a female hero for this series of films is apt.* The themes have been enriched immeasurably and the relationship between Man against Nature is a quite different fight to that of Woman at battle with the irrepressible breeding power of Nature. In *Aliens* - there is Newt - the substitute daughter, in *Alien3* it is a prison colony of rapists and Ripley pitches herself into the flames to kill the offspring she bears; in *Alien Resurrection* she is the man-made reconstitution and the tubes of mutants show what happens when Man meddles with Nature. The setting of this small group of humans against the backdrop of the Cosmos - a cosmos it is beginning to see first-hand for itself and appreciate the meaningfulness of Kubrick's embryo in space - is not simply exotic or spectacle for spectacle's sake, but integral to the deep issues being faced and explored within the stories.

Mulhall has also commented on this impact of casting Weaver in the lead. As he puts it, "...one of Scott's most effective subversions of the hybrid genre in which he is working (his association of femininity with heroism rather than victimhood) turns out to be dictated by the logic of his monster's monstrousness."[340] For Mulhall the alien represents "Nature incarnate or sublimed, a nightmare embodiment of the natural realm understood as utterly subordinate to, utterly exhausted by, the twinned Darwinian drives to survive and reproduce."[341] He argues that, "Ripley's denial of her maternal drive is integral to the themes. She is in opposition to the monster's need to reproduce.[342]

He also notes the significance of the change in her role in the second film stating, "Her accelerating inhabitation of the role of mother to Newt is, however, central to the film's development throughout....".[343] It is his interpretation that this is a further development of Ripley's role as hero, one that supports Barbara Paul-Emile's Warrior Women theory. As Mulhall says, "Certainly, on the film's view of the matter, if the true warrior is nurturing, the true nurturer is a warrior....".[344] This warrior however, will have other battles to fight and not simply with the irrepressible reproductive monster but with the masculine world and the Company's obsession with ultimate weapons.

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* It is also worth noting that one of the few other female lead roles in a franchise also concerned the issue of motherhood. Sarah Connor, the franchise lead of the *Terminator* series is also defined by her reproductivity.

[340] Stephen Mulhall, *On Film*, p.23.

[341] Ibid., p.19.

[342] Ibid., p.25.

[343] Ibid., p.72.

[344] Ibid., p.73.

In comparing the second and third films Mulhall has observed that "Cameron presents his film as giving Ripley the therapy she needs to wake from such nightmares; Fincher presents his film as awakening Ripley from Cameron's dream....".[345] One can see this according of a family in *Aliens* representing an answer to the corporate, masculinized woman's dilemma, the 'therapy' being the fulfilment of a dream to achieve both warrior and nurturer roles. Then, as the third film depicts, an awakening to the nightmare that the world does not easily allow such things to be fulfilled. As Mulhall has observed, "For Fincher, nothing - not even achieving the requisite degree of emotional resilience, the ideal combination of male warrior and female nurturer - can guarantee anyone a happy ending, or render them immune to accident or ill-fortune."[346]

Ripley realizes, as Mulhall puts it, that "...she is the alien; it incarnates the nightmare that makes her who she is, and that she has always been incubating."[347] This is a realization that many modern women also arrived at. As Mulhall argues, "Since the alien itself originates from within her, since it is an incarnate projection of her deepest fears, she can succeed in eliminating it only by eliminating herself."[348]

As Mulhall has remarked, "Fincher's primary preoccupation as a director is with closure."[349] For many corporatized women the closure of experience was the fate to never achieve motherhood. Mulhall's comment on the third film is that, "The achievement of closure here, so absolute and on so many levels at once, has an elegance that almost disguises its nihilism."[350] then goes on to describe the final scenes of the fourth film in a particularly grim account:

> As she soothes the child's fears and frustrations in the Betty's cargo bay, she uses her own acidic blood to incise a small hole in one of the windows, and the monstrous infant is gradually sucked through it, its pleading wails eventually silenced as the last particles of its body are squeezed into space. This climax is an inflection of a familiar trope of the series: the first two films culminate with an alien's ejection into space through an airlock, the third with the alien queen's ejection from the universe as such.[351]

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[345] Ibid., p.101.
[346] Ibid.
[347] Ibid.
[348] Ibid., p.106.
[349] Ibid., p.93.
[350] Ibid., p.106.
[351] Ibid., p.134.

While Mulhall likens this to "a grotesque parody or inversion of its birth, and hence of birth as such....",[352] in truth it is more akin to an abortion where, as a result of its mother's actions, the child is sucked from the safety of the womb and reduced to particles in an environment in which it cannot live. Potentially, this is another statement on the issue of reproductive power or power over reproduction.

In relation to the *Alien Resurrection*, Mulhall also makes another, very valuable, observation. He remarks that, "Jeunet's film thus finds a way of grafting two apparently opposed or contradictory modes of reproduction onto one another. Cloning suggests replication, qualitative indistinguishabiliity, whereas hybridity suggest the cultivation of difference, a new creation."[353] This hybridity, this impetus to create something new, is intrinsic to genre filmmaking and speaks directly to the appropriateness of the evolution in the technology used to create the images for these films.

From a beginning reliant upon traditional special effects techniques to a conclusion (or not) powered by digitally assisted techniques, the path is similar - natural reproduction evolving into scientifically created reproduction. Where the alien in the first film was someone in a suit or a puppet, the alien in the last film is a CG construct, generated entirely by the machine. The CG performer, as has already been discussed, is not always apparently 'the other' but can often be crafted from human performance and animation, creating an eerily hybrid presence or, in some instances, performances that are indistinguishable from live action.

This is of interest not only because of the implications it has in connection with this series of films, but for the wider concerns of franchise filmmaking. Christine Geraghty discusses Harrison Ford's performances in a number of franchise films observing that "...stars such as Ford, who work within the star-as-professional category, operate for cinema/video in the same way as a character in a television series, providing the pleasures of stability and repetition and the guarantee of consistency in the apparent plethora of choice offered by the expanding media."[354]

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[352] Ibid.
[353] Ibid., p.121.
[354] Christine Geraghty, "Re-examining stardom: questions of texts, bodies and performance" in Christine Gledhill and Linda Williams, eds. *Reinventing Film Studies*. p.191.

This 'guarantee of consistency' is an important quality as one of the 'use-by' factors for a franchise is, of course, the life-span - or the role-credibility span - of the lead. For most men, this is a measure of their ability to undertake action roles, something digital visual effects can most certainly prolong. Needless to say, digitally created characters do not have such limitations, although, outside of animation, there have been no comparable digital 'stars' on offer for franchises, as yet. The closest thing to emerge have been the dinosaurs in the *Jurassic Park* franchise but, as James Monaco notes, the *James Bond* series - which has cheerfully substituted Bonds for over four decades - appears to be leading the franchise pack.[355]

This success would appear to support Mulhall's observation that, "An important issue here is the way in which a 'franchise' can renew itself over time, in part by explicitly reflecting upon what is involved in inheriting a particular set of characters in a particular narrative universe - the constraints and opportunities internal to...that inheritance."[356] A few franchises - such as the *Bond* films or the *Star Trek* films - draw upon a wide fan base that is open to new characters or new actors in set characters' roles. However, these examples aside, franchises generally appear to follow the pattern described earlier, with stories reaching a natural conclusion if for no other reason than exhaustion of the original premise.

In discussing a similar evolution within genres, Thomas Schatz turned to the work of Henri Focillon who identified certain stages in works of art:

> (Focillon)...observes that the continual reworking of a conventionalized form - whether it is in architectural style or a genre of painting - generates a growing awareness of the conventions themselves. Thus a form passes through an experimental stage, during which its conventions are isolated and established, a classic stage, in which the conventions reach their "equilibrium" and are mutually understood by artist and audience, an age of refinement during which certain formal and stylistic details embellish the form, and finally, a baroque (or "mannerist" or "self-reflexive") stage, when the form and its embellishments are accented to the point where they themselves become the "substance" or "content" of the work.[357] (Henri Focillon - The Life Forms In Art)

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[355] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition, p.358.
[356] Stephen Mulhall, *On Film*, p.5.
[357] Henri Focillon, "The Life Forms In Art" quoted in Thomas Schatz, *Hollywood Genres*, pp.37-38.

One can argue that the *Alien* series can be seen as conforming to these stages. *Alien* - with its cast of relative unknowns - offered an experiment in science-fiction/horror that led to the 'classic' offering of *Aliens*. This was followed by the 'refined' version of the story, *Alien3,* in which the stylistic details of the previous films were the primary linkage between the films and then, finally, the 'baroque' offering of *Alien Resurrection*. Viewed in this way, one can consider the franchise as a body of work that can evolve in its own right. Mulhall has commented of the *Alien* franchise, "...these films do genuinely form a series (a sequence in which each member appears as generated by its predecessor, and generative of its successor)."[358]

Thus the franchise need not simply be a means of extending the box office take on a good idea. When a film is particularly resonant as *Alien* appears to have been, the franchise can offer a means by which an emerging and significant issue or set of issues can develop and explore the concerns of the wider community. Much as happens in the evolution of independently crafted stories in genres, within franchises a more specific set of issues can be confronted and commented upon.

Specifically, this franchise also shows how the themes of the film can be underpinned not only by the use of the technology but by the technology's development over time also. While many authors have noted that this is integral to the science fiction genre, generally this has been in relation to the display of technology within the film. In regard to the *Alien* films, however, the nexus is particularly meaningful. Starting from a point of natural production and ending with scientifically crafted production as a narrative theme, the coincidental development of digital visual effects and the franchise's culmination in a computer generated alien and versions of Ripley show us that our stories can speak to the heart of our experiences and our fears about their implications. As Schatz quotes Leo Braudy, 'Genre films essentially ask the audience, "Do you still want to believe this?" '[359] It would seem that a purpose of the franchise is to pose the same question but perhaps in relation to a much more specific set of circumstances.

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[358] Stephen Mulhall, *On Film*, p.9.
[359] Leo Braudy quoted in Thomas Schatz, *Hollywood Genres*, p.38.

ET 2 AI: Steven Spielberg's body of work and usage of digital visual effects

No discussion of digital visual effects would be complete without some consideration of three of the directors whose work has been cited as most influential on the development and acceptance of digital visual effects. These directors - George Lucas, James Cameron and Stephen Spielberg - whose names are thought to be synonymous with effects films - have made quite different contributions to the history of digital visual effects.

George Lucas

At the forefront is George Lucas who remains the undisputed champion of digital filmmaking not only for his advances in the development of digital visual effects but for his achievements in nurturing developments in digital sound, editing and the creation of Lucasfilm Computer Graphics Division, the original computer animation studio that became Pixar. Lucas is unreservedly supportive of digital effects as the key approach to filmmaking and has consistently pushed the technology to attempt major innovations. While many of these innovations - such as the integration of CG characters in live action films - are elements of his own films, most notably in the *Star Wars* series, his digital visual effects company, ILM has provided groundbreaking images not only for his own work but for a great number of other filmmakers.

A USC film school graduate, Lucas earned his reputation with an edgy science fiction film (*THX1138*), made during his student days but his first Hollywood success was the small town America drama, *American Graffiti*. Considered one of the new young turks in town, Lucas was able to negotiate a considerable amount of creative control over his next project, *Star Wars,* a film that would earn him his financial and creative independence and a global following.

Of *Star Wars* he has said, "There was no modern mythology to give kids a sense of values, to give them a strong mythological fantasy life.... Westerns were the last of that genre for Americans. Nothing was being done for young people that has real

psychological underpinnings and was aimed at intelligent beings."[360] This is the voice of a filmmaker whose childhood film-going experiences inspired his desire to recreate the experience for a generation that followed. From my own experience of working in the digital visual effects industry, it is quite common for applicants for digital visual effects positions to cite *Star Wars* as a film that 'changed my life' and inspired a desire to work in digital visual effects.

While Kubrick's *2001: A Space Odyssey* holds the position as the film that reinvented science fiction, *Star Wars* - building upon the foundation Kubrick built - reinvented special effects. The use of special effects in Hollywood had reached such a low by the time Lucas was on the cusp of re-inventing it that, as Baxter has said, "...studios spent most of the decade closing their special effects and animation departments. In 1973 and 1974 the Academy didn't even bother to award Oscars for special effects."[361] Certainly this shows how times have changed and almost directly as a consequence of Lucas' dedication to the craft and his ability to use effects in projects that struck a chord on a narrative level.

In an interview he gave before the film was released, he stated: " 'We went into this trying to make a cheap, children's movie for $8 million. We didn't go in and say that we were going to make the perfect science fiction film, but we are gonna make the most spectacular thing you've ever seen!' "[362]

Spectacular it certainly was. From the opening shot, audiences knew they were in for something entirely new but where Kubrick mesmerized with brilliant images and an intellectually intriguing non-narrative, Lucas married brilliant images with classical narrative. He remarked, " 'I ... tried to stay with universal themes apart from violence and sex, which are the only other two universal themes that seem to work well around the world. My films aren't that violent or sexy. Instead, I'm dealing with the need for humans to have friendships, to be compassionate, to band together to help each other and to join together against what is negative."[363]

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[360] John Baxter, *George Lucas: A Biography.* (London: HarperCollins Publishers, 1999), p.164.
[361] Ibid., pp.170-171.
[362] George Lucas quoted in an interview with Stephen Zito which appeared in **American Film** edited by Hollis Alpert, in April 1977 and is reprinted as an "Introduction" for George Lucas' *Star Wars: A New Hope.* (London: Faber and Faber, 1997). p.xii.
[363] George Lucas quoted in John Baxter, *George Lucas: A Biography* p.403.

As previous comments have indicated, there has been a great deal made about the relationship between *Star Wars* and Joseph Campbell's work. As Lucas' biographer has documented, "Lucas invited Joseph Campbell to lecture (at Skywalker Ranch), impressing John Williams, for one: ' Until Campbell told us what *Star Wars* meant - started talking about collective memory and cross-cultural shared history - the things that rattle around in our brain and language, the real resonance of how the whole thing can be explained - we regarded it as a Saturday-morning space movie.' "[364]

Baxter goes on to observe, "Campbell argues that every epic, no matter what culture created it, rests on two or three characters and a personal conflict, usually between father and son, which embodies the eternal battle between good and evil."[365] The father and son relationship was not to be known from the first film and, had the film not enjoyed the success it did, it is not entirely certain that this would have come out. Whatever the extent to which Campbell was an influence or whether his work simply rings true in this narrative, as in so many others, Baxter makes an important observation. Baxter has noted that, "Critics of Lucas's *Star Wars* concept almost never grasped the two fundamental differences that separated it from other science fiction films of the seventies: it was optimistic, not dystopic; and it took place not on a planet, but mostly in space."[366]

In this his take on the future was as refreshing as Spielberg's take on aliens. Creating a galaxy far, far away where space travel was as common as air travel and life on another planet was as familiar as life in Everysmalltown, USA, Lucas offered, as he subtitled his script, a new hope. Just as Spielberg had turned things around with his aliens who might possibly be friendly, Lucas suggested that space was a frontier that would someday be as settled as America. Yet while both these directors have shown a similar ability to put a new view forward in relation to traditional science fiction themes, as Baxter has observed, "Spielberg wanted to show how an ordinary man reacted to the arrival of galactic beings. Lucas dreamed of extraordinary people on planets and galaxies distant in both space and time."[367] In this way then, Lucas' aim was to mix both mythic and fairytale elements, as previous discussion has noted.

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[364] John Williams quoted in John Baxter, *George Lucas: A Biography.* p.245.
[365] Ibid., p.164.
[366] John Baxter, *George Lucas: A Biography*, p. 170.
[367] Ibid., p.180.

James Cameron

One of the things that differentiates James Cameron's work from his fellow effects directors is his use of traditional romance in his storylines. *Titanic*, for all its use of leading edge technology, is essentially a period romance. Underpinning his script, *Strange Days*, are some very complicated personal relationships. Even his *Aliens* film suggested that Ripley had left her sole survivor persona in the past and was escaping into the future with her new family. This approach is wonderfully effective for winning audiences. While *The Terminator* fulfils all the usual expectations - and then some - for action sequences, there is also the aspect of the story about the guy from the future who came back in time *for her*. In marketing terms it's a perfect date movie: action; gory hold-my-hand killings of the flatmate and her boyfriend; and the guy who came back through time to save Sarah.

Working in production design before directing for Roger Corman, Cameron's focus was scriptwriting and, following the success of *The Terminator*, he has written all of his own feature film scripts. He has also earned the reputation as one of the most expensive filmmakers in Hollywood although, unlike many others granted access to large budgets, Cameron's box office returns have brought in returns commensurate with his excesses. His use of effects is highly innovative with *The Abyss* (1989) and *Terminator 2: Judgement Day* (1991), being considered two of the most pivotal moments in the development of digital visual effects.

However, his body of work is not broad. Since *The Terminator* in 1984, his narrative feature film credits include: *Aliens* (1986); *The Abyss* (1989); *Terminator 2: Judgement Day* (1991); *True Lies* (1994); and *Titanic* (1997). Although other projects have taken his attention (The *T2-3d* project; *Dark Angel* TV series; and the documentary - *Ghosts of the Abyss*) these projects and his feature films largely fall into science fiction and the action/adventure genres. Within these genres he is undoubtedly a respected action filmmaker whose science fiction, or even period settings, make use of digital visual effects - some of the most astonishing visual effects - generated as a consequence of his narrative demands. However, for the purposes of this Chapter, that he does not work in a wide range of story types is a limitation. Thus, where George Lucas' feature film directing has, since *American Graffiti*, focused almost entirely upon the *Star Wars* films, and as James Cameron's work has been restricted to virtually two

genres, excepting the period romance *Titanic,* for a more extensive range of work attention turns to the third in the trio.

Steven Spielberg

It is Stephen Spielberg who is probably the most representative of his generation of filmmakers and whose body of work has the broadest range of these three filmmakers. Although *Duel* (1971), and *The Sugarland Express* (1973) are now given renewed attention in light of Spielberg's later success, it was *Jaws* (1975) that elevated him to the ranks of the major filmmakers. He followed this success with *Close Encounters of the Third Kind* (1977) a film that portrayed the meeting of alien and human as a potentially positive and enlightening experience. His next film, *1941* (1979) was not a success but the project that followed, where he teamed with George Lucas, overcame any criticism that might have been forming against him. *Raiders of the Lost Ark* returned him to box office success and his next picture - *E. T. - The Extraterrestrial* (1982) kept him there.

E. T. was the last feature film Spielberg made before digital visual effects started to find their way into the feature film making process. It was also the film that he would return to in order to make changes using digital visual effects. Some of these effects were made to correct the look in order to heighten verisimilitude, i.e. the flying scenes where Elliot's cape did not billow in the first film, now billows in the digitally enhanced version. However, more crucially, Spielberg was able to make a change that his conscience dictated. In the first - non-digital version of the film - the government agents tracking the children have guns. These were digitally removed in the amended version as Spielberg regretted showing children being put under armed threat.

He next directed one of the segments of *Twilight Zone: The Movie* (1983) and then returned to the 'Indiana Jones' franchise directing *Indiana Jones: The Temple of Doom* (1984). This film, a darker offering than the first, was successful but did not enjoy the warm reception visited upon the first in the series. Spielberg's next film, *The Color Purple* (1985), is considered to be an attempt to prove that he could make serious drama. Although the project- having been directed by a white director- attracted a fair

amount of controversy, the film earned critical and box office success, earning eleven nominations for Academy Awards.[368]

He followed *The Color Purple* with *Empire of the Sun* (1987), another serious drama. The film also included a CG "...squadron of aircraft flying over Shanghai, a wide aerial view of a stadium and the blinding light and shock waves of the Nagasaki bomb....".[369] This was not one of Spielberg's box office successes and in a town that judges its denizens by their last production, Spielberg wisely moved on to the third in the 'Indiana Jones' films: *Indiana Jones and the Last Crusade* (1989). This film also used digital visual effects but in a limited way, stitching stills together to demonstrate the destruction of Indy's nemesis, Donovan. The film had Spielberg back on top in the box office stakes and, in something that was becoming a bit of a pattern, he followed it with a riskier project, the melodrama, *Always* (1989).

Although *Always* relied upon effects to carry its aerial sequences, it was his next project, *Hook* (1991) that saw a return to the kind of children's film full of effects with which Spielberg was generally associated. By this stage digital visual effects had reached a point in their evolution that allowed convincing representations of the characters flying. It enjoyed good returns at the box office but not enough to be considered a Spielbergian success. That would be reserved for the film that followed: *Jurassic Park* (1993).

Jurassic Park's CG dinosaurs were undoubtedly the stars of the film. Their creation, building upon the work undertaken in other films of the period - not the least of which was *Terminator 2: Judgement Day* - introduced another round of major technical breakthroughs, the full realization of which are still being enjoyed by audiences in films being made more than ten years later. Animators and programmers worked to ensure that the CG dinosaurs behaved in physically persuasive ways and, supported by the live action performance elements in the background slates, their integration with the environment sold the diegetic world.

As Ian Freer states, "Visually *Jurassic Park* follows the Spielbergian tenet of locating the fantastical in a believable setting."[370] It has also been argued that the "clash

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[368] Ian Freer, *The Complete Spielberg*. (London: Virgin Publishing, Ltd., 2001), p.152.
[369] Ibid., p.163.
[370] Ibid., p.210.

between human and nonhumans" is a recurring theme in Spielberg's films.[371] *Jurassic Park*, achieved both the fantastical in the believable setting and brought humans and dinosaurs together, again believably, through the use of a convincing scientific argument and digital visual effects that were as scientifically valuable as they were cinematically spectacular.

The script was a very tightly constructed classical narrative that drew upon a meticulously researched novel by Michael Crichton. The theory that dinosaurs could be cloned using DNA extracted from mosquitos caught in amber was plausible and certainly imaginably within the scope of a scientific community that has cloned animals and grown human ears on the backs of laboratory rats. Having established the possibility that science could create such a scenario, the question then became: if this were to happen, what would they look like? It is here that the link between cinematic realization and scientific modelling is made.

The film itself is something of an elaborate narrative cogitation on the ethics of scientific experimentation and human folly. Within this discussion there is a standard monster chase and attack film and a morality play about commitment and parenting. The 'A' plot is ostensibly the theme park adventure and the survival test of encountering the dinosaurs, with the 'B' plot focusing on the betrayal by the computer expert who is selling the dinosaur eggs to the competitor. The 'C' plot attends to the relationship between Ellie (Laura Dern) and Alan (Sam Neill) and allows the morality play to unfold and explore the themes of Ellie wanting to have children and Alan being the male who threatens the species by not being willing to fulfil the responsibilities of breeding and caring for offspring. The interworking of these three plots allows the subtext of Alan's character development to be realized in his actions in protecting the children throughout the chase and attack sequences of the main plot and to also offer a counterpoint argument about 'life finding a way', the movie's stated theme. The subplot concerning the betrayal of the company secrets triggers the crises in the main plot and so each of the plot lines works to support and underline the other themes and narrative threads.

Similarly, the effects themselves - both special and digital - work to underpin the themes and the narrative requirements. The use of the 'magic computer' to convey

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[371] Lisa Kennedy, "Spielberg in the Twilight Zone" in **Wired**, 10.06 (June 2002), p. 108.

expositional information about the science crucial to the understanding of the narrative is a cinematic tool and a typical documentary use of digital technology to demonstrate scientific principles. Thus it is an example of the technology being used for narrative *and* technological purposes that is, storytelling and the documentation of scientific ideas. Digital visual effects routinely serve these purposes but within this film, they achieve both. The narrative also relies on computers as a plot point to trigger the circumstances that allow the dinosaurs to get access to the humans - just as the computers were used to make dinosaurs accessible to humans. It is pointed out within the narrative that massive computing power was required to bring the dinosaurs of the narrative to life yet this is also a statement about how the dinosaurs are brought to the screen.

Further, the dinosaurs themselves work narratively and as scientific revelation. The images revealed in the movie were the first public screening of CG modelled dinosaurs. The first sight of dinosaurs in the movie is of CG characters created uniquely for this film. It is a moment in the narrative where the characters themselves stop to experience the awe of their first sight of the science that has shaped their careers and also, for the audience, it is the first sight of dinosaurs as science would have them represented to us. This twinned moment of spectacularity serves both the narrative and the lived experience of our study of dinosaurs.

Their representation in a narrative does not take away from the significance of their depiction as a scientific representation of dinosaurs. Thus, through narrative, members of the audiences were given an opportunity to have the experience of seeing dinosaurs themselves for the first time. This point is made within the narrative by Hammond, the creator of the theme park, when he says, "I wanted to show them something that wasn't an illusion." (footnote) In some way, the use of CG to portray these creatures is a step beyond the traditions of clay dinosaurs and toward a level of representation that is closer to science; an attempt to present a visual depiction that is a demonstration of scientific knowledge more than cinematic fancy. Yet the film does not take itself so seriously that it is unable to make the self-parodying display of merchandizing in the set where the final dinosaur attack will take place.

It is this deft shifting from exposition, philosophizing, and storytelling that makes *Jurassic Park* an interesting film for analysis of the relationship between its narrative and its effects practice. Just as the text of the film shifts between textual states,

the shifting between kinds of effects practice - the use of animatronix and computer generated images - reflects a debate that was very contested at the time the film was being made. There was an argument that natural, crafted effects were better than computer generated, artificial effects, and this view had many followers. It was thought that CG would never be able to portray a convincing living creature yet, "... the results (of the test shots for the gallimimus herd sequence) were so amazing Spielberg wrote the sequence into the script."[372] Further, "Encouraged by the CG team's progress, Spielberg eventually devised a new ending for the film in which computer generated raptors would be joined by the computer generated T-rex in a showdown between the fierce predators in the visitor center rotunda."[373] The results were so persuasive that Mark Dippe said, "With *Jurassic Park*, we've created something that is in a direct line of the evolution of creature work."[374]

This proved to be true as CG has gone on to become the most common means of creating dinosaurs and many other lifeforms for films as well as documentaries for scientific and educational purposes. In the wake of *Jurassic Park*, numerous documentary projects, such as the BBC's *Walking With Dinosaurs*, were realized because the technology had evolved to the point where it could be taken up for credible representations of the latest scientific thoughts on pre-history and the fossil record. It is a film that has left an amazing legacy of technological achievement for filmmakers and documentarians however, while many directors would be satisfied to have accomplished so much, in the same year, Spielberg released the profoundly moving film, *Schindler's List* (1993) demonstrating that while he was still master of the blockbuster, his intentions to make critically successful dramas would also be realized. Once again he proved his ability to use digital visual effects to support narrative by drawing upon rotoscoping to inject the crucial elements of colour in the otherwise black-and-white footage. This carefully selected use of colour - to highlight scenes of great emotional and symbolic impact - shows his mastery of effects but also his discretion in using them. Where many critics argue that in Hollywood effects are used for deliberately spectacular purposes, in *Schindler's List*, Spielberg showed they could be used to underline the themes and ensure emotional resonance.

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[372] Don Shay and Jody Duncan, *The Making of Jurassic Park: An Adventure 65 Million Years in the Making*. (New York: Ballantine Books/Random House, 1993), p.135.
[373] Ibid., p.138.
[374] Ibid., p.139.

The film is a powerful character drama. Oskar Schindler starts out as an opportunistic manipulator, a master of social engineering. In Kracow to make a name for himself in business, he is shrewd enough to see that opportunity lies in obtaining a Jewish business and he cultivates the local Nazi officers to ensure he has the connections he needs to realize this ambition. Itzhak Stern, a Jewish accountant, at first refuses to promote the deal Schindler has to offer the local Jewish businessmen but desperation ultimately forces them to accept his proposal. Schindler achieves his dreams of wealth and thinks of the war simply as a condition necessary for his success. Then one of his workers insists on thanking him for a job, the job that provides protection with its 'essential worker' status. The worker is an elderly, one-armed man and it is obvious that he has been found a job within the factory to save him from being shipped off by the Nazis. This moment represents a turning point because it makes Oskar complicit in Itzhak's cunning manipulation of the system to save his fellow ghetto inmates. Later, when the Jews are stopped enroute to work and forced to dig snow, Oskar confronts the Nazis and demands compensation, defending the lost worker - the one-armed man who has been shot, having been accused of falsely obtaining papers as an essential worker. Then Itzhak is taken up by the Nazis to be transported to a camp and Oskar has to move from complicity to action on his own part. He uses his not inconsiderable skills of manipulation to have the train stopped and Itzhak released which becomes a turning point for Itzhak, who seeing how easily his own life is in the balance, has reason to be grateful to Schindler.

Time passes, a labour camp is built nearby and Amon Goeth is in charge. Schindler assiduously cultivates Goeth to ensure that he retains his workforce, but Itzhak now works for Goeth. By this point Schindler is actively working to save Jews with Itzhak's guidance. It is when the ghetto is liquidated that Schindler's point-of-view is revealed through the use of digital visual effects, signalling his changed perceptions and the major shift in his character.

At first glance, the use of black and white photography for the film seems a straightforward directorial choice. Black and white footage is known to lend an atmosphere of authenticity and period detail, especially for this period. The most memorable images of the Holocaust are the black and white documentary recordings of the camp liberations and the horrors that existed behind the fences. The use of black and white stock to take the audience back to the time of the Holocaust is well chosen.

However, the Nazi era is also remembered for its emblematic use of the colours black, white, and red. For theirs was a black and white world in the sense that there were those who were valued and those who were to be annihilated, and red was the colour of the blood that would be spilled to make the world over in the image they desired to establish. When Schindler moves from seeing the world in black and white, it is at the point that the ghetto is cleared of Jews. Among the crowds being herded through the street, he catches sight of a little girl who alone in the crowd, he sees in colour. Her coat is red, it catches his eye and makes individual the crisis unfolding before his eyes. Only the audience shares this point of view.

The child in the red coat is seen seven times. Firstly, when Schindler sees her in the crowd. Then in a long shot where she walks alone. The third time, she is walking with those being driven through the streets as Jews are being executed by soldiers. The fourth time she walks along unseen by others and enters a house. Then, in the fifth and sixth shots the audience sees her climb a staircase and then find a hiding spot under a bed. As she crawls under the bed, her coat loses its colour and the film returns to black and white once she reaches the safety of her hiding place. The last time we see the little girl in the red coat, her body is being carted from a mass grave to a bonfire so that Goeth can carry out his orders to destroy the evidence of the killings at the camp. Shortly after this moment, Schindler and Itzhak acknowledge that the end has arrived. Schindler admits that he has earned more money than he can spend in a lifetime. They drink together and then Schindler returns home. The next morning he packs his money into suitcases and uses his relationship with Goeth to buy the lives on a list of names he and Itzhak compile. This last act will beggar him but it will save 1100 lives and Schindler's soul.

The use of digital visual effects to reveal a character's inner journey is one of the most complex and creative ways to employ these tools narratively. The choice of red for the child's coat in an otherwise black and white film draws on powerful cognitive signals. The film is also bracketed with colour footage at the beginning and at the end. These segments speak of the life that was and was lost, symbolized by the burning candle and the flame that is extinguished in the opening scene and the life that went on to flourish as revealed in the last scenes where the survivors return to honour Schindler's grave. While these colour sequences mark out the time before the Holocaust and the time after, the black and white footage stands out as most 'realistic' in that the

scenes are graphic portrayals of the events that occurred, whereas the colour sequences are of symbolic value. Only the child's red coat - the moment that signals Schindler's profound insight - links the past and the future and stands out in the graphic portrayal of events. This child is marked for the audience's and Schindler's attention because she represents the precious life, the future that all children symbolize, the blood of her heritage and the future that Schindler saved for the few that became many because of his change of heart.

These two films probably capture Spielberg's duality best of all. *Jurassic Park*, playing to his reputation as a blockbuster-maker, filled box office returns and set entirely new standards for CG characters. Yet *Schindler's List* was the film that - also drawing upon CG to fulfil its vision - won him the Academy's Best Director Oscar. In 1997 he returned to the *Jurassic Park* franchise and directed *The Lost World*. It was hugely successful at the box office and offered finessed versions of the CG dinosaurs. In that same year, his serious dramatic offering was the film, *Amistad*. Once again the effects used were subtle, enhancing the veracity of the period settings and helping to preserve the diegetic world of the narrative. The film was not a major success but, in another typical pattern, he followed it with *Saving Private Ryan* (1998). Once again, his use of digital visual effects proved extremely skilful.

In *Saving Private Ryan*, Spielberg used special and digital visual effects to re-create the field of war in a spectacular fashion - primarily to make real the brutality, the futility and the horror of the experience. Using his most powerful images in the earliest sequences, he does not so much stop the narrative as delay it for the purpose of ensuring that, for the remainder of the story, the audience has been given every reason to believe in the stakes set. The film won him his second Oscar for directing and achieved great results at the box office.

His next feature film project was the Stanley Kubrick film left unfinished due to Kubrick's death in 1999. The project, entitled *A.I.*, had been the subject of rumour for years, with Kubrick investing in extensive development of the project. For Spielberg, *A.I.* was perhaps his most ambitious project - an attempt to marry the wonder of his films for children with the deeper themes of his dramatic works. It was also an attempt to marry the sensibilities of Stanley Kubrick's legacy with Spielberg's own values.

Although remaining faithful to many of Kubrick's already developed sequences, the script itself was written by Spielberg. It is a future-day version of Pinocchio based

on Brian Aldiss' short story *Supertoys Last All Summer Long*. It displays many of the traditional qualities of science fiction films. It depicts technology in a highly stylized fashion; it presents a post-apocalypse dystopian world with lavish realizations of New York after the deluge caused by global warming. Further, it pits human against the 'other' in a narrative that raises again the question: 'what does it mean to be human?'.

This last question - if not one of the great questions of philosophy - is one of the perennials of science fiction. The pitting of human against 'other' in a consideration of the measure of humanity is thematically rich and, as Stephen Mulhall has observed in his discussion of *Blade Runner*, presents the opportunity for a profound insight: "...a refusal to acknowledge another's humanity constitutes a denial of humanity in oneself."[375] *A.I.* is not the first time Spielberg has addressed this theme. *Amistad* and *Schindler's List* both concern the need to recognize the humanity of those designated 'other', as does *E.T.*, in many respects.

The effects in the film are particularly well realized and should not be underestimated. As Stan Winston - one of the longest serving and most experienced masters of effects in the industry remarked, " '*A.I.* eventually used a combination of every technique we've ever tried, sometimes in ways we'd never imagined before. We had prosthetics, character makeup designs, animatronics, puppetry, combinations of character makeups with CG, *and* we designed complete CG characters. *A.I.* was a challenge beyond anything we'd ever done.' "[376]

The effects constitute a significant standard both on a technical level and a narrative basis. The CG characters are not only a representation within the story but a representation of the themes as well. In a film about man-made/machine characters that seek to pass as human there are characters throughout the film that seek to pass undetected as CG. Where many films seek to display how well - how spectacularly - they have realized a CG character, the majority of the CG character images in *A.I.* are meant to blend seamlessly without drawing attention to the nature of their creation.

Unless one is aware of which frames are really those of the human portraying a robot and which ones are those of a computer-generated human substituted for the live actor, it is not possible to distinguish which image is human. This happens in other films - far more often than most audiences would be aware of simply on an initial

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[375] Stephen Mulhall, *On Film*, p.36.
[376] Joe Fordham, "Mecha Odyssey" in **Cinefex** 87, October 2001, p.66.

cinematic screening. However, within the context of this narrative, not being able to recognize what is human and the desire to create a convincing human representation is essentially what the film - and its use of effects - is all about.

Stanley Kubrick originally researched the possibility of using a robot but as Dennis Muren observes:

> I think Stanley kept going around in circles about David because he couldn't bring himself to address the real story of *A.I.*....He had a heart-wrenching story about a kid who wanted to be real, like Pinocchio, and I believe that was a conflict for him; so he focused on what the robot looked like, rather than what it was feeling. That's why he offered the project to Steven (Spielberg), I think; and he was right to do that. It was a big relief when Steven went with Haley (Joel Osment), because that whole problem that had stopped Stanley was gone. [377]

What remained was, in some ways, a more complex outcome, especially in view of the use of CG to enhance the actor's performance. For example, one way that the human actor was 'sold' as the robotic child David involved the use of 'invisible' effects in order to remove eyeblinks, a technique deemed necessary to add to the subtle - but unreal - detail in so as to convince audiences of his portrayed nature.[378] Similarly, the scene where his 'mother' abandons him in the forest was also digitally retouched to remove his exhalations - apparent in the cold temperature of the location - so that only his human mother's breath is visible.[379] This kind of almost subliminal touch works persuasively to portray the diegetic realism by removing details from the images that disclose reality. That they - and most of the CG interpolations - are achieved invisibly or, at least, seamlessly also underpins the themes of the narrative; that is, technology can create better humans or humans, better. Although the definition of 'better' is always up for negotiation, the goal to create an 'other' that can be 'us' is certainly one CG aspires toward and achieves, at least in limited circumstances, at this point.

Subtle and invisible manipulations of human actors is also used to preserve the diegetic world and blend the CG elements. Thus, the scene where Professor Hobby holds up a cube he has pulled from within the mecha's face to display it while he

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[377] Dennis Muren quoted in Joe Fordham, "Mecha Odyssey" in **Cinefex** 87, October 2001, p.70.

[378] Joe Fordham, "Mecha Odyssey" in **Cinefex** 87, October 2001, p.71.

[379] Ibid., p.77.

discusses the future of mecha, actually involved digital manipulation of the actor's hand and repositioning of his fingers to ensure perfect verisimilitude for the image of him holding the CG cube.[380] These kinds of digital visual effects, as used in this film and others, are not meant to be noticed but are crucial to make the more fantastical elements work.

Representations of other characters perform in this way, too. The teddy bear was achieved using a mix of animatronic/puppet and CG animation.[381] This kind of digital effects practice is neither unexpected nor remarkable *per se* but, given the nature of the narrative, additional meaning presents itself. Teddy is a supertoy - he is the embodiment of the next level of technological achievement in toys - and he is visualized using the same technology that is being used to create, in scientific and industrial settings, that very same next level of technological achievement. In this way, *A.I.* fulfils one of the basic science fiction genre traditions - especially the tradition that is attributed to the use of special effects - that they serve to demonstrate the state-of-the-artness of technology.

There are also CG images of humans manipulated to represent mecha. For example, the scene where a woman's face opens up to reveal her robotic interior.[382] Or the scene where the mecha Gigolo Joe transforms from brunette to blond.[383] Indeed, the scenes in the dump where the mecha reconstruct themselves from junked parts involve some of the most deliberately spectacular moments in the film.

Two of these characters - the nanny and the burned chef - are tour-de-force moments in CG spectacularity. Their 'otherness' is accentuated, using their apparent (and real) humanity juxtaposed with physical impossibility. The chef, whose burned face has the voyeuristic appeal of a car accident, serves to highlight 'otherness'. The nanny robot, however, is a mother substitute. Her appearance, while possessing all the spectacularity of the chef''s, is only to be of momentary interest. Her role is to offer a nurturing female for David to turn to, only for this to lead to his capture which is crucial to his meeting Gigolo Joe, the mecha who will serve as David's mentor in the strange outside world for which his mother has not prepared him. When David sees the destruction of the nanny in the Flesh Fair, he responds emotionally sparking the empathy of the crowd who do not believe that mecha can plead for their lives. This

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[380] Ibid., p.69.

[381] Ibid., p.71.

[382] Ibid., p.66.

[383] Ibid., p.78.

human trait is what frees him and returns him to his journey. Thus her 'otherness' is valuable because it serves to highlight David's ability to see 'humanity' in her and thus provide proof of his own 'humanity' sparking humane response from the human spectators.

There are many genuinely spectacular moments in the film. The scene where the moon rises but proves to be a balloon used by humans hunting down the mecha for the Flesh Fair (the moon courtesy of NASA and then animated in 3d and composited onto the gondola)[384] is visually superb but also significant for later, once Gigolo Joe and David have escaped the Flesh Fair, the 'real' moon is what they must head toward. A symbol of both danger and also the direction that must be followed in order to find the Blue Fairy, the moon, typically associated with the feminine, speaks to the mythological theme that a meeting with the Goddess is fundamental to the making of the man.

Other effects worth noting include the use of CG in the Flesh Fair scenes where digital effects were used to enhance the representation of the mecha being destroyed in the tortures devised by the humans to 'celebrate' human, non-artificial life.[385] Later, in the escape from Rouge City, the amphibian helicopter flying sequences are comparable to the same sorts of scenes in standard, earth-bound action films where digital visual effects work to create a seamless impression of something physically possible. However, as this film is representing future technology, the images are fantastical - mixing references from action films that add a degree of conviction with spectacle that derives from the fantasy element of the vehicle.

Rouge City itself is an interesting use of effects. It is an artificial place, populated artificially. Looking like a pinball machine version of Las Vegas, the characters are composited into a massive CG environment.[386] Once again, images of the feminine abound with Gigolo Joe enticing a carload of eager adolescent boys to take him and David into the city, entering through the gate shaped like the mouth in a woman's face. It is here that David finds Dr. Know and a rhyme telling him how to find the Blue Fairy. The holographic Dr. Know is a cartoon-style piece of animation. It fits with the style of Rouge City - overbright and over-the-top. The abrupt change to the rhyme that contains the clues needed for Gigolo Joe and David to continue their journey

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[384] Ibid., p.81.
[385] Ibid., pp.81-82.
[386] Ibid., p.83.

is very much in keeping with fairytale traditions where solving the puzzle reveals the necessary answers.

The next stage of their journey takes them to the ruins of New York. A CG image of Lady Liberty's hand rises from the water and set extensions mixed with full CG sets create a sense of a time frozen in place and time - held separate from the rest of the world, a kind of Atlantis. Here David discovers the truth about his creation. Devastated by this discovery, he leaps into the CG waters that lap at the base of the building. The leap itself is a CG shot and then, once underwater, David is carried along in the current by a CG school of fish. Just as he is rescued from the depths David sees the Blue Fairy and returns to the sea, his amphibian helicopter getting trapped.

Two thousand years pass, the earth freezes over. Re-using and digitally enhancing footage from *Firefox*[387] to create a CG environment 2000 years in the future CG was then used to depict the alien spaceships and the aliens.[388] These scenes are again among the most spectacular in the film. Yet, although the narrative pauses, in a sense, it is a necessary beat in the pacing of the film allowing the audience to absorb the passing of aeons. It is necessary to condense narrative for filmmaking, sometimes to its detriment. For example, one of the most common problems with fast-paced storytelling is that time is not allowed for audiences to engage with emotionally impacting moments. Indeed, it is common for characters to be given little time to respond emotionally to the experiences that are supposed to be having sufficient impact to change them. One of the most impressive moments in *Lord of the Rings: The Fellowship of the Ring* is the time allowed for the Fellowship to mourn the passing of Gandalf. These pauses for emotional connection by characters are crucial to such emotional connections occurring for audiences also. Thus, in *A.I.*, the spectacularity of the aliens and their arrival is necessary to give audiences enough time to travel forward in time, to accept the passing of humanity and the evolution of mecha.

In the closing scenes of the film the Blue Fairy makes two CG appearances. Once, when she disintegrates at David's touch when he is released from his frozen cocoon in the helicopter and is finally able to touch her.[389] Then again, when the CG Blue Fairy appears in the aliens' representation of the Swinton home so that she can

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[387] Ibid., p.89.
[388] Ibid., p.92.
[389] Ibid., p.90.

grant David his wish. This final appearance, a fully CG image, was deliberately fashioned to be "Neither real nor completely artificial".[390] This describes the nature of many CG images in this and a great number of other films. There is a mix of the human and a mix of the 'other' in what is presented on screen. Animations driven by motion capture reveal their humanity, as André Bustanoby has noted. Human performances, when scrutinized, might reveal their artifice. Undoubtedly such images ask, 'what does it mean to be human?'.

Aside from those instances where digital visual effects are used to realize scripts that are quite simply put, bad examples of storycraft, another reason digital visual effects can achieve prominence over storycraft is that - in some instances - the story seeks to express such epic scale in visuals, emotional impacts and intellectual themes that it must reach for astonishment because astonishment is the very substance of the subject matter the narrative seeks to explore.

A.I. might be regarded in this way. As the discussion has shown it strives to achieve more than drawing upon mythology to inspire hope in a Saturday Matinee style. It asks - in a direct fashion and in a subtextual manner - 'what does it mean to be human?' and 'what does it mean to create sentient, emotionally responsive life?'. The film does not answer all aspects of these questions but it does offer the idea that love is in some way a response.

Spielberg's take would suggest that the capacity to love is what makes us human, for this is the quality that David's creator has sought to instil in his mecha and it is this quality that is tested throughout David's journey. Further, although David is offered all manner of scientific proofs of the nature of his creation - a revelation so shocking he seeks to end his existence - the view of the Blue Fairy inspires him to renew his faith and the dream to become a real boy. The reward for David's fidelity to his love and his dream, is reunion with his mother. In a film that addresses the long-standing issue of men - that is males - as creators of life, David asserts both directly and in action, that woman is his creator. His desire is to love and be loved by his mother (Monica) and he knows that only the Blue Fairy - whom he emphatically identifies as 'woman' - can grant him the wish to be a real boy.

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[390] Ibid., p.93.

In one of the earliest scenes David's creator, Professor Hobby states that he wants to create 'a child that will love its parents with a love that will never end'. He is challenged by his audience who asks, 'Can you get a human to love them back?' and wants to know what responsibility does a human have toward the kind of mecha Hobby is proposing to create. Hobby's response is that of the Bible: 'Didn't God create Adam to love him?'. In some way this film is not only asking, 'what does it mean to be human?' but also, 'if we create sentient life, do we become god(s)?'.

In many ways this is no longer an idle question but one that scientific and technological progressions will demand that we confront. Indeed, A.I. programs have been used to 'grow' digital visual effects - most famously and aptly the brain structure for the opening shot of *Fight Club*. It would appear then that a film such as *A.I.* uses not only its narrative but the means of its creation to raise crucial questions and attempt, as creative works usually do, to answer them. It is a role that science fiction films have traditionally fulfilled yet I would argue that the range of effects used in *A.I.*, although upholding many of the basic principles common to the genre of science fiction, does much more and that it is representative of how digital visual effects are evolving as a narrative tool. The framework of narrative usages my research has identified is the subject of the Chapter that follows but, in summarizing *A.I.*, the examples provided of how Spielberg has used effects in this film conform to the different kinds of usages I have defined in that framework.

In some ways the three filmmakers considered in this Chapter are responsible for making accessible the technology that so many filmmakers now use to tell an extremely broad range of films. George Lucas' use of the effects conforms to the genre and standards of innovation most would associate with blockbuster filmmaking but his facility has served every kind of filmmaking. James Cameron's use of effects has consistently pushed the technology and his use of effects to realize an epic period romance is in some respects a signal that effects have moved beyond the limits of science fiction and action/adventure genres.

Yet, as this discussion has shown, it is Stephen Spielberg who has used effects in a way that demonstrates the range of their narrative capacity. He has been able to achieve this because his films span a wide range of genres and because he has made films that appeal to very broad demographic. Many who would not go to a 'big effects

film' readily attended *Schindler's List* and *Saving Private Ryan*. To what extent those audiences made note of the effects *as effects* can only be the subject of conjecture. What is known is that the effects used in these films serve the narrative.

Spielberg's work is not primarily effects-driven - if that is a term that is fair to use at all - where George Lucas and James Cameron both use digital visual effects as an integral part of their filmmaking practice. In comparison, Spielberg's use of effects appears to be driven more by story than by technical approach. Even in a film, such as *A.I.* where the traditional relationships of effects, science fiction and technology present, the narrative itself is the source of the effects and how they are used. As the film's physical effects supervisor Michael Lantieri has said:

> ... historically, whenever technology bumps forward, we find a way to tell a story around that new technology - be it animation composites in *Roger Rabbit* or computer graphics in *Jurassic Park*. But the thing about *A.I.* that will always be special to me is that the story came first, and the technology that allowed us to tell it came second. The tools were really in the service of the story.[391]

Robert Allen and Douglas Gomery have defined two key approaches in the evolution of technology. The first is, "The great man theory (which) is grounded upon an assumption of the autonomous agency of human subjects, regarding technological development as dependent upon the activities of a handful of individual inventors and pioneers."[392] The work of Spielberg, Lucas, and, to a lesser extent, Cameron, would seem to present as exemplars of the 'great man theory'. Certainly Lucas is an innovator of this calibre given that his record of invention, if not based on his own personal expertise, does seem to reflect his ability to find and support those with the talent to create the inventions that he has nurtured. Spielberg and Cameron, on the other hand have not been inventors of technology so much as a pioneers of its usage. In this sense their work has laid the foundation for what Allen and Gomery have identified as the

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[391] Michael Lantieri quoted in Joe Fordham, "Mecha Odyssey" in **Cinefex** 87, October 2001, p.93.
[392] Robert Allen and Douglas Gomery quoted in Duncan Petrie, "History and cinema technology" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies*. p.239.

second approach. This "second evolutionary approach shifts the focus from the creative individual to the technology and its relationship to aesthetic consequences."[393]

Duncan Petrie comments that the "Technology sets the parameters and determines the space within which innovative techniques can occur."[394] Yet, with digital visual effects there is, as yet, no set parameter. In a sense, the space it creates is still unbounded. Many innovations arise from the demands of scripts, others from discoveries that arise from the creative problem solving process. It is an area of technological development that, while it has come a long way in the last twenty years, shows promise of continued development and realization. As the examples in the discussion have shown so far, while digital visual effects have emerged from a special effects tradition as old as the history of film, the innovation they can offer to storytellers is only beginning to be explored and applied across the range of narratives in film.

Indeed, digital visual effects seem to fit within an evolutionary tradition that Duncan Petrie has described: "The evolution of cinema is viewed as moving towards an ever-increasing verisimilitude, a re-creation of the world in its own images, with each subsequent innovation - from still images, to movement, to sound, to colour - making a more advanced stage in the process."[395] Although this may not quite be what Petrie was arguing, in the case of digital visual effects, the full extent of the aesthetic consequences of technology usage has yet to achieved. The technology offers incredibly powerful visual and narrative tools and it is only now, that they are being applied across the broad range of film narratives and with increasing mastery, that the aesthetic of digital visual effects is becoming definable.

In the hands of a filmmaker such as Steven Spielberg, the technology has been used to conform to the identified aesthetic of the spectacular, but also to the aesthetics of verisimilitude. What appears to drive his usage is his ability to make digital visual effects work both technically and narratively in a unified way. In some ways his body of work has been building as if preparing for the challenge of marrying his aesthetic with Kubrick's - the legacy he inherited in accepting to undertake *A.I.*. This has a kind of poetry as *2001: A Space Odyssey* elevated science fiction filmmaking from the 'B' films with its aesthetic and narrative looseness. Spielberg's science fiction work, long

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[393] Ibid.
[394] Duncan Petrie, "History and cinema technology" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies*. p.239.
[395] Ibid.

considered to have been responsible for elevating the 'B' film to the production standards of the 'A' list, meets Kubrick's standards for technical realization but enjoys an appeal that reaches a wider audience because of its fidelity to classical narrative. In drawing upon his own and Kubrick's oeuvre, Spielberg has achieved with *A.I.* representation of the wider vision and potential of digital visual effects.

If the marriage is, at times, a bit of an odd couple, it is perhaps because it strives to place Spielberg's identifiably ordinary people in extraordinary circumstances alongside the struggle for an extraordinary character to achieve ordinariness. The epic nature of the themes inherent in the story are always at the core of the action such as in the heart-rending moment where the child pleads for its mother's love or begs the Blue Fairy to make him a real boy so that his mother will love him.

In some respects David's experience of finding out the truth of his creation are not unlike the experience of our species as its scientific realizations document and reveal the nature of our own creation and the scope of the universe. Yet, it would seem that Spielberg argues that for some storytellers, in a universe where we are learning that the simple value struggles of a puny bunch of humans in the vastness of space doesn't amount to the allegorical hill of beans, we still look for that 'new hope'. We still seek to view the universe as a place where we are loved and we create representations of a benevolent universe in which our creator(s) or more superior beings will look upon us with love because we can love. These stories attempt to create a paradigm that allows reconciliation between our knowledge of science and technology and our emotional need to be loved and valued.

Yet behind this desire is the understanding and the fear that - as the father in *A.I.* points out - the ability to love might be inextricably linked to the ability to hate. Thus the storytellers will always have scope to ride the pendulum swings of our perceptions on what the universe might have in store for us. For Spielberg the view is generally of benevolence. For Lucas, the valour of individuals will preserve the world as we know it, no matter where in the universe its battles are fought. For Cameron, regardless of the events that overtake the individuals, love will endure and find its way. It would seem that in the hands of a capable filmmaker, digital visual effects can provide the tools to create an as yet unlimited range of representations but, in terms of storytelling, it would seem that one will generally find what one believes, or at least hopes, one will find.

Trick or Treat: a framework for the narrative uses of digital visual effects in film

The likelihood of finding what one looks for is as much a danger to thesis writers as it is for scriptwriters, it would seem. The motivation to undertake this thesis arose as a consequence of research results obtained when undertaking a Fellowship granted by the Australian Film Television and Radio School. In that study and my book *So What's This All About Then: A Non-User's Guide To Digital Effects in Filmmaking*, I was looking specifically at the impact of digital visual effects on production practices but was intrigued to have virtually every person I interviewed, no matter what their role in digital visual effects, make the assertion that these effects depend upon, and are driven by, the story.

As the preceding Chapters have indicated popular opinion and academic discourse would suggest that, as one scriptwriter joked to me, 'You don't have to worry about the story as long as you've got the effects right." My own experience of going to movies argued against this view as I certainly considered mainstream films that didn't have the story elements in place to be extremely disappointing, no matter how impressive the effects - and, given that I actually care about the effects, it did seem to me that getting the effects 'right' wasn't enough, regardless of box office results that would appear to indicate otherwise.

As I pursued the research for this thesis, it seemed to me that there was a tension between the classical narrative intents of the creators of digital visual effects and the perceived value that they offered in terms of spectacularity. Furthermore, there was a question in some quarters as to whether digital visual effects were capable of serving traditional narrative practice due to this inherent spectacularity. Integral to all the arguments I encountered in regard to effects was the view that special effects are indeed 'special', identifiable, and that they single themselves out as apparent for the spectator. However, as Stephen Prince has documented in his paper, "True Lies: perceptual realism, digital images, and film theory", digital effects raise new issues about realism

and the photographic image because they are not always apparent and because, by their digital nature, they challenge the ontology of indexical photographs.[396]

As Prince notes, "...even unreal images can be perceptually realistic." In discussing the dinosaurs in *Jurassic Park*, he observes that the CG images "...acquire a very powerful perceptual realism, despite the obvious ontological problems in calling them 'realistic'. These are falsified correspondences, yet because the perceptual information they contain is valid, the dinosaurs acquire a remarkable degree of photographic realism."[397]

This level of perceptual realism extends not only to fantastical elements such as dinosaurs and disasters but to the very cues we've learned to accept as 'proofs' of an image's veracity. A well-known example of this kind of effects usage is the CG work undertaken for the feature film, *Apollo 13*. To enhance the verisimilitude of the launch shots, lens halation was added to insert 'camera real' cues into digitally created frames. Thus, blended with NASA footage, the perceptual realism these shots can attain is such that not even visual effects artists are able to discern the 'real' from the 'photo real', in some instances (nor are astronauts, as the previous reference to this film has indicated).

Indeed, the prevalence of certain kinds of CG shots, for example, sky replacements, set extensions, object removals and subtle composites, is such that even traditionally obtained images can be called into question with scrutiny being brought to bear on the 'real' based on the assumption that the images must, or at least might, be CG. Whereas once upon a time serendipitous moments of elegant symbolism caught by the camera were part of the magic of filmmaking, the capacity to create and control those moments now casts doubt upon those instances where 'everything just comes together naturally' in front of the camera. Because the perfect day can be digitally produced, audiences are able to, and perhaps invited to, question every element within the frame - from the shape of the clouds in the sky to the majesty of a sunset.

That it is even possible for digitally created images to compare so closely with the 'real' thing would suggest that special effects - in particular, digital visual effects - do not always serve as spectacle if it is not possible to discern them as effects. Even if one takes into account their capacity to raise questions about the veracity of all

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[396] Stephen Prince, "True Lies: perceptual realism, digital images, and film theory" in **Film Quarterly**, V49, N3 (Spring, 1996), pp.27-38 from http://communication.ucsd.edu/tig/123/prince.html
[397] Ibid.

photography and that their prevalence may offer the consideration of spectacularity in relation to 'real' as well as CG images, it is more likely that perceptual realism (the sensation that one is seeing something that is photographically obtained) will lead to images being accepted at face value in most narrative contexts.

Stepping aside from discussions about all filmmaking being an effect and a spectacle and the wider philosophical issues of 'realism' in general, what is at issue here is the question of how then to distinguish spectacular uses from other uses and, also, the narrative purposes digital effects serve overall.

As mentioned above, when invited to comment on effects work, creators of the effects invariably make the assertion that effects use is dependent upon story requirements. Narrative determines the effects in terms not only of the descriptive brief for the specific elements but the stylistic approach also. Spectacularity, while a stylistic option for some genres, most commonly science fiction and fantasy narratives, is not the intention in a great number of instances. Further, as the case study discussions have suggested, there are a range of narrative purposes that can be fulfilled by spectacular images.

Spectacularity can be part of the story, integral to establishing the diegetic world - such as the opening shot of *Star Wars* which, narratively, has been described as 'American Graffiti in Space'. Spectacularity can be driven by stylized displays of sex and violence which, even if enhanced by digital visual effects, are often included for the voyeuristic and kinetic value of the sex and the violence. Spectacularity can be used to slow or stop the narrative not to provide a substitutional element but a beat of pacing so that the emotional load or intellectual weight of a narrative moment can be experienced by characters within the narrative and/or by audiences. Thus it seemed to me that there were instances where spectacularity was not necessarily in the tradition of Gunning's 'cinema of attractions' but more in keeping with Hollywood's 'magic of the movies' - owing something more to the classical narrative tradition.

This view emerged, not because of disagreement with the idea of Brooks Landon's 'techno-narrative' - a view that, in some ways, I had hoped would emerge - but because the films reviewed demonstrated practices that contradicted this argument. Perhaps one of the reasons these patterns presented was that my sample was not restricted to 'effects' films but covered all manner of narrative films being made. Essentially, if effects were used in a film then that film qualified to be part of my

sample and accordingly I reviewed films that might not usually be subject to consideration. One aspect of the discourse that has struck me as being particularly interesting is that examples used for discussion are often drawn from science fiction or action-adventure genres. However, once one steps into the wider field of filmmaking, the non-spectacular uses of effects become more apparent and the non-spectacular uses of effects within the traditional genres also becomes obvious.

In the course of examining how effects have been used in nearly 500 feature films, a number of patterns emerged. In the first instance there were effects techniques that proved to be the way certain story elements were handled, such as the cheating of danger by compositing live action blue screen performances against massive pyrotechnical effects plates shot separately, the story element being the placing of lead characters in extreme physical danger.

In the second instance, there appeared to be a number of emerging practices, such as increased use of virtual camera moves in all kinds of narratives and the introduction of CG characters, either as identifiable characters in themselves, or as interpolated imagery to enhance human performances. However, aside from these patterns, which have already been discussed, review of the narrative and stylistic uses of digital visual effects revealed eight categories of effects usage: Documentary, Invisible, Seamless, Exaggerated, Fantastical, Surrealist, New Traditionalist, and HyperRealist. These categories describe the narrative and practical applications for digital visual effects usage, factors that may vary over the course of individual films. Thus, the categories describe the narrative purposes of usage rather than categorize the films themselves as it is quite common for more than one category to apply within individual films as the descriptions and examples will demonstrate.

The first category identified is the Documentary use of digital visual effects. This style of usage is characterized by open and apparent incorporation of the range of digital effects techniques. Full CG animations are employed to demonstrate everything from scientific models of complex concepts to straightforward representations of archaeological reconstructions. Less commonly, invisible effects also provide the means to restore stock footage and support instances of dramatization that require 'realistic' settings. In general, the narrative purpose is to reveal information, fulfil educational, rhetorical and, in some instances, artefactual intents.

An interesting example of the impact of digital visual effects on documentary filmmaking is the instance where the IMAX feature, *Solarmax* was obliged to provide an intertitle at the beginning of the film advising audiences that the images of the sun were in fact real images and not computer generated. As indicated earlier, one of the consequences of the increased use of effects and their perceptual realism, is that they cast doubt upon the veracity of images in general. When a sky can be replaced leaving no clue to its having been added, how then does one know if any image of the sky in a film is a digital addition or an indexical photograph? In the instance of *Solarmax*, it was vital that audiences understand that what they were seeing was a true image of the sun and, given the use of other obvious digital effects in the film, clarification simply had to be made.

This moves us to the next category, where digital visual effects apply to feature film narratives - the Invisible use of effects. As with Documentary use, the range of techniques employed is drawn from the entire digital palette. The usage however is neither open nor apparent, it is deliberately concealed and detection of the techniques is considered by effects artists to be a failure to achieve the necessary standard. Indeed, invisibly introducing effects into a film and having them go unnoticed and unidentifiable is considered to be 'the best' use of digital visual effects.

Accordingly, it is difficult to describe examples of this kind of usage and have those examples be readily recollectable since good examples will not have been noticed in the first instance. However, the examples are there and readily lend themselves to clarifying the effectiveness (no pun intended) of Invisible digital visual effects.

The first example is from the Australian film, *The Dish*, a dramatic comedy that used sky replacements to ensure scene continuity when changeable weather made reverse shots of a critical conversation identifiably inconsistent. By ensuring the weather conditions remained constant through the employment of sky replacements, the diegetic world of the film remained complete, thus preserving narrative integrity.

Similarly, the use of day for night in the film *Rabbit Proof Fence* allowed responsible management of child actors without sacrificing story requirements. Further, extensive digital relighting of the scene enhanced the realism of a 'night' search for the young girls who are the heroes of this epic journey. The result is perfect verisimilitude

that does not draw attention away from the narrative; rather, the effects serve to engage the viewer in the events of the story without ever revealing the artifice used.

An invisible effect can be as simple as the removal of a flinching eye-blink by a stuntwoman - as was the case in the film *Adaptation* where the stunt performer telegraphed the impending impact of a car crash and digital visual effects were used to remove the revealing blink. Although such a detail might sound trivial, it is exactly the kind of detail that can break the audience's engagement with the narrative and is a performance detail that tends to be beyond the control and notice of the filmmakers on set.

In all these instances, the purpose of the effects usage is to preserve the diegetic world as well as deal with practical implications of filmmaking. In these cases, when films remove unwanted modern infrastructure, extend locations with matte paintings, add story driven elements in the form of weather, time of day and similar factors, the intent is to preserve story coherence and support contexted verisimilitude. These digital visual effects do not adhere to spectacular effects usage, indeed are antithetical to such purposes.

The next category - the Seamless use of effects - is continuous with the Invisible category but these effects are discernible if subjected to scrutiny and consideration. In this category effects also draw from across the range of techniques and, as with the Invisible category, seek to pass unnoticed. The distinction between these and Invisible uses is made upon the basis that given reasonable consideration, their usage is detectable.

By way of example, one could consider the use of the matte painting in *The Pianist* depicting the destruction of Warsaw. Although well executed this usage can be discerned because it is apparent that Warsaw in 1945 is not an accessible environment and therefore the filmmakers have recreated the environment through a set extension. However, the narrative intention is clear. For story purposes, it is imperative that the audience be given both an accurate visual representation of the diegetic world and the emotional impact of the extent of destruction. This effect achieves these results but does so Seamlessly. It does not seek to draw attention to itself for spectacular purposes, rather it seeks to ensure the narrative coherence with classical Hollywood storycraft.

This category is of particular interest in consideration of how narrative is supported by digital visual effects because the range of effects applications and the kinds of films that use them are quite broad. For films like *Braveheart, Pearl Harbour,* and *Saving Private Ryan* effects are used to underpin the period in which the story takes place and to create realistic war scenes upon which the narratives depend.

The historical accuracy of images and blending of live action with digitally created images and background plates in *Titanic* however, is a similar example of how effects are used for narrative purposes but also highlights how spectacular issues enter into even this category of usage.

In this category, because it is often apparent that effects have had to be used, the spectacular attraction is the photoreal standard of the imagery, its imperceptibleness being the measure of its quality. It is possible for those who are attuned to visual effects techniques to seek out evidence of their usage, focusing on the technology at the expense of narrative connection. This, however, is a reflection of spectatorship issues rather than of the narrative purpose served by the use of the effects themselves.

In many films using Seamless digital visual effects, the smooth blending of separately obtained images to create a coherent diegetic world is the goal. In this instance the preservation of the coherent narrative world dominates. Stunt work must appear plausible and physically real. Even if the hero is placed in a position of absolute physical peril, it must adhere to the standard of perceptual realism and cognitive realism.

As the foregoing would suggest, and as is true for all of the categories, the distinctions are not absolute. Within films the changing narrative needs will dictate different effects usages. Thus, individual films will quietly use Invisible effects to secure diegetic coherence for some aspects of the story but readily exploit Exaggerated or Fantastical uses for spectacular purposes as required. As the case study of *Mission To Mars* has already discussed, the film provides a number of instances where digital visual effects are used to create Seamless narrative results but moves on to offer highly spectacular Fantastical digital effects where the narrative demands require.

Furthermore, audience perceptions are not uniform but reflect the experience of each individual, their knowledge of the world, their familiarity with production processes and engagement with each text. What will pass unnoticed by one person will be subject to scrutiny and detection by another. This is true for many aspects of film

production. Where one person will watch a film blissfully unaware of camera moves another will monitor not only camera position, depth of field and lighting, but framing, editing decisions and the punctuative effect of dissolves, fades and cuts.

Whatever the range of audience attentiveness to such details, it is possible to distinguish between effects used with the intention of being observable and those which seek to efface themselves and allow the domination of narrative. Yet there are also effects practices which lie at the boundaries of these categories, effects such as stunt work, crowd replacements and set extensions.

In some films these uses will pass undetected, in a spectacular usage they will be an attractive factor with behind-the-scenes Infomentaries providing detail on the particle effects programs and algorithms used to make the crowds move in a visibly random manner. However, generally speaking, unless something startlingly new has been achieved on a technical level, attention is not usually drawn to the use of these kinds of effects.

For example, a set extension for a melodrama's tearful conversation in a graveyard might pass for Invisible usage or at least Seamless usage if employed in a period film but if the set extension is of city being destroyed, then it has spectacular value and fits more comfortably in the next category of effects usage, Exaggerated effects. It is in this category that spectacular intentions begin to emerge in their own right.

The Exaggerated category straddles the fine line between 'real' world narrative and 'extraordinary' tales. For example, *Dante's Peak* and other disaster films aim to portray what it would be like in the event of a volcanic eruption or similar physically possible circumstance. Action-adventure films also rely upon Exaggerated uses of digital visual effects to enhance the dangers faced by the protagonist and to escalate the visual impact of events such as explosions, avalanches, and so forth.

However, where it is possible to consider some of these effects as falling within the Seamless category, quite often effects are used to extend the action beyond physical realism and into the realm of perceptual realism but cognitive improbability. For example, while many scenes in *Dante's Peak* depict visually and physically realistic shots, there are scenes, such as the family's extended drive through the lava flow, that exaggerate events and seek to heighten the dramatic tension.

This is the most common kind of usage in this category. Other examples would include films such as *Eraser* where the protagonist hangs onto the door of the plane with a flaming jet engine behind him posing the threat of immediate death should he be incapable of holding onto the plane with what would probably require super-human strength.

Effects can also be used to heighten comedic value such as the shot where Eddie Murphy and Robert De Niro, held together by a pair of handcuffs, hang from the front of a skyscraper at the end of the film, *Showtime*. Comedy films which generally do not seek to draw audiences on the basis of their spectacular effects prowess, do not hesitate to enhance sight gags with either Seamless or Exaggerated effects.

Essentially, the Exaggerated use of digital visual effects creates a perception of verisimilitude in extraordinary circumstances but not necessarily fantastic or fantasy worlds. The techniques used can involve wire removals, composites, adding of fully CG elements and most of the other digital effects practices. However, even when the spectacular value of these effects is intentional often it is not the prime purpose of their usage. As the discussion so far has suggested, the narrative does not stop so much as get driven along by the action sequences and the criticisms that these kind of films are more of a thrill-ride than a story should be given fair consideration.

Further, as has already been discussed these effects practices may also give support to Kristen Thompson's discussion of the 'stacking up (of) climactic scenes'.[398] The role of digital visual effects in assisting films achieve this result is quite clear. In order to keep upping the ante of dramatic action, effects can create ever more dangerous and unlikely, albeit visually convincing, perils allowing for extended chase sequences, improbable escapes drawing upon spectacular demonstrations of visual effects technology.

Nonetheless, when it comes to spectacular uses, compelling as many Exaggerated effects sequences tend to be, most would cite films that fall within the category of the Fantastical as the greatest exemplars of sublime or excess imagery. Fantastical effects sequences in films use digital visual effects to create images of astonishing qualities and realize the impossible to the highest standards of perceptual

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[398] Kristen Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique*, p.246.

realism. As the discussion on genre has shown, contrary to widely held views, Fantastical effects are not restricted to the genre of science fiction.

Certainly science fiction films have provided ample justification for the development of digital visual effects. In these cases there is no doubt that the digital visual effects are expected to be of the highest standard and the most 'state of the art' technological prowess. As Annette Kuhn has commented, these films *are* science fiction and the stuff *of* science fiction.[399]

Furthermore, digital visual effects have also been crucial to the realization of fantasy films such as the *Harry Potter*, *Babe*, *Lord of the Rings* and *Stuart Little* series. In these instances the range of effects uses varies. For films such as the *Harry Potter* or *Stuart Little* series, the usage is often openly fantastical and celebrates the technology. However, films such as the *Babe* and *Lord of the Rings* movies rely as heavily on the Invisible and Seamless effects as they do the Fantastical to achieve narrative purposes. There is no question that these films are set in fantastical circumstances and deal with fantasy elements. Nonetheless, considerable effort is made to quickly establish the diegetic world and to support it with every trick in the digital visual effects arsenal.

This category demonstrates the issues raised by Stephen Prince in regard to 'perceptual realism and the referentially unreal'.[400] For example, a film such as *Forrest Gump*, while neither science fiction nor traditional fantasy, remains an example of essentially Fantastical use of effects. Yet, as with *Jurassic Park*, the realism of the images is not the cue. The narrative material of the film is itself fantastical. Like *Babe*, *Forrest Gump* uses effects to manipulate real world imagery to relate an extraordinary tale. Further, in the case of *Forrest Gump*, there is additional interest due to the fact that, like *Zelig* before it, it toys with the indexical record and raises, by its very nature, questions about the implications of perceptual realism in a digital world.

In terms of other Fantastical uses of effects, supernatural thrillers and dramas such as *The Devil's Backbone*, *What Lies Beneath* or the film *The Sixth Sense* also judiciously use digital visual effects to extend real world settings by introducing fantastical elements. It is this distinction that categorizes the usage in these films as

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[399] Annette Kuhn, "Cultural Theory and Science Fiction Cinema" in Annette Kuhn, ed., *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p.7.
[400] Stephen Prince, "True Lies: perceptual realism, digital images, and film theory" in **Film Quarterly**, V49, N3 (Spring, 1996), pp. 27-38.

Fantastical no matter how subtle the effects usage and how otherwise mundane and real world the settings for the narrative.

When such effects are used in the Seamless category, they are restricted to real world, physically possible usages. They create and preserve the diegetic world. When they are used to Fantastical ends, the techniques are used to extend the real world into the realm of fantasy but without necessarily disrupting the diegetic world for spectacular observation.

It is in these types of films that tension between the pleasures of the spectacle and the captivating power of classical Hollywood narrative is most apparent; as is the use of digital visual effects work to support both spectacle and narrative cohesion. For example, in the film *Fairy Tale* - a story about two Victorian schoolgirls whose trick photography created a sensation - the spectacle of the fairies is marvellous. The technical standard is high, the results are quite persuasive and, as a consequence, they serve not only the traditional narrative purposes but the thematic purpose also. It is a trick about a trick - and a very good one.

Likewise, with *Babe*, the initial impressiveness of the talking animals is quickly enjoyed and then, as Vivian Sobchack notes, "one looks through them while focused primarily on narrative elements."[401] As with well executed Seamless effects, the capacity for effects to work supportively with the narrative depends upon their thematic appropriateness and their quality as effects. If we are persuaded by them, if we find them perceptually real, then, in general, we are inclined to suspend disbelief and allow narrative to dominate.

In a weak narrative setting, even good digital visual effects are forced into a position of heightened scrutiny because they might be the only thing offered as a reward for audience attention. If the effects are of a poor standard in a weak narrative setting then audience is offered neither the pleasure of spectacle nor the captivation of narrative.

The next category, the Surrealist use of effects also relies upon quite spectacular effects and uses them with great imaginative flair to make conceptual statements tied to the theme of the narrative. By way of example, the opening shot of *Fight Club* with the

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[401] Vivian Sobchack, "At the Still Point of the Turning World" in Vivian Sobchack, ed., *Meta-Morphing: Visual Transformation and the Culture of Quick-Change*, p.137.

astonishing track from deep within the lead character's brain, a shot that makes a strong statement about the film's premise, works as a set-up or a clue to what is actually going on in the story. Or consider the expressive and humorous use of imagery in *Amelié.* Films such as *Being John Malkovich, Pleasantville* or *American Beauty* also draw upon digital effects to express quite profound themes.

Again these effects serve spectacular purposes and in a quite meaningful way. Often the films that employ effects in Surrealist ways do so because the narrative themes encourage a more detached consideration of the film and its deeper meanings. Effects in these cases play with narrative traditions and use spectacle deliberately as a tool of expression in itself. On other occasions, they offer a means by which to deliver a form of exposition revealing, or at least visualizing, the kinds of concepts that are not traditionally filmic. A good example of this latter kind of usage is the film *The Bank* which uses digital visual effects to express, in imaginative terms, fairly complex mathematical information.

The two remaining categories address the use of digital visual effects in feature length animation. Here there are the enormously popular New Traditionalists led by the works of Pixar and the more ambitious HyperRealist projects such as *Final Fantasy: The Spirits Within.*

In the first instance, New Traditionalists bring extraordinary visual style to the well established narrative traditions of long form animation. In the second instance, the makers of HyperRealist projects seek to create perceptually realistic works using animation techniques. This is a slim category of work, so far, but one that may grow as the seductive appeal of complete control afforded by digitally created images is satisfied with results that achieve the standard of perceptual realism. At this point in time the attempt itself is sufficient to draw interest for spectacular purposes alone. The images are scrutinized with intense interest, their perceptual realism tested.

Although there are not many completely HyperRealist films, there is a growing use of completely animated sequences within films. The film, *The Panic Room* uses sequences of this kind in a manner that is in keeping with the narrative intentions of Invisible and Seamless usages. Only the impossibility of the camera move reveals the digital substance of the shots as the presence of the intruders and the action within the house is tracked through walls and other physical structures.

While audiences expect and are attuned to digital environments and, increasingly, to digital characters in Exaggerated and Fantastical usages of effects, the use of fully CG environments and characters in some films is moving to a meeting point where the HyperReal and the Invisible may yet meet in a realization of photorealism that is cognitively indistinguishable from analogue images. As has already been established, the substitution of entirely CG characters in stunt work is currently of a level that requires close and intentional scrutiny with the benefit of frame by frame analysis to detect the interpolation of the digital performer with that of the real.

Whether digital visual effects, even in their most spectacular uses, will become as commonplace and unremarked as sound, colour and moving cameras have, remains to be seen. Literally, and figuratively. However, it is clear that the extensive usage of digital visual effects techniques in all manner of film narratives, in addition to posing valuable questions in regard to 'the real', is establishing storycraft norms that are open to categorization beyond spectacularity or simple narrative suture.

Annette Kuhn has remarked that, "It has also been suggested that special effects sequences play on spectatorial credulity, eliciting an oscillation between knowledge on the one hand (that this is an illusion - special effects sequences being always at some level self-referential) and willing suspension of disbelief on the other - an oscillation characteristic of fetishistic forms of looking."[402] Again, such an observation relies upon the spectator having knowledge that the specific imagery is an illusion, where, as the many examples given would indicate, this very often would not be the case. Thus it would appear that Kuhn's observation is addressed to a very specific instance of special effects usage - which may include some instances of digital visual effects usages - but cannot be applied to all instances of digital visual effects practice.

Her comment is of interest because it cites the frequently applied condition of 'special effects sequences being *always* at some level self-referential'.[403] I would agree that in science-fiction, the genre to which Kuhn addresses her comments, very often the use of special effects is deliberately spectacular, but I argue that very often the use of effects is also a form of spectacularity that works within narrative, delivers story

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[402] Annette Kuhn, "Sensuous Spaces - Introduction" in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, pp.221-222.
[403] Ibid.

information, or seeks to establish and preserve the diegetic world. The issue then becomes the extent to which the spectacularity under examination is narratively motivated or truly designed to effect the sublime in keeping with the idea of excess. My research indicates that this must be answered by considering its contextual relationship to the story and argues that assertions about spectacularity of digital visual effects in films also need to be provided the context of specific instances that clarify the nature of the spectacularity.

Somewhere Over The Rainbow: imagined worlds and visions of the future realized through digital visual effects

'Once I got into *Star Wars*, it struck me that ... a whole generation was growing up without fairy tales. You just don't get them any more, and that's the best stuff in the world - adventures in far-off lands. It's fun. ...I wanted to do a modern fairy-tale, a myth. One of the criteria of the mythical fairy-tale situation is an exotic, faraway land, but we've lost all the fairy-tale lands on this planet. Every one has disappeared. ... But there is a bigger, mysterious world in space that is more interesting than anything around here. We've just begun to take the first step and can say, "Look! It goes on for a zillion miles out there!" You can go anywhere and land on any planet.' George Lucas [404]

This Chapter turns to one last aspect of digital visual effects in filmmaking that speaks to film's earliest ambitions: the ability to show the wonders of the world. When film first revealed the far flung corners of the planet to audiences it did so well within the tradition of Gunning's cinema of attractions. However, as George Lucas has noted, this planet is now an explored and populated place and so the imaginary worlds of a galaxy far, far away are offered up as the new frontier, the one where new wonders and adventures might yet lie. Digital visual effects offer an extremely powerful way to represent these imaginary places because they are also the way the real frontier of space is being visualized and its exploration achieved.

In her discussion of the relationship between what science fiction represents and what technology is being used to achieve, Annette Kuhn remarks, "In the instance of special effects, the cinematic apparatus and the technological future represented in the fictional worlds of science fiction films begin to coincide."[405] She cites the documentary, *The Dream Is Alive*, the subject of which is NASA's *Challenger* program, and observes that, "many of the film's images, however, look exactly like science-fiction film images."[406]

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[404] George Lucas quoted in an interview with Stephen Zito which appeared in **American Film** edited by Hollis Alpert, in April 1977 and is reprinted as an "Introduction" for George Lucas' *Star Wars: A New Hope*. (London: Faber and Faber, 1997), p.xv.

[405] Annette Kuhn, ed., *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p.150.

[406] Ibid.

As has already been noted, the astonishing images of planets in space crafted in a studio by Stanley Kubrick, are joined now by images beamed back to earth by satellite, robotic and extra-terrestrial telescopes. At a time when serious plans for crewed missions to Mars are the substance of newspaper articles and classroom science projects, the documentary use of digital visual effects to describe space travel takes on a somewhat less theoretical aura as do the fictionalized versions in feature films. These once imaginary images are now grounded in real data, based on photographic evidence and there is little difference between the images used by those making the plans to launch a spacecraft and those telling stories about spacecraft.

Similarly, images of future cities crafted with digital visual effects have an allure that could not be offered by traditional matte painting techniques. In the first instance, the future of the cities we live in are being shaped by the very technology used by the film industry to build imaginary cities or modify those we inhabit now. Architecture is heavily reliant upon CG visualizations of buildings and urban spaces both for design and construction. This melding of the existing built environment with the proposed or the imagined offers us a world view of the space which we occupy as a mutable zone, one subject to constant modification and alternate views.

Secondly, that these alternate views and imaginary places can be explored with the aid of virtual camera moves and, blended with performance imagery, adds to the blurring of the boundaries between solid experience and projected experience. No longer are visions of the future sketched out in flat 2d representations; they are explorable, manipulable, and, crafted by the right hands, indistinguishable from photographic images of the built environment as it currently stands. Scott Bukatman, in his paper, "The Ultimate Trip: Special Effects and Kaleidoscopic Perception" discusses the enduring fascination with supernatural phenomena and its realization in film. He summarizes this discussion by observing:

> Cinema always combines the material and the immaterial, the solid and the phantasmatic, the permanent and the ephemeral, the rational and the uncanny. Gunning and Castle agree that despite its scientist underpinnings this is a 'fundamentally uncanny' medium. Geoffrey O'Brien puts it eloquently, 'Upon the motion picture - the most alluring mechanism of the age of

mechanical reproduction - would devolve the task of reconstructing the imaginary worlds it had helped to dismantle.' "[407]

Where film once revealed the far away places of the world to audiences able to travel no further than their local cinema, CG now reveals - reconstructs - reinvents - distant places where adventure might yet occur. These cinematic images of the imagined future mirror, in many respects, the images we are offered of the proposed future. CG documentary images of archaeological site reconstructions, the growth and spread of cities, the construction of buildings - existing and proposed - graphically demonstrate how the world has changed and propose what changes might yet occur.

The perception that the world we live in is a mutable space and the space we reach for is a liveable mutation informs our storycraft and digital visual effects work to make this convincing within our lived experience and our imagined future. As Bukatman has commented, "Artificial infinities abound in SF: generation ships, outer space, cyberspace, boundless cities, cosmic time, galactic empires, *2001's* mysterious monolith, the endless underground cities of the Krel in *Forbidden Planet*."[408] Yet these images abound outside of science fiction when they are projected into the visualizations of a future that is beginning to return to us from the depths of space.

The imaginary and the real are indeed coinciding and cinema has been the medium that has foreseen and, in some ways, inspired many of the aspirations that are now being fulfilled. Bukatman has observed that, "It might even be argued that cinema is the very paradigm of an artificial, technological environment that has incorporated utopian fantasies of nature, kinetic power, spiritual truth, and human connection."[409] Cinema has also influenced the development of the technology of computer graphics, taking the means of scientific realization and demanding more of it, pushing its capabilities and making available to science improved tools for advances into space, the built environment and manipulation of the natural world - including our own physiology. A good example of this interaction is the adoption by oceanographers of the wave data sets for the film *The Perfect Storm*.

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[407] Scott Bukatman, "The Ultimate Trip: Special Effects and Kaleidoscopic Perception" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.121.
[408] Scott Bukatman, "The Artificial Infinite: On Special Effects and the Sublime" in *Matters of Gravity: Special Effects and Supermen in the 20th Century*, p.104.
[409] Ibid., p.105.

The imaginary worlds of film are often presented to us in establishing shots and, increasingly as fully CG settings. As David Bordwell and Kristin Thompson have noted, "Specific settings fulfil distinct narrative functions."[410] As the previous example of an aerial establishing shot of a town has demonstrated, CG techniques can be used to establish virtually any kind of setting. Of establishing shots, Seymour Chatman in his essay, "What Novels Can Do That Films Can't (And Vice Versa)" remarks, "...we can see why precisely the absence of characters endows establishing shots with a descriptive quality. It is not that story-time has been arrested. It is just that it has not yet begun."[411]

The imaginary cities of the future or of galaxies far, far away are revealed not only in the opening frames of films but throughout, as new locations are presented. Chatman's observation about story-time having not yet commenced is a clue to the measure of the narrative function of the shot. Establishing shots can be revealed in many ways. They can be used to ease the spectator into the diegetic world - as the earlier example suggested - or they can be used to astonish the spectator, twisting expectations and revealing the diegetic world in a surprising or unexpected way.

In this latter case they straddle the fine line between narrative tool and spectacular display. Where CG environments extend beyond the customary practice of setting up the diegetic world and become the substance of the setting, the tension between the narrative drive of the scene and the spectacularity of the images may be at its greatest. In general terms the balance will be tipped based upon the quality of the performance and the dramatic elements. Where these things are weak or lacking, the spectacularity of the images (in the event that these images are noticeably impressive) may be favoured. For a skilled filmmaker the direction of attention to drama or setting is, as M. Night Shyamalan indicated, an option exercised with an understanding of the consequences it has for the overall pacing and emotive impact of the film.

While there are many instances where the use of CG environments is understated and used Seamlessly to preserve the diegetic world, in the case of future cities and imaginary worlds, spectacularity is most often a desired outcome. As Lucas' remarks indicate, the intention is to establish a sense of wonder and excitement so that the adventure of the narrative can be believed. The oral tradition has established

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[410] David Bordwell and Kristin Thompson, *Film Art: An Introduction*, p.148.
[411] Seymour Chatman, "What Novels Can Do That Films Can't (And Vice Versa)" in Leo Braudy and Marshall Cohen eds., *Film Theory and Criticism*, 5th edition, p.441.

fairytales and epic adventures as events that happened far away in time or place, in a place unlike home. And while the events that spark the journey - as Campbell has described - may indeed be sparked by incidents in the ordinary world, the journey itself will often require a step into the unknown.

For filmmakers, establishing an unknown place in a well documented, populous and highly observed planet is an increasingly difficult task and so the advent of digital visual effects and the re-usable data sets of deserts, forests, oceans and star fields is an obvious boon. It would seem that no matter how canonical the tale, the ability to position the story in a special place can be a critical factor in engaging the audience. There are, of course, many stories told in mundane settings and in these the 'specialness' of the story often focuses on the qualities of the human drama at play. But many genres draw upon strong traditions of setting and mise-en-scene that, as has already been indicated in the case of period drama, have become impractical without the use of digital visual effects. Thus, for the continued development of these genres, reliance upon digital visual effects may be crucial to their operation as a means of critical examination of the cultural, ideological, political and psychological factors that underpin their narratives.

For example, as Daniel Dervin has noted in, "Primal Conditions and Conventions: The Genre of Science Fiction", "... since Méliès, the science fiction film has spun around the dual themes of other worlds and other beings."[412] Obviously, the tradition of visualizing the future world predates the use of digital visual effects. Indeed, in "Visions of the Future in Science Fiction Films from 1970 to 1982", H. Bruce Franklin states, "The first great archetypal image of the future projected in the early SF film is THE WONDER CITY OF THE FUTURE."[413] However, since the advent of digital visual effects, the use of graphics technology to realize the settings for much of the drama has become the common practice; not only for feature films but for television dramas, also. Therefore the practices and approaches used in CG are now the most

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[412] Daniel Dervin, "Primal Conditions and Conventions: The Genre of Science Fiction" in Annette Kuhn, ed., *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p.97.
[413] H. Bruce Franklin, "Visions of the Future in Science Fiction Films from 1970 to 1982" in Annette Kuhn, ed., *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*, p.20.

common production technique used for crafting these crucial images and are fundamental to the implications that critical analyses draw from such imagery.

Annette Kuhn has commented that "...science fiction films are singular in that at the levels of image and spectacle they 'real-ize' the genre's topic of the imaginary and the speculative, proposing a necessary connection between the visible worlds created in films and the stories for which these worlds constitute the settings."[414] This also holds true for films outside the science fiction genre. Fantasy films have offered us images ranging from the photographically realistic images of Middle Earth (in Peter Jackson's *The Lord of the Rings* series) to the more theatrically influenced Hogwarts, (as offered in the *Harry Potter* series). Period films have presented us with reconstructed images of Rome (*Gladiator*) and the ruins of Warsaw (*The Pianist*). Disaster films also draw upon such images to persuade, shock and dramatize events such as meteor strikes (*Deep Impact*).

In these different genres, different narrative functions may be in operation and different implications may be drawn. Janet Staiger's essay "Future Noir: Contemporary Representations of Visionary Cities" comments on science fiction's "rewriting"[415] of cityscapes and argues that "...the mise-en-scene of cities in science-fiction films might be understood as utopian commentaries about the hopes and failures of today or, inversely, dystopian propositions, implicit criticisms of modern urban life and the economic system that produces it."[416]

The narrative intentions of the fantasy world of Hogwarts may owe more to Bettelheim's fairytale purposes than they do to Campbell's myths, which are more closely realized by the deeds of Middle Earth. The narrative intentions of period films it is thought work best when they resonate with the events and crises of the times in which they are told. But of science fiction and disaster films - this latter considered to be a sub-genre of science fiction, by some - there has been substantial discourse.

Vivian Sobchack in her paper, "Cities on the Edge of Time: The Urban Science-Fiction Film", has examined the image of the city in science-fiction film, both future cities and the ruins depicted in disaster films. She has commented that "...the fantasy of

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[414] Annette Kuhn, "City Spaces - Introduction" in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.78.
[415] Janet Staiger, "Future Noir: Contemporary Representations of Visionary Cities" in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p. 97.
[416] Ibid., p.99.

the imaginary city constitutes it in a positive image of highness and fullness, envisions it as the site of human aspiration - its vertical projection pointing towards spiritual transcendence and, perhaps, a better and fuller (that is, a materially expanded and more 'civilized') future."[417] Sobchack also discusses another future view - "...the razing of the city and, most particularly, the bringing low of those monuments that stand as symbols of modern civilization's aspirations and pride."[418] She says in relation to these destructions, "Its poetic reverberations have nothing to do with aspiration and ascendancy and everything to do with, as Sontag puts it, 'the fantasy of living through one's own death and more, the death of cities, the destruction of humanity itself.' "[419] She offers another view of dystopian future cities: "The second image of the failure of the aspiring city is equally powerful, yet quite different - retaining the city's highness, but temporizing its value as 'past'...(where) 'highness' becomes dominated by the negative and nihilistic value of *'emptiness'*."[420]

She follows these astute observations with an historical account of future cities and goes on to remark upon the destructive sequences in recent films citing *Deep Impact*, *Armageddon*, *Godzilla*, *Independence Day* and *Mars Attacks!*. Of these she observes the lack of "human affect and real consequence attached"[421] to scenes of destruction and comments that these cities seem "to exist only for destruction."[422]

From these arguments, support for Staiger's evaluation can be found. CG representations of a 'higher, fuller' future world are especially persuasive when their realism closely matches the architectural representations of the proposals for building sites in the physical world. The link between the consumer sell of the developer's plan and the aspirational images of the future is easily made. Further, the link between images of destroyed cities and its relationship to the desire to survive death has been horrifically brought to test by the experience of the events in New York City on September 11, 2001.

Sobchack's insight that so many film images of cities in disaster films seem to exist only to be destroyed is true in terms of their creation for filmic purposes. Models

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[417] Vivian Sobchack, "Cities on the Edge of Time: The Urban Science-Fiction Film" in Annette Kuhn ed., *Alien Zone II: the spaces of science fiction cinema*, p.129.
[418] Ibid., p.130.
[419] Ibid., p.131.
[420] Ibid.
[421] Ibid., p. 139.
[422] Ibid.

are often fabricated from materials selected for their destroyable qualities with CG elements the finessing touches to these scenes of destruction. Yet, in light of 9/11, these images now have a different resonance, for many. Even those films, such as *A.I.*, which depict the twin towers ruined in a future they did not survive to meet, give pause because the images anticipate visually, a future not unlike what befell them. Further, while the experience of the towers' destruction was intended to 'bring low' the aspirations and pride of America, the people of New York, in keeping with Sontag's arguments, have sought to find triumph in their survival and in their will to rise above experience. These events have influenced the subject matter of projects greenlighted for film production and offer spectators a greater sense of 'real consequence' attached to images of urban destruction. They have also, because of the massive nature of the disaster, shown the 'realism' of many of the fictional representations that preceded the attack. As a consequence, the coincidence of the image and the experience reinforces the increasing sense of verisimilitude and value for the thematic material on offer.

In regard to the ruined, dystopian 'empty' future cities, the films *Mission To Mars* and *Final Fantasy: The Spirits Within* offer two different views to that proposed by Sobchack. In *Mission To Mars*, the ruins on Mars are not empty so much as dormant, awaiting the arrival of evolutionary destiny. In *Final Fantasy: The Spirits Within*, the ruined cities of earth are ghosts that harbour the 'natural' wavelengths that can be used to heal the forces of destruction. The films Sobchack cites in - *Deep Impact, Armageddon, et al* - while showing massive destruction, also end with human triumph. As in *Final Fantasy*, the narrative tendency of disaster stories is for hope to blossom amidst the ruins, as Viktor Frankl's experience as a survivor persuaded him to believe it must.

Thus, it would seem that whatever wonders of the world cinematic images present, be they of an imagined world of future utopia or destruction, another significant theme is the life that survives, clinging to hope amidst the ruins. As stories establish settings that are limited only by our imaginative powers (accepting that our representational powers in the area of digital visual effects are currently unbounded), and we anticipate a future that can be 'real-ized' by our continued advances in digital visual effects technology, the human element is the constant most under threat.

Depictions of cyborgs, robots indistinguishable from humans and enhanced physical performance (either through mutation, supernatural or technologically assisted

means) are also elements of the future world and wonders being explored with the assistance of digital visual effects. The growing use of CG characters has already been discussed yet there remains an aspect of this form of representation that bears further consideration: the question of our own place and constitution in these imaginary and future worlds. In *Making Meaning*, David Bordwell discusses the issue of 'Characters as Persons' and observes that, "Humans are predisposed, biologically and culturally, to attend to humanlike agents in representations."[423] Clearly, as much of the previous discussion has suggested, there are implications for CG characters inherent in this observation.

At the time of writing, the greatest achievement in CG characters is that of Gollum in the *Lord of the Rings* series. The character is established in the narrative well before his transformation from hobbit/human to unnatural being. The series of morphs that depict the impact of the ring's corrupting influence serve to warn audiences of the threat posed to the film's hero, Frodo. They also work to establish a sense of pity for the creature and convince that, once, he was not unlike the other characters whose fates we care about.

The creation of this CG representation has, at its base, a human performance. Andy Serkis, the actor engaged to play the part performed alongside the other actors and was either removed digitally or was kept out of frame. His performances were also recorded using motion capture that were then animated for compositing into scenes where Gollum interacts with the others. Serkis has said:

> The work that the animators had been doing on Gollum was beautiful....what they'd been doing with the raw material of my performance on set and in motion capture was so inspiring. They were managing to capture the essence of what I was doing and then augment it, taking it to another level, amplifying the underlying psychology of the acting with their phenomenal talent.[424]

As has previously been noted, the work of animators is not simply that of computer operation and manipulation of sliders controlling digitally determined performance criteria. To a great extent they must also 'act out' and visualize the

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[423] David Bordwell, *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema*, p.153.
[424] Andy Serkis, *The Lord of the Rings GOLLUM: How We Made Movie Magic*, p.100.

performance they are crafting for the screen. The achievement of such a coherent performance by a team of animators is an impressive result - a kind of orchestration of performance. The result is a convincing representation of 'the other' - a depiction of mutation and its impact upon character. The underlying humanity of the representation is telling and effective and is also symbolic of the changes humanity might undergo itself as it embraces the instruments of power it crafts to master its world.

Once again there is a relationship between the technology used to create the representation and what the representation means to us thematically. Motion capture was developed for and is still used for medical and scientific research into human physiological performance and provides data of value to those creating technologies necessary to assist in prosthetic and robotic developments. The images of technology grafted onto humans in *Star Trek's* representations of the Borg - the cyborgian, anti-individualist, alien hive-species - are extreme examples of what science strives to achieve for humans whose bodies have needs beyond self-repair and traditional medical assistance. The robotic creations of *A.I.*, are equally extreme representations of the kinds of technology currently being developed in laboratories around the world, assisted by data captured from humans.

While our steps into space are, at best, tentative when set against the vastness of the universe, our developments in robotics and cyborgian technologies are equally small in the face of the ways these futures are represented in films. Our hopes and fears concerning these developments however, are light-years ahead of our actual achievements and they are well-expressed in our storycraft. Our ability to create representations of monsters - such as the Balrog in the *Lord of the Rings* films - belongs to a long tradition of making 'real' our fears so that we might examine them and confront them. Our representations of our own mutations and evolutions might also serve this aim. That we do this now with such powerful tools of representation is perhaps a measure of how fearful we are about who we will be in this future world we envision.

Of the technology used to capture the essence of the turned creature, Gollum, Serkis has said:

> Performance capture will be used more and more, but the technology will become less and less invasive, allowing acting to retain its purity. As I have discovered, it does require pure, truthful acting - no costume, no set, no makeup

- but it offers the potential of an infinite range of characters that can be literally mapped onto an actor's interpretation of a role.[425]

It would seem that his experience has convinced him that the ability to 'look good naked' (as Lester Burnham put it), is at the heart of such transformations. For Serkis the technology was still in the service of performance and, in his view, would become more so. It is an expression of hope that would fit well into a future world narrative.

In *Myths To Live By*, Joseph Campbell cites the work of Leo Frobenius who argued that there were "...three distinct great stages in the total development of the culture history of mankind. The first was of the primitive food-foragers, hunters and planting villagers...of a time span extending from the first emergence of our species...to the very present. The second, commencing ca. 3500 B.C., was of the 'monumental cultures,' literate and complex.... And now finally comes stage three, of this greatly promising, dawning global age, which Frobenius looked upon as probably the final phase of mankind's total culture history....".[426] I propose that we aspire to a fourth great phase, one that relates to our fascination with space - a galactic culture history. In support of this I argue that our fascination with outer space and our tentative steps to reach it are, as George Lucas has proposed, a new hope.

After nearly fifty years of space travel, argument is now focussed on whether it is better for robots or humans to represent our next steps beyond the gravitational pull of our own planet. Perhaps we are like the makers of the first coracles that ventured beyond the sight of one's own shore and there lies ahead of us a future of travel and exploration that will be repeated on the sea of stars. If it is to be so it is only because we are able to contextualize those first coracle builders, and perhaps, because of our ability to represent these advances in our development through CG realizations, we are increasingly aware not only of where we want to go, but how we have arrived at where we are now.

Of our first views of the earth from space, Campbell has written, "...we have all now seen for ourselves how very small is our heaven-born earth, and how perilous our

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[425] Ibid., pp.116-117.
[426] Leo Frobenius quoted in Joseph Campbell, "The Confrontation of East and West in Religion" in *Myths To Live By*, p. 85.

position on the surface of its whirling, luminously beautiful orb."[427] He describes the first moon walk and the return to earth, adding the observation that "...we all became eyewitness to the fact that, although the moon is over two hundred thousand miles away from us, a knowledge of the laws of the space through which it moves was already in our minds ... centuries before we got there."[428] As he says, "Space and time, as Kant already recognized, are the '*a priori* forms of sensibility,' the antecedent preconditions of all experience and action whatsoever, implicitly known to our body and senses even before birth, as the field in which we are to function."[429]

The increasing popularity of science fiction and the emergence of computer graphics technology at this point in our history is a valuable partnership for exploration of our ideas about the future and our place within it. As Bordwell and Thompson have observed, "...the animated film constitutes the extreme limit of the director's control of mise-en-scene - the most controlled sort of film there is."[430] The increasing use of animated sequences and elements - including performances - in films may reflect a desire to control our future and our role within it, a desire sublimated in the means we are using to craft our stories.

As Bruno Bettelheim's work suggests, fairytales offer children a means to confront the task of facing life. He has said, "For a story truly to hold the child's attention, it must entertain him and arouse his curiosity. But to enrich his life, it must stimulate his imagination; help him to develop his intellect and to clarify his emotions; be attuned to his anxieties and aspirations; give full recognition to his difficulties, while at the same time suggesting solutions to the problems which perturb him."[431] Many films seek to fulfil the role of fairytales and digital visual effects, in realizing imaginary worlds and representing poetic concepts, assist in representing the images required to fulfil the deep needs we have for story. If the filmmaker is sufficiently aware of how they work - both technically and narratively - they offer a means to be better storytellers.

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[427] Joseph Campbell, "The Moon Walk - the Outward Journey" in *Myths To Live By*, p.237.
[428] Ibid.
[429] Ibid., p.238.
[430] David Bordwell and Kristin Thompson, *Film Art: An Introduction*, p.153.
[431] Bruno Bettelheim, *The Uses of Enchantment: The Meaning and Importance of Fairy Tales*, p.5.

Annette Kuhn has suggested that one of the appeals of the science fiction genre is, as mentioned earlier, the display of other worlds. It could be said that many films offer a view into other worlds of some kind. They can be past times, other cultures and places, other classes, other races. The impact of CG in creating imaginary worlds is partly served by a remembrance of worlds past. The archaeological reconstructions that are photographically persuasive allow past civilizations to rise phoenix like from the dust and ashes of time. This imagery serves to remind us not only that what we have now will pass but that also it can be survived and new, differently magnificent futures are possible - regardless of the dystopian warnings that may visit this particular moment in history. While the glory that was Rome was unlikely to have forecast the splendidness of New York we, having been able to revive the image of Rome's great monuments can imagine a New York brought to ruin while new cities of 'highness and fullness' prevail. The question is, will we recognize ourselves in these new cities and frontier towns of space?

Thus the wonders of the world are not only of this earth or of our current constitution. They are also of the worlds upon which we might yet walk and the beings we might yet become - willingly or unwillingly - as we commit ourselves to technology as the means of our continued evolution and expansion. Joseph Campbell, writing in 1970 stated that, "Our astronauts on the moon have pulled the moon to earth and sent the earth soaring to heaven."[432] Digital visual effects in filmmaking and in scientific fields are set to take us beyond the works of our conscious imaginations and into worlds we have yet to dream into being.

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[432] Joseph Campbell, "The Moon Walk - the Outward Journey" in *Myths To Live By*, p.244.

Byting Off More Than You Can Chewbacca: summary and conclusions

Every art is shaped not only by the politics, philosophy, and economics of society, but also by its technology. ... until artistic impulses can be expressed through some kind of technology, there is no artifact. James Monaco [433]

Summary:

As indicated in the introductory Chapter's comments, this thesis sought to examine whether digital visual effects had impacted upon narrative in a way that was different from the impacts offered by traditional special and optical effects. It also sought to consider how discussions of special effects might have positioned critical consideration of the rise of digital visual effects. In other words, having established a view about the role of special effects, were digital visual effects simply considered to be an extension of special effects practice? Relating to this issue was the question of excess - the extent to which the spectacularity of effects dominated or over-rode narrative; a measure of which was the extent to which the effects used were able to transmit story information. There was also an intention to examine whether or not there was a growing non-narrative usage of digital visual effects and assess whether this was impacting upon classical narrative structures. Further, the question arose as to whether digital visual effects were a simply a self-reflexive practice or whether they had aesthetic or ideological consequences that might bear wider analysis.

The discussion focussed firstly on the matter of storycraft, concluding that classical narrative, although not the only narrative structure, was the story approach that conformed most directly to the standards applied to films commonly associated with digital visual effects usage. Further, classical narrative structure is also the one that the majority of scriptwriting manuals address. Thus, the classical narrative proved to be a structure relevant to the kinds of films under discussion and provided a clear standard for comparative analysis.

The critical commentary on the use of effects focuses on the issue of spectacularity and often makes the assertion that digital visual effects work to stop the narrative in order to draw attention to the technology. While it is certainly the case that

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[433] James Monaco, *How To Read A Film: Movies, Media, Multimedia*, 3rd Edition, p.68.

there is a long tradition of effects with a relationship to their use in narratives that have thematic ties to technology and its implications, broad narrative analysis of effects usage revealed that storycraft practices drive the use of effects and that in many instances the spectacularity referred to in these discussions, even though it may rely upon effects to be achieved, is often a result of the kinetic value of violent action sequences written into scripts. The growing use of action sequences, which has been tied to formula writing and associated with what Robert McKee has called 'the blurring of values', proved to be a significant factor that impact upon the quality of storycraft.

Further, as the discussion has indicated, values - either expressed in the form of 'wisdom' or demonstrated through moral choice - appear to be a significant factor in influencing the quality of a story. In scriptwriting terms, this refers to the clarity of themes and the congruence between the film's thematic intents and its dramatic construction and mise-en-scene. There was also discussion of mythic and fairytale structuring in film narratives with an indication that the fairytale elements - the ordinary person in extraordinary circumstances - was perhaps a more common structure than the mythic proportions of superhuman achievements that form Joseph Campbell's Hero's Journey in its broadest understanding. Furthermore, it was noted that while the Hero's Journey provides a useful and appropriate framework for analysis of many Hollywood films, its adoption as a formula appeared to result in the same problems that arise from most formula-driven approaches.

In terms of the view held that films operate as a modern mythology, it is possible to give thought to Joseph Campbell's four functions served by "a properly operating mythology".[434] The first he identifies as,

The mystical function: to waken and maintain in the individual a sense of awe and gratitude in relation to the mystery dimension of the universe ... so that he recognizes that he participates in it .... The second function ... is to offer an image of the universe that will be in accord with the knowledge of the time, the sciences and the fields of action of the folk to whom the mythology is addressed .... The third function ... is to validate, support, and imprint the norms of a given, specific moral order, that, namely, of the society in which the individual is to live. And the fourth is to guide him, stage by stage, in health, strength, and harmony of spirit, through the whole foreseeable course of a useful life.[435]

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[434] Joseph Campbell, "Schizophrenia - the Inward Journey" in *Myths To Live By*, p.214.
[435] Ibid., p.214-215.

Although the idea that 'movies are our era's mythology' is a popular one, I am not prepared to argue it in relation to this discussion but will observe that there are commonalities between the functions Campbell proposes and the role movies can play in modern cultures.

In considering how digital visual effects are used by the 'mythmakers' of Hollywood, it can be argued that digital visual effects directly offer tools to assist those crafting a film's narrative in realizing the first two of the functions: 'awakening a sense of awe and gratitude in relation to the mystery dimension of the universe' and the 'offering of images of the universe in accord with the knowledge of the time'. Indeed, given the discussion in regard to the spectacularity of digital visual effects imagery and its narrative placement, the first function is probably the most recognized role digital visual effects would be expected to play in a 'movies as mythology' argument. Further, that digital visual effects are one of the means by which scientists develop the knowledge of our times in relation to understanding the universe, the second function is also one that can fairly be associated with digital visual effects. The last two functions however, I consider fall within the boundaries of storycraft itself and, while digital visual effects may be used to convey story information needed for 'advising on norms' and providing 'spiritual guidance', they do not of themselves undertake this function without considerable supporting context from story elements.

Thus discussion of effects usage and their narrative placement invariably confronts the fact that good stories well told are rare and hard to achieve. In "The Work of Art in the Age of Mechanical Reproduction", Walter Benjamin recounts Aldous Huxley's oft quoted observation on the distribution of talent versus the production of product.[436] This argument relates that the rise of the printing press has increased the amount of material being made available without there being a commensurate rise in the naturally occurring talent to create material of a high standard. Such an observation, of course, raises many issues in relation to romantic ideas of 'gifted' talent versus developed talent. However, regardless of these views, the production of films has always conformed to the dimensions of the bell curve. There is a smaller proportion of exceptional material and a much larger proportion of competent, ordinary and - being kind - anti-exceptional material. Digital visual effects however are used across the

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[436] Aldous Huxley quoted in Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" in *Illuminations*, pp.240-241.

quality continuum and, consequently, may most often be used in the service of poorly told stories. Nonetheless, this does not define the extent of their usage.

In order to move on to discussion about the spectacularity of digital visual effects and specify in what ways they are different from traditional special effects, attention turned to how digital visual effects developed and became part of the production process. It was argued that digital visual effects offer greater technical range, control and precision than can be achieved with traditional optical and special effects and that they offered new techniques altogether. These new techniques included: virtual camera moves, digital lighting, synthetic realities, full photoreal CG imagery, motion-capture of performance for animation of photoreal images, and CG characters. It was further argued that these techniques extended the story information tools available to filmmakers and that they had implications for theoretical discussion in line with the critical discussion that has favoured camera movement, mise-en-scene and performance. There is no doubt that digitally crafted images impact upon composition, framing, scale, and shot duration and therefore have aesthetic and ideological implications for such academic considerations.

In terms of classical narrative structure, it was not found that digital visual effects in themselves were responsible for changing the narrative structure *per se*. There is still a great reliance upon, and expectation that Hollywood films will conform to, the structure of a beginning, a middle and an end. However, digital visual effects have changed the means of representation available to filmmakers. They offer filmmakers the power of the recording medium as well as the power and symbolism available to representative arts. It was also clear from the discussion that when used well, narrative context informed the use of digital visual effects both stylistically and as a means of communicating story information.

In broad terms, the computer graphics themselves - the moving text imagery and, in particular, the use of the 'magic computer' with its expositionary role - offered a powerful means of providing not only straightforward expositionary story information but symbolic and thematic materials also. By way of example, the 'IKEA catalogue' sequence in *Fight Club* uses on-screen text and image manipulation to convey thematic story information. Digital visual effects also demonstrate a capacity to serve traditional expositionary purposes - to give means for extensive conceptual and backstory elaboration and, as such, are a valuable story information tool. Thus it emerged from

this analysis that there were instances where the use of digital visual effects in this way supported traditional classical narrative purposes that might have limited or no spectacular value. This argued against the often made assertion that special effects are inherently and inevitably self-reflexive and spectacular, without denying that there are instances of self-reflexivity and spectacularity in the use of special effects. It is simply the case that these kinds of uses are not mutually exclusive.

As Schatz observed with the developments of new sound technologies, "...the new audio effects...encouraged filmmakers to focus upon action and urban violence, and also to develop a fast-paced narrative and editing style."[437] It would appear that digital visual effects have had in some respects a similar impact or, given that sound effects predate the popular usage of digital visual effects, they are continuing what was becoming an established trend. However, in terms of visual representation and the meaningfulness of what can be expressed in symbolic and thematic terms, digital visual effects have had a much broader impact than simply adding to the kinetic thrills of action sequences.

One of the main areas of impact - one closely associated with action sequences - is the role of the hero. To demonstrate the range of impacts that digital visual effects can have on the hero's portrayal, six case studies were undertaken across a number of genres: *Star Wars, Mission To Mars, Final Fantasy: The Spirits Within, Gladiator, Swordfish,* and *American Beauty.* It was through these analyses that the impact of the 'whammo' and action-driven plots became most apparent as the role of the hero was reduced to impossible escapes from certain death. However, as the storycraft discussion had already shown, such devices - whether realized by digital visual effects or other *deus ex machina* means - proved to be evidence of poor storycraft rather than a substitution of digital effects for storycraft elements.

Once again the issue of values presented and it was noted that, while digital visual effects can be used to heighten physical danger they only convey inner perils and moral strengths when they are scripted and used representationally within the narrative context. It also emerged from these case studies that spectacularity was, in some instances, specifically part of the narrative and worked to: establish the diegetic world, exaggerate violence, provide spectacle as part of the story itself, stop the narrative to let themes resonate or provide a beat in the overall structure of the narrative.

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[437] Thomas Schatz, *Hollywood Genres*, p.85.

However, the overwhelming usage of digital visual effects in application to the hero's role was an exploitation of its value as a means of increasing the perceived proximity and extent of danger posed to the hero or to exaggerate the hero's physical prowess. This latter quality was of particular interest in the portrayal of female action heroes, something that had ideological as well as storycraft implications. The ability to present female heroes with visibly convincing physical power while often confined to the same kinds of stereotypical roles crafted for male action heroes, had implications beyond that for male performers. Voyeuristic considerations often figure into the displays of female performers' physical prowess and other thematic issues also presented when females were cast in lead roles of action films. However, it became apparent from the discussion of the hero's role - male or female - that great acts of character made heroes, not great displays of digital visual effects and therefore storycraft was essential to the full realization of the hero and, where this happened, a film was capable of attaining exceptional power thematically aided by appropriate digital visual effects.

While the discussion thus far had focussed on the broad issues - storycraft, the development of the technology and the impact on the role of the hero, in order to look more closely at storycraft, attention was brought to bear on ways stories are told: one specific story three times told; genres - that is, kinds of stories; a franchise - a story that extends over a number of films; and the body of work of an influential director whose films showed mastery of digital visual effects practice.

The case study chosen for the specific story was *The Haunting*. This film offered a baseline story in the form of a novel by Shirley Jackson and a classic Hollywood film version in the form of Robert Wise's 1963 film adaptation of the novel. In 1999 director Jan de Bont remade the film but, in rewriting it, made substantial changes to the story structure and basic premises and themes underlying the original story. The film's lack of success, while often blamed on the extensive use of digital visual effects in the updated version, proved under examination to have more to do with the changes to the story than to the use of effects. It should be noted that the film also suffered because, although the effects were of the highest technical standard, they did not work well to support the story itself - such as it was in its revised form. In this case study it became apparent that script problems cannot be redeemed by good or spectacular digital visual effects and, indeed, the meaningfulness of effects was directly related to the quality of the script.

In looking beyond a specific story to kinds of story, the subject of genre raised the strongest arguments that have been made by the academy about the impact of digital visual effects. The genre of science fiction is the one most frequently associated with the use of special and digital visual effects and it is from these discussions that the assertion is made that digital visual effects are inherently spectacular. It has also been argued that the use of effects in these films is giving rise to a new form of narrative - a 'techno-narrative' that is the 'real story' of the film. However, analysis of groundbreaking digital visual and special effects films over the last two decades has shown two major trends: firstly, extensive non-spectacular digital visual effects practice and secondly, the growing use of digital visual effects in a wide range of genres. Further, close analysis of the 'techno-narrative' demonstrated that the use of effects was most often motivated by story elements and that stereotypically these patterns tended to match action sequences with digitally enhanced images of violence. This appeared to support the argument that in many instances the spectacularity of digital visual effects was, more accurately, the spectacularity of violence. The point was made that while digital visual effects might be used the heighten the verisimilitude of such images they were not the *reason* for the images, they were the *means* by which the images were achieved.

Accordingly, the conclusion was drawn that digital visual effects can work to realize story information and elements in keeping with genre traditions and that the display of technology was not necessarily meaningful unless the narrative provided a context that drew out these themes. While there is considerable enthusiasm for the use of digital visual effects as a celebration of technology and an emerging non-narrative form, examination of the landmark digital visual effects films demonstrated that they all relied upon a classical narrative premise as the foundation for digital visual effects work. It did, however, have to be acknowledged that many of these classical narratives proved to be flawed examples of storycraft but that did not indicate that they were an attempt to establish a new narrative form.

Having looked at the issue of genre and examined the extent to which digital visual effects had impacted upon specific kinds of stories, focus turned to franchise filmmaking, a phenomenon that, while not new to Hollywood, certainly enjoyed currency during the period that digital visual effects were becoming part of the production process. This analysis followed the *Alien* films and discovered that a

franchise could serve as a body of work that examined issues of concern to the community over a certain historical period. While genres evolve as a story form, franchises, being limited to a specific setting and character(s), allow a quite in-depth analysis of factors such as the political, ideological and social influences and issues that prevail and how they might impact on the development of a character and/or situation.

In the case of the *Alien* films, the use of digital visual effects thematically mirrored the technology employed to realize the effects in the films and also mirrored the changing conditions and issues experienced by women in the late 1970s to the late 1990s. The technology and its application in the films also reflected the underlying themes and pressures on women's lives at that time and thus, the digital visual effects proved to be not only thematically appropriate to the narrative context but to the social and cultural influences of the times as well.

It then became necessary to look at storycraft from another perspective, that of the storyteller. While there are a number of directors whose work has regularly drawn upon digital visual effects, and indeed, who might be regarded as digital visual effects directors, Steven Spielberg's body of work proved to offer the greatest range of genres, it included franchise films and it also ranged over the period that digital visual effects developed. This approach to examining how effects can be used in storytelling revealed that digital visual effects can serve a broad range of narrative purposes. In some of Spielberg's films, spectacularity was clearly the motivation for the use of the effects whereas in others, the intention was to underplay the presence of the effects in order to let narrative drive dominate. Spielberg was also highly skilled in using digital visual effects to underpin emotional and thematic elements without necessarily stopping the narrative for the purpose of spectacle.

It was at this point that the range of uses of digital visual effects became apparent as a framework that allowed for both narrative cohesion and spectacularity. The framework proposed eight categories of narrative purpose served by digital visual effects: documentary, invisible, seamless, exaggerated, fantastical, surreal, new traditionalist, and hyper-real. The argument was raised that quite often the use of digital visual effects was more in keeping with 'the magic of the movies' than it was with 'the cinema of attractions' but that, in the final analysis, digital visual effects could serve both. Ultimately, the narrative context - whether within a classical narrative or not - provides the motivation for the use of digital visual effects.

There was one final aspect of digital visual effects practice that needed be addressed however, one that enjoyed considerable commentary in critical discussions of science fiction films: the imaginary world and future beings. In this regard, much of the academic discussion is of interest but, as it this discussion is often not supported by an understanding of how the technology is actually used and of what it is comprised, a number of significant points have been underestimated or overlooked entirely.

Essentially, digital visual effects are not only how we imagine new worlds and frontiers for fantastical purposes, they are also how we imagine the future in order to construct it - as a built environment or as new technological developments - including alterations to our physical beings. Thus the relationship between the technology used to create the representation and what the representation means thematically for our future is not solely a matter of storycraft but of our existence also. That we now have digitally created and animated representations that can provide a visual context for how we have arrived at this time and place provides us with a convincing realization of where we might yet go.

It is not just that we can look upon images of a reconstructed past and demonstrate how time has taken its toll on land and the built environment, but that we can do so with images as realistic as those of the world around us. This sense of continuity and mutation, of the force and flux of time is unique to our times because of the power of the moving image and the verisimilitude of the digitally crafted images portrayed within the film frame. As a result, the meaning of future representations has changed. No matter how fantastical these images are, with a heightened awareness of the magnitude of change that has already occurred, these proposed futures attain a new level of potential, one that is often being constructed around us.

Furthermore, as CG characters such as that of Gollum in The *Lord of the Rings* films has shown, we are now capable of going beyond the morph and achieving a new way of being transformed; not just a new/hybrid way of performing but a way to shapeshift. This new form of shapeshifting involves a sacrifice of identity; a loss of self where through motion capture we are the data and the data is us.

Conclusion:

Spectacularity, while a valuable concept, does not capture the full practice and potential of digital visual effects. Furthermore, it is not an enduring quality. As Duncan

Petrie has described, at one time, "The ideological appeal of colour, it seems, was both as a signifier of spectacle and as a self-conscious celebration of the technology itself."[438] It would be difficult to argue the spectacularity of colour in film now. Accordingly, in relation to much of current digital visual effects practice it should be observed that the demographic audience of the typical Hollywood blockbuster film - 16-24 year old males - has never known films without CG images. The oldest of this group would have been in pre-school when the Genesis effect first screened at the cinema.

While the use of digital visual effects can offer moments of spectacularity and non-narrative awe in the manner proposed by the oft cited *2001: A Space Odyssey*, to attribute this quality to the use of *all* digital visual effects is inaccurate and, in some respects, takes away from those moments where such instances of spectacularity do quite properly occur. When authors use words like *always* and *never* to suggest that effects are always self-reflexive and can never be invisible they are overstating the case and underestimating the skill of effects artists.

Furthermore, the issue as to whether the kinetic thrill derives from the violence portrayed or the effects used to portray them bears closer consideration. It is my view that the spectacularity of violence is an important distinction because digital visual effects bring a deceptive power to images of violence - one that must have implications for spectators. Further, while these images are perceptually realistic one might also be concerned that they convey an especially false cognitive realism. In other words, no matter how 'realistic' it appears because of its representation, an experience of the event is unlikely to bear any relationship to the film portrayal but the repeated images of digitally enhanced scenes of violence can give a very false sense of what violence is like. Real violence - the stuff of mob beatings and drive by shootings - does not provide the sound enriched, graphically detailed, multi-angled, temporally manipulated images that are so perfectly depicted in film. If one were to judge from the images typically presented in films, it is quite routine for people to be engulfed by flames, be thrown a great distance by an explosion and emerge unscathed. To draw this conclusion would be to have accepted at a state of false cognitive realism; what you see and believe to be true is simply not so, regardless that one has seen many persuasive examples of such images.

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[438] Duncan Petrie, "History and cinema technology" in John Hill and Pamela Church Gibson, eds., *The Oxford Guide To Film Studies*. p.240.

The issues of violence in film and its impacts on society are far beyond the scope of this thesis but, in the interests of researchers who seek to pursue those matters, further consideration of how digital visual effects not only present graphic detail but exaggerations of graphic detail in convincingly real representations, is hopefully of relevance. In my view, if the purpose of spectacularity is to inspire experience of the sublime, it is unlikely that violence is the poet's answer...no matter how perfectly depicted.

Further, on the matter of spectacularity, where the original 'cinema of attractions' made no attempt to provide a narrative context, most mainstream films require at least a basic narrative motivation for the employment of spectacular effects, even if, at times, it seems tediously flimsy. While it is agreed that these basic motivations may be poorly crafted, they are, nonetheless, used to justify the presence of exceptional settings, morphs, demonstrations of extraordinary powers, CG characters and so on.

At the same time, there is, however, a growing sublime usage of digital visual effects such as that offered in the films *Amélie* and *American Beauty* which show us how moments of spectacularity may not be so much about the technology as the concept and the emotional response being sought or conveyed. This portrayal of fantasy elements, state of mind sequences, and emotional response cues, such as the key in Amélie's pocket or the response of the blind man to being taken on a tour, uplift us from the narrative without breaking it or removing audiences from the context it offers. It is these kind of sequences that demonstrate the potential of digital visual effects for storytelling.

Nonetheless, as has been noted many times, good stories are rare delights. Whether this is as a result of poor storycraft or simply a proportional reality need not be allowed to distract from the issue of how digital visual effects relate to the matter of the quality of storycraft. Simply put, when used by a skilled storyteller, digital visual effects are able to provide extensive new means of bringing images to the screen - images that thematically and symbolically communicate the fundamental materials of story. And while these instances are not new kinds of stories or story structures, they are new tools for and approaches to storytelling.

In writing of Ernst Bloch's "development of hope as a political vision",[439] Jane M. Gaines has observed that Bloch's observations on Hollywood provide a "...statement of how classical narrative realism *can* work to pull the world-improving aspirations out of the society itself and play them back to us. And it would be that *if* there is hope in the world, *if* there is an imagining beyond things as they are, this imagining will be found in some form in the mirrorings of Hollywood realism....".[440] As the discussion on storycraft argued, the 'unrealistic' Hollywood happy ending is related to the happy ending of the classic fairytale which offers the illusion of hope in the face of inevitable death.

Author Laura Hillenbrand describes the impact of the Depression on the American psyche commenting, "A nation that drew its audacity from the quintessentially American belief that success is open to anyone willing to work for it was disillusioned by seemingly intractable poverty."[441] She goes on to note that, "The sweeping devastation was giving rise to powerful new social forces. The first was a burgeoning industry of escapism."[442] Citing the enormous popularity of cinema and radio dramas she also notes the technological innovations that made access to narrative possible for vast numbers of people for the first time.[443] This echoes the observations that have been made by Brian Winston and Michele Pierson on how technology has shaped the acceptance of narrative.

Fifty years later, as technology brought video/digital players and recorders into homes making available films for repeat viewing and close scrutiny, the 'industry of escapism' enjoyed renewed cash flows for old products but also needed to feed the established expectation that stories would provide inspiration and pleasure to its customers. The need to raise the technical standard of the images and differentiate the cinematic experience from the home viewing experience certainly influenced the adoption of digital visual effects.

Digital visual effects provide the means by which to tell the kind of stories that can be described as the impossible - or as yet unachieved - made real. Filmmaker

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[439] Jane M. Gaines, "Dream/Factory" in Christine Gledhill and Linda Williams, eds. *Reinventing Film Studies.* p.107.
[440] Ibid., p.108.
[441] Laura Hillenbrand, *Seabiscuit: Three Men and a Racehorse.* (London: Fourth Estate, 2001), p.141.
[442] Ibid.
[443] Ibid., p.142.

George Miller waited ten years to make *Babe* and achieved a major technical breakthrough with the digital visual effects needed to portray talking animals. The Genesis Effect was sold to George Lucas on its offer of an impossible camera move. In many ways this is the most significant impact of digital visual effects for filmmakers: access to the impossible; the making real of images previously limited to the representational arts, the mind's eye, or the writer's pen.

It has not been a simple journey as it has required long, slow technical innovation to build the bridge between the imagined to the realized. However, the result is the increasingly skilled use of digitally created images to innovate visually; to use digital visual effects as a storytelling tool. As the examples cited have shown, the avant garde of the surreal in now ably used for quirky love stories and dark comedies.

Digital visual effects have given heroes - male and female - extraordinary power to cheat death. They have taken heroes to impossible places, pitted them against characters that could only be achieved through CG, heightened the verisimilitude of images for all kinds of film genres. The camera's position is no longer restricted by its physicality and where in traditional filmmaking things had to be implied, now they can be shown. Whether recreating the past, inventing space travel with believably active humans, or drawing upon invisible effects to ensure maximum control over the image and environment, digital visual effects have changed film production and image creation. By mastering the ability to control storms and other elements of nature, provide convincing representations of the future and manipulate time and space, digital visual effects have taken the recording arts into a new realm where issues of representation must be reconsidered alongside of photographic theory. Where once we had a big guy in a fur-covered suit, we now have a human performance in a computer generated animation.

However, while digital visual effects have completely re-equipped the storyteller's toolbox, as has already been stated, it cannot be argued that they have rewritten the storyteller's rulebook entirely. It would be a great celebration of digital visual effects to argue that they had created a new narrative form, however, the research undertaken for this thesis does not show that this is the case. What might be perceived as a techno-narrative thus far seems to be instead actually an application of formulaic writing dominated by whammos and the kinetic drive of violence and action scenes. Those instances where an opportunity is made to rework the narrative to accommodate

the latest effects in order to provide an excuse for their application may simply be a developmental phase by some filmmakers and is rarely successful unless the narrative reworking establishes thematic relationships that make the digital visual effects work for the story as a whole. The non-narrative effects film in the tradition of the Whitneys remains a fine arts form of expression. Hollywood films are as yet committed to narrative structure as a vehicle for CG usage.

While much is made of the spectacularity of digital visual effects, it has been shown in the analyses, that there is often a narrative purpose for the spectacular scenes and images. In part, spectacularity serves to verify and convince audiences of the immensity and significance of the hero's experience. If the hero's experience is mundane then we do not have as much a sense of the magnitude or exceptionality of his experience and thus, faith in the transformation that follows. Even Lester Burnham's vision of roses, in a 'show us your tits' kind of world, is exceptional.

Bettelheim has argued that children who grow up too quickly turn to stories of magic and fantasy. Campbell has asserted that mythology (and storytelling) are driven by the impulse to transcend mortality. Victor Frankl discovered that hope is the reason we keep living and that it is what gives us meaning. It is my view that the necessity to give ourselves hope - magical hope for childish hearts overwhelmed by the magnitude of our problems, ones too great for any individual to solve - might be at the heart of the impulse to support the 'industry of escapism'. The technology that brought images and narratives into Depression homes also brought awareness - like the apple of knowledge - and we no longer need to stand at the foot of the melting glaciers to understand what it might mean for our own doorsteps. It may well be that we tell ourselves stories to convince ourselves that we might yet transcend our destiny and the end that awaits...or at least live so greatly we will transcend it by being remembered.

Therefore if stories serve to address these very deep needs, there has to be some latitude that not all attempts will be excellent. As for the escalation of violence and a confusion of values - the relationship between these two elements is not that distant. It is very hard to justify acts of extreme violence although the magnitude of the fear that drives the impulse to respond in this way may be understandable. The desire to find an opponent that can justifiably be blamed for all that is wrong and be beaten so as to establish a sensation of victory is no longer easily satisfied. *The Matrix* presented a rationale where the enemy was simply a program - an AI - that had to be destroyed. In

comparison, *A.I.* confronted the concept that violence was a demonstration of our fear of 'the other' and offered the solution that this fear could be overcome by acts of humanity and compassion. The appeal then of creating aliens or supernatural creatures that are irrefutably evil and therefore deserving of violent retaliation makes sense when attacks and violence against humans presents a morally difficult premise.

That we argue about whether we agree with the values espoused in films and the images used to convey them is perhaps no different from the wider disputes of philosophers and perhaps indeed that is one of the purposes of our storytelling - to give us common ground to argue fundamental values. Joseph Campbell has said that, "The first condition, therefore, that any mythology must fulfil if it is to render life to modern lives is that of cleansing the doors of perception to the wonder, at once terrible and fascinating, of ourselves and of the universe of which we are the ears and eyes and the mind."[444] If digital visual effects are a growing means by which we craft images of wonder - both terrible and fascinating - then hopefully they will be seen as more than escapist spectacle and, when contexted by strong narrative, they will offer meaningfulness comparable to that of the great representational images. For some, as Lester Burnham observes, "beauty is found in places you least expect it" and, in the case of digital visual effects, often where it cannot be seen but somehow, it can be felt. While we may never truly define 'meaning' and how it continues to manifest and disguise itself in our endeavours, just as certainly we are unlikely to give up the search. In this we show ourselves to be heroes.

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[444] Joseph Campbell, "Envoy: No More Horizons" in *Myths To Live By*, p.257.

Appendix 1

The Original Novel: Shirley Jackson's *The Haunting of Hill House*, 1957

In the Shirley Jackson novel, we are introduced firstly to the house. It is characterized as a bad place, no matter how well constructed. The opening and closing paragraphs state boldly that "whatever walked there, walked alone."[445] We then meet Dr. Montague and have revealed to us his intentions - the desire to credibly document an instance of supernatural phenomenon in the interests of furthering what has been an otherwise unremarkable career as an academic with a PhD in anthropology. His notions are romantic, based in ideals of 19C guests at country mansions seeking spiritual encounters. He has gone to great pains to select each of his guests, seeking out those whose experiences with the supernatural are independently documented. At the insistence of the owners of the property, he has agreed to include a member of the family.

We are then given a description of each of the guests who will finally participate. The first, Eleanor Vance, is a thirty-two year old spinster who has nursed her mother for eleven years. When she was twelve years old, her house had stones rained upon it for three days. It is revealed that she hated her mother and now hates her sister, with whom she is living. Next we meet Theodora, an independent woman with her own business and who is the most highly scored psychic reader of cards under laboratory conditions. An argument with the friend with whom she lives prompts Theodora to take up the Doctor's invitation to join the research group.

Luke Sanderson, the family representative, is a liar and a card sharp. His aunt has decided that Hill House is the safest place for him to be and, given that he stands to inherit the house, his being there while Doctor Montague undertakes his research, an appropriate enough responsibility.

It is at this point the narrative moves from the narrator's voice to the action of the story and it opens with a fight between Eleanor and her sister. The focus of the

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[445] Shirley Jackson, *The Haunting of Hill House*, p.3.

argument is the car and the propriety of Eleanor going off to a house neither the sister or the brother-in-law know about. In the end, Eleanor takes matters into her own hands and takes the car. On the way to collect it, she has a chance encounter with a strange old woman who offers to pray for her. Once Eleanor is finally on her way, she says, "I am really going."[446] It is as if her life is at last beginning.

The journey to the house, following careful instructions provided by Dr. Montague, leads Eleanor through a range of fantasies about her possible future, a future she has waited for all her life. At her last stop before driving up to the house, a waitress wishes her success in finding her dream house. Then Eleanor arrives at the gates to find them locked and Dudley the caretaker less than welcoming. Again, Eleanor must insist upon being allowed to go on to Hill House but upon driving up to it, is horrified and questions whether she should leave while she still can.

Her fears about having nowhere else to go and of being ridiculed by Dudley force her on and, before she can knock, Mrs. Dudley appears at the door and takes her up to her room, leaving her there having made her ominous comments about the night and the dark. When Theodora arrives, Eleanor greets her enthusiastically and the two of them go off, exploring - in complete agreement that Hill House is hideous.

Upon their return from the garden, they meet Luke, and Eleanor's theme thought for her path to Hill House comes to mind: Journeys end with lovers meeting. They exchange a moment of banter and then meet Dr. Montague. Over martinis in the parlour, Dr. Montague openly describes the purpose of his experiment, the reputation of the house and mentions that his wife will be joining them at the weekend.

It is at this point the bare bones of Hill House's history is revealed. Dr. Montague explains that it was built eighty years earlier by Hugh Crain for his first wife who died when her horse shied and the carriage was crushed against an old tree in the driveway. The young wife's body was carried *lifeless* into the house by Hugh Crain and his two daughters. He remarries but the second Mrs. Crain also dies in a mysterious fall on the stairs. Hugh Crain then remarries for a third and final time taking his consumptive wife to Europe where she also dies. The house is closed up, the daughters sent to live with family until the eldest, a spinster unlucky in love, returns to the house and lives there until her death.

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[446] Ibid., p.16.

It is during this part of the house's history that the sinister details emerge. Stories of intruders, the elder sister blaming the younger, married sister of stealing. The death of the elder sister, apparently the consequence of negligence by the village girl companion sparks a bitter property dispute and rumours of the companion being driven by guilt to an act of suicide. The property then passes to the control of the Sandersons and enjoys a reputation of being un-rentable, although tenants never elaborate on why they refuse to stay in the house.

Inspite of this story, the guests enjoy a quiet night and then, the next day, undertake an exploration of the many rooms. Dr. Montague points out that the house has been built at odd angles, a deliberate distortion that disrupts the expected patterns of perception. Eleanor is unable to enter the library because the smell reminds her of her mother and so she goes out to the verandah where, staring up at the tower, she experiences a moment of vertigo and is saved by Luke. They go on to discover the cold 'heart of the house' a spot before the nursery doors where inexplicably the temperature is dramatically colder than anywhere else.

That night, Eleanor awakens to the sound of pounding and, in her half-alert state, thinks it is her mother calling for help. Then she realizes where she is and, hearing Theodora call to her from the adjoining room, joins the other woman and they both experience exceptional cold and the impression of something on the other side of the door trying to get in. It transpires that Luke and the Doctor have been out of the house chasing after a mysterious dog thought to have been wandering inside. Neither the Doctor nor Luke heard any noise from the house.

The next day, concerned that Eleanor might be distressed by the previous night's experience, the Doctor talks to her and makes mention of the need for her to leave should her state of mind become dangerous. Later, Luke discovers "help Eleanor come home" written on the wall. Eleanor is distraught, accusing the others of doing it and is terrified that now *it* knows her name. Theodora suggests that Eleanor has written the words herself and they have a fight.

The next incident occurs after a quiet day and night pass. Theodora discovers that her clothes have been shredded and the words "help Eleanor come home" have been written in blood over Theodora's bed. Eleanor takes this event much more calmly than in the first instance but, as her thoughts reveal, she has distanced herself from the others and is particularly distrusting of Theodora.

At Dr. Montague's suggestion, Theodora and Eleanor are now sharing Eleanor's room. Late that night, Eleanor awakens and hears a voice in Theodora's room. Clutching Theodora's hand to comfort both of them, she thinks it is the sound of a child being hurt and calls out to whatever is doing it, to stop. Theodora awakes and the light comes on and Eleanor realizes that Theodora was not the one holding her hand.

The next day Luke finds a book written by Hugh Crain for his daughters. It is full of moral lessons and Luke reads out one calling upon the daughter to hold herself apart from the world and retain her innocence. Luke observes that it has been signed by the father with his blood. Theodora reacts badly to this.

Later Theodora teases Eleanor about the lies she has told about her real life, the one outside Hill House. Eleanor fights back then runs from the house. Theodora follows and they have an intimate discussion which ends in a fearful experience on a dark path where they share a vision of a children's picnic and flee from it in terror. Luke and the Doctor find them but the two women are nearly hysterical and unable to explain what has happened.

The next day the Doctor's wife arrives with her friend, Arthur. She demands to be put in the most haunted room and professes to have a special connection to the spiritual world. She holds a private planchette session and amongst a number of predictable messages about nuns walled up alive, monks, and treasures in the cellar, she mentions the planchette also spelled out: Nell, Mother, Home. Again Eleanor feels singled out from the others and her internal distress increases.

At bedtime, Mrs. Montague insists on sleeping in the nursery and the Doctor, convinced this will prove to be provocative, instructs the others they will spend the night together in the Doctor's room, leaving Arthur to patrol the upstairs. Again the intense cold arrives, accompanied by the sound of a strong wind in the hallway and pounding on the doors downstairs.

Theodora and Eleanor cling to each other, wrapped in a blanket. The pounding comes closer and the Doctor worries about his wife's safety. Eleanor's distress is extreme. She is convinced that *it* is looking for her and that she must surrender herself to it. Then all goes quiet and they have made it through the night.

At breakfast it is revealed that neither Mrs. Montague nor Arthur heard any of the disturbance in the night. Later, as Eleanor and Theodora write up their notes for the Doctor, Eleanor reveals that she'd like to go home with Theo after the experiment is

over. Theodora responds harshly and Eleanor reveals that she has never been wanted anywhere. When Luke joins them Theodora is cruel to Eleanor and when they go for a walk, Eleanor reveals that she failed to attend to her mother on the night of her death.

Eleanor feels more and more alienated from the others but unnaturally aware of the house. She begins to hear and feel presences, even in the company of the others and is pleased that only she can observe what is going on.

That night she sneaks out of the bedroom, telling herself she is going to the library for a book. She says, "Mother" and hears a voice urging her to "come along". She follows the voice which leads her to the nursery. Eleanor goes from door to door knocking on them then running away. Theodora wakes up, realizes Eleanor is gone and raises the others. After a mad dash around the house, Eleanor climbs the iron staircase in the library and must be rescued by Luke.

The next morning everyone acts as if nothing has happened but immediately after breakfast they reveal that they have contacted her sister and pack Eleanor into her car. Eleanor begs them to let her stay, insisting that she has nowhere else to go but they force her to leave. As she drives away she repeats her phrase - journeys end in lovers meeting - and aims her car at the big tree in the driveway. She has a momentary doubt about what she is doing but cannot stop herself.

The closing paragraph summarizes that Luke goes to Paris, Theodora hurries home to reconcile with her friend and that the Doctor eventually retires from his career. The narrator repeats its observation that whatever walks in Hill House, walks alone.

The First Film Adaptation: Robert Wise's *The Haunting*, 1963

The first film adaptation, by Robert Wise, is fairly faithful to the novel although there are distinct differences in the story. It also begins with the house and affirms that it is a bad house. There is a flashback to the first wife's death in the driveway and we see Hugh Crain forcing their only child to look on as the dead woman is carried inside. There is then a flashback recounting the second wife's death from a mysterious fall and it is revealed that the child, Abigail, lived alone in the house until she died. There is an optical effect showing the child aging to an old woman in the same bed and then we

have a scene showing us the companion dallying with the lover while the old woman calls for help before dying. The narrator's voice continues as we see the companion climb the spiral staircase in the library where she hangs herself.

Then, as in the book, the narrator's voice drops away and we cut to the action of the story beginning, not with Eleanor, but with the Doctor whose name has been changed to Markway. He is negotiating the rental of the house from Mrs. Sanderson and she extracts from him the details of his study, the participants and the fact that he is a married man, although it is stated that his wife wants no part of his study and will not be joining them. Again, at the Aunt's insistence, Luke Sanderson is included among the guests.

The story then moves to Eleanor and her sister, brother-in-law, and niece whose name has been changed to 'Dora'. Again, they argue about the car and reference is made to the 'family skeleton'. In keeping with the novel, Eleanor then is seen stealing the car and driving to Hill House although most of the journey and her thoughts - except a brief reference to one of her fantasies - is left out. It is made clear, however, that she is going on the journey she has always hoped would happen.

When she arrives at Hill House the gates are locked and she has an unpleasant exchange with Dudley before being allowed inside. Her first sight of the house appals her. She is convinced that it is staring at her and a close up of her eyes and the windows of the house reinforces this idea. She reminds herself that she has nowhere else to go, so she goes on, up to the house where, before she can knock, the door is answered by Mrs. Dudley.

As she is led up to her room, Eleanor catches fright from the unexpected sight of herself in a mirror and, once in the room, is given the 'in the night, in the dark' speech by Mrs. Dudley, who gives her a sinister smile. Alone in her room, Eleanor is terrified and observes that she is like a small creature being swallowed whole by a monster. Hearing sounds from the adjoining bedroom, she discovers Theodora being given an identical welcome to the house. She and Theodora get to know one another and Theodora calling her Nell, tells her to change into her new clothes. Eleanor is surprised that Theodora knows her nickname and that she has new clothes.

The two women explore the house, Eleanor terrified, Theodora annoyed at finding it so hard to orient herself in the strange house. Eleanor is convinced something is with them but Theodora cannot see anything. As Eleanor states, "It's alive!", a plant

trembles just to her side and Theodora comments that the house wants her, that it is calling her. Eleanor screams and a door opens. Doctor Markway explains that he left a door ajar for them so they wouldn't get lost but the doors have a habit of closing on their own.

The women join Luke and the Doctor in the parlour for martinis and a toast is made by Theodora, to her "new companion", referring to Eleanor. Eleanor confesses that she doesn't drink. They go on to dinner where the Doctor explains his theory and why each of them was picked. Eleanor denies any knowledge of a supernatural event in her childhood. The conversation moves on to the house and Luke disagrees with the Doctor that there can be any supernatural reason for its unfortunate history. Eleanor non-sequitiously comments that the poltergeist incident was a plot by neighbours who disliked her mother. Eleanor is uncomfortable about having mentioned her mother then Theodora comments, as if reading Eleanor's mind, that Eleanor wasn't saddened by her mother's death.

Later in the parlour, while Theodora and Luke squabble over cards, Eleanor spills her coffee and leaves the room, ostensibly to get a cloth. Off screen, she screams and the others find her at the bottom of the stairs. Theodora intuits that Eleanor had a feeling that the house was watching her. The Doctor gives credibility to their fears - using rational, scientific terms and Theodora observes that the gates are locked so they can't leave, even if they want to. Eleanor comments that she wouldn't dream of leaving.

When they go up to their rooms, Theodora invites Eleanor to join her if she feels frightened then follows Eleanor to her door where again she seems to read Eleanor's mind about wanting to change her hairstyle. There is an awkward moment before they part for the night. Eleanor, alone in her room, locks the door.

The next shot is an exterior of the house in the night, in the dark. Throughout the film, exterior shots of the house feature as indicators of time of day and, in the night shots, with the dramatic skies overhead, the dark house is a visual reminder of the opening shot where the narrator has made it quite clear that Hill House is a bad house.

Eleanor awakens to the sound of pounding, as in the novel. The scene unfolds, conforming to the events as told by Shirley Jackson, including the arrival of the Doctor and Luke who have been lured from the house by something they thought might be a dog. An exterior shot of the house at sunrise precedes the breakfast scene where Eleanor and the Doctor talk and he comments how pretty she looks in spite of the previous

night's events. Eleanor talks about her mother and begs not to be sent away. The Doctor talks about his study and warns her not to fall under the spell of the house. It is apparent from the exchange that Eleanor is developing a crush on the Doctor.

Theodora enters the room, interrupting the intimate moment between Eleanor and the Doctor then Luke calls their attention to the writing on the wall in a hallway. As in the novel, the words, "help Eleanor come home" have been written on the wall in something like chalk. Eleanor responds, as in the book and she and Theo have an unpleasant exchange, with Theo remarking that the house might find Eleanor a kindred spirit.

They tour the house and encounter a room with statues. Theo comments that one of the statues looks like Nell and the Doctor refers to it as a natural beauty. Eleanor's voice is heard revealing her thoughts - as it has throughout the film - wondering what the Doctor really thinks of her. Then, as in the book, there is discussion of the statues representing the Crain family. However, whereas in the book Theodora is the one to have an imaginary dance with Hugh Crain, in this film version, it is Eleanor who invites the dance. As they leave the room, there is a close shot on the statue that's supposed to look like Eleanor.

The next room is the library and Eleanor, as per the book, cannot enter. When she waits for them on the verandah, it is Doctor Markway who saves her from falling backward from vertigo. Again they have an intimate moment but Dr. Markway threatens to send her home. Eleanor begs him to let her stay and insists that she is not breaking down. She points out that Theodora also experienced the unnatural events and Dr. Markway relents. Again it is revealed that Eleanor harbours a hope that there is more between them. Theodora interrupts once more, commenting on their intimate pose. It is at this point Dr. Markway insists Theodora move into Eleanor's room. Eleanor is unwilling but Theodora says it will be fun, they will be like sisters.

The next scene, set in the bedroom, has them in nightwear, Eleanor's toes being painted and it is obvious that she is a bit drunk. Eleanor tells Theodora about her mother and then, as in the book, makes up a silly story about having her own apartment but when Theo talks about having to get her back there, Eleanor is upset and swears that she never wants to leave Hill House.

Voices cut over the bedroom scene and the women join the men in the hallway outside of the nursery. Again there is discussion of the cold and the camera work uses a

notable overhead shot of Eleanor and Theodora looking around as they discuss the reason for the cold. Dr. Markway is insistent that this is the cold heart of the house - the nursery, and says he will keep the doors closed so that it can act like a pressure cooker. Luke is sceptical but observes that he can see his breath (achieved either through refrigeration of the set, dry ice or, perhaps, an extremely good optical shot).

The next scene is set in the bedroom again. Theodora and Eleanor are in beds pushed together. Theodora wants to read but Eleanor insists on turning out the light. Theodora comments that there is no reason for Eleanor to be angry with her, she doesn't think Eleanor killed her mother. Eleanor reacts with horror that Theo has guessed her secret. This scene ends with a close up on the corner of a book where "Abigail Crain" is inscribed and then fades to an exterior shot of the house in darkness.

Eleanor awakes in the dark, turns slowly, hearing a male voice. The camera focuses on a pattern on the wall carvings. Eleanor speaks reassuringly to Theo. The sound of giggling is introduced and the camera moves closer to the carving on the wall, a detail of which might be imagined to look like an eye. Eleanor exhorts Theo to hold her hand and not to scream. The pattern on the wall is shown again and the male voice rants and preaches, a female voice giggles. Eleanor continues to talk to Theo, commenting that she is breaking her hand. Then there is the sound of a child crying and Eleanor is convinced that someone is hurting a child. As in the book, she calls out and the lights come on revealing that she isn't in the bed but on the chaise. A flash pan reveals Theo sitting up in the bed across the room, nowhere near Eleanor's outstretched hand.

The exterior shot of the house shows daylight arriving. In the music room, the Doctor documents the sound of the harp strings sounding without being touched. Eleanor arrives and they speak again about the events in the house. Eleanor confesses the truth about her mother's death and the Doctor reassures her. Eleanor's romantic hopes are revealed even more strongly.

In the scene that follows, Luke reads aloud about lust from Hugh Crain's book but instead of Theo being incensed by the contents, it is Eleanor who speaks aloud to the spirit of Hugh Crain and, when Theo tries to calm her, shrugs her off. Theo responds by teasing Eleanor about her apartment and when Eleanor runs off, the Doctor tells Theo to follow her. Theo suggests that he might prefer to go himself. The Doctor dismisses this remark and Theo finds Eleanor on the verandah. They have a frank

exchange where Theodora mocks Eleanor for her infatuation with the Doctor and Eleanor remarks that she would rather be an innocent than an unnatural thing, one of nature's mistakes, like Theodora.

The sound of a car horn in the driveway below draws them outside where Mrs. Markway pays off a taxi driver and announces that reporters are on the Doctor's trail. Eleanor is shocked to discover that the Doctor is married. Mrs. Markway insists on joining the ghosthunt and Eleanor spitefully suggests she stay in the nursery. Mrs. Markway accepts this idea and heads toward it, Dr. Markway trying to dissuade her. Eleanor, in a fit of remorse also begs Mrs. Markway to change her mind. Mrs. Markway makes it clear she thinks their beliefs are foolish. The Doctor, trying to argue that the nursery is locked and only the Dudleys have the keys thinks to ask how his wife got in and she reveals that the Dudleys were quite amenable to handing over the gate key for money. Then they see the nursery door standing open, waiting for them. They enter the room, Eleanor sees the wheelchair and says, "my mother" before Theo leads her away. Dr. Markway tries again to convince his wife not to stay in the room but she brushes aside his concerns.

At the beginning of the next scene, Eleanor is fretting about Dr. Markway and telling herself that she belongs to Hill House and that he can't make her leave, not if Hill House wants her. Theo comes in to tell her that the Doctor insists they all spend the night together in the parlour.

A pivotal moment in the story, the parlour scene, starts simply and cosily with a panning shot opening on a statue, passing over the fire to Eleanor curled up on the floor, her head resting on Theo who sleeps on the couch. Dr. Markway is sleeping in a chair when, in utter silence, the door opens in the background and someone comes in, the light of a torch shining on a bottle of brandy. Luke drinks deeply and then the door, as doors do in Hill House, comes to a resounding close, of its own accord. The sleepers awaken and almost immediately the events of the haunting commence, as in the book. As the Doctor and Luke argue about going up to check on the Doctor's wife, Eleanor surrenders to the house then, unlike in the book, Eleanor leaves the parlour by another door and the story moves to the events related by the novel as the point at which Eleanor decides to sneak from the bedroom the night after the attack.

In this film, Eleanor runs to the nursery and is frightened - as in her arrival at Hill House - by the sight of herself in a mirror, although this time, she is clearly in great

distress and is not at all calmed when she realizes that it is only her own reflection. She runs on, entering another room where she becomes entangled in curtains that are blowing in the wind. As she panics the chandelier swings above her and a mirror, holding her image, falls and shatters. She runs again and finds the nursery but Mrs. Markham is missing. The others arrive and while they squabble amongst themselves, Eleanor walks away, the image of the others fading to black in the background. She tells herself that she knows where she is going, that she is disappearing, inch by inch into the house. The screen fades to black.

A close up of the face of the 'Hugh Crain' statue opens the next scene where Eleanor speaks to him saying, "We killed her - you and I", then she dances at the foot of the statues. Intercut with scenes of Eleanor's mad dance through the house, the others are shown searching for her and there is an exterior shot of the house and its tower. Eleanor's evasion of the others leads her to the library and she climbs the stairs, the imagery not unlike that in the opening scenes that detailed the companion's suicide. The staircase is in disrepair and it moves as she climbs.

The others find her and the Doctor - not Luke - climbs the staircase to rescue her. She holds herself away from him until he reaches the top and takes her in his arms, caressing her cheek, reassuring her. Eleanor kisses his hand and allows him to lead her away but, just before they descend, the trapdoor to the tower opens and a mad-woman's face looks out before the door is shut. Only Eleanor sees her.

In the next scene Eleanor, now dressed, is being packed into her car and forced to leave. Again she begs to be allowed to stay but the others refuse. Unlike in the book, this scene happens at night and there is no mention of the others having contacted the sister. Eleanor reiterates that she has nowhere else to go, that she is the one the house really wants. Her thoughts reveal that she thinks Mrs. Markham is trying to steal her place in the house. The others are unmoved. She is put in the car, Luke is to go with her but gets out to get the gate key from Dr. Markham. Eleanor sees her chance and drives off. The steering wheel seems to resist her and her thoughts are torn between insistence that the house wants her and wondering why the others aren't stopping her. Then the madwoman is seen dashing across the driveway and Eleanor swerves into the big tree. A tilted shot of the house, presumably from the car - although it has been established that the house cannot be seen from this part of the driveway - indicates that the car has

crashed. As with the opening shot of the first wife's death, Eleanor's lifeless hand is shown and the Doctor checks her pulse, confirming that she is dead.

The others, joined now by the madwoman - Mrs. Markway - seek to explain what has happened, offering three theories: Theo suggests that seeing Mrs. Markway caused the accident but now perhaps Eleanor is happy; Luke suggests that she did it on purpose but that the house ought to be burned to the ground and the land sowed with salt; Dr. Markway suggests that Eleanor's bedevilled mind allowed the house to claim her and that the house has what it wants. In a last shot of Hill House, Eleanor has the narrator's role and she states that 'we who walk here, walk alone'.

The Second Film Adaptation: Jan de Bont's The Haunting, 1999

The third and final version of the story under discussion - the Jan De Bont adaptation, takes a quite different approach. Opening with an aerial tracking shot that moves away from the house set at magic hour (the early morning/late afternoon sunlight favoured by Directors of Photography), the story focuses in on Eleanor who is fighting with her sister about the apartment and the car - the spoils of the mother's estate. There are variations in how this scene is presented, particularly Eleanor's characterisation. In this instance, she is much more rational and, although aware of the injustice of the sister and brother-in-law's intentions, she responds assertively. When the sister leaves the mother's apartment, Eleanor passes through blowing curtains into the mother's sickroom where a needlepoint sign states, 'a place for everything and everything in its place'. She takes a necklace from the headboard and puts it on then the phone rings and her attention is drawn to an ad in the newspaper seeking applicants for a study on insomnia.

The next scene introduces Dr. Merrow and his assistant Mary. They discuss the applicants and then cuts to Dr. Merrow defending his project and the intent to deceive the applicants. While it has been presented as a study into insomnia, the truth is that the study is about fear and performance. Challenged about his ethics, Dr. Merrow says, 'you don't tell the rats they're in a maze'.

Eleanor's journey to the house is even shorter in this version of the story than in the others. Her car passes through a forest before she consults a map and then sees the house in the distance. It is palatial. Pulling up at the gates she meets Dudley who is

more philosophical than confrontational, and she passes easily into the grounds. At the front door - for the first time in any version - she knocks and the door goes unanswered. Entering the house she finds Mrs. Dudley in the kitchen - holding aloft a meat cleaver - although this is presented as a startling moment, Eleanor's demeanour is one of calmness and fascination with the house.

When Mrs. Dudley leads her up to the room, Eleanor, unlike in the previous versions, is openly attracted to the house. Mrs. Dudley remarks - in yet another departure from previous versions - that they will be the first guests since Mr. Crain died - in the house he built 130 years earlier. It appears to be a convention that the time elapsed is adjusted in each version of the story. The 1963 version adds ten years to allow for the elapse of six years from the book's publication. The 1999 version has added fifty years on the original. In the Robert Wise version there is also an added reference to the book where it is observed that Hugh Crain dedicated the book to his daughter ninety years to the day. In the Jan De Bont version - there are no daughters, but Mrs. Dudley still makes her speech about the night and the dark.

When Theodora turns up, she and Eleanor make friends. There is one shot where, as Theodora undresses, Eleanor looks away, shyly, and when Theo questions Eleanor about her lovelife, she sounds hopeful that Eleanor might also have a girlfriend, it having been stated that Theo is having lovelife trouble choosing between her boyfriend and her girlfriend. To make up for having no lovelife to reveal, Eleanor - referred to throughout this film as Nell - offers a made up story about her own apartment with a flower garden and a glimpse of the ocean - details differing from the previous versions.

When Theo goes to move a hair that has fallen into Nell's eyes, Nell ducks back and the awkward moment is covered by the decision to go exploring. Unlike in previous versions, neither of the women is repulsed by the house and they roam like children finding one more fabulous thing after another. The first thing they encounter is a set of doors which Theo declares to be reminiscent of Rodin's Gates of Hell. Eleanor pronounces that they are not just hell, but purgatory and explains that the children in the carving are reaching for heaven but are held back by demons who keep their souls trapped between the living and the dead. An inscription reads: all ye who stand before these doors shall be judged. None of this or what follows appears in the novel.

They continue with their exploration and find a music box room with a revolving floor and mirror walls. They go on to a passage with book steps set in a pool of water and then tumble through another door into Luke who tries to figure out their personality types and takes an apparent shine to Theo.

When Dr. Merrow arrives, he has with him two assistants - Mary and Tom - new characters. It is Mary who - having previously been seen making recommendations for the choice of participants - stands back in the foyer, subdued or intimidated by the house.

The next scene opens with Theo corking a wine bottle and arguing that she doesn't want her insomnia cured. She and Luke talk about their sleeping problems and when it comes to Nell's turn, she mentions her mother and how she hasn't adjusted to not being needed throughout the night, that she still hears her mother calling for her.

Later, in the parlour, Mary plays the harpsichord and the Doctor hands out the psychological tests they will be required to complete. The story of Hill House is revealed - that it was built by Hugh Crain for his wife who died without them being able to have the house full of children that they dreamed of - there is no mention of carriage crashes in the driveway nor of subsequent marriages. After his wife's death, Hugh Crain becomes a recluse who keeps on building the house and there are rumours in the village of the sound of children inside.

Mary reacts badly to this story and exclaims that there is more to it, that she can feel it. As she makes this announcement, a close shot on the harpsichord shows a key turning of its own accord and when Mary touches the harpsichord strings, one whips loose and cuts her eye. It is the self-possessed and competent Nell who knows what to do to save the eye and while Mary is led away, Nell looks around the room, and at the harpsichord, with calm suspicion.

The departure of the assistants is a noteworthy scene. Dr. Merrow puts them in the car and comments that he has a cell phone and that he wants them back as soon as possible. He and Luke then close and re-lock the gates behind the departing car while Dr. Merrow reveals that there is more to the story about Hugh Crain and asks Luke not to reveal the detail to the others.

The next shot shows Luke telling Theo and Nell that Mrs. Crain killed herself, ostensibly due to the stillborn children but Luke thinks Hugh Crain had more to do with

it. Nell doesn't believe this and says the house he built is like the Taj Mahal but Theo points out that the Taj Mahal is a tomb.

In the next scene Dr. Merrow's convention of making notes into his dictaphone is introduced. He reveals that the story detail given to Luke was a planted piece of information that, based on Luke's test results, he can be relied upon to be convey the detail to the women. He also comments that Eleanor Vance was most susceptible to the romantic story told in the parlour.

The next few scenes are intercut and Dr. Merrow is shown having trouble getting to sleep, tossing and turning in his bed. Luke is shown reading a book called "Power Sleep" and popping candies, suggesting that some time has passed. Then we cut to Eleanor who is brushing her hair and still getting ready for bed. Theo enters the room and gives her a beautiful wrap, touches her hair and coming close to Eleanor, speaks to her in their reflection saying, "You've been out of this world for a long time; it's missed you".

We then see Luke wandering the hallways before cutting to Eleanor lying awake in bed. She looks at a row of cherubs carved into the wall panels then, when the shot cuts back to the cherubs they are looking not away from her, but at her. Nell's expression is thoughtful and there is a faint sound of children's voices.

The next shot shows Dr. Merrow bumping into Luke and taking him by surprise, they go off in different directions, after a brief exchange. There are then a series of short shots - an empty hallway, Hugh Crain's portrait at the top of the stairs, with curtains blowing in from camera right before a close up on the face of Hugh Crain's portrait and then a cut to the cherubs overhead of Eleanor as she lies sleeping in an ornately carved bed.

A knocking sound wakes her and she, as in the previous versions, says, "coming mother", before realizing that she is not at home. Her point of view goes to the portraits of women that decorate the room before the sound of Theo's voice draws her into the adjoining room. This scene unfolds as in the previous versions until Eleanor notes that *it* has entered her room and runs to lock the door. Luke pounds on the door to Theo's bedroom and Theo lets him in. Unlike in previous versions, he and Doctor Merrow have not been lured from the house, Luke is simply responding to Theo's calls for help. They check Eleanor's room but there is nothing there.

Cutting to a scene set in the kitchen, Luke turns on the taps over the sink to demonstrate the sound made by the pipes and Theo acknowledges that she had just had a bath. As the noise is similar, the explanation is accepted but before she leaves the room, Eleanor confirms that Dr. Merrow heard nothing.

This film version also uses exterior shots of the house to cut between scenes but with less sense of foreboding. Returning to the interior, Nell is seen asleep in bed, the balcony door opens, the curtains blow in and a ghostly figure - computer generated - slides down the curtain, under the blanket and up the bed, alongside of the sleeping Nell. She turns and sees a child's face shaped in the folds of the pillow. It speaks to her but the message is unclear. The image fades away. Nell gets up, looks around the room, closes the balcony doors and, smiling, looks at the cherubs.

An exterior tracking shot over the grounds of the house indicates that it is the next day and a fade crosses to Nell completing her psychological tests in the lounge in front of the lion fireplace - a huge, walk-in sized hearth. Luke and Nell discuss the cherubs, Nell saying they represent the children Hugh Crain could never have but Luke has a much less generous impression of Hugh Crain. He remarks that Hugh Crain probably ran a sweatshop and that the whole house is propaganda. He adds that he thinks Dr. Merrow is up to something and then goes off to look for Theo - reinforcing the earlier impression that he is rather taken with her. He closes the 'gates of hell' doors, leaving Nell alone. Panning back to her then cutting to the fireplace, the chainlink screen moves then wind blows her hair - lifting one strand upright before a shape moves behind the screen, terrifying her.

The others, followed by Nell, enter the room to investigate and Luke and the Doctor pull aside the chain screen. Luke steps inside the hearth, calls up the chimney then a huge lion's head swoops down, narrowly missing Luke. It is an old flue and seems to be the explanation for what Nell saw. She rejects this and then, just as Luke is leaving the room, he notices, on the portrait at the top of the stairs, writing in red saying, 'Welcome home Eleanor".

As in the previous versions, Nell is distressed that *it* knows her name. She accuses the others of writing the words, and Theo suggests that she did it herself. Nell leaves and as she walks away, unnoticed by her, there is a trail of red child-sized footprints leading away from the portrait. The next scene shows Nell with Dr. Merrow and when she insists that she is not making things up, he reassures her and adds that

Dudley is taking care of the writing. Subsequently the portrait of Hugh Crain is shown looking smudged and faded.

Cutting to the conservatory, there are a number of new additions to the story. The iron staircase is no longer in a library nor is it a lone spiral to a walkway leading to the tower. In this version, it is a double helix spiral - like a model of DNA - and, in the middle of the room, there is a fountain with a reclining stone giant laying in its depths. It is here that Dr. Merrow and Nell have a conversation that departs entirely from previous versions.

Nell observes violets and comments that someone must have died here. She goes on to say that all her life she has waited for adventure and here it is - paintings calling out to her and noises in the night. Dr. Merrow questions whether she really thinks someone is playing with her and she responds by saying that she can either be a victim or a volunteer, and that she chooses to be a volunteer. She then sits among another group of statues - one of a woman surrounded by babes. She joins them and hums music that is used thematically throughout the film.

Another series of shots follows: the house at night, the hallways, the gates to hell, the ruined portrait, and the door to Nell's room opening by itself. A tracking shot closes in on her bare foot, extending from under the sheets then red footprints lead away. Nell rises and follows them down to the library and discovers the secret study in the cellar. Climbing down the spiral staircase, she turns on the lamp (in a cellar built 130 years earlier and empty since Hugh Crain's death). She sees a child's image form in the mirror and her attention is drawn to a ledger which lists all the children who died in Hugh Crain's mills.

Upstairs, she awakens Theo and shows her the ledger, commenting that there were hundreds of children. Theo expresses her concern for Nell's state of mind but Nell insists that the house is trying to tell her something. A brief shot, following this one, shows Theo stepping out into the empty hallway and, unnoticed by her, a puff of smoke blows up from the floor behind her as she returns to her room.

Alone in her own room, Nell speaks to the cherubs and reassures them that she is listening. They do not respond immediately so she brushes her hair and then there is a computer generated image of her hair being parted and twisted by invisible hands and this frightens her. Then she sees that the style is the same as in one of the portraits.

Another series of shots shows the chains and lock on the gate, the house at night and then an aerial shot of sunrise. Nell's voice calling Dr. Merrow leads us to the room he is using for an office and, seeing it empty, she picks up his dictaphone. Turning it on she hears him comment that she continues her alienation of the other subjects with her self-delusion and emotional subjectivity. Eleanor is hurt by this revelation.

Her response is linked to the next scene is by Luke and Theo's voices in the conservatory. Luke has guessed that Dr. Merrow is investigating something other than insomnia. Nell disputes this and defends the Doctor, arguing that it is the house. Luke asks then why she stays and she replies, "Home is where the heart is". Then she looks up and sees Mrs. Crain hanging from the walkway at the top of the iron staircase. Theo sees nothing. Nell runs away.

Back in Hugh Crain's cellar office, Nell's attention is drawn to a photo album with pictures of Caroline, the second wife whose image, as the pictures flip past, points to the fireplace. A whispered voice says, "Eleanor, the fireplace."

Eleanor goes straight there, lifts the trapdoor in the hearth and digs up bones and a skeleton, which sits up, frightening her. She hears voices, and runs coming to a halt before a door at the end of a hallway. There is a terrible smell and the door refuses to open then a computer generated hand pushes her away.

She runs into the parlour and announces that Hugh Crain killed them - the children from the mills and that now he wants her. The others treat her like a shock victim, Dr. Merrow revealing that none of it is true, that he is pulling the plug on the experiment and that as soon as the Dudleys return in the morning *to unlock the gate*, they are all going home. (This business about the locked gate is handled badly in both films. In the 1963 version much is made of Mrs. Markway having bribed the Dudleys for the key - yet the taxi driver is able to leave on his own and then later that night Luke gets out of the car to get the key from Dr. Markway so that Eleanor can leave, thus allowing her the opportunity to drive to her death, alone. In the 1999 version, we have already watched Luke and the Doctor relock the gate behind the assistants - whom we never hear of or from again - but there are repeated references to the gate being locked as if they have no means of opening it themselves).

In the next scene, Theo confronts the Doctor accusing him of being unfeeling which is followed by a scene where he stands before the fireplace, wondering what he is doing.

Upstairs, Theo kisses Nell goodnight and leaves her alone. Computer generated (CG) frost forms on the window and Hugh Crain's image appears. The candle Theo left burning blows out and a CG shadow floats across the ceiling. The stained glass windows form into CG eyes that glare at Nell. She speaks aloud stating that *it* is looking for her and wonders who is holding her hand. Then as the Hugh Crain image in the window becomes more threatening, she throws a music box through the glass, stating that she will not let him hurt a child. Then there is a digital shot of the glass breaking and then flowing back into the room, small portions of Hugh Crain's image visible on the fragments. Nell runs from the room and down the hallway, the pounding above her shakes loose portions of the ceiling.

She races through the house, over the book path to the music box room where she sees her reflection, but distorted. The image grows a pregnant belly and says, 'Welcome home, Eleanor'. She runs again and in a hallway, curtains blow out, a ghost child forming and leading her on, asking for help. Nell follows the child to the conservatory where the others find her at the top on the walkway. Dr. Merrow climbs the staircase which falls to pieces as wires snap and bolts undo. His cell phone falls and smashes on the floor. Nell saves him from falling then leads him through a door at the top.

In the next scene, Luke puts plastic sheeting over the broken window in Nell's room and says that they have to take her to a hospital. Nell lies on the bed, in a state of distress. Dr. Merrow reiterates that the gate is locked. Luke stays to watch over Nell.

Dr. Merrow retreats to the conservatory to dictate notes, still using scientific terms to describe the events. As he turns, the giant in the fountain comes alive, blood spouts from its mouth and pulls him into the pool, trying to drown him. He pulls free but is shaking. A cut follows showing him washing his face in the kitchen, wondering what happened.

Upstairs, Nell lies on the bed. The spikes in the carving of the bed grow toward her and dust falls from the ceiling. The cherubs look up, frightened and the wooden ceiling moves, bending toward her. Hugh Crain's face presses through as the spikes trap Nell to the bed. She cries out. In the next room, (insomniac) Luke awakens and runs to the door but they slam shut and bolt, locking him out. Downstairs, Dr. Merrow and Theo both react to the noise and run toward the room.

Inside, Nell is pinned to the bed while the image of Hugh Crain presses forward, its mouth opening and numerous hands reach forth for her.

Dr. Merrow and Theo burst into Theo's room and help Luke try to open the door. When they finally break through, Nell is pinned to the bed by the spikes but the ceiling does not show Hugh Crain's image until it reappears over the Doctor's shoulder as they try to free her from the bed. Again the hands reach for her but the others break her free and they all run from the room.

At the gate, Luke tries to break the lock. Nell asks Dr. Merrow how he knew the house wanted her. She explains about the call and the ad but Dr. Merrow reveals that he had never spoken to her until the day they met at the house.

Luke then tries to force the gates open by crashing a car into them. This serves only to get him trapped in the car. Meanwhile, Nell turns back to the house and sees all the lights come on inside. As petrol leaks from the car, which cannot be turned off, Dr. Merrow smashes the window and pulls Luke free. They realize that Nell is gone, that she has returned to the house.

Inside they find the mysterious locked door open. Inside, through a black gauze curtain, they find Nell sitting on the floor of a room identical to her mother's in the apartment. She knows now that this is the room where Caroline, her great, great, grandmother had her child and states that Hugh Crain can't hurt the children if Eleanor is there. The pounding starts again and she says she will take them outside to safety.

But as they run from the house, doors slam shut, trapping them. Nell realizes that he's not going to let them go. Dr. Merrow and Luke break windows with chairs, but the iron bars keep them trapped. Luke attacks the portrait of Hugh Crain and suggests burning the place down (while they are all trapped inside) and is dragged across the floor on a carpet and thrown into the fireplace. He stands up and is immediately decapitated by the flue.

The trapdoor in the hearth opens and the bones fly out. The others run to the top of the stairs and Nell tells them to hide. The portrait falls forward, spikes ripping Dr. Merrow and Theo's clothes. Then the stone griffin comes alive and Nell fights it, urging Theo to run. Nell also runs and finds herself at the end of a corridor facing a portrait. The woman in the picture wears the same necklace that Nell has around her neck. She goes back to the foyer, curtains billow, she calls out to Hugh Crain. As she goes down the stairs, the statues all move to watch her progress.

Standing in the foyer, the ceiling again presses down toward her. Cherubs point to the gates of hell and she approaches the doors. Hugh Crain's portrait rises and a grey, dust monster apparition of him emerges, coming toward her. The others rush in as she steps in front of the monster and confronts him saying that it is about family, that it has always been about family and that, grandpa, she has come home, that purgatory is over and he can go to hell.

The monster rages before her and the images of the gates of hell come alive in the background. He is drawn into the door, taking her with him. The carvings in the door hold her aloft, Christ-like, then let her fall free. She looks up from the floor and sees Hugh Crain's face emerge, howling "no" before he is drawn back into the door and vanishes. The carved children are illuminated by a golden light and fly free, calling their thanks to Eleanor. She then dies but a golden, smiling image of her also rises and joins the children. Dr. Merrow and Theo are left in the ruin of the foyer. Theo kisses Nell.

Dawn breaks over the house, Dudley arrives to unlock the gates. Mrs. Dudley, seeing the state of the Doctor and Theo says, "city people" and Dudley asks, "did you find out what you wanted to know, Doctor?" An aerial shot tracks away from the house. The end. There are no references to anything or anyone walking the halls of Hill House.

Appendix 2: Genres of the films featured in *Cinefex* magazine

1980

| Issue 1: | Star Trek - The Motion Picture | sci-fi |
| | Alien | sci-fi/horror |

| Issue 2: | The Empire Strikes Back | sci-fi |
| | Star Trek - The Motion Picture | sci-fi |

| Issue 3: | The Empire Strikes Back | sci-fi |
| | Phase IV | sci-fi |

1981

| Issue 4: | Altered States | sci-fi |
| | Outland | sci-fi |

| Issue 5: | Clash of the Titans | fantasy/adv |
| | Ray Harryhausen | special feature |

Issue 6:	Raiders of the Lost Ark	fantasy/adv
	Dragonslayer	fantasy/adv
	CGI	special feature

1982

| Issue 7: | Willis O'Brien | special feature |

| Issue 8: | Tron | sci-fi |
| | Silent Running | sci-fi |

| Issue 9: | Blade Runner | sci-fi |

| Issue 10: | Poltergeist | horror |
| | Firefox | action/thriller |

1983

| Issue 11: | E.T. | sci-fi |
| | Robert Swarthe | special feature |

| Issue 12: | Something Wicked This Way Comes | dark fantasy |
| | Stop-Motion Update | special feature |

| Issue 13: | Return of the Jedi | sci-fi |

| Issue 14: | The Right Stuff | period/action |
| | Brainstorm | sci-fi |

	Twilight Zone - The Movie	sci-fi/horror

1984
Issue 15:	Never Say Never Again	action
	The Day After	TVM/sci-fi
	Ralph Hmmeras	special feature
Issue 16:	Rick Baker	special feature
Issue 17:	Ghostbusters	comedy/horror
	The Last Starfighter	children/sci-fi
Issue 18:	Indiana Jones and the Temple of Doom	fantasy/action
	Star Trek III	sci-fi
Issue 19:	Gremlins	comedy/horror
	Buckaroo Banzai	children/fantasy
	Dreamscape	sci-fi/fantasy

1985
Issue 20	2010	sci-fi
Issue 21	The Terminator	sci-fi
	Dune	sci-fi
Issue 22	Return to Oz	children/fantasy
	Baby	children/fantasy
Issue 23	Explorers	children/sci-fi
	Lifeforce	sci-fi
	My Science Project	children/sci-fi
Issue 24	Cocoon	sci-fi
	Back to the Future	sci-fi/comedy
	The Goonies	children/fantasy

1986
Issue 25:	Enemy Mine	sci-fi
	German Special Effects	special feature
	Fright Night	horror
Issue 26:	Poltergeist II	horror
	Young Sherlock Holmes	fantasy/adv
Issue 27:	Aliens	sci-fi/war
Issue 28:	The Fly	sci-fi/horror
	Big Trouble in Little China	action/adv
	Short Circuit	children/fantasy

1987

Issue 29:	Star Trek VI	sci-fi
	King Kong Lives	action/fantasy
Issue 30:	Little Shop of Horrors	comdy/horr
	The Gate	horror
	The Golden Child	comedy/fantasy
Issue 31:	Spaceballs	comedy/sci-fi
	The Witches of Eastwick	comedy/fantasy
	Masters of the Universe	sci-fi
Issue 32:	RoboCop	sci-fi/action
	Innerspace	sci-fi/comedy

1988

Issue 33:	Dick Smith	special feature
	James Bond	special feature
	Predator	sci-fi
Issue 34:	Beetlejuice	sci-fi/comedy
	Batteries Not Included	children/sci-fi
Issue 35:	Who Framed Roger Rabbit?	anim/fantasy
	Willow	fantasy/action
Issue 36:	Dead Ringers	horror
	Alien Nation	sci-fi
	The Blob	sci-fi/horror
	Die Hard	action

1989

Issue 37:	Star Trek - The Next Generation	sci-fi
	The Fly II	sci-fi
Issue 38:	Terry Gilliam	special feature
Issue 39:	The Abyss	sci-fi
Issue 40:	Indiana Jones and the Last Crusade	fantasy/action
	Ghostbusters II	comedy/horror

1990

Issue 41:	Batman	comicbk/action
	Honey, I Shrunk The Kids	children/comedy
Issue 42:	The Hunt for Red October	comedy/horror
	Tremors	comedy/horror

	Star Trek V	sci-fi
Issue 43:	Total Recall	sci-fi/action
	Back to the Future II & III	sci-fi/comedy
Issue 44:	Dick Tracy	comic book/action
	Ghost	supernat/thriller
	Always	drama/fantasy

1991

Issue 45:	RoboCop 2	sci-fi/action
	Die Hard 2	action
	Flight of the Intruder	war
Issue 46:	Rick Baker Update	special feature
	Simulator Rides	special feature
	Godfather Trilogy	drama
Issue 47:	Terminator 2: Judgement Day	sci-fi
Issue 48:	The Rocketeer	period/fantasy
	Backdraft	action
	Cast a Deadly Spell	comedy/fantasy

1992

Issue 49:	Hook	children/fantasy
	Naked Lunch	drama/fantasy
	Star Trek VI	sci-fi
Issue 50:	Alien 3	sci-fi
	The Lawnmower Man	sci-fi
Issue 51:	Batman Returns	comicbk/action
Issue 52:	Honey, I Blew Up the Kid	children/comedy
	Death Becomes Her	comedy/fantasy

1993

Issue 53:	Bram Stoker's Dracula	horror
	Close Encounters of the Third Kind	sci-fi
Issue 54:	Cliffhanger	action
	Toys	comedy/fantasy
Issue 55:	Jurassic Park	sci-fi/horror
	The Abyss	sci-fi
	Alive	drama/action
Issue 56:	The Nightmare Before Christmas	comedy/fantasy
	Last Action Hero	action/fantasy

	RoboCop 3	sci-fi/action

1994

Issue 57:	Attack of the 50 Foot Woman	sci-fi
	Demolition Man	action/sci-fi

Issue 58:	The Flintstones	comicbk/comedy
	The Hudsucker Proxy	comedy/fantasy

Issue 59:	True Lies	action/adventure

Issue 60:	The Mask	comedy/fantasy
	Forrest Gump	drama/comedy
	Mary Shelley's Frankenstein	horror
	Ed Wood	comedy/drama

1995

Issue 61:	Interview With the Vampire	horror
	Star Trek Generations	sci-fi
	Stargate	sci-fi

Issue 62:	Congo	action/adv
	Judge Dredd	action/sci-fi
	Dick Smith	special feature

Issue 63:	Apollo 13	period/drama
	Batman Forever	comicbk/action

Issue 64:	Jumanji	children/fantasy
	Toy Story	animation
	Waterworld	drama/action
	Broken Arrow	action/thriller
	Cutthroat Island	action/adv
	Money Train	action/comedy
	Babe	children/fantasy
	Casino	crime/drama
	Three Wishes	drama
	Operation Dumbo Drop	action/adv

1996

Issue 65:	ILM	special feature
	George Lucas	special feature
	Star Wars	sci-fi
	Dennis Muren	special feature

Issue 66:	Dragonheart	fantasy/adv.
	Twister	action/thriller
	James and the Giant Peach	children/fantasy

Issue 67:	Independence Day	action/sci-fi
	Multiplicity	fantasy/sci-fi
	Mission: Impossible	action
	The Nutty Professor	children/comedy
	Escape from L.A.	action/adv
	The Arrival	sci-fi
	The Frighteners	comedy/horror
Issue 68:	Mars Attacks!	sci-fi/comedy
	T2/3D: Battle Across Time	special feature

1997

Issue 69:	Dante's Peak	action/drama
	Star Trek: The First Contact	sci-fi
	The Relic	horror
	Star Wars	sci-fi
	101 Dalmations	children/comedy
	The 6th Man	comedy/drama
	Turbulence	action/thriller
Issue 70:	The Lost World	sci-fi
	The Fifth Element	sci-fi/action
	Men In Black	sci-fi/comedy
	Con Air	action/thriller
	Anaconda	thriller/horror
Issue 71:	Spawn	thriller/action
	Contact	sci-fi
	Batman & Robin	comicbk/action
	Volcano	action/thriller
	Speed 2	action/thriller
Issue 72:	Titanic	period/romance

1998

Issue 73:	Starship Troopers	sci-fi/comedy
	Alien Resurrection	sci-fi/horror
	Flubber	children/comedy
	American Warewolf in Paris	horror/comedy
	Event Horizon	horror/sci-fi
Issue 74:	The X-Files	sci-fi/thriller
	Lost in Space	sci-fi/comedy
	Independence Day	action/sci-fi
	Deep Impact	drama/sci-fi
	Sphere	sci-fi/thriller
	Deep Rising	action/horror
	Dark City	sci-fi/thriller

Issue 75:	Armageddon	action/sci-fi
	Small Soldiers	action/sci-fi
	From Earth to the Moon	action/drama
	Blade	action/horror
	Dr. Doolittle	children/comedy
	Truman Show	comedy/drama

1999

Issue 76:	Mighty Joe Young	children/fantasy
	What Dreams May Come	drama/fantasy
	Pleasantville	fantasy/comedy
	Antz	animation
	A Bug's Life	animation
	Virus	action/horror

Issue 77:	My Favorite Martian	sci-fi/comedy
	Star Trek: Insurrection	sci-fi
	The Mummy	action/horror

| Issue 78: | Star Wars Episode I: The Phantom Menace | sci-fi |

Issue 79:	The Matrix	action/thriller
	Deep Blue Sea	action/horror
	Wild Wild West	action/western
	The Haunting	horror

2000

Issue 80:	Sleepy Hollow	horror
	Stuart Little	children/fantasy
	Fight Club	drama/thriller

Issue 81:	Mission To Mars	sci-fi
	End of Days	horror/action
	Galaxy Quest	action/comedy
	Bicentennial Man	sci-fi/drama
	Toy Story 2	animation
	Pitch Black	sci-fi/horror

Issue 82:	Dinosaur	animation
	The Perfect Storm	adv/drama
	Chicken Run	animation
	Gladiator	period/action
	U-571	action/war
	Battlefield Earth	action/sci-fi

Issue 83:	X-Men	action/sci-fi
	Hollow Man	horror/sci-fi
	The Cell	sci-fi/horror
	The Patriot	period/war

	What Lies Beneath	horror

2001

Issue 84:	How The Grinch Stole Christmas	children/fantasy
	Red Planet	sci-fi/action
	Vertical Limit	action/adventure
	Bedazzled	fantasy/comedy
	102 Dalmations	children/comedy

Issue 85:	2001: A Space Odyssey	sci-fi
	The Mummy Returns	action/horror
	The 6th Day	action/sci-fi
	Monkeybone	anim./fantasy

Issue 86:	Pearl Harbor	period/drama
	Evolution	comedy/sci-fi
	Moulin Rouge	musical/drama
	Final Fantasy	anim./sci-fi
	Driven	action/thriller

Issue 87:	A.I.	sci-fi
	Planet of the Apes	sci-fi
	Jurassic Park III	sci-fi/horror
	Tomb Raider	action/fantasy

2002

Issue 88:	Harry Potter & the Sorcerer's Stone	children/fantasy
	Shrek	animation
	Monsters Inc.	animation
	The Fast and the Furious	thriller/action

Issue 89:	LOTR: Fellowship of the Ring	fantasy/adv
	The Time Machine	sci-fi
	Black Hawk Down	war/action

Issue 90:	Star Wars Episode II: Attack of the Clones	sci-fi
	Spider-Man	comicbk/action

Issue 91:	Men in Black 2	comedy/sci-fi
	Minority Report	sci-fi/thriller
	Reign of Fire	action/sci-fi

2003

Issue 92:	The Lord of the Rings: The Two Towers	fantasy/adv
	xXx	adv/action
	Spy Kids	children/action

Issue 93:	Harry Potter 2	children/fantasy
	Star Trek Nemesis	sci-fi
	Adaptation	comedy/drama

	Daredevil	comicbk/action
Issue 94	The Hulk	comicbk/action
	X-Men United	action/sci-fi
	The Core	sci-fi
Issue 95	Matrix Reloaded	action/sci-fi
	Terminator 3	sci-fi
	Seabiscuit	period/drama
	Spy Kids 3D	children/action

2004

Issue 96	LOTR: The Return of the King	fantasy/adv
	Master and Commander	period/war
	Peter Pan	children/fantasy

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