

The Evolution of VFX-Intensive Filmmaking in 20th Century Hollywood Cinema: An Historical Overview

Rama Venkatasawmy
University of Newcastle, Australia

ABSTRACT

The 20th century evolution of VFX-intensive filmmaking in Hollywood cinema is irremediably linked to the industry's overall growth since the establishment of its principal movie production studios. Originally of more relevance to B-movies, double-bill 'fillers' and exploitation serials during the studio system era, VFX-intensive filmmaking progressively became a normalised, standard aspect of A-movie production practices in the Hollywood cinema industry. Chronicling the evolution of VFX-intensive Hollywood filmmaking constitutes a narrative that is intertwined with a number of other complex narratives in the growth of Hollywood cinema as an industry: the constant updating of movie business practices and concepts (vertical integration, conglomeration, mergers and synergy); the influential practices of certain studios, producers and filmmakers; and the convergence of corporate media, information technology and entertainment, with digital becoming the standard technological platform across the entire Hollywood cinema industry by the end of the 1990s.

Keywords: Film history, filmmaking, Hollywood cinema, Hollywood industry, visual effects

By the beginning of the second decade of the 21st century, motion pictures like *Avatar* (2009), *The Adventures of Tintin* (2011) and *Hugo* (2011) have become significant in the history of cinema in general and of Hollywood cinema in particular.¹ But what led to such degree of technical advancement and sophistication in visual story-telling and spectacularity to be achieved in these films? To understand what enabled these three movies to be made the way they were at that particular point in time, it is productive to take into serious consideration that amidst the widely diverse nature of its filmic output, the Hollywood cinema industry has for most of its 20th century history been particularly renowned for one type of production in particular: the visual effects-intensive movie.²

¹ Ebert (2009, online) commented that Cameron's *Avatar* was "not simply sensational entertainment, it's a technical breakthrough [that] employs a new generation of special effects." And while Steven Spielberg and Peter Jackson made *The Adventures of Tintin* entirely from the process of animated motion capture, with *Hugo* "Scorsese becomes one of the first filmmakers to use 3-D effectively, primarily because he employs it as a tool to add to the visual experience rather than as a gimmick to define it" (Berardinelli, 2011, online).

² The focus here is on 20th century motion pictures produced by the 'Hollywood cinema industry' which is understood in this context as being constituted by all the dominant movie production studios or 'majors' that have existed or are currently in existence: Columbia, Disney, DreamWorks SKG, MGM, Paramount, RKO, Twentieth Century-Fox, United Artists, Universal and Warner Bros. – as such excluding 'independents' and smaller studio subsidiaries operating within or on the fringes of Hollywood.

Visual effects (VFX) are generally defined here in terms of their principal functions in application to the filmmaking process – visually: (i) creating what does not actually exist in everyday reality; (ii) enhancing the quality and spectacularity of screen action in general; (iii) substituting the real with the artificial as a money-saving strategy; (iv) concealing or camouflaging the actual technological devices or ‘tricks’ employed in achieving the first three functions.

With more attention often being given to the construction and composition of elaborate spectacularity rather than to plot, dialogue or character development, VFX-intensive filmmaking is essentially interested in, as well as remembered for, identifying, formulating and projecting an aesthetic of visual excess predominantly meant to trigger the viewer’s sensual gratification. Indeed, most of the biggest 20th century money makers at the box-office have been VFX-intensive Hollywood movies: *The Exorcist* (1973), *Jaws* (1975), *Star Wars* (1977), *Raiders of the Lost Ark* (1981), *E.T. The Extra-Terrestrial* (1982), *Return of the Jedi* (1983), *Ghostbusters* (1984), *Batman* (1989), *Jurassic Park* (1993), *Independence Day* (1996), *Men in Black* (1997), *Star Wars: Episode I – The Phantom Menace* (1999), to name a few. Such motion pictures epitomise the Hollywood cinema industry’s brand of unashamedly escapist commercial entertainment that appeals to the widest range of spectatorship and guarantees massive financial returns to investment – that is attracting a maximum number of viewers to generate as much profit as possible. The 20th century evolution of VFX-intensive Hollywood filmmaking is irremediably linked to the Hollywood industry’s overall growth and global domination of filmed entertainment since the establishment of its principal motion picture production studios – especially in terms of how this growth and domination bears the permanent traces of certain key films, practices, events, producers, filmmakers, majors and studios.

During the pre-World War II studio system era, when the American film industry began to undergo vertical integration and in conjunction with the growth of blockbusters and B-movies in Hollywood, another kind of film was also beginning to surface (although it was then comparatively sporadic in terms of output): VFX-intensive movies – especially horror, fantasy and science fiction. Notable VFX-intensive horror, fantasy and sci-fi films produced during the studio system era include: *Dr Jekyll and Mr Hyde* (1920, 1931 and 1941), *The Thief of Bagdad* (1924), *London After Midnight* (1927), *Dracula* (1930), *Frankenstein* (1931), *Doctor X* (1932), *Island of Lost Souls* (1932), *The Mummy* (1932), *The Mask of Fu Manchu* (1932), *King Kong* (1933), *The Invisible Man* (1933), *The Bride of Frankenstein* (1935), *Mark of the Vampire* (1935), *The Wizard of Oz* (1939), *Dr Cyclops* (1940), *The Wolf Man* (1941) and *Sinbad the Sailor* (1947).

Upon its appearance during the Hollywood studio system era, VFX-intensive filmmaking was often confined to the cheaper, less glamorous but very profitable end of routine B-movie production in the industry: low-budget horror, fantasy and sci-fi serials, spin-offs and sequels. For these movies in particular, produced on very limited budgets and with the pursuit of high production values being considered far less important than the need for quantity and thrills, VFX as cheap alternatives could be applied to compensate for anything that would be far too expensive and time-consuming to convey on-screen in real conditions on location: immense or ‘exotic’ landscapes and backgrounds, dangerous animals in the wild, very large or fast moving vessels (planes, ships, space rockets), uncontrollable forces of nature (hurricanes, thunderstorms, lightning), imaginary settings (past and future) and beings (monsters, supernatural entities, extra-terrestrials). Themes and visual concepts pertinent to the imaginary realms of the ‘futuristic’, the ‘horrific’ and

the 'fantastic' in particular, were better expressed and conveyed by the intermediary of a VFX-intensive approach to filmmaking: mythology, prehistory, destructive nature, space adventures, mad scientists, mutants, monsters, comic book heroes, alien invasions, and so on. Notable examples of modestly budgeted VFX-intensive films made during the Hollywood studio system era that project the above-mentioned themes and concepts include: *The Mysterious Island* (1929), *The Vanishing Shadow* (1934), *Werewolf of London* (1935), *Flash Gordon* (1936), *The Devil-Doll* (1936), *The Invisible Ray* (1936), *Buck Rogers* (1939), *One Million BC* (1940), *Ali Baba and the Forty Thieves* (1944) and *Superman* (1948).³

The movie business would still be booming after World War II, except that the demographics, consumption patterns and interests of Hollywood cinema's diverse domestic and international audiences were clearly changing. By the end of the 1940s, the glory days of double-bill 'fillers' would be drawing to a close while the demise of the studio system was not too far off. From the early 1950s onward, many audiences were becoming increasingly uninterested in low budget movies, expecting to see more sophisticated and 'quality' productions to come out of Hollywood. The response was a surge in the production of big-budget westerns [*Shane* (1953), *The Searchers* (1956)], musicals [*An American in Paris* (1951), *Singin' in the Rain* (1952), *The King and I* (1956)], epics [*The Ten Commandments* (1956), *War and Peace* (1956), *Ben-Hur* (1959)], and war films [*From Here to Eternity* (1953), *The Bridge on the River Kwai* (1957)]. The production of big- to medium-budget features by Hollywood majors in the 1950s also included VFX-intensive horror, fantasy and sci-fi movies, such as: *When Worlds Collide* (1951), *The Day the Earth Stood Still* (1951), *The War of the Worlds* (1954), *20,000 Leagues Under the Sea* (1955), *Conquest of Space* (1955), *This Island Earth* (1955), *Forbidden Planet* (1956), *The Invisible Boy* (1957), *The Fly* (1958), *The Space Children* (1958) and *Journey to the Center of the Earth* (1959).⁴ According to Matthews (2007),

[*This Island Earth*], along with *Forbidden Planet* (1956), seemed to signal a new chapter in Hollywood science fiction. [...] Yet, owing to the expense and intricate sets such films necessitated, these productions, while box-office hits, weren't sufficiently profitable for other studios to lavish the kind of money needed for similar movies. Subsequently, American science fiction films declined in quality [...] (p. 61).

But these 1950s films would nevertheless have an enduring influence for many decades to come on later Hollywood cinema filmmakers and VFX-intensive filmmaking, as illustrated for instance by the remake or adaptation of so many of them in more recent times (especially as a result of the digital visual effects boom of the late 20th century).

³ Made in fifteen chapters on a low-budget deal with Columbia by quickie producer Sam Katzman in 1948, *Superman* is the highest grossing Hollywood serial of all times.

⁴ As a result of the combinatory re-invention of the science fiction and horror genres in particular, fuelled by Cold War anxieties and paranoia, independent studios (especially Universal International Pictures) were even more prolific in their output of low-budget VFX-intensive horror, fantasy and sci-fi movies. Examples are: *The Thing from Another World* (1951), *It Came from Outer Space* (1953), *Invaders from Mars* (1953), *The Beast from 20,000 Fathoms* (1953), *The Creature From The Black Lagoon* (1954), *It Came from Beneath the Sea* (1955), *Tarantula* (1955), *The Incredible Shrinking Man* (1957), *The Monolith Monsters* (1957), *Twenty Million Miles to Earth* (1957), *The Blob* (1958), *From the Earth to the Moon* (1958), and *It! The Terror from Beyond Space* (1958).

By the end of the 1950s, audiences were also increasingly expecting to see more sophisticated and 'quality' productions from Hollywood. Post-World War II demographic transformations and modified consumption patterns and interests of Hollywood cinema's diverse audiences made up a set of changes to which the industry inevitably had to adapt to. Following the demise of the studio system, the Hollywood cinema industry's re-organisation witnessed the introduction of innovative film production practices and management strategies (that have lasted well into present-day Hollywood cinema industry) as well as a greater acceptance of the big-budget philosophy.⁵

[At] Twentieth Century-Fox, the production policy under Darryl Zanuck had been to produce one key picture each season to keep the company in the black. It started with *The Longest Day*, a smash hit that reversed the company's fortunes after the *Cleopatra* fiasco. Zanuck thereupon launched three pictures in 1965-67: *The Sound of Music*, *The Agony and the Ecstasy*, and *The Bible*. *The Sound of Music* set the pace. Although it cost a hefty \$10 million, the picture grossed over \$100 million within two years. Other studios quickly embraced the larger risks of high cost films [...] and by 1968 six of the eight majors were contentedly producing blockbuster movies (Balio, 1987, pp. 315-316).

In comparison to the 1950s, there were fewer VFX-intensive horror, fantasy and sci-fi movies films produced by the major Hollywood studios during the 1960s, although these were often made with larger budgets than was previously the case: *Atlantis*, *The Lost Continent* (1961), *The Mysterious Island* (1961), *Voyage to the Bottom of the Sea* (1961), *Jack the Giant Killer* (1962), *7 Faces of Dr Lao* (1964), *Mary Poppins* (1964), *Robinson Crusoe on Mars* (1964), *Fantastic Voyage* (1966), *Doctor Dolittle* (1967), *Planet of the Apes* (1968), *2001: A Space Odyssey* (1968), *The Valley of Gwangi* (1969) and *Marooned* (1969).

With audiences returning to theatres, lured by various expensively produced blockbusters, box-office figures went up and the movie business again enjoyed a healthy streak albeit temporarily. But not all of these expensive films were sufficiently successful at the box-office to break even in the short run, not to mention the added burden of the withdrawal and reduction in sums offered by television companies to screen such films. With too many movies failing to be sufficiently profitable at the box-office to compensate for excessively high production costs and to absorb in the short run the losses from big-budget flops, Hollywood studios were beginning to experience financial difficulties by the end of the 1960s. Also during that decade, "Hollywood went through its first series of corporate takeovers, when large diversified conglomerates acquired the major companies. This was a period of industrial instability for the industry, during which its existing profit-making strategies proved unreliable" (Vasey, 2008, p. 293). By 1969, despite innovative industrial methods, management strategies and policies, the eight Hollywood majors at the time (Columbia, Disney, Metro-Goldwyn-Mayer, Paramount-Gulf+Western, Twentieth Century-Fox, United Artists-TransAmerica Corp, Universal-MCA, Warner Communications) had altogether lost some \$200 million and the industry was going through a convulsion.

⁵ For example, release schedules underwent changes amidst the major transformations in the Hollywood cinema industry: instead of "distributing pictures at regular intervals throughout the year, companies started to release their important films during the peak seasons of Christmas, Easter, and Summer" – a practice that has prevailed until now and extended to other important holidays in the American calendar, such as Thanksgiving and the 4th of July (Balio, 1987, p.29).

In spite of the box-office success of *Airport*, *Fiddler on the Roof*, *Patton*, *The Godfather* and *The Poseidon Adventure*, big-budget productions slowed down from late 1968 until 1972 when Hollywood entered a period of retrenchment under pressure from the banks. With the outburst of big-budget productions putting most movie studios financially in the red by the end of the 1960s, the Hollywood cinema industry witnessed the accommodation of alternative 'arty' low-budget styles of filmmaking. But as Wolf (1979) points out,

[...] the hope that *Easy Rider's* triumph [in 1969], coupled with the financial plight of the major studios, would ensure a future for low-budget films was short-lived. The popularity of *Earthquake*, *The Poseidon Adventure*, *The Towering Inferno*, *The Exorcist*, and particularly, *Jaws*, switched the emphasis toward fewer, costlier films with huge profit possibilities. Producers, instead of calling for another *Easy Rider*, demanded: "Make me another *Jaws!*" Next, the magic words were *Star Wars* (p. 332).

By the mid-1970s, the Hollywood cinema industry was also experiencing the firm entry and rapid rise to power of a new generation of cinema-literate and technology-savvy 'baby-boomer' filmmakers: the so-called 'movie brats' – who would constitute the driving force of the 'new Hollywood'. The 'movie brats' – Francis Coppola, George Lucas, Steven Spielberg, John Milius, Martin Scorsese and Brian de Palma – understood the need for change intuitively: it had shaped them as they grew up. Compared to most of their predecessors, they possessed a thorough knowledge of Hollywood cinema. In spite of occasional 'surprises', practically everything about the motion pictures directed by the 'movie brats' is often already familiar. Their films tend to project a major sense of borrowing, recycling and mixing of so many narrative formulas, plot devices, characters and icons inherent to what they saw on the theatre and TV screens of their childhood and youth: (i) the B-movies, double-bill 'fillers' and exploitation serials mass-produced during the Hollywood studio system era and (ii) the VFX-intensive movies of the late 1940s and 1950s – with the most common themes being 'space adventures', 'mad scientists', 'mutants', 'monsters', 'alien invasions', and 'comic book heroes'. As echoed by Elsaesser (2005):

[...] typical of the New Hollywood is a self-conscious use of old mythologies, genre stereotypes, and the history of the cinema itself. But even more striking is the revival of genres which – in the 1950s – were regarded as 'B-movies': the sci-fi film, the 'creature-feature' or monster film, and the many other variations on the horror film (p. 195).

Whatever they had studied meticulously or had impressed them during past viewing experiences inevitably re-appeared in their movies. For instance, Steven Spielberg's *Raiders of the Lost Ark* (1981) and subsequent *Indiana Jones* (1984, 1989, 2008) movies have their sources in 'treasure hunt adventures' like Universal's 13-episode serial *Lost City of the Jungle* (1946) and *The Lone Ranger and the Lost City of Gold* (1958), and in 'pulp action adventures' like MGM's *The Mask of Fu Manchu* (1932); or the duelling Jedis sequences of George Lucas's *Star Wars* films 'borrow' from, at least, 'medieval swordplay' serials of the studio system era, such as *The Adventures of Sir Galahad* (1949). Through their re-vamping of studio system era story-telling and filmmaking style during the 1970s, the 'movie brats' would inform subsequent generic orientations of Hollywood cinema for decades to come.

With their first couple of films in the 1970s, the 'movie brats' had made it clear how adept they were at a style of production that emphasises the kind of spectacularity and sensual excitement enjoyed by most audiences as well as generates huge profits. The 'movie brat' filmmaking style in particular would instigate the transition towards intensifying film production frequency on continuously grander scales. In conjunction with a renewal of interest in the big-budget philosophy, the 'new Hollywood' filmmakers would re-introduce comprehensive visual effects application in VFX-intensive filmmaking. Accordingly, those generic vehicles (science fiction, fantasy, disaster, horror) depending on extensive visual effects application were pushed to the fore, the climax of this trend being the production of many expensive but very profitable VFX-intensive movies from around the mid-1970s onwards, such as: *Earthquake* (1974), *The Towering Inferno* (1974), *Jaws* (1975), *The Hindenburg* (1975), *Logan's Run* (1976), *Close Encounters of the Third Kind* (1977), *Star Wars* (1977), *Alien* (1978), *Battlestar Galactica* (1978), *Superman* (1978), *The Black Hole* (1978), *Buck Rogers in the 25th Century* (1979) and *Star Trek: The Motion Picture* (1979). By the end of the 1970s, VFX-intensive filmmaking had become more or less the norm in the Hollywood cinema industry.

The commercial success and popularity of practically all of their 1970s films loudly trumpeted the Hollywood supremacy of the 'movie brats' by the beginning of the 1980s. Their respective films, practices, companies and financial clout would subsequently permeate the Hollywood cinema industry throughout the 1980s and 1990s. Amongst other things, they would become influential producers, business leaders, trend-setters and decision-makers in the motion picture industry; they would be responsible for enabling first 'breaks' for many new talents (directors, scriptwriters and actors); and they would have a strong impact on the future aesthetic development of the Hollywood film and techno-scientific progress of the industry. For instance, George Lucas's Industrial Light & Magic (originally set up solely to produce visual effects for *Star Wars* in 1977) would contribute significantly to the Hollywood cinema industry's visual effects boom as well as to an additional techno-visual characteristic of many VFX-intensive Hollywood movies of the 1980s: digitisation – as illustrated by Paramount's *Star Trek II: the Wrath of Khan* and Disney's *Tron*, both released in 1982.

The profitability of VFX-intensive movies in the 1970s encouraged intensive high-cost visual effects application in Hollywood filmmaking during the 1980s. Some of the more prominent VFX-intensive Hollywood movies of the 1980s include: *The Empire Strikes Back* (1980), *Dragonslayer* (1981), *Raiders of the Lost Ark* (1981), *E.T. The Extra-Terrestrial* (1982), *Return of the Jedi* (1983), *Poltergeist* (1984), *Indiana Jones and the Temple of Doom* (1984), *Ghostbusters* (1984), *The Last Starfighter* (1984), *Star Trek III – The Search for Spock* (1984), *Gremlins* (1984), *Aliens* (1986), *The Fly* (1986), *Innerspace* (1987), *Predator* (1987), *Ghostbusters II* (1989), *Indiana Jones and the Last Crusade* (1989), *Back to the Future II* (1989), *The Abyss* (1989) and *Batman* (1989).⁶

While the Hollywood movie's production costs had increased considerably in the 1980s, it also generated much higher revenue from the box-office as well as from merchandising, related spin-offs and ancillary products. For instance,

⁶ Many of these films – especially those directly involving, as director or producer, the 'movie brats' and their 'protégés' – would end up in numerous lists of most profitable movies of all times. *E.T. The Extra-terrestrial*, *Return of the Jedi*, *Batman*, *The Empire Strikes Back*, *Raiders of the Lost Ark*, *Ghostbusters* and *Back to the Future*, for instance, had each generated by the end of the 1990s accumulated profits in excess of \$200 million.

consider the performance of the three top hits of the blockbuster Summer in 1989, Hollywood's single biggest season ever. In a four-week span beginning Memorial Day weekend, *Indiana Jones and the Last Crusade*, *Ghostbusters II* and *Batman* enjoyed successive weekend releases in at least 2,300 theatres in the US and Canada after heavy TV advertising. [...] In an era when \$100 million in gross revenues is one measure of a blockbuster hit, it took *Indiana Jones* just 19 days to reach that total; it took *Batman* 11 (Schatz, 1993, p. 27).

In effect more money was often being made from a movie's ancillary products and merchandising than from its box-office receipts alone, especially if the movie's production company had interests in more than just the film production business. According to Maltby (1998), "[i]n the early 1980s, worldwide sales of *Star Wars* goods were estimated to be worth \$1.5 billion a year, while *Batman* (1989) made \$1 billion from merchandizing, four times its box-office earnings": more than just a motion picture, *Star Wars* or *Batman* was also a fast food meal, a lunchbox, a comic book, a soundtrack, a t-shirt and a toy, amongst so many other things (p. 24). Such a state of affairs was also an outcome of the increasing application of the 'high concept' approach to VFX-intensive filmmaking that was fast spreading in the 1970s to grow in strength during the 1980s. As explained by Wyatt (1994):

the most overt qualities of high concept – the style and look of the films – function with the marketing and merchandising opportunities structured into the projects. The result is a form of differentiated product adhering to the rules of 'the look, the hook, and the book' [...]. The high concept style, the integration with marketing, and the narrative which can support both of the preceding are the cornerstones of high concept filmmaking (p. 188).

VFX-intensive movies that best illustrate the growing predilection of Hollywood majors for 'high concept' filmmaking during the 1980s include: *Batman*, *E.T. The Extra-Terrestrial*, the two *Ghostbusters*, and the *Indiana Jones* trilogy.

Paramount Communications, Walt Disney, Columbia, Universal-MCA, Twentieth Century-Fox, Time-Warner, and MGM-United Artists would become the dominant 'players' in the overall American motion picture business of the 1980s. The conglomerated (and progressively digitised) Hollywood cinema industry additionally saw scripts being increasingly developed with sequel potential, which quickly became one of the recipes for long-term financial gain – through cable television, and home video rental and sales. And audiences accordingly developed a fidelity to certain franchises as well as the habit of expecting sequels from most Hollywood movies.⁷ The production of sequels typically applied more to clear-cut VFX-intensive genres, such as horror [*Poltergeist II: The Other Side* (1986), *Friday the 13th* (1980)], science fiction [*Star Trek*, *Alien*] and comic book superheroes [*Superman*, *Batman*]. But generic constraints and requirements notwithstanding, the practice of sequel production would fast extend to practically all types of Hollywood film: *The Karaté Kid*, *Police Academy*, *Lethal Weapon*, *Beverly Hills Cop*, and so on.

⁷ The franchising of medium- to big-budget films in Hollywood was in fact not an entirely new phenomenon as such in the 1980s, considering the James Bond, *Planet of the Apes*, and *Pink Panther* productions of the 1960s and 1970s.

The proliferation of sequels was also associated with a buzzword and profitable commercial strategy being increasingly applied in the Hollywood cinema industry: 'synergy'. The term 'synergy' was bandied about in the 1970s by the new breed of corporate manager to describe the beneficial outcomes of conglomeration. In arguing the case that the multi-market company constituted the most appropriate structure in an era of rapid technological and social change, John Beckett defined 'synergy' as

the art of making two and two equal five. [...] We believe in the synergistic effects of running more than one business. By that I mean the sales effect, the cost control effect, the cost spreading effect. And as a result, we can run these businesses and make more money from them than can be done running them individually. What we're trying to do is get more utilization out of the same set of executives and the same computers and very much the same overhead and payroll. We think this is the way modern business is going (Balio, 1987, p. 310).⁸

At the beginning of the 1980s, the Hollywood cinema industry had become an environment strongly favourable to conglomeratic practices and to 'synergy'. The digital medium as a standard technological platform especially facilitated the easy circulation and re-disposition of technologies and techno-industrial innovations across the spectrum of media production, communication, information and entertainment industries.

Thus there has been a trend toward 'tight diversification' and 'synergy' in the recent merger-and-acquisitions wave, bringing movie studios into direct play with television production companies, network and cable TV, music and recording companies, and book, magazine, and newspaper publishers, and possibly even with games, toys, theme parks, and electronics hardware manufacturers as well (Schatz, 1993, p. 31).

This trend would only grow stronger as the years went by and as the Hollywood cinema industry commercially diversified even further. Hence, in the highly conglomerated and 'synergised' Hollywood cinema industry, a surge in feature film production was all but inevitable by the late 1980s.

Domestic feature film production jumped from around 350 pictures a year in 1983 to nearly 600 in 1988. [...] Rather than producing more pictures, the majors exploited a new feature film format, the 'ultra-high-budget' film. [...] Containing such elements as high concepts, big-name stars, and visual and special effects, such pictures reduced the risk of financing because (1) they constituted media events; (2) they lent themselves to promotional tie-ins; (3) they became massive engines for profits in ancillary divisions like theme parks and video; (4) they stood to make a profit in foreign markets; and (5) they were easy to distribute (Balio, 1998, p. 59).

The 'ultra-high-budget' movie production philosophy – combined with 'high concept' and VFX-intensive filmmaking – would rapidly spread across the Hollywood cinema industry to become standard practice from the very early 1990s onward. *Back to the Future III* (1990), *Total Recall* (1990), *Terminator II: Judgment Day* (1991) and *Hook* (1991), for instance, illustrate the Hollywood cinema industry's turn-of-the-decade inclination towards 'ultra-high-budget' but extremely profitable VFX-intensive filmmaking.

⁸ Balio is quoting John Beckett's 'The Case for the Multi-Market Company' – a lecture presented at the Financial Analysts Seminar, sponsored by the Financial Analysts Federation in association with the University of Chicago, Rockford, Illinois, 22nd August 1969. John Beckett was at the time president of Transamerica Corporation, Paramount studio's conglomerate 'partner'.

The 1990s would be characterised by pervasive technological digitisation across the information, communication and entertainment industries at large – in line with the emergence of the World Wide Web and the proliferation of home computers and home theatre appliances. As Tzioumakis (2011) explains, “digital technology has been utilised as a means to an end, as the best available vehicle for the domination of the global entertainment market by a small number of giant corporations” (p. 11). Digital convergence would considerably extend the range of distribution, circulation and exhibition of movies. By 1997 the first DVDs would become available commercially and, in just a few years, the sales of DVD players and DVDs would have surpassed the sale of videocassette recorders and VHS tapes. And digital convergence within the Hollywood cinema industry would encourage the more frequent production of expensive ‘event movies’ and VFX-intensive films – the kind that would fully exploit the synergies fostered by conglomeration and promise massive long-term return to investment. Simultaneously, Hollywood cinema’s fast evolving visual aesthetic, production, distribution and exhibition practices would also become a lot more sophisticated. The digitisation of most aspects of filmmaking and of the visual effects domain in particular would enable the production of increasingly larger amounts of complex digital effects, as illustrated by such ‘ultra-high-budget’ VFX-intensive movies like: *Batman Returns* (1992), *Jurassic Park* (1993), *Star Trek: Generations* (1994), *Jumanji* (1995), *Batman Forever* (1995), *Apollo 13* (1995), *Dragonheart* (1996), *Star Trek: First Contact* (1996), *Independence Day* (1996), *Twister* (1996), *Batman & Robin* (1997), *Contact* (1997), *Men in Black* (1997), *The Lost World: Jurassic Park II* (1997), *The Matrix* (1999), *Wild Wild West* (1999), *The Mummy* (1999), *Star Wars: Episode I – The Phantom Menace* (1999).

The Hollywood cinema industry would finish the 1990s with the ‘ultra-high-budget’ philosophy, ‘synergy’-oriented and digital VFX-intensive filmmaking practices all firmly in place. Such practices were clearly favoured by cinema audiences everywhere considering that theatrical box-office figures were at their highest in the 1990s, in spite of a few impulsive predictions in the late 1980s of theatrical cinema’s ‘death by video’. For example, while *Twister*’s digital VFX-intensive production had a \$92 million price tag, the sensual gratification it provided was effective enough to rake \$250 million in American ticket sales alone; and producing *Jurassic Park*’s visual thrills and excitement cost even more than *Twister*’s but it eventually garnered more than \$1 billion worldwide over many subsequent years of circulation. By the end of 1999, the American box-office alone had generated close to \$7.5 billion for the Hollywood cinema industry: a major increase from the \$6.95 billion made in 1998. In the first week of December 1999 for example, out of the top ten films at the American box-office, the only three movies that had been continuously in theatrical exhibition for more than 25 weeks were all lavishly produced ‘ultra-high-budget’ digital VFX-intensive movies: *Star Wars: Episode I – The Phantom Menace*, *The Mummy* and *The Matrix*. With more than fifteen movies earning in excess of \$100 million each, the 1990s might well be the most financially profitable decade in the 20th century history of the Hollywood cinema industry.

By the end of the 1990s, the Hollywood cinema industry’s conglomerated structure had altered some more, with its most prominent movie business ‘players’ being: Columbia-Sony, DreamWorks SKG, MGM-United Artists, Twentieth Century-Fox-News Corporation, Paramount-Viacom, Time-Warner-AOL, Universal-Seagram and Walt

Disney.⁹ And the first decade of the 21st century would be characterised by “the culmination of U.S. media industry control in the hands of a half-dozen global media superpowers” (Schatz, 2009, p. 20), namely Comcast Corporation, Fox News Corporation, Sony Corporation, The Walt Disney Company, Time Warner, Viacom. As Schatz (2009) explains further:

[c]onglomerate control of Hollywood is exercised primarily via ownership of the traditional major studios – i.e. Warner Bros., Disney, Universal, 20th Century Fox, Columbia (Sony), and Paramount (Viacom) – [...] situated within the conglomerates’ “filmed entertainment divisions”, which produce content for both the movie and TV industries [...] (p. 21).

In a relatively short period of time, the aforementioned entities formed or bought over dozens of conglomerates and subsidiaries, and instigated mergers, partnerships and strategic alliances all over the American as well as international motion picture industry. These have in turn led to countless synergies and overlapping business operations, some of the outcomes being a more efficient use of financial resources through cost control and spreading, as well as greater product and market diversification. From the 1990s onwards, the manufacture, circulation, distribution and exhibition of practically all cultural, technological and media products would involve either any of the above-mentioned corporations and conglomerates directly, or at least one of their subsidiaries. With corporate activities and business operations continuously overlapping each other, the monopolistic control of such products – from their initial development phase to the final stages of their distribution, exhibition and sale – hardly ever occurs while all involved benefit in one way or another.

VFX-intensive filmmaking has indeed contributed significantly to the Hollywood cinema industry’s main motivation for selling thrills, emotions, dreams, nightmares and sensual (dis)pleasures: to generate financially profitable filmic spectacles – the motion picture business has, after all, always fundamentally been about making money. Originally more pertinent to the production of B-movies, double-bill ‘fillers’ and exploitation serials during the studio system era, VFX-intensive filmmaking progressively became a normalised and standardised aspect of A-movie production practices in the Hollywood cinema industry, as illustrated in recent times by *Avatar*, *The Adventures of Tintin* and *Hugo* for instance. The evolution of VFX-intensive filmmaking has been very much influenced by other significant developments in the Hollywood industry, such as: the constant updating of movie business practices and concepts; the influential practices of key producers, filmmakers, and studios; and the standardisation of the digital medium for the media production, communication, information, and entertainment industries.

⁹ The first new Hollywood major in more than fifty years, DreamWorks SKG was launched in October 1994, amidst extensive media coverage, as a ‘dream-team’ joint-venture between filmmaker Steven Spielberg, ex-Disney CEO Jeffrey Katzenberg and record producer David Geffen.

Reference List

- Balio, T. (1987), *United Artists: the Company that Changed the Film Industry*, University of Wisconsin Press, Madison, WI.
- Balio, T. (1998), "A major presence in all of the world's important markets: the globalization of Hollywood in the 1990s" in S. Neale and M. Smith (eds.) *Contemporary Hollywood Cinema*, Routledge, London, pp. 58-73.
- Berardinelli, J. (2011). "Hugo – review". *Reelviews*. URL: http://www.reelviews.net/php_review_template.php?identifier=2387. (accessed 02/01/2012).
- Ebert, R. (2009). "Avatar – review". *Chicago Sun-Times*. URL: <http://rogerebert.suntimes.com/apps/pbcs.dll/article?AID=/20091211/REVIEWS/912119998>. (accessed 02/01/2012).
- Elsaesser, T. (2005). "Spectacularity and Engulfment – Francis Ford Coppola and *Bram Stoker's Dracula*" in Neale, S. and Smith, M. (eds.), *Contemporary Hollywood Cinema*, Routledge, London, pp. 191-208.
- Maltby, R. (1998), "'Nobody knows everything': Post-classical Historiographies and Consolidated Entertainment" in Neale, S. and Smith, M. (eds.), *Contemporary Hollywood Cinema*, Routledge, London, pp. 21-44.
- Matthews, M. (2007), *Hostile Aliens, Hollywood and Today's News – 1950s Science Fiction Films and 9/11*, Algora, New York, NY.
- Schatz, T. (1993), "The New Hollywood" in Collins, J., Radner, H. and Collins, A. (eds.), *Film Theory Goes to the Movies*, Routledge, London, pp. 8-36.
- Schatz, T. (2009), "New Hollywood, New Millennium" in Buckland, W. (ed.), *Film Theory and Contemporary Hollywood Movies*, Routledge, New York, NY, pp. 19-46.
- Tzioumakis, Y. (2011), "From the Business of Film to the Business of Entertainment: Hollywood in the Age of Digital Technology" in Sickels, R. (ed.), *American Film in the Digital Age*, Praeger, Santa Barbara, CA, pp. 11-31.
- Vasey, R. (2008), "The Hollywood Industry Paradigm" in Donald, J. and Renov, M. (eds.), *The Sage Handbook of Film Studies*, Sage, London, pp. 287-311.
- Wolf, W. (1979), *Landmark Films: the Cinema and Our Century*, Paddington, New York, NY.
- Wyatt, J. (1994), *High Concept: Movies and Marketing in Hollywood*, University of Texas Press, Austin, TX.

Films Cited

- 20,000 Leagues Under the Sea* (1955, Disney) – Richard Fleischer
- 2001: A Space Odyssey* (1968, MGM) – Stanley Kubrick
- 7 Faces of Dr Lao* (1964, MGM) – George Pal
- Airport* (1970, Universal) – George Seaton & Henry Hathaway
- Ali Baba and the Forty Thieves* (1944, Universal) – Arthur Lubin
- Alien* (1978, Twentieth Century-Fox) – Ridley Scott
- Aliens* (1986, Twentieth Century-Fox) – James Cameron
- An American in Paris* (1951, MGM/Loew's) – Vincente Minnelli
- Apollo 13* (1995, Universal) – Ron Howard
- Atlantis, The Lost Continent* (1961, MGM/Galaxy) – George Pal
- Avatar* (2009, Twentieth Century-Fox/Lightstorm) – James Cameron
- Back to the Future* (1985, Universal) – Robert Zemeckis
- Back to the Future II* (1989, Universal) – Robert Zemeckis

Back to the Future III (1990, Universal) – Robert Zemeckis
Batman & Robin (1997, Warner) – Joel Schumacher
Batman (1989, Warner) – Tim Burton
Batman Forever (1995, Warner) – Joel Schumacher
Batman Returns (1992, Warner) – Tim Burton
Battlestar Galactica (1978, Universal) – Richard Colla
Ben-Hur (1959, MGM) – William Wyler
Beverly Hills Cop (1984, Paramount) – Martin Brest
Buck Rogers (1939, Universal) – Ford Beebe & Saul Goodkind
Buck Rogers in the 25th Century (1979, Universal) – Daniel Haller
Cleopatra (1963, Twentieth Century-Fox) – Joseph L. Mankiewicz, Rouben
Mamoulian & Darryl F. Zanuck
Close Encounters of the Third Kind (1977, Columbia) – Steven Spielberg
Conquest of Space (1955, Paramount) – Byron Haskin
Contact (1997, Warner) – Robert Zemeckis
Doctor Dolittle (1967, Twentieth Century-Fox) – Richard Fleischer
Doctor X (1932, First National/Warner) – Michael Curtiz
Dr Cyclops (1940, Paramount) – Ernest Schoedsack
Dr Jekyll and Mr Hyde (1920, Lasky Corporation/Famous Players)
– John Robertson
Dr Jekyll and Mr Hyde (1931, Paramount) – Rouben Mamoulian
Dr Jekyll and Mr Hyde (1941, MGM) – Victor Fleming
Dracula (1930, Universal) – Tod Browning
Dragonheart (1996, Universal) – Rob Cohen
Dragonslayer (1981, Paramount/Disney) – Matthew Robbins
E.T. The Extra-Terrestrial (1982, Universal) – Steven Spielberg
Earthquake (1974, Universal) – Mark Robson
Easy Rider (1969, Columbia) – Dennis Hopper
Fantastic Voyage (1966, Twentieth Century-Fox) – Richard Fleischer
Fiddler on the Roof (1971, United Artists/Mirisch/Cartier) - Norman Jewison
Flash Gordon (1936, Universal) – Frederick Stephani
Forbidden Planet (1956, MGM) – Fred Wilcox
Frankenstein (1931, Universal) – James Whale
Friday the 13th (1980, Paramount) – Sean Cunningham
From Here to Eternity (1953, Columbia) – Fred Zinnemann
From the Earth to the Moon (1958, RKO/Warner) – Byron Haskin
Ghostbusters (1984, Columbia) – Ivan Reitman
Ghostbusters II (1989, Columbia) – Ivan Reitman
Gremlins (1984, Warner) – Joe Dante
Hook (1991, Columbia) – Steven Spielberg
Hugo (2011, Paramount) – Martin Scorsese
Independence Day (1996, Twentieth Century-Fox) – Roland Emmerich
Indiana Jones and the Kingdom of the Crystal Skull (Paramount/Lucasfilm)
– Steven Spielberg
Indiana Jones and the Last Crusade (1989, Paramount/Lucasfilm)
– Steven Spielberg
Indiana Jones and the Temple of Doom (1984, Paramount/Lucasfilm)
– Steven Spielberg
Innerspace (1987, Warner) – Joe Dante
Invaders From Mars (1953, Twentieth Century-Fox) – William Cameron Menzies
Island of Lost Souls (1932, Paramount) – Erle Kenton

It Came From Beneath the Sea (1955, Columbia) – Robert Gordon
It Came From Outer Space (1953, Universal) – Jack Arnold
It! The Terror From Beyond Space (1958, United Artists) – Edward Cahn
Jack the Giant Killer (1962, United Artists) – Nathan Juran
Jaws (1975, Universal) – Steven Spielberg
Journey to the Center of the Earth (1959, Twentieth Century-Fox) – Henry Levin
Jumanji (1995, Columbia) – Joe Johnston
Jurassic Park (1993, Universal) – Steven Spielberg
King Kong (1933, RKO) – Merian Cooper & Ernest Schoedsack
Lethal Weapon (1987, Warner) – Richard Donner
Logan's Run (1976, MGM) – Michael Anderson
London After Midnight (1927, MGM) – Tod Browning
Lost City of the Jungle (1946, Universal) – Lewis Collins & Ray Taylor
Mark of the Vampire (1935, MGM) – Tod Browning
Marooned (1969, Columbia) – John Sturges
Mary Poppins (1964, Disney) – Robert Stevenson
Men in Black (1997, Columbia) – Barry Sonnenfeld
One Million BC (1940, United Artists) – Hal Roach & Hal Roach Jr
Patton (1970, Twentieth Century-Fox) – Franklin Schaffner
Planet of the Apes (1968, Twentieth Century-Fox) – Franklin Schaffner
Police Academy (1984, Warner) – Hugh Wilson
Poltergeist (1984, MGM) – Tobe Hooper
Poltergeist II: The Other Side (1986, MGM) – Brian Gibson
Predator (1987, Twentieth Century-Fox) – John McTiernan
Raiders of the Lost Ark (1981, Paramount/Lucasfilm) – Steven Spielberg
Return of the Jedi (1983, Lucasfilm/Twentieth Century-Fox) – Richard Marquand
Robinson Crusoe on Mars (1964, Paramount) – Byron Haskin
Shane (1953, Paramount) – George Stevens
Sinbad the Sailor (1947, RKO) – Richard Wallace
Singin' in the Rain (1952, MGM/Loew's) – Stanley Donen & Gene Kelly
Star Trek II: The Wrath of Khan (1982, Paramount) – Nicholas Meyer
Star Trek III: The Search for Spock (1984, Paramount) – Leonard Nimoy
Star Trek: First Contact (1996, Paramount) – Jonathan Frakes
Star Trek: Generations (1994, Paramount) – David Carson
Star Trek: The Motion Picture (1979, Paramount) – Robert Wise
Star Wars (1977, Lucasfilm/Twentieth Century-Fox) – George Lucas
Star Wars: Episode I – The Phantom Menace (1999, Lucasfilm/Twentieth Century-Fox) – George Lucas
Superman (1948, Columbia) – Spencer Bennet & Thomas Carr
Superman (1978, Warner) – Richard Donner
Tarantula (1955, Universal) – Jack Arnold
Terminator II: Judgment Day (1991, Lightstorm/Columbia) – James Cameron
The Abyss (1989, Lightstorm/Twentieth Century-Fox) – James Cameron
The Adventures of Sir Galahad (1949, Columbia) – Spencer Bennet
The Adventures of Tintin (2011, Columbia/Paramount/Ambin) – Steven Spielberg
The Agony and the Ecstasy (1965, Twentieth Century-Fox) – Carol Reed
The Beast from 20,000 Fathoms (1953, Warner) – Eugène Lourié
The Bible (1966, Twentieth Century-Fox/De Laurentiis) – John Huston
The Black Hole (1978, Disney) – Gary Nelson
The Blob (1958, Paramount) – Irvin Yeaworth Jr
The Bride of Frankenstein (1935, Universal) – James Whale

The Bridge on the River Kwai (1957, Columbia) – David Lean
The Creature from The Black Lagoon (1954, Universal) – Jack Arnold
The Day the Earth Stood Still (1951, Twentieth Century-Fox) – Robert Wise
The Devil-Doll (1936, MGM) – Tod Browning
The Empire Strikes Back (1980, Lucasfilm/Twentieth Century-Fox) – Irvin Kershner
The Exorcist (1973, Warner) – William Friedkin
The Fly (1958, Twentieth Century-Fox) – Kurt Neumann
The Fly (1986, Twentieth Century-Fox) – David Cronenberg
The Godfather (1972, Paramount) – Francis Ford Coppola
The Hindenburg (1975, Universal) – Robert Wise
The Incredible Shrinking Man (1957, Universal) – Jack Arnold
The Invisible Boy (1957, MGM) – Herman Hoffman
The Invisible Man (1933, Universal) – James Whale
The Invisible Ray (1936, Universal) – Lambert Hillyer
The Karaté Kid (1984, Columbia) – John Avildsen
The King and I (1956, Twentieth Century-Fox) – Walter Lang
The Last Starfighter (1984, Universal) – Nick Castle
The Lone Ranger and the Lost City of Gold (1958, United Artists)
– Lesley Selander
The Longest Day (1962, Twentieth Century-Fox) – Ken Annakin, Andrew Marton
& Darryl F. Zanuck
The Lost World: Jurassic Park II (1997, Universal) – Steven Spielberg
The Mask of Fu Manchu (1932, MGM) – Charles Brabin & Charles Vidor
The Matrix (1999, Silver Pictures/Warner) – Andy Wachowski & Larry Wachowski
The Monolith Monsters (1957, Universal) – John Sherwood
The Mummy (1932, Universal) – Karl Freund
The Mummy (1999, Universal) – Stephen Sommers
The Mysterious Island (1929, MGM) – Lucien Hubbard
The Mysterious Island (1961, Columbia) – Cy Endfield
The Pink Panther (1963, United Artists/Mirisch) – Blake Edwards
The Poseidon Adventure (1972, Twentieth Century-Fox) – Ronald Neame
The Searchers (1956, Warner) – John Ford
The Sound of Music (1965, Twentieth Century-Fox) – Robert Wise
The Space Children (1958, Paramount) – Jack Arnold
The Ten Commandments (1956, Paramount) – Cecil B. DeMille
The Thief of Bagdad (1924, Fairbanks Pictures) – Raoul Walsh
The Thing From Another World (1951, RKO) – Christian Nyby
The Towering Inferno (1974, Warner/Twentieth Century-Fox) – John Guillermin
& Irwin Allen
The Valley of Gwangi (1969, Warner) – Jim O'Connolly
The Vanishing Shadow (1934, Universal) – Lew Landers
The War of the Worlds (1954, Paramount) – Byron Haskin
The Werewolf of London (1935, Universal) – Stuart Walker
The Wizard of Oz (1939, Warner) – Victor Fleming
The Wolfman (1941, Universal) – George Waggner
This Island Earth (1955, Universal) – Joseph Newman
Total Recall (1990, Columbia) – Paul Verhoeven
Tron (1982, Disney) – Steven Lisberger
Twenty Million Miles to Earth (1957, Columbia) – Nathan Juran
Twister (1996, Universal/Warner) – Jan de Bont
Voyage to the Bottom of the Sea (1961, Twentieth Century-Fox) – Irwin Allen

War and Peace (1956, Paramount) – King Vidor
Werewolf of London (1935, Universal) – Stuart Walker
When Worlds Collide (1951, Paramount) – Rudolph Maté
Wild Wild West (1999, Warner) – Barry Sonnenfeld