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The Aesthetics of Destruction in Contemporary Science Fiction Cinema

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ABSTRACT

Mass destruction imagery within the science fiction film genre is not a new cinematic development. However, a swell of destruction-centred films has emerged since the proliferation of digital technologies and computer-generated imagery that reflect concerns that extend beyond notions of spectacle. Through illusionistic realism techniques, the aesthetics of mass destruction imagery within science fiction cinema can be seen as appropriating the implied veracity of other film traditions in order to create a baseline of visual credibility, even to the extent of associating its own fantastical fictions with recent historic destruction events.

This thesis investigates the representation of mass destruction across the spectrum of contemporary science fiction films emerging from around the world by examining the various methods employed to affect the spectator. The study is divided into four sections: realism, spectacle, sublimity, and correlation. It is structured so as to escalate from the establishment of a baseline of *vraisemblance* of the spectator's empirical understanding of the world, to new representations of death and destruction, whereby visual aesthetic correlations emerge between science fiction and historical fact.

My study attempts to contribute to the current discourse on science fiction cinema by focusing on the relationship between the aesthetics of realism and spectacle and their impact on spectatorial affect. By re-defining notions of film realism and the cinematic sublime, and through close textual analyses of a number of contemporary science fiction films, the intent of this paper is to present a greater understanding of the complicated inherencies borne by mass destruction spectacle.

DECLARATION

I do hereby declare that this thesis and its contents are entirely my own work, except where explicitly stated.

John P Warton

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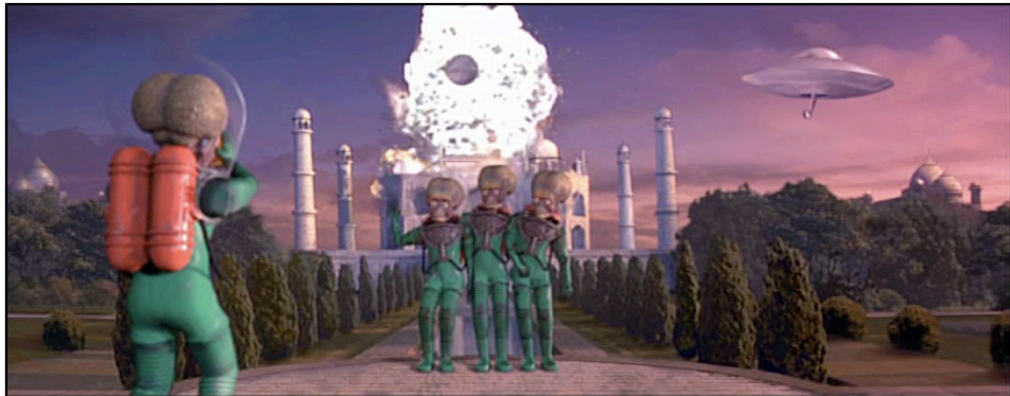
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Mars Attacks! (1996, US)

INTRODUCTION

Since time immemorial, people have craved spectacles permitting them vicariously to experience the fury of conflagrations, the excesses of cruelty and suffering, and unspeakable lusts – spectacles which shock the shuddering and delighted onlooker into unseeing participation.

– Siegfried Kracauer (58)

The Centre for Research on the Epidemiology of Disasters (CRED) in Brussels, Belgium has been assisting in the alleviation of the world's most catastrophic and deadly disasters since 1973. Among the CRED's many responsibilities, the not-for-profit organization helps coordinate relief and rehabilitation efforts and provide training and technical expertise on humanitarian emergencies. Since 1988, the CRED, in partnership with the World Health Organization, created the Emergency Events Database (EM-DAT), 'an initiative

aimed to rationalise decision making for disaster preparedness, as well as providing an objective base for vulnerability assessment and priority setting' ('EM-DAT'). One significant service the EM-DAT provides is the distillation of data collected on the disasters transpiring around the globe, both past and present, which is compiled into a database in order to assess long-term trends. According to EM-DAT's 2011 report, the number of reported natural disasters since 1975 – which include, earthquakes, floods, famines, volcanic eruptions, storms, and wildfires, among others – has risen four-hundred percent [Figure I.1] Admittedly, the world's news media and developing scientific technologies are far more capable of recording today's natural disasters (occurring anywhere on the planet) than they were in 1975; by any standards, a four-hundred percent increase is noteworthy.

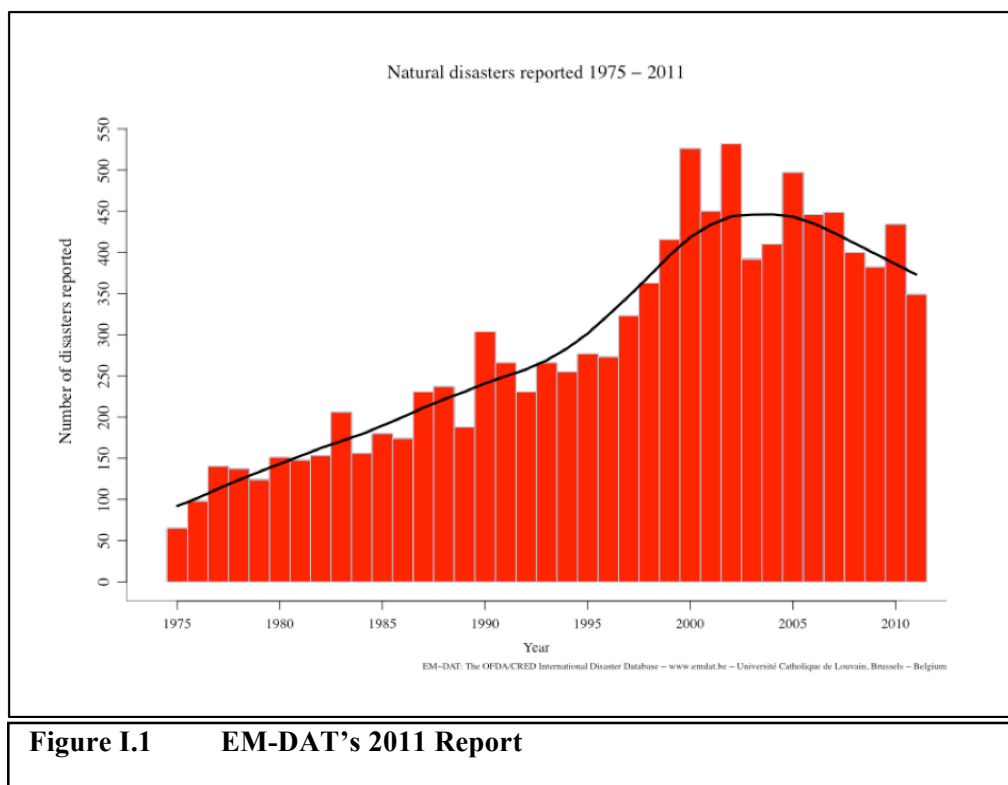


Figure I.1 EM-DAT's 2011 Report

The purpose of this thesis is not to quantitatively analyse the worldwide dissemination of genuine natural disasters but rather to examine the cinematic *representation* of disaster and destruction. More precisely, it examines the representations of mass destruction through a specific facet of contemporary cinema. Earthquakes, tsunamis, floods, landslides, hurricanes, tornados, volcanic eruptions, blizzards, plane crashes, train collisions, and bombings occur in experiential life with seemingly similar frequency to those hyperbolically depicted in the movies. What is the relationship between virtual cinematic destruction and actual, historical, physical destruction? How do they relate to the concerns of the spectator? Given the rise of the disaster both on screen and in the ‘real’ world (as least, as it is known and reported) it has become imperative to look deeper into the inherent ramifications of representing mass destruction in the movies.

Images of mass destruction are by no means a new development, nor did they emerge with the advent of the cinema. Indeed, images of mass destruction and catastrophe have an extensive and notable history in the fine art of painting. For some, Picasso’s *Guernica* (1937) may come most immediately to mind; however, representations of the horrific and awesome nature of mass destruction date far earlier. While paintings depicting destruction are present in the Renaissance era (predominantly of historical wars and Biblical stories [e.g. the fall of Jericho, Sodom and Gomorrah]),¹ they became a popular subject during the Romanticism of the nineteenth-century. Stories from the Bible and renderings from history’s bloodiest moments were a major source of subject for Romantic artists, who often delved into the supernatural with renderings of hell, the apocalypse, and the last judgment, with the additional emergence of representations of the awesome destructive powers of

the natural world.² And perhaps no artist of the romantic period captured destruction representation in painting as well as John Martin (1789-1854).

Martin's works often depict the most spectacular of events at their most spectacular moment. Historical paintings like *The Destruction of Herculaneum and Pompeii* (1821), *The Fall of Babylon* (1831), and *The Destruction of Tyre* (1840) each depict the destruction of an ancient urban environment amidst the throes of nature's sublime power [Figure I.2]. Biblical renderings *The Fall of Ninevah* (1829), *The Great Day of His Wrath* (1852), *The Destruction of Sodom and Gomorrah* (1852), and *The Last Judgment* (1853), all painted with bleak and oppressive tones, convey a visceral sense of Divine retribution on the sinful human race.³ Indeed, Martin's work so deftly realises the supernatural realm that he created a series of illustrations for John Milton's *Paradise Lost*, copies of which are still being re-published.⁴



Figure I.2 *The Great Day of His Wrath* by John Martin

Despite the visual art's rich history of representations of destruction and their continuance even into the 21st century, it cannot be denied that images of calamity,

catastrophe, disaster – of mass destruction – have found a more widespread place within contemporary visual media culture – that is, film, television, and video games – that seems to far eclipse that found in other art forms. Why is the moving image, and cinema specifically, so particularly adept at inciting spectatorial affect through its displays of mass destruction imagery? Is it because of the ontological nature of the medium, grounded in the time-based movement of photorealistic images? Does it assuage some subliminal, psychological desire to witness our own death? Or does it relate to the size of the theatre screen and its sheer immensity that solicits subjects of equal proportion in scope and stature? Or perhaps it is a combination of characteristics that force the spectator to viscerally and sensorially experience the indirect memories of past historical traumas? I would argue that the ontology of film and its capacity for depicting the movement of verisimilitudinous images of mass destruction along the parameters of Newtonian physics, generates an indirect experience of a destruction event forming an oblique memory that affects the spectator's response.

It should be immediately admitted that those individuals who have directly suffered the unspeakable atrocities of a recent mass destruction event may regard its cinematic representation in dissimilar ways. Whether by floods, fires, or bombs, those who have endured the heart-stopping awe, revulsion, and terror of a catastrophic event are imbued with a genuine memory of experiential trauma. Those who have endured the preponderant experience of surviving or witnessing a mass destruction event first-hand will likely not view the cinematic representations of mass destruction in the same manner and context as those who have *only* seen it

through the mediation of film or television. In *Regarding the Pain of Others*, Susan

Sontag writes:

The war America waged in Vietnam, the first to be witnessed day after day by television camera, introduced the home front to new tele-intimacy with death and destruction. Ever since, battles and massacres filmed as they unfold have been a routine ingredient of the ceaseless flow of domestic, small-screen entertainment. [...] The understanding of war among people who have not experienced war is now chiefly a product of the impact of these images. (18-19)

Though Sontag's discussion focuses primarily on the depictions of death and destruction within the context of war, the notion that mediated images of destruction can convey a sense of indirect experience can be equally attributed to those images of natural disasters and 'one-off' terrorist attacks. Despite the absence of lived experience, the cultural memory of the destruction event can still exist within the consciousness of those not directly involved as a result of the mediated representation. Alison Landsberg describes these indirect, nonexperiential memories as 'prosthetic memories', which 'do not come from a person's lived experience in any strict sense [but rather] are implanted memories' (175). The mass destruction event occurring within recorded history produces a prosthetic memory within spectators through its mediated representations; news coverage, historical film adaptations, photographs, Internet blogs, and even video games have the ability to convey a memory of an event, despite the absence of direct experience. As Landsberg writes, 'The experience of memory actually becomes the index of experience: if we have the memory, we must have had the experience it represents.' (176) Bearing this in mind, this study relies upon the prosthetic memories of historical mass destruction in considering the various components of the

representations of cinematic mass destruction, rather than any direct experiential memory of historical mass destruction.

The proliferation of visceral mass destruction imagery suggests a more complicated relationship to the spectator beyond sensorial wonderment. The continual emergence of cinematic mass destruction sequences, bearing connotations with the prosthetic memories of historical mass destruction events, seems to suggest a longing for collective experience, identification, and understanding. As Landsberg states:

The popularity of these experiential events [affective encounters with historical trauma] bespeaks a popular longing to experience history in a personal and even bodily way. They offer strategies for making history into personal memories. They provide individuals with the collective opportunity of having an experiential relationship to a collective or cultural past they either did or did not experience. (178)

Landsberg here is referring to interactive museums devoted to traumatic historical events, yet she quickly segues into the affective, sensorial nature of cinema and the medium's ability to generate profound, albeit indirect, experiential memories. While other media such as literature or painting may provoke feelings and sensations, such as the attraction and revulsion felt when observing the terrible grandeur a John Martin painting, it is through the cinematic medium that these sensations, associated with the represented trauma, become the indirect memories of the spectator:

The experience within the movie theater and the memories that the cinema affords – despite the fact that the spectator did not live through them – might be as significant in constructing, or deconstructing, the spectator's identity as any experience that s/he actually lived through. (Landsberg180)

Cinema affords these memories in part because of its capacity for depicting the overwhelming grandeur of the moving spectacle. The stillness of painting

appears frozen in time, a stasis requiring the observer to ascribe movement within its stillness, and situate its narrative subject along its internal, intradiegetic timeline through the observer's own subjective imagination. Admittedly not all painterly human representations suggest a narrative – such as with Claude Monet, Edgar Degas, and other Impressionist painters who brought the technique of representation into the foreground as well as that of the represented subject itself – yet in the case of the John Martin, his historical and Biblical-themed tableaux can be regarded as a frozen moment within a larger narrative. Indeed, when the exhibit 'John Martin: Apocalypse' went on display at the Tate British museum (September 2011-January 2012), publicity for the exhibit included the release of a 'trailer': a one hundred and sixty-five second advertisement that depicts one viewer's immersive experience with Martin's *The Great Day of His Wrath* (1852), its destruction no longer static but dynamic, transpiring and enveloping her. It seems, then, that image-in-stasis is incomplete. Despite the powerful and intricate detail of his painting, the very need for a trailer for a painting exhibition suggests that John Martin's mass destruction imagery in itself is now inadequate and in need of movement through a passing of time to achieve an immersive experience for the contemporary spectator.

In contrast with the image-in-stasis (primarily, the painting and the photograph), the moving image transpires in what appears to be the present tense, with an observable past and imminent future. The spectator witnesses the events in motion as they occur, helpless and incapable of shaping the outcome of the event through any imaginative process. The successive spatiotemporal images remain impervious to spectatorial influence. In this sense, the filmic spectacle can bear greater power over the viewer because of the potential for the spectator to submit to

the primacy of the moving image (and accompanying synchronised soundscape). And while cinematic spectacle assumes various forms – for example, the visual abstractions of avant-garde cinema and pornography’s forsaking of narrative in favour of sexual exploitation – the spectacle of mass destruction remains the central focus of this study.

On one level, it would appear that our spectatorial predilection for sequences of mass destruction might fulfil some primal psychological bloodlust or provide a cathartic assuage of anxieties towards humanity’s impending decimation, and these psychoanalytic readings into the self-destructive nature of humanity certainly have a proper place and function. The central issue with a psychoanalytic methodology is that, in centring on the spectator’s attachment to the image, it fails to address the image itself. A psychoanalytic approach relies upon an *a priori* theory that is then applied to a film: a ‘top-down’ methodology that is inherently flawed.

Methodologies such as psychoanalytic theory and Marxist theory apply a fixed set of heuristic methods for interpretive means, because their entry point to any discussion about film rests at the top of a non-hierarchical ladder. The top, as Kristin Thompson explains, begins with an established formula shaped by the subsuming doctrine of choice, and then seeks out those artworks that are most applicable to the theory (9). Because a ‘top-down’ method focuses upon interpretive analyses, applying its heuristic schemas to a suitable film subsequently results in a formulaic conclusion that does not adequately substantiate an overarching theory and may not necessarily address the film’s most innovative aspects (Bordwell, ‘Contemporary’ 19). Because the central focus of this study is the representation of destruction, the discussion must first emerge from the representations themselves, rather than a ‘top-down’

methodology. Psychoanalytic interpretative discourse is not without merit, and in some cases proves illuminating; however, for the purposes of this study, I will instead approach the representation of mass destruction from the images themselves, drawing out their intrinsic properties that motivate the subsequent discussions on cinematic realism, spectacle, sublimity, and correlation to historical disasters.

Stressing Visuality

Past film scholarship has often revealed a bias towards the dominance of narrative in film viewing experience, which posits that spectacular visual excess is secondary to the primacy of narrative causality. That is, the story is the impetus for the film, the main and proper object of viewer attention, and that anything outside of narrative causality remains ‘excess’, to use Thompson’s term (‘The Concept of Cinematic Excess,’ 517). That is, because the spectacle is associated with unnecessary excess, it resists critical inquiry (and thus, conversely, critics resist inquiring into escapist excess). And while this is being corrected by scholars such as Geoff King and Stephen Prince, who argue that spectacle *is* a component of narrative, there remains a notion that spectacle is ontologically detrimental to narrative and somehow unworthy of intelligent analysis.

In the introduction of his study on digital visual effects, Dan North comments that the spectacle’s opposition to discourse reifies the perception that the cinematic spectacle, specifically the Hollywood blockbuster, is beset by an ‘obstacle to rational criticism’ (*Performing Illusions*, 7). Scott Bukatman echoes this as he remarks, ‘academic discourse [...] so often mistrusts the pleasures of illusion, dismissed as illusions of pleasure’ (*Matters of Gravity*, xiii). This antagonism against the visual spectacular, indeed the ocularcentrism on the whole, has been a central thesis for

philosophers since the early nineteenth century. Ocularcentrism – that is, the position that the sense of sight is the ‘noblest’ and most superior of the senses – was posited first by the classic Greek philosophers, including Plato and Aristotle (Jay 24-28).

However, as Martin Jay details in his text *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*, the centrality of sight and its alleged associations with ‘truth’ and ‘reality’ have been consistently undermined by twentieth century philosophers such as Jean-Paul Sartre, Jacques Lacan, Maurice Merleau-Ponty, Louis Althusser, Jean-François Lyotard, and Martin Heidegger. Jay states:

For some [philosophers], the critique of ocularcentrism was carried out in the spirit of radicalized Enlightenment, still hopeful of an emancipatory outcome; for others, it meant a Counter-Enlightenment abandonment of the project of illuminating reason itself. (212)

In his text *The Vision Machine*, Paul Virilio regards the First World War, as the moment when people began to seriously question the veracity of sight: ‘With the apocalypse created by the deregulation of perception came a different kind of diaspora, the moment of panic when the mass of Americans and Europeans could no longer believe their eyes (13). The interbellum years in France saw the emergence of a group of philosophers that include Claude Lévi-Strauss, Jean Hyppolite, and Gabriel Marcel, in addition to Sartre and Merleau-Ponty, from whose works emerged the ‘radical questioning of the ocularcentric bias of the dominant tradition’ (Jay 264). Continuing, Jay states that while Sartre and Merleau-Ponty often diverged, they ‘shared a deep-seated suspicion of the Cartesian perspectivalist gaze, which often extended to the primacy of vision itself (264).⁵ This Cartesian model of philosophy, Cartesian perspectivalism, in which our ontological understanding emerges from our sense of sight, not only legitimised the mode of scientific inquiry based upon

empirical (visual) observation but also characterises ‘the dominant scopic regime of the modern era’ (Jay 69-70).

Yet, as Jay details, the work of Maurice Merleau-Ponty stands out from among the other twentieth century thinkers championing antiocularcentrism (298-99). Whilst Merleau-Ponty, like his contemporaries, eschews the primacy of vision, his interest in the concept of *perception* led him to propose an ‘alternative philosophy of the visual’ in a post-Cartesian climate (300). Whilst Descartes ‘remained too beholden to the realist paradigm, which turned vision into a view *on* the world, rather than *in* it’, Merleau-Ponty suggests that perception is only attainable through the primacy of the body within its spatial context – what he refers to as ‘being in the world’ (Jay 304; Merleau-Ponty xiii). This notion that experience is derived not only through the eyes but through the physical, sensorial input of the body, including the eyes, within a context of other bodies, both animate and inanimate, in its totality, is what is referred to as ‘phenomenology’. Merleau-Ponty states, ‘the phenomenological world is not pure being, but the sense which is revealed where the paths of my various experiences intersect, and also where my own and other people’s intersect and engage each other like gears’ (xviii). Rather than abrogating vision, Merleau-Ponty includes the ocular within a greater context, as a component of an embodied experience.

Rather than rely upon an ocularcentrist or antiocularcentrist methodology, this thesis, as it hinges on spectatorial affect and visualisations of mass destruction alike, relies upon phenomenology’s incorporation of sight and the works of Merleau-Ponty, or more specifically, with those of film theorist Vivian Sobchack who draws upon Merleau-Ponty’s philosophy of phenomenology. Sobchack has been the most

vociferous proponent of existential phenomenology within the discipline of film studies, though other theorists such as Scott Bukatman have also made significant contributions. Her phenomenological methodology is founded upon Merleau-Ponty's emphasis on the reversibility of perception and expression that is 'neither instantiated as a thought nor synthesized from discrete and separate acts of consciousness' (Sobchack, *The Address of the Eye*, 4). That is, our physical, embodied existence cannot be divorced from its context. 'It is *given* with existence, in the simultaneity of subjective embodiment and objective enworldedness' (*The Address of the Eye*, 4). Vivian Sobchack writes:

A phenomenological model of cinematic identification restores the 'charge of the real' to the film experience. It affirms what we know in experience: that not all images are taken up as imaginary or phantasmatic and that the spectator is an active agent in constituting what counts as memory, fiction, or document. (Sobchack, 'Toward a Phenomenology' 253)

As mentioned above, portions of this thesis approach the subject of cinematic mass destruction from the perspective of phenomenology, and in cinema the film experience is embodied first and foremost through the senses of sight and sound (although, haptic cinema induces sensual responses such as taste and smell – a notion further discussed in Chapter One). Whilst sound in cinema has been the subject of tremendous academic interest as of late, the central focus of this thesis – the representation of cinematic destruction in contemporary science fiction film – finds greater applicability in the analysis of the *visuals* of destruction. This is not to minimise the crucial role sound plays in the embodied reception of destruction sequences (I will sporadically make note of the use of sound within specific examples of destruction sequences) but simply to address the inherent qualities of the spectacular within destruction imagery.

In addition to phenomenology, I also approach this subject through the lens of other film theories. I rely upon genre theory, and its assumptions towards the tacit relationships between filmmakers, critics, and the movie-going public in order to reach certain conclusions. Furthermore, in an effort to keep the discussion grounded to the practicalities of actual filmmaking practice, I look to neoformalism in matters relevant to the production of the image, such as shot length, camera movement, and editing post-production processes. .

A Corpus of 'Mass Destruction' Cinema

In approaching the subject of spectacular cinematic mass destruction, a most immediate dilemma arises. How does one delimit the object of study? What constitutes *mass* destruction? And given its prevalence throughout out film history, film genres, and national identities, which films of destruction will be examined? In reflecting upon examples of *cinematic* destruction, it becomes apparent that its representations in film fluidly traverse most ranges and styles within the medium; sequences of mass destruction can be found among many genres. Consider the extent and rationale behind the implementation of mass destruction imagery in *Herbie Rides Again* (family; 1974, US) with its opening montage of skyscraper demolition; *The Blues Brothers* (comedy; 1980, US) and its capricious destruction of police vehicles and low-rent buildings; *The Fugitive* (neo-noir; 1992, US) with its spectacular train wreck; *Final Destination* (horror; 2000, US/Canada) and its airliner crash; *The Hurt Locker* (war; 2008, US) and its unremitting tension of potential and kinetic detonations; *Sherlock Holmes* (historical; 2009, US/Germany/UK) and its

exuberant ode to gunpowder; or Lars Von Trier's *Melancholia* (art house/drama; 2011, Denmark/Sweden/ France/Germany) and its nausea-inducing apocalypse.

Indeed, cinema is so intrinsically predisposed towards scenes of mass destruction that the technological development of the medium can be measured by its representations of large-scale devastation. First realising the power of these images were the *actualités*, such as the Lumières' *Démolition d'un mur* (1896, France) in which workers topple a brick wall that results in a cloud of dust that nearly obscures the whole of the frame. In *Searching Ruins on Broadway, Galveston, for Dead Bodies* (Edison Manufacturing Co. 1900, US), causatum destruction implicitly extends beyond the edges of the static frame as a group of men stand atop and amidst a massive pile of wood and debris and work to remove it piece by piece. In *San Francisco: Aftermath of Earthquake* (American Mutoscope 1906, US), the destruction from the tremors is omnipresent while fires still rage through the cityscape.

Subsequent narrative films act as markers for gauging the visual (and later aural) evolution of film technology and special effects. *Gli ultimi giorni di Pompeii* [*The Last Days of Pompeii*] (1913, Italy) utilises red filters, cutaways to a rockslide, and burn marks on the film stock to convey the eruption of Mt Vesuvius.⁶ *Verdens undergang* [*The End of the World*] (1916, Germany) depicts meteors crashing into earth and subsequent natural catastrophes that destroy the world. D W Griffith's *Intolerance* (1916, US) incorporates massive sets of Ancient Babylon that burn and crumble before the camera. Cecil B DeMille's *The Ten Commandments* (1923, US) realises a flood that obliterates Pharaoh's soldiers and then overwhelms the camera. Using stop-motion animation, *The Lost World* (1925, US) depicts a brontosaurus

rampaging through London: a sequence that paved the way for countless films from *King Kong* (1933, US) to *Gojira* (1954, Japan) to *Cloverfield* (2008, US). *Deluge* (1933, US) may be one of the most under-appreciated examples of cinematic mass destruction, which depicts the sudden crumbling of New York City by earthquakes and tsunamis, including cutaways to the burial of numerous bystanders.⁷ Along a similar vein, the earthquake sequence in *San Francisco* (1936, US) provides one of the earliest examples of discontinuity editing for visual effect, resulting in a jarring and frenetic affectualisation of the tragedy (Bordwell, Staiger, and Thompson 74).

Technological advances seem to contribute to the escalation of images of mass destruction in cinema. In 1965 Gordon E Moore made a rough prediction that has since been known as Moore's Law (Brock 25). The 'law', though better considered as a 'rule of thumb', states that the quantity of transistors – the fundamental circuitry that comprise computer chips – will double every two years, a prediction that has since widened to include (among other applications) processing speed, random-access memory (RAM), and animation graphics. The exponential progression of computer technology allowed emerging CGI to assume a plausibly mimetic realisation. By the 1990s the rudimentary, Atari-like digital visual effects of *Tron* (1982, US) eventually advanced to a point where the line separating the profilmic object and the simulated object were *nearly* undetectable, as in *True Lies* (1994, US) and *Twister* (1996, US). Furthermore, newly-affordable consumer-grade digital equipment appeared on the market which allowed for independent filmmakers to inject their low-budget productions with seemingly high(er) production-values. Nonlinear editing systems for the desktop computer became the tools through which

professionals and amateurs alike would compose their works. Technology, however, is but one factor behind the increase in cinematic mass destruction.

Increasing social anxieties regarding terrorism and natural catastrophes emerged concomitant to the advancing technology of the 1990s. Filmmakers, inspired to either address or exploit these emerging social and environmental concerns, saw their medium as a sounding board and approached these concerns through a variety of films and genres. For example, films examining American domestic terrorism in the 1990s include *Blown Away* (1994, US), a film centring on an IRA extremist with a new-world grudge; *Arlington Road* (1999, US), in which a domestic terrorist attack on a Federal building bears striking similarities to the Oklahoma City bombing of 1995; and *Fight Club* (1999, US), a pre-9/11 film in which the disciples of a schizophrenic misanthrope ultimately succeed in demolishing the Los Angeles cityscape (including the Century Plaza's own 'twin towers'). The threats reveal growing social anxieties towards the terrorist element, whether foreign or domestic, to which the escalating mass destruction can be partially attributed. But in addition to the sociological justifications, it must be conceded that the desire to witness the atrocities of mass destruction from the security of a theatre seat only encourages filmmakers to push the envelope in spectacular intensities – superficial, exciting, and affective.

In fact, images of mass destruction within a pre-9/11 context, especially those set in an urban environment, often assume an almost comical tone. In Disney's live-action family film *Herbie Rides Again*, for instance, the movie opens with a montage to introduce the antagonist; shots of skyscraper mogul Alonzo Hawk (Keenan Wynn) gleeful plunging ACME-like detonators are intercut with grainy,

16mm stock footage of collapsing skyscrapers (implying that he is the cause of their demolition) in order to establish Hawk's character as a ruthless and self-serving tycoon. From a post-9/11 context, however, the onslaught of collapsing buildings can connote the collapse of New York City's Twin Towers, despite the film's initial release in 1974 and the narrative's subsequent fantasy of an impish and self-aware Volkswagen Type-1 Beetle. This anachronistic invocation of a traumatic memory persists within the digital era as well. In Michael Bay's spectacle extravaganza *Armageddon* (1998, US), for example, a humorous taxi driver witnesses a blitzkrieg of meteorites bombarding New York City, and as buildings crumble and cars explode all around he shouts, 'We're at war! Saddam Hussein is bombing us!' From within the historical context in which *Armageddon* was released, the possibility of the Iraqi dictator successfully executing an airstrike on New York City was a laughable assertion, and the comical tone within the taxi driver's reactions to the surrounding destruction suggests that the images ought not to be taken too seriously. From a post-9/11 context, however, the scene seems frighteningly prescient rather than humorous. The attack on the Twin Towers made the US aware of its vulnerability, and the subsequent Iraq War and the US's dogged pursuit of the alleged 'weapons of mass destruction' complicate the reading of the sequence that was evidently intended to be, however oxymoronic, light-hearted spectacles of destruction.

In the post-9/11 climate, films placing destruction centre stage seem to either directly or implicitly assume a political charge. Whether a film's central narrative hinges upon a character's intent to wreak destruction or if it is simply the by-product of other narrative events, destruction imagery naturally assumes political or

ideological connotations. One example that purports an overtly political commentary through a backdrop of mass urban destruction is Steven Spielberg's *Munich* (2005, US). Though set in a historical epoch during the aftermath of Black September, *Munich* concludes with a prolonged shot of the New York City skyline and in centre frame is the World Trade Center. By lingering on the image of the digitally re-created Twin Towers, Spielberg shifts the preceding narrative about the futility of Israel and Palestine's escalating violent retribution from its historical context to that of a current-affairs commentary on the US's post-9/11 retributive war against Islamic extremists. For Spielberg the manifestations of destruction assert an explicitly political statement. But given the variety of the above-listed films, it remains clear that destruction, as a construct of both narrative and film aesthetics, can hardly be limited to or confined by post-9/11 politics and terrorism-centred dramas.

World War I newsreels are rife with explosions at the front, as are the epic war reenactments of today. Since the release of *Gojira* in 1954, Japanese cinema has reveled in the depiction of mass destruction through its subculture of mega-monster, *daikaiju* films. The hot-button topic of terrorism has led to the wave of bomb and terrorist-related films from around the world. An examination of the cinematic representations of mass destruction, then, cannot hope to be effective with so broad a corpus of inquiry. In order to refine the study, I have elected to examine the imagery of mass destruction presented within the context of the science fiction film genre.

This may seem an odd means of approaching such a humourless subject, but science fiction cinema bears deep associative ties to destruction imagery. The 1950s and 1960s witnessed a swell of genre films that ranged from iconic to pathetic, with

depictions of mass destruction playing a central role. Indeed, Susan Sontag's 1966 essay 'The Imagination of Disaster,' from which the opening quote originates, indicts science fiction cinema and the pacified audiences that willingly numb themselves to the onslaught of its destruction imagery. While the geopolitical context of the twenty-first century has significantly changed since the cold war, her observations on the genre's penchant for destruction remain prophetic. Though the genre may enter into discourse on issues such as time travel, space travel, dystopian futures, advanced technology, and alien encounters *without* the usage of mass destruction (*Frau im Mond* [1929, Germany], *Solyaris* [1972, USSR], *E. T. – The Extra-Terrestrial* [1982, US], *Cronocríminos* [2007, Spain]), the presence of mass destruction imagery seems nearly ubiquitous in contemporary science fiction films.

As a working, conceptual definition, I regard cinematic mass destruction as the onscreen obliteration of narrative spaces that may or may not be populated by a 'large' number of peripheral, narratively unrelated (except by proximity), 'set-dressing' characters. The subjective variability of what the word 'large' might mean in this context notwithstanding, the complication in reducing the term 'mass destruction' to simply a matter of casualties is justifying it with films such as Sam Peckinpah's *The Wild Bunch* (1969, US) or Steven Spielberg's *Saving Private Ryan* (1998, US), in which masses of characters are graphically killed in quick succession. Bullets, arrows, nooses, poisons, and electric shocks impact the body alone. In order for this definition of 'mass destruction' to be effective, it is necessary to stipulate that these deaths, whether directly or implicitly conveyed, must occur within the destruction or violent upheaval of the narrative space. The mass destruction sequences from *Mighty Joe Young* (1949, US), *Beast From 20,000 Fathoms* (1953,

US), *The Time Machine* (1960, US), *Barbarella* (1968, France/Italy), *Meteor* (1979, US), *Moon 44* (1990, West Germany), *Waterworld* (1995, US), and *Pacific Rim* (2013, US) for example, align with this definition because not only are casualties inflicted upon their respective populations but also because they depict landscapes which are torn asunder.⁸

Whilst destruction imagery has existed for centuries, this examination of film destruction relies upon the viewers' subjection to the immensity of its spectacle in motion. While film theories such as psychoanalysis may offer some insight into the analysis of why this imagery has become so widespread, this thesis, to repeat, examines mass destruction imagery through phenomenological and neoformalist perspectives. During the twentieth century a number of philosophers attempted to decentralize the sense of sight from our understanding of the world; yet Merleau-Ponty's phenomenology, as applied to film through the writings of Vivian Sobchack, acknowledges the physiological aspects of our reception of mass destruction imagery in order to better understand the totality of the spectatorial response. Despite the presence of cinematic destruction in many genres, this thesis limits its corpus to that of science fiction in order to better examine how the supra-natural elements can still bear resonance with our prosthetic memories of contemporary cultural destruction events.

A Model of Spectatorship

As this study examines the aesthetics of destruction in science fiction cinema and its related affect on the spectator, an explanation as to the model of spectatorship employed is an important consideration. The nature of film spectatorship is

complicated. Early spectatorship studies of the 1970s assumed a narrow reading of the spectator. Jean-Louis Baudry's model, for example, posited an idealised Western spectator, while Laura Mulvey's feminist analysis of the camera's sexualized gaze 'presumes a fairly passive male spectator' (Mayne 53). In the 1980s and 1990s, however, spectatorship studies began to see the spectator as 'active and critical, [...] at once constituting and constituted by the text' (Stam 229-230). Not only was the spectator gendered, as Mulvey proposed, but also 'sexualized, classed, raced, nationed, regioned, and so forth' (232). 'Spectatorial positions are multiform,' writes Stam, 'fissured, schizophrenic, unevenly developed, culturally, discursively, and politically discontinuous' (233). The multiplicity of the spectator, not to mention the independent variables of the social and technical contexts in which the viewing occurs, suggests that generalizations regarding how a film impacts a certain group of spectators bear little credibility. Indeed, it might even have persuaded theorists into either collecting quantitative data or limiting their qualitative research to how a bracketed subset of a minority perspective might respond to a given text.

More recent scholarship on the spectator includes Jacques Rancière's *The Emancipated Spectator* (2009), which approaches the subject of spectatorship from a political perspective. Rancière states that earlier models of spectatorship situate the viewer in a position of subordination and inequality. As Rancière states, 'to be a spectator is to be separated from both the capacity to know or the power to act' (2). That is, the spectator is dominated by the images, which have been intentionally chosen by those in power. While viewers may choose to either observe passively, allowing the images to wash over them, or observe attentively, engaging with its content, spectators nevertheless remain powerless against the manipulative authority.

For Rancière, the spectator becomes emancipated when she becomes aware of the politics behind the image, assumes the ability to translate and interpret the images, and forms new meanings (17).

While the emancipation of the spectator can be significant in certain cases (news programmes, for one), I find that Rancière's approach to be one of unnecessary conflict. That is, there exists an underlying assumption that the filmmakers or studios take on a confrontational relationship with the spectator, rather than both parties acting in collaboration – oppositional perhaps, like pedals on a bicycle, but cooperative components in a perpetually advancing machine. While certainly media magnates force through political agendas in some media outlets, such as news programmes, soap operas, or social media advertising, in the case of science fiction cinema, I suggest that filmmakers, writers, and studio executives work in *conjunction* with spectators. Consider the emphasis on conventions such as ComicCon that encourage spectatorial feedback or focus groups that gauge how audiences respond to a particular film. What is more, science fiction cinema has often been the vehicle for advancing social, environmental, and political issues through allegory or allusion, which at times have been in direct conflict with dominant political ideologies.

The model I employ in this study is of an active spectator as put forth Charles Musser and Murray Smith. In his response to Tom Gunning's model of spectatorship, one of childlike awe, Musser states, 'To Gunning's [...] spectator as gawker, I would now counterpose a multifaceted system of representation and spectatorship that also includes [...] a cinema of discernment in which spectators engage in intellectually active processes of comparison and judgment' (Musser, 'A

Cinema', 160). Although Musser is specifically addressing the spectatorship of the late 1800s and early 1900s, I find this model to be equally effective for a study on mass destruction imagery in contemporary science fiction cinema. In the case of special effects alone, comparison and judgment are early gatekeepers for allowing the spectator's imagination to 'buy into' the aesthetic and coherence of a film.

Imagination is also a critical component of Murray Smith's model of spectatorship. Murray states that if we reject the premise that spectators mistakenly believe the presented fiction to be real (in this case, believe that aliens and colossal creatures exist), we are then left to explain how such fictions can affect the spectator (117). 'It is enough,' writes Murray, 'that we propose a certain scenario to ourselves in our imagination; that we entertain the fiction' (117). In this sense, the model of spectatorship employed here relies upon a spectator with a healthy imagination in order to both entertain the fiction (or, rather, science fiction), and actively engage with the themes and suggestive images within the film. While a theatrical experience may be insinuated as a dominant means of reception, my analyses may also reflect the experiences of those spectators viewing from a different media platform, such as home entertainment system or tablet streaming.

Chapter Overview

This study has been divided into four chapters. The first chapter lays the groundwork by delimiting the genre of science fiction and its close relationships with both fantasy and horror. As with other studies on or including science fiction cinema (such as those by Vivian Sobchack, J P Telotte, Noël Carroll, and Christine Cornea),

much of what helps my own delineation of the genre emerges from the work of Tzvetan Todorov and his discussion on the *fantastic*; however, complications emerging in others scholars' applications of Todorov's concepts and the amassing number of textual examples that defy simple classification necessarily require a more flexible understanding of what is considered 'science fiction'.

From science fiction film genre as a defined corpus, I next discuss how contemporary iterations have embraced what has become known as 'impact aesthetics,' and how mass destruction imagery in the contemporary science fiction film can be regarded through its spectacular aesthetics. Despite its postmodernist status as a commodified spectacle subject to a waning of affect, destruction sequences remain nevertheless capable of inciting what Brian Massumi refers to as certain intensities through a paradoxical relationship between mimetic and superlative digital representation. Often, contemporary science fiction forsakes classical narrative schema for that of impact spectacle aesthetics so predominant within the age of digital technology. With digitally rendered representations, the fall of the photographic index – the long-reigning gauge by which to judge film 'realism' – gives way to alternative notions. In deference to the intensities invoked by mass destruction imagery, I present two existing yet flawed methods of reconstituting 'realism' within a cinema so dependent upon computer graphic imagery (CGI), then propose an alternative that I weave throughout the remainder of the study.

The second chapter explores in greater detail the notion of factuality within the science fiction genre. In recent years an array of science fiction and horror films has emerged that assume the aesthetic and style of documentary cinema. I discuss the

film medium's long associations with the perception of evidence and the scientific inheritance it has acquired from photography. I then address some of the contemporary 'documentary' science fiction films that engage with these dialectal elements, specifically *District 9* (2009, US/New Zealand/Canada/South Africa) and *Cloverfield* (2008, US) and how their formal attributes problematise textual analyses.

The third chapter delves into the rich philosophical history of the sublime. Though philosophers and theorists have analysed the concept through a variety of lenses, the sublime, as a means of describing the postmodernist 'intensities' that correlate with the spectacular, becomes most fruitful to the discussion of mass destruction imagery when approached from the writings of Edmund Burke. Finding Scott Bukatman's notion of the cinematic sublime in science fiction rooted in passé special effects technology, and Greg Tuck's notion of digital age sublimity achieved through minimalism inadequate, I redefine science fiction's cinematic sublime by arguing first and foremost that the sublime cannot be represented within the construct of the film frame. In referring to 'echoes of the sublime,' however, I find that similar albeit diluted affects can still be invoked by manufactured sequences of mass destruction. This is not to say that all destruction is sublime-like – as I explain in my discussion of Roland Emmerich's *2012* and the British disaster film *Flood* (2009) – but merely that which rely upon cinematic language to convey a sense of factuality within the science fiction destruction.

The fourth chapter bridges the gap between cinematic destruction and historical destruction in what I have labelled the 'transfusion of affect', wherein science fiction destruction sequences appropriate an aesthetic that implicitly recall the memories of genuine destruction events. A growing number of science fiction

films of the new millennium temper their reliance on CGI and embrace the cinematic language better associated with classical film realism theorists André Bazin and Siegfried Kracauer. By addressing some of the techniques these theorists championed as being particularly adept at communicating a sense of ‘realism’ to the shot, specifically the long take and what I refer to as *die Abfälle* (that is, refuse and decay), I argue that despite the fantastical context of its narrative, images of science fiction destruction can nevertheless convey a sense of cinematic realism that can potentially evoke similar spectatorial affects as experienced with traumatic, historical events of mass destruction.

The second portion of this final chapter will be devoted to the representation of the human body within the destruction space; specifically, the body’s eradication, first through erasure, and then the instantiation of death within the destruction event. The discussion of the representation of death in film is by no means novel (Vivian Sobchack and Susan Sontag have both made substantial contributions); the distinction I make is that whilst death has been depicted (and exploited for shock value) since the birth of the medium, it has only been within the last ten years that death has been allowed to infiltrate mass destruction space. Prior to this, science fiction (and disaster) mass destruction sequences have anaesthetised its deadly nature by removing the depictions of death and focusing on the decimation of otherwise vacated urban (primarily) spaces.

By the conclusion of this study, I hope to have presented an illuminating conceptual framework for the subject of mass destruction representation within contemporary science fiction cinema. I concede that this study is not an all-encompassing account cinematic destruction. Indeed, by focussing on science fiction

specifically, I leave unaddressed a number of destruction-centred films. Narratives that literally tackle the subject of terrorism, historical representations of war, and superhero fantasies all rely upon the visceral promise of destruction, yet reside beyond the scope of this study, films that may shed greater light on the subject of mass destruction and humanity's fascination with watching the world burn from a comfortable distance.

INTRODUCTION NOTES

- ¹ Lucas van Leyden's painting *Lot and His Daughters* (c 1521), for instance, depicts Lot with his daughters in the left foreground as Sodom and Gomorrah burn and crumble in the background, and Nicolas Poussin's *The Destruction of the Temple at Jerusalem* (c 1638) depicts the Roman capture of Jerusalem under Titus, in which bodies of soldiers and Jewish rioters are strewn across the middle and foreground with the Temple of Solomon ablaze in the background (Wright 250, 255).
- ² English artist J M W Turner's *Eruption of Vesuvius* (1817), for one, depicts the volcano in a state of spectacular self-destruction through a blistering colour scheme of oranges, reds, and whites that dominate the top three-quarters of the canvas. An example of a visual representation of natural destruction from Eastern art traditions can be found in Japanese artist Hokusai Katsushika's oft-reproduced woodblock print *The Great Wave Off Kanagawa* (1832), depicting with a surprising sense of movement a tsunami cresting over two small boats and their huddling passengers with Mount Fuji in the distant background.
- ³ See Christopher Johnstone's *John Martin* (1974).
- ⁴ A recent example is BiblioBazaar's 2010 reproduction of an early twentieth-century edition of John Milton's *Paradise Lost* bearing John Martin's illustrations.
- ⁵ Cartesian perspectivalism, emerging from the philosophy of René Descartes, refers to the gaze of the eye as the means for recognising and interpreting our experiences, our mind, and our world (Jay 69).

⁶ On this point I concede that the scorch marks *may* in fact be a result of the film stock degradation due to ineffective preservation; however, given their visual pattern, I submit that these marks were intentionally created to imbue of sense of destruction to the profilmic panicking masses on screen. Further degradation to the materiality of the film has indeed occurred; however, traces of human agency on the stock, given their pattern and regularity, seem likely.

⁷ In fact this mass destruction sequence was so advanced for its time that it was reused sixteen years later by Republic Pictures' science fiction adventure serial *King of the Rocket Men* (1949, US).

⁸ This working definition excludes most films within the horror, Western, martial arts, and film noir/gangster genres. Perhaps the only genre that remains an issue is the war genre; however, as war films are historical in nature, they are held to different generic standards, motifs, and spectatorial expectations than science fiction cinema. Whereas war films are always set within a concrete historical context, science fiction, as Sobchack states, is 'a genre which is unfixed in its dependence on actual time and/or place' ('Images,' 5).



G. I. Joe: The Rise of Cobra (2009)

CHAPTER ONE

Kinescopic Realism in Contemporary Science Fiction Cinema

Science fiction films are not about science. They are about disaster.

– Susan Sontag (41)

At the height of the Cold War in the mid-1960s, Susan Sontag wrote what would become a foundational text in the canon of science fiction film scholarship. Her essay ‘The Imagination of Disaster’ warns about the dangers of science fiction cinema pacifying audiences through its incessant dehumanising onslaught of mass death and destruction imagery. Through her essay Sontag implies that the spectator becomes desensitised to the point that anything less than these spectacles feels disappointing and inadequate:

What I am suggesting is that the imagery of disaster in science fiction films is above all the emblem of an *inadequate* response. [...] The interest of the films, aside from their considerable amount of cinematic charm, consists in this intersection between a naively and largely debased commercial art product and the most profound dilemmas of the contemporary situation. (47, original emphasis)

Unaffected by Sontag's forewarnings, destruction in contemporary science fiction cinema has not diminished but rather escalated in a triumph of the spectacular. Indeed, mass destruction and science fiction seem inseparable in the context of the twenty-first century. In this first chapter, I argue that while contemporary science fiction cinema depends upon the aesthetics associated with the spectacular, the subsuming element within these spectacles is the common denominator of what I refer to as kinescopic realism. Within a context of an aesthetic designed for maximum sensory overload, science fiction cinema attempts to overcome not the postmodernist notion of a 'waning of disbelief' but rather what Brian Massumi refers to as a 'waning of affect'. This discussion on affect, intensities, and belief, suggests that despite however hyper-stylised the science fiction image appears, it is necessarily grounded by its ontology as a collision of rational science and irrational fiction. Made concrete by the collusion of rational science and imaginative fantasy, these science fiction spectacles *first* cohere with the spectatorial expectations of aesthetic realism. Functioning beyond the representational index, 'kinescopic' realism describes the foundation from which science fiction spectacles issue as excitations and stimuli.

Containing the Blob: Delimiting Science Fiction

As is often the case with genre analyses, most studies of science fiction cinema begin with a definition of precisely what constitutes 'science fiction.' One of

the first setbacks one encounters in this undertaking is the ‘empirical dilemma’: an approach mired in the Catch-22 of establishing ‘what characteristics typify a genre [by] first determining what texts constitute the genre,’ though that is already contingent upon pre-existing notions ‘about the genre’s identity or definition’ (Telotte 8). Imposing limits on science fiction cinema brings to mind Princess Leia’s assertion to the evil Grand Moff Tarkin in *Star Wars: A New Hope* (1977, US), in which she declares: ‘The more you tighten your grip, Tarkin, the more star systems will slip through your fingers.’ Indeed, no other film genre seems as slippery as that of science fiction. More comparable to US Supreme Court Justice Potter Stewart’s infamous remarks on pornography than most science fiction aficionados would care to admit, the genre remains difficult to define though we seem to know it when we see it.¹ While assertions can be made that audiences do not need to have a working definition of science fiction in order to appreciate a film as such, it is a necessary starting point for examination of any aspect of this cinematic genre. The central problem in identifying what constitutes science fiction is that its amorphous structure encompasses such an array of idiosyncratic yet incongruent narrative devices, themes, and representative images. Time travel, alien invasions, and post-apocalyptic futures are all uniquely science fiction, though they bear little resemblance to one another in form.

In their attempts to resolve this paradox, theorists have approached the subject of science fiction not by what it is, but by what it is *not*. Predominantly, this is satisfied by first discussing what comparable attributes other genres share with science fiction, then ultimately identifying a lynchpin characteristic that causes it to diverge from its neighbours. Though this approach is not practical across the board

(that is, it doesn't seem to particularly help the identification of the Western or the musical), with the case of science fiction it has become common practice *because* of its efficacy, and the 'way in' typically used to discuss science fiction and its neighbouring genres is through Tzvetan Todorov's writings on the fantastic.

Writing in an era of literary structuralism in which theorists attempted to categorise works of art through a scientific classification system not unlike Carl Linnaeus' taxonomy of the biological world, Todorov attempted to organise a branch of literature that relied on what he termed the 'fantastic'. For Todorov, the fantastic is formed by a merger of two other literary styles, the 'marvellous' and the 'uncanny'. Consider two intersecting circles of equal diameters. Beyond the single

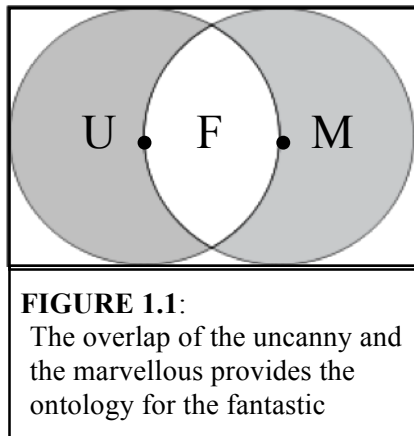


FIGURE 1.1:
The overlap of the uncanny and the marvellous provides the ontology for the fantastic

point of their initial contact, their union will occur at any (and only) two points, subsequently forming an almond-shaped lens of shared space. The size of the lens is relative to the degree of overlap: the more the overlap, the larger the lens, and vice versa. Supposing that these circles are not literal

Euclidian geometric bodies but rather assume a metaphorical representation of an idea, each with its own unique properties, then the subsequent almond-shaped area assumes the properties of both ideas, with the degree of overlap determining the extent of the circles' mutual influence on its properties. These circles can be used to illustrate Todorov's notion of the literary genres of the uncanny and the marvellous, where 'the marvelous focuses upon the supernatural, upon that which stands outside of the known world, while the uncanny narrative is concerned with the inner workings of the unconscious mind' (*Fantastic*, 33). When the two circles intersect,

the fantastic is formed: a concoction that can be considered uniquely individual yet ontologically dependent upon its parentage [*Figure 1.1*].

The term ‘uncanny’ bears a heavy connotation in psychoanalytic circles; the word is generally more associated with the writings of Sigmund Freud and suggests human aberrations such as *doppelgängers*, evil-twins, cyborgs, the monstrous, and the depraved: an intradiegetic psychosis revealed through character development that serves the discourse on humanity’s darker, id-possessed self. Influenced by Freud’s concept of the ‘unconscious mind’, Todorov’s ‘uncanny’ breaks down in his attempt to identify the internal psyche of the ‘uncanny’ in his literary analysis; literary theorist Rosemary Jackson, however, reinterprets Todorov’s uncanny in order to better cohere with his overall discussion of the fantastic. Severing any ties to Freud’s notion of the uncanny, Jackson clarifies Todorov’s application of the concept by rereading it as both an aesthetic and narrative style that reflects the mundane and the experientially ordinary – the mimesis of experiential reality (Jackson 33). In this way, the uncanny in film can be illustrated by 1940s Italian Neo-Realism, the minimalism of Yasujiro Ozu, or the abject in British social realism: a narrative and aesthetic style of filmmaking as *close* to a mimetic depiction of experiential life as the medium will allow.

The marvellous, at the other end of the spectrum, seems to be identified by anything supernatural, or rather ‘supra-natural’, beyond what is known to be natural, commonplace, and tantamount to equivalence to the life and experiences of the reader/viewer/consumer. The marvellous in film typically manifests itself in the fantasy genre (notably different from Todorov’s fantastic), exemplified by *The Wizard of Oz* (1939, US), *La Cité des enfants perdus* (1995, France/Germany/Spain),

The Lord of the Rings trilogy (2001, 2002, 2003; New Zealand/US), *Pan's Labyrinth* (2006, Spain/Mexico), *The Spiderwick Chronicles* (2008, US), *Snow White and the Huntsman* (2012, US), and *Maleficent* (2014, US); they are the realisation of narratives and images clothed in myths, legends, fairy tales, and the imaginary, purposefully removed from the experiential plane.

Todorov describes the fantastic as that moment of uncertainty when one encounters a supernatural event that inherently conflicts with experience: 'that hesitation experienced by a person who knows only the laws of nature, confronting an apparently supernatural event' (*Fantastic*, 25). [Figure 1.2] He adds:

The person who experiences the event must opt for one of two possible solutions: either he is the victim of an illusion of the senses, of a product of the imagination – and laws of the world then remain what they are; or else the event has indeed taken place, [...] but then this reality is controlled by laws unknown to us. (*Fantastic* 25)



Figure 1.2 *Jurassic Park* (1993)

Dr Ellie Sattler (Laura Dern) and Dr Alan Grant (Sam Neill) react to their first glimpse of living dinosaurs – an example of the Todorov's 'fantastic'.

The fantastic seems an ideal approach to the study of science fiction film because of its emphasis on that ambiguous state between imagination and the laws of the natural world – even the name 'science fiction' juxtaposes what are otherwise

antithetical concepts: 'science' (experiential, natural, rational) and 'fiction' (imaginary, supernatural, and often irrational). The problem this creates in attempting to study the science fiction film genre is that the parentage of the fantastic, the amalgam of the natural and the supernatural, also begets with equal applicability the genre of horror, and a kinship to fantasy. Hence the approach to defining science fiction film by what it is *not*, despite sharing attributes associated with the fantastic, neither horror nor fantasy is generally mistaken for science fiction.

In approaching his study of the horror genre, Carroll admits that Todorov's demarcation lines between what constitutes the uncanny, the fantastic, and the marvellous do not sufficiently separate horror and science fiction, and that the iconography of the monster blurs the line between horror and fantasy (*Philosophy of Horror* 16-18). Finding then, that what best describes horror is horror itself, Carroll defines his genre through the audience's emotional responses: 'That the audience's emotional responses are modeled to a certain extent on those of the characters in horror fictions provides us with a useful methodological advantage in analyzing the emotion of art-horror [horror cinema]' (*Philosophy of Horror* 18). When the audience's emotional state of horror mirrors the emotional, horrified reactions of the characters, the text, according to Carroll, can be considered horror.

In a similar fashion, Vivian Sobchack and Barry Keith Grant, in their respective attempts to determine how science fiction isn't horror, analyse science fiction cinema through its intended emotional responses. Sobchack and Grant find the bisection point between horror and science fiction at their emotion/cognition diversion. 'Science fiction,' writes Grant, 'by contrast [to horror], is often defined as

a “sense of wonder” (17). Whereas horror evokes fear, science fiction evokes cognitive interest, awe, and wonder. Sobchack writes:

It is [...] true that there are SF films which evoke shudders and occasional screams from the characters (stereotypically female), but we do not usually associate those shudders and screams with the audience. Ultimately, the horror film evokes, fear, the SF film interest. (*Screening Space*, 43)

Whereas Carroll’s spectatorial response emerges as a mirror to those of a horror film’s characters, Grant and Sobchack bypass intradiegetic reactions and solely regard the spectatorial response of awe and wonder, given the reliance on cinematic special effects to create the wondrous effect.

The central point of contention with respect to relying on audiences’ emotions as a method of cordoning off the corpus of study, as in either Carroll’s or Sobchack and Grant’s applications, is that it relies upon the assumption of a single reaction from the ‘collective unconscious’. How can the emotional responses of an audience determine generic classification when audiences are comprised of individual spectators that do not think, act, nor even feel as a single entity? One’s spectator’s horror is another’s farce. Defending the approach through notions of authorial intent may be helpful in some cases, as with melodrama or suspense, as Carroll does, but this is not applicable across the board (‘Film, Emotion, and Genre’ 22). Carroll thoughtfully embraces the massive collection of poorly realised horror films that fail in their attempts to elicit horror within the spectator, by defending its intention to horrify implied by the characters’ reactions: characters experiencing horror and revulsion prompt the film’s generic classification as horror. Yet what of the number of films that also depict characters in states of revulsion and fear, such as Marcel Ophüls’s *Le Chagrin et la pitié* (1969, France/Switzerland/West Germany),

Andrei Tarkovsky's *Solyaris* (1972, USSR), or Spielberg's *Schindler's List* (1993, US)? These can hardly be deemed, as Carroll refers to it, 'art-horror' (*Philosophy of Horror* 8). It cannot be assumed that a film labelling itself science fiction will imbue any spectatorial awe whatsoever (a matter I discuss in detail in Chapter Three as this issue specifically relates to spectatorial affect and the cinematic sublime), though the characters may react in such a manner. Furthermore, the cross-hybridisation of genre films confuses which emotions dominate. *Shaun of the Dead* (2004, UK/France/US), for example, centres on two half-wits attempting to save an ex-girlfriend during a zombie apocalypse: a comedic premise with humorous sequences but that also bears some genuinely frightening moments. The antithetical emotions produced by, in this case comedy and horror, are contentious yet integrated, and destabilises any generic definition based upon a single emotional state.

Thus, Carroll's emotional response approach seems founded on an altogether fragile assumption. Although his defence for defining his own genre is eloquently argued, his disapprobation of science fiction's generally accepted territory fails to concede the transmittable and fluid constructs of science fiction (can H G Wells's *The War of the Worlds* truly *not* be considered science fiction?) (*Philosophy of Horror*, 14).

A documentary film is not usually mistaken for science fiction (although a few examples attempt such confusion, as I discuss in Chapter Two), but a host of science fiction films has emerged in the latter half of the 2000s that purposefully attempts to appear as documentaries. Just as the *Harry Potter* instalments (2001, 2002, 2004, 2005, 2007, 2009, 2010, 2011; UK/US) and the *Saw* series (2004, US/Australia; 2005, 2006, 2007, 2008, US/Canada; 2009, Canada/US/UK/ Australia;

2010, US/Canada) are not usually mistaken for science fiction, occasionally science fiction constructs (i.e. aliens, advanced technology, microscopic viruses, or just advanced science in general) infiltrate films that would otherwise be associated with fantasy or horror, such as with *Phenomenon* (1996, US) or the *Resident Evil* series (2002, UK/Germany/France; 2004, Germany/France/UK/Canada; 2007, France/Australia/Germany/UK/US; 2010, Germany/France/US; 2012, Germany/US), respectively. While Christine Cornea argues *against* a clear division between horror and science fiction, stating that ideological undercurrents from the two can be used to heighten the film's visceral power (as in *Alien* [1979, US/UK] and *Prometheus* [2012, US]), I find that despite generic cross-breeding, it nevertheless remains beneficial to attempt some means of bracketing off science fiction from its neighbours in order to effectively discuss the manners and ramifications of its depictions of mass destruction (Cornea 7), not just from horror but with fantasy as well.

Katherine Fawkes, in her study on the fantasy film genre, finds iconography to be a helpful approach to elucidating how her genre differs from science fiction: 'when we encounter wizards, crystal balls, flying brooms, fairies, magic talismans, or talking animals, we tend to assume fantasy unless otherwise informed' (5). For Fawkes these indices of fantasy create an 'ontological rupture' that establishes for the audience the disparity between 'what the audience agrees is "reality"' and the fantastic phenomena that define the narrative world' (5).

Fawkes definition of fantasy bears a resemblance to Fredric Jameson's definition of cinematic Magical Realism: 'Not a realism to be transfigured by the "supplement"' of a magical perspective but a reality which is already in and of itself

magical or fantastic' ('On Magical Realism', 311). In other words, fantasy exists *a priori*, without scientific rationale, and its existence is treated casually within the diegesis. This intentional fissure between the quotidian and the supra-natural image distinguishes fantasy from science fiction, but this approach cannot be reversed: science fiction iconography cannot be used to differentiate itself from other genres. Iconography can be helpful in demarcating one genre from another, but again science fiction fails to present any cohesive image by which to establish itself. Sobchack, for example, argues that while locations, costumes, and props can determine Westerns and gangster films, science fiction does not afford such casual luxuries:

The linkage of situation and character, objects, settings and costumes to a specific *past* creates visual boundaries to what can be photographed and in what context. This historical awareness [...] demands repetition and creates consistency throughout these genres. This is not true, however, of the [science fiction] film, a genre which is unfixed in its dependence on actual time and/or place. ('Images', 5)

Fawkes's 'ontological rupture' within the fantasy genre, however, provides a helpful approach to determining a working definition for this study of science fiction and its representations of mass destruction. She writes, 'The word "rupture" distinguishes the fantastic elements in fantasy from those in science fiction, where fantastic phenomena are ostensibly *extrapolations* or extensions of rational, scientific principles.' For Fawkes, the fantasy film genre is marked by characters and narrative events that are ontologically accepted as utterly plausible *within the diegesis* yet which knowingly and intentionally differentiate themselves from experiential reality. With science fiction, no such 'rupture' can occur. Every supernatural element must be made to seem plausible through its presentation of the science behind the fiction. In this way, a more practical, if not altogether obvious, definition can be fashioned

by casting a wide net centred on the representation of science within the fiction.

Because science fiction cinema overwhelmingly emphasises science and technology as a construct of its narratives, a watermark for science fiction cinema – and one that spans the many faces of the genre – can be seen as its reliance on science and/or technology to provide a *plausible* rationale for the narrative events.

Science fiction films distinguish themselves from other neighbouring genres by their scientific rationale for why the onscreen diegetic events occur – or more accurately, why they can be regarded as, if not probable, at least tolerably reasonable. Science fiction cinema relies upon scientific data, reasoning, and/or technology to account for why certain things have happened, are happening, or will soon happen within the story proper, from the science behind the invention of a shrink-ray to the techniques of cloning dinosaurs. In this way, *This Island Earth* (1955, US), *Honey, I Shrunk the Kids* (1989, US), and *Avatar* (2009, US/UK) can all be described as science fiction, though their narratives bear little resemblance.

Naturally, a few stipulations are needed. It should be clarified that depictions of sophisticated, superior technology that extend beyond our experiential familiarity are in themselves diegetically rationalised. Often this technology is represented by super-computers, exotic weapons, cyborgs, flying cars, or warp-driven spaceships. The tacit understanding is that this technology, without unnecessary exposition as to its origins or functions, exists as part of a larger diegetic world reliant upon the science within its daily practices. This implication allows my definition to account for such iconic science fiction genre films as *2001: A Space Odyssey* (1968, UK/US), *Star Wars*, and *eXistenZ* (1999, Canada/UK) to remain under the genre's umbrella whilst also welcoming in dystopian futures and post-apocalypse texts that

connote mass destruction through its depictions of technological worlds in a state of entropy such as *Day the World Ended* (1956, US), *A Boy and His Dog* (1975, US), *Mad Max* (1979, Australia), and *Waterworld* (1995, US). As John Orr writes:

Much sci-fi apocalypse from *Mad Max* onwards begins with a new world arising from the ashes of destruction. Future-tense science fiction finds its favourite trope in the dawn of the post-holocaust world, the new beginnings which bring forth the new man who is no longer man but cyborg. (39)

As a result of this emphasis on the narrative, science fiction begins to differentiate itself from the other film genres with shared commonalities. Science fiction and fantasy are commonly combined into a unifying category by film rental agencies and Internet databases because both centre on constructs surpassing experiential familiarity and do not invoke the fear of horror. The horror and fantasy cousins, however, can more or less be isolated from science fiction through diegetic justification. Fantasy genre films such as *The Lord of the Rings* trilogy, *The Chronicles of Narnia* films (2005, UK/US; 2008, US/Poland/Slovenia/ Czech Republic; 2010, US), and *Clash of the Titans* (2010, US) all rely upon the recognition that magic or mythical creatures exist as unquestioned, *a priori* phenomena. Hippogriffs, unicorns, wands, centaurs, fawns, elves, and flying brooms and carpets are the iconography of fantasy not because of any semiotic reading but rather because the magic implicitly exists *a priori* within the diegesis. No explication besides, 'It's magic,' is necessary.

Carroll, suggests that science fiction's advanced technology is merely a MacGuffin (a superficial and arbitrary excuse for motivating the narrative elements) and tantamount to a magic existing *a priori* within the diegetic framework. 'Much of what we pretheoretically call science fiction,' writes Carroll, 'is really a species of

horror, substituting futuristic technologies for supernatural forces' (14). Carroll, in regarding one supernatural as equal to another, overlooks one of the central tenets of science fiction. What is now referred to as 'Clarke's Third Law,' famed science fiction author Arthur C Clarke declares, 'Any sufficiently advanced technology is indistinguishable from magic' (Sobchack, *Screening Space*, 56). What may seem like a magical disappearing act may be effectually rationalised by an implied science, as in *Star Trek*'s 'beaming up' or the teleportation device in David Cronenberg's *The Fly* (1986, US). Underscoring the scientific principles behind an advanced technology grounds the diegesis with plausibility, however disparate the technology appears from that of the experiential world.

As with fantasy, science fiction also diverges from its darker cousin horror at the point of diegetic rationalisation. In horror films, spiritual realms and mythic lore predominantly exist without any scientific exposition to justify its ontological presence. The demonic, the phantasmal, and the kinetic dead are rarely scientifically explained in the narrative, thus classic horror stories that centre on ghosts, golems, vampires, werewolves, zombies, and demons are quite easily regarded as horror.

Tethering the supra-natural is a central tenet of the science fiction film, for it provides a foundation of possibility through the fusing of the narrative with scientific rationale. Without this reliance on scientific fact (or a plausible resemblance to scientific fact), the fiction of the supra-natural would otherwise drift into the realm of fantasy or horror. The predominant method of achieving this fusion of fact and fiction has typically been to allow science to infiltrate and often direct the progression of the narrative. Archetypal science fiction films such as *Gojira*, *The Incredible Shrinking Man* (1956, US), and *X* [*The Man With X-Ray Eyes*] (1963, US)

follow the natural progression of experimental science running its entropic course.

Fantastic Voyage (1966, US) features miniaturised scientists travelling through various anatomical systems of a dying man's body, showcasing the physiognomy of physiology as they attempt to fulfil the mission. And though physicists may discuss electromagnetic 'flux' while measuring the amperage of their electricity storage 'capacitors', when these terms are unified into 'flux capacitor' – the device that makes time-travel possible in the *Back to the Future* films (1985, 1989, 1990; US) – the average layperson is provided with enough moderately credible scientific jargon to (hopefully) imbue an impression of plausibility, though no such construct within empirical science exists.

In this way, reliance upon a rudimentary science can be used a means to delimit the genre: a science fiction genre film is ontologically dependent upon science, either implicitly or explicitly, within its narrative. While lacking the complexity of other theorists that look either to Todorov or the emotions of an indelible audience, establishing this wide, narrative-based definition allows for a text-centred discussion on the representation of mass destruction that seems to permeate the science fiction genre across its various forms.

Of course, this working definition is not without its necessary caveats. Readers will inherently question whether films such as *Species* (1995/US), *The Island of Dr. Moreau* (1977 and 1996, US), *Mimic* (1997, US), *Deep Blue Sea* (1999, US/Australia), *Slither* (2006, Canada/US), *Host* (2006, South Korea), *Sunshine* (2007, UK/US), *Splice* (2009, Canada/France/US), *Pandorum* (2009, Germany/UK), *Predators* (2010, US), *Attack the Block* (2011, UK/France), or *Storage 24* (2012, UK) can be regarded as science fiction without addressing their relationship to horror

and the monstrous. My intention is not to argue that films like *Frankenstein* (1931, US) or even *The Human Centipede* (2009, Netherlands) are not better suited for studies in horror cinema – or that films such as *Star Wars* and *John Carter* (2011, US) are better analysed through their fantasy; I am merely arguing that these films should not be *excluded* from the corpus of science fiction on the grounds of their hybridity. Bearing all of these matters in mind, I echo what Errol Veith succinctly states:

No definition of science fiction will please all; no taxonomy of the features of the genre – if indeed we could devise such a taxonomy – would account for all science fiction films, nor will it settle arguments as to the ‘non-science fiction’ elements of any film. (11)

That is, too strict a corset and the whole ensemble will feel too confined. And by focusing on the presence of science within the fiction, my definition of science fiction cinema thus produces a familiar group of subgenres:

- Utopian, Dystopian, Apocalyptic, and post-Apocalyptic futures
- Time traveller tales
- Colossal creature features
- Aberrant experiments
- Alien, robot, and cyborg encounters
- Outer and inner space adventures

An immediate stipulation must be conceded regarding the *exclusion* of an extremely prolific and popular type of film (sub)genre, the superhero film. Some of these specifically address the science behind their acquisition of abnormal, super-human abilities, such as the exposure to radiation (Spider-Man, the Hulk) or military medical experimentation (Captain America, Wolverine). Others such as Superman, Green Lantern, and Thor rely upon their origins from a distant planet as a method of

rationalisation. Though they may lack unnatural physiological gifts, some costumed heroes are nevertheless regarded as ‘super’ due to their reliance upon advanced technology to combat evil, as with Tony Stark / Iron Man and Bruce Wayne / Batman. And with Marvel comics’ *X-Men* series, the vast array of superhuman abilities in both the heroes and the villains are explained simply as ‘mutants’, with no concrete rationalisation as to the source of each individual supernatural ability beyond the vague explanation of human genetic evolution/devolution. While my definition of science fiction embraces some of these superheroes, such as Hulk, others are rejected, as with Thor (as a god from outer space, his status as a deity suggests the fantasy genre); to divide superhero narratives into separate genres seems impractical and unnecessarily complicated, especially given that both Thor and the Hulk are two of the central characters in *The Avengers* (US, 2012). However a character comes to obtain his or her supernatural abilities, the *Übermensch* narrative format remains a firm method of genre classification, and to carve it piecemeal into fantasy or science fiction seems needless. Furthermore, a discussion on superhero films would necessarily drift towards the recent wave of ‘average’-hero films such as *Kick-Ass* (2010, UK/US), *Defendor* (2009, Canada/US/UK), and *Super* (2010, US) – social commentary films thinly disguised as comedic action films and noticeably different from science fiction. For these reasons I have opted not to include any superhero films into my study on science fiction cinema, despite their prodigious depictions of mass destruction and their narratives’ frequent involvement of advanced science and technology.

Lastly, I must also note the specific inclusion of one final category of films that I will regard as under the science fiction umbrella, namely disaster films. It

should be noted that I refer strictly to the recent swell of *digital era* disasters films. From tsunamis to sunspots, disaster (sub)genre films since the 1990s invariably ground themselves in logical plausibility by relying on a scientific rationale for any given catastrophic event, and are nearly always preceded by a warning from a small group of scientists spouting empirical data suggesting an impending disaster, such as *Twister* (1996, US), *Volcano* (1996, US), *Dante's Peak* (1997, US), *Deep Impact* (1998, US), *Armageddon* (1998, US), *The Day After Tomorrow* (2004, US), *The Sinking of Japan* (2006, Japan), *Haeundae [Tidal Wave]* (2009, South Korea), *Arctic Blast* (2010, Australia/Canada), and *2012* (2009, US).

This cannot be said of some of the examples from the US in the 1970s. Disaster films such as *Earthquake* (1974, US) and *The Poseidon Adventure* (1972, US) imply that their destruction stems from a Divine judgment and are thus not science-dependent. Even James Cameron's *Titanic* (1996, US) implies its destruction occurs as result of Divine wrath, as when the supercilious captain remarks, 'God himself could not sink her'.

Ultimately, my definition is not to establish an analysis of how and why contemporary science fiction cinema manifests itself, but rather to narrow the corpus of films in which images of mass destruction play a central role. In science fiction films, destruction sequences occur in an amalgamated state where experiential conditions comingle with elements of the supernatural. The destruction can be wrought by augmented manifestations of intradiegetically established scientific data such as tectonic crust displacement (*The Day After Tomorrow* and *2012*), or it can just as easily be wrought by alien invaders (*War of the Worlds* [1953, 2005; US], *Earth vs. the Flying Saucers* [1956, US], *Independence Day* [1996, US]) or

radioactive colossal creatures (*Beast from 20,000 Fathoms* [1953, US], *Them!* [1954, US]). Now that a foundation of films has been established from which analyses may be drawn, I will next elucidate my intent in analysing the visual spectacle of mass destruction imagery, followed by a discussion of new notions of cinematic realism as it relates to both science fiction and the destruction spectacle.

Spectacles of Mass Destruction

In contrasting the classical film aesthetics of the 1930s and those of contemporary studio productions, the claim that popular cinema aesthetics in the digital era are more spectacular is an anachronistic assertion. That is, one cannot assume that audiences of the silent era were any less thrilled by films of their day than twenty-first century audiences are of theirs – indeed, given the average contemporary spectator’s familiarity with the moving image and the various means of viewing, one could argue that the films of Méliès were *more* affecting for the spectator than most digitally-enhanced science fiction productions of the contemporary era.

Nevertheless, it seems fairly transparent that contemporary film aesthetics stand in stark contrast to those of yesteryear. As Wheeler Winston Dixon writes, ‘Increasingly, it seems that audiences do not wish to be entertained; they want to be bombarded by an assault of light and sound’ (14). Even just a passing comparison of the iconic films *King Kong* (1933, US), *War of the Worlds* (1953, US), and *Invasion of the Body Snatchers* (1956, US) with their contemporary counterparts *King Kong* (2005, New Zealand/US/Germany), *War of the Worlds* (2005, US), and *The Invasion*

(2007, US/Australia) reveals how intensified film aesthetics have become in the twenty-first century.

It is not my intention to devalue, discredit, or disparage the quality of the aesthetics of destruction throughout the science fiction serial films of the 1940s, the outer space explorations and apocalyptic films in the post-war, atomic-bomb era of the 1950s and 1960s, the disaster films of the 1970s and the hybridised science fiction/action films of the 1980s. Within each of these decades enormous strides were taken in the field of special effects and their application in realising sequences of mass destruction. Indeed, they continue to mark the development of the craft and the evolution of the genre's spectatorial expectations. It seems, however, that the 1990s and the new millennium have experienced a global emergence of science fiction films bearing sudden, intense moments of mass destruction chaos beyond what has come before; a new movement in the progression of destruction cinema marked by an infusion of computer-generated imagery (CGI); rapidly-paced editing through non-linear editing systems; blurred motion visual effects; and implied, indelible, or fleeting depictions of instances of death subsumed by a near-mimetic verisimilitude.

The aesthetics of mass destruction from the science fiction cinema of the 1950s and 1960s, described by Sobchack as 'the camera's eerie and inhuman *lack* of amazement,' seem distinctly disparate to those of contemporary cinema's aesthetic of visual excitation wherein the camera swoops, cranes, and tracks with the action amid a barrage of rapid-fire cuts to reaction shots and diegetic destruction (*Screening*, 143). Theorists have applied a variety of appellations to the new cinematic aesthetic of visceral excitation. Invoking Guy Debord's influential text

Society of Spectacle, Bruce Isaacs employs ‘spectacle aesthetic’; Geoff King and Scott McQuire both use ‘impact aesthetic’, John Orr describes it as ‘hyper-modern’, and David Bordwell refers to it as ‘intensified continuity’ (Isaacs 147; King 99; McQuire 41; Orr 40; Bordwell, *The Way Hollywood Tells It*, 121).²

Many of the visual distortions in contemporary spectacle aesthetics were present long before digital technology: production techniques like handheld cinematography, fast-paced continuity editing, exaggerated lens distortions and depth of field, staged blocking across multiple planes, and free-ranging dolly movements (Bordwell, *The Way Hollywood Tells It*, 158). Bordwell sees the first ripples of this aesthetic in the self-conscious narration of the 1960s, citing directors like Truffaut, Godard, Leone, and Peckinpah (182). Though the digitally produced cinematic spectacle can be characterised by an absence of referents or limitations of mechanical reproduction, the onscreen visuals do, in fact, assume familiar patterns. Bordwell finds that the visceral response of the impact aesthetic is created by a ‘decorative and expressive elaboration of long-standing schemas’ (158, 161).

Contrarily, John Orr finds the roots of today’s ‘visceral impact of technology as pure spectacle’ slightly later (28). He argues that *Close Encounters of the Third Kind* (1977), *Apocalypse Now* (1979), and *Blade Runner* (1982) brought alienating abstraction aesthetics of the 1960s, as exemplified by Kubrick’s *2001: A Spacey Odyssey* (1968), ‘back into the realm of the empathic quest and narrative overdrive,’ and initiated a return to story-driven spectacle that underscores the validity of the image through virtual manipulation (Orr 25, 30). Orr’s locus for a perceptually valid impact-image is in the fusion of two key elements: the classic notion of suspended disbelief, and ‘the *technical* derealisation of the perceptual field’ (31, original

emphasis). The former implies that narrative causality and plausibility are necessary for the viewer to accept what she sees as probable and is applicable to all narrative cinema, regardless of genre or aesthetic. Orr's latter element, though, specifically speaks to impact aesthetics for it implies that an affective image relies upon the efficacy of the special effects, which 'seek to achieve unreality as realistically as possible – to engage "our belief, not our suspension of disbelief"' (Grant, 'Sensuous Elaboration', 19). However these theorists attempt to delineate their term from the others, these notions of 'hypermodern,' 'intensified continuity', and 'impact aesthetics' share the connotation of an aesthetic of hyperbolic visual spectacle.

Affect and Belief

The engagement of 'belief' is effectively demonstrated in science fiction's dogged endeavours towards suspending the viewers' disbelief in its aesthetics. Indeed, one can concede that the power of destruction images stems most immediately from *believing* the objects' presence prior to obliteration, whether the objects are existing edifices such as downtown San Francisco in *San Francisco* or an alien city in *This Island Earth* (1955, US). The exponential development of visual effects signals the centrality of influence from aesthetics of authenticity, striving towards cognitive acceptance. Yet the perceptual impression of reality is not an end but the baseline for delivering spectacles of intensity. The sheer, reflecting metallic spacecrafts and the accompanying lens flares from solar refractions may appear visually authentic and therefore cognitively satisfactory, but it is the hyper-kinetic spectacles of the ship's evasive manoeuvres amidst the barrage of fiery explosions (in the vacuum of space) that may prove more phenomenologically affecting.

Brian Massumi deconstructs 'affect,' equating the term with 'intensity' (27).

He writes:

The problem is that there is no cultural-theoretical vocabulary specific to affect. [...] Affect is most often used loosely as a synonym for emotion. But [...] emotion and affect – if affect is intensity – follow different logics and pertain to different orders.' (27)

Massumi continues to delineate between affect and emotion, describing the latter as the semiotic exegesis of a specific intensity:

An emotion is a subjective content, the sociolinguistic fixing of the quality of an experience which is from that point onward defined as personal. Emotion is qualified intensity, the conventional, consensual point of insertion of intensity into semantically and semiotically formed progressions, into narrativizable action-reaction circuits, into function and meaning. It is intensity owned and recognized. It is crucial to theorize the difference between affect and emotion. If some have the impression that affect has waned, it is because affect is unqualified. (27-28)

Massumi, by arguing that elicited emotions are merely descriptors of sensorial effects of specific intensities, suggests that emotions are essentially categories that allow us to organise, unpack, and resolve these intensities. Emotions, then, by Massumi's definition, impose tacit borders upon intensities. When one experiences a deep personal loss or tragedy, the resultant intensity is labeled 'sadness'; lexical nomenclature pales in comparison. (Consider the near-clichéd phrases, 'I can't express how I feel,' 'Words don't do it justice,' 'I'm at a loss for words.')

As a word 'sadness' doesn't effectively communicate the emotion, but is employed nevertheless to describe this 'type' of intensity. When one encounters an intensity or affect that imbues conflicting emotions (e.g. angry/joyful, frightened/excited, bitter/sweet) they become difficult to categorise. As images of destruction reflect upon the aesthetics of the sublime and evoke strong disparate

emotions of both wonderment and terror (as discussed in Chapter Three), they find themselves trading on an intensity that frustrates simple categorisation.

Though an intensity may be difficult to simplify and classify, it can nevertheless be identified *as* an intensity by the self-aware spectator's observations of provoked sensations. From an encounter with an intensity emerges a sensorial response. Massumi equates *sensation* with what he refers to as *mesoperception*; that is, our 'medium'-depth perception that observes the space between an intensity and our own body (62). 'It is the medium where inputs from all five senses meet, across subsensate excitation, and become flesh together, tense and quivering' (62). In this melding of inputs where sight sparks taste, which fuses with sound, which suggests touch, which provokes smell, sensation is synaesthetic; intensities are not experienced by any one sense but occur on their comingled plane. Should a sensation trigger the memory of one, others will likely follow. Massumi's synaesthetic intensities, however, exist within experiential reality, as occurrences one might happen upon within the course of one's day. Synaesthetic spectacles within *film* are a different matter.

Synaesthesia and Affect in Film

'Synaesthesia' denotes the stimulation of one part of the body when a stimulus is applied to another. For example, the notion behind reflexology is that pressure to one specific point on the hands or feet will provide a sensorial response in a disparate and precise location, including specific internal organs such as the thyroid gland and spleen. Yet 'synaesthesia' connotes a stimulation that extends beyond touch, as when a sensorial response is produced by a disparate stimulus; for example,

the letter Q may induce a certain taste, a smell may irritate the skin, or ‘sounds are seen as colors’ (Massumi 186).

Within the realm of film, any discussion of the ‘synaesthetic’, by reason of similarity, necessarily points to Laura Marks’ writings on the haptic. The term ‘haptic’ refers to tactility and the sensation of touch. In the case of the audio/visual media of film and video, however, ‘haptic visuality’ seems counterintuitive. Haptic visuality is the antithesis of optical visuality, which is the more dominant; it is optical visuality that allows us to successfully navigate through our immediate surroundings. In her text *The Skin of the Film*, Marks writes:

Optical visuality depends on a separation between the viewing subject and the object. Haptic looking tends to move over the surface of its object rather than to plunge into illusionistic depth, not to distinguish form so much as to discern texture. It is more inclined to move than to focus, more inclined to graze than to gaze.’ (162)

Though ‘haptic’ suggests ‘touch’, ‘haptic visuality’ may in fact ignite a sense of smell and taste as well, providing a synaesthetic response. Despite its counterintuitive-ness, haptic visuality in cinema is more common than the average filmgoer may realise. Marks states that the indistinguishable visual contortions of many popular films’ opening credit sequences can be regarded as haptic for their ability to provoke alternative senses beyond sight and sound as well as foreshadow certain themes in the diegesis (176-77). For example, the degradation of the film stock in the 1913 film *The Last Days of Pompeii*, whether intentional or not, imbues within the viewer a deeper sense of destruction beyond the staged profilmic action with the potential to insight a synaesthetic reaction.

Marks notes that haptic images in cinema are those that ‘discourage the viewer from distinguishing objects and encourage a relationship to the screen as a whole’

(172). Formally, tampering with the materiality of the film or video can produce the intentional obfuscation of the image: shifting focus, exaggerating the grains (film) or pixels (video) that make up the image, and over- and underexposing the image, for example. Furthermore, haptic imagery can also be included within larger narrative structures, as Marks writes, when combined with ‘sound, camera movement, and montage to achieve sensuous effects,’ citing Jane Campion’s *The Piano* (1993, Australia/New Zealand/France) and Alfonso Arau’s *Like Water for Chocolate* (1992, Mexico)(172). Expanding on this list, I would also include Terrence Malick’s *Days of Heaven* (1978, US) and its elegiac cinematography of the Texas prairie landscape; José Luis Guerín’s *En la ciudad de Sylvia* (2007, Spain/France), which produces a sensuousness through its beautifully layered tapestry of urban cinematography and sound; Steve McQueen’s *Hunger* (2008, UK/Ireland), which presents bleeding knuckles and geometrical patterns made from faeces with disquieting beauty; and Lars von Trier’s *Melancholia* (2011, Denmark/Sweden/France/Germany) with its nauseating palpability of the Earth’s slow and unremitting rotation towards total destruction. Though Marks centres her discussion on material abstractions, she does admit that:

A sensuous response may be elicited without abstraction, through the mimetic relationship between the perceiver and a sensuous object. This relationship does not require an initial separation between perceiver and object that is mediated by representation. (164)

In short, Marks concedes that though, for her, haptic cinema is produced by the obfuscation of the surface of the screen in order to elicit alternative sensorial responses, these sensations can also be aroused by unambiguous cinematic representations. Perhaps, then, some images of destruction could be regarded as bearing the properties of haptic visuality. Marks writes, ‘Drawing from other forms

of sense experience, primarily touch and kinesthetics, haptic visuality involves the body more than is the case with optical visuality.’ (163) As scenes of destruction typically employ frenetic camerawork, a rapid editing pace, blurred objects in motion, and a battery of colour (often the oranges, reds, and yellows of fiery explosions displacing the greys and blues of urban iconography), the resultant image could potentially subvert optic visuality for a *sensation* of destruction, rather than a verisimilitudinous representation. By stirring social and cultural anxieties towards and memories of experienced catastrophes, images of mass destruction can momentarily eschew the normative optical visuality that dominates the science fiction genre film and embrace the synaesthetic potential of haptic visuality.

On the whole, however, these interludes of haptic destruction are momentary lapses in sensorial mastery. Indeed, one of the underlying themes of the science fiction film throughout its development since the era of George Méliès is its ocularcentrism and the accentuation of visualisation. With the primacy on ‘seeing’ the alien, the monstrous, or the technological supernatural, the science fiction film looks for optical mastery over its subject. While images of destruction may employ the disarray of the haptic to provoke affect, they are nevertheless temporary aberrations held subordinate to the optical visuality that helps define its generic context.

Optical Mastery of the Spectacle

Optical mastery can be regarded as one of the central pillars of the science fiction genre. The importance of visualisation is, on one hand, communicated on the intradiegetic plane, as characters are impelled by the desire ‘to see’ the alien, the

colossus, or the anomaly and thus believe. On the other hand, visualising the supra-natural is equally an extradiegetic construct, providing visuals of the supra-natural to the spectator that can likewise be seen and 'believed'. As Bazin writes, 'If the film is to fulfil itself aesthetically we need to believe in the reality of what is happening while knowing it to be tricked' (48).

Science fiction may be shaped by its fusion of mimesis and fantasy, yet its very *raison d'être* depends upon the satisfaction the spectator derives from the visual authenticity of this fusion. Among the many significant contributions film theorist pioneer André Bazin (discussed in greater detail in Chapter Four) made in film realism, most relevant to this discussion are his writings on the realism of melding the natural and the extra-experiential.

Bazin's impression of realism for images that surpass the realm of familiar experience requires a unified simultaneity of presence within the frame. He states that when two or more elements share the narrative space within a scene, they must be unified within the frame because to, 'split it up would change it from something real into something imaginary' (50). What Bazin refers to by 'split it up' is the isolation of the natural and the supra-natural into separate shots that, through their juxtaposition, only *suggest* a shared spatiotemporal plane. For example, the impression of realism in the original 1933 *King Kong* stems not from the stop-motion puppetry's mimesis of ape-like behaviour, but rather from the spatiotemporal space it shares with the human elements within the frame. Because the gargantuan gorilla, frame left, towers over actress Fay Wray, frame right, the shot conveys the simultaneity of time and space, thereby creating an impression of realism. By contriving the illusion of shared space with the profilmic, the postproduction effects

depicting the supra-natural element are deemed *more* 'realistic' than had they implied a spatiotemporal simultaneity through the juxtaposition of shots sutured together in the editing process.

Nevertheless, science fiction movies are rife with suturing the profilmic shot and the special effect shot together to imply shared narrative space across the edit. This technique of suggested meaning through juxtaposition of shots was present in early cinema's narrative development with filmmakers like Edwin S Porter and later D W Griffith, but it emerged in the 1920s as a political and ideological vehicle from Russian filmmakers such as Sergei Eisenstein, Vsevolod Pudovkin, and Dziga Vertov. Pioneering the notion of theoretically driven practices, these filmmakers are referred to by film historians and theorists as the Russian formalists, who worked under the guiding principles championed by their film theorist contemporary Lev Kuleshov. Kuleshov created what came to known as the 'Kuleshov effect' through a now-legendary (or rather, mythic) experiment in the reception of shot juxtaposition, in which he analysed how the interpretation of an actor's performance could change based upon the shot that followed. Allegedly, Kuleshov juxtaposed a shot of Russian stage and screen actor Ivan Mozzhukhin's neutral expression with shots of other, unrelated objects such as a bowl of soup, a child, and a coffin, and asked viewers to describe the actor's subsequent emotion (Sikov 61, Prince and Hensley 59).³ Though the 'Kuleshov effect' enters the realm of cinema folklore alongside the early film audience fleeing from the oncoming train, the supposed results of his study report that his participants determined that the actor was expressing hunger for the soup, paternal joy for the child, and grief for the coffin, despite Mozzhukhin's unchanged expression.⁴ Kuleshov's project identifies how spectatorial inferences about the

meaning of a sequence derives not from the individual shot but through their juxtaposition, with one informing the next (Prince and Hensley 60). In a recreation of Kuleshov's infamous study, Stephen Prince and Wayne E Hensley identify a number of misguided preconceptions about the historicity of Kuleshov's experiment, specifically the form of speculative psychology that he applied, but find that despite the shortcomings of his reported study, 'Kuleshov was right but perhaps for some of the wrong reasons' and 'that visual (and aural) juxtapositions are partially constitutive of meaning' (64, 71).



Figure 1.3 *King Kong* (1933)

Director Denham shoots star Ann straight on from a standard height, presumably intending to intercut her shots with those of the giant ape.

In applying this formalist notion that suggested meaning can be derived from shot juxtaposition, science fiction films, both old and new, rely on this technique to convey the supra-natural element within its diegesis. Consider, again, the original 1933 *King Kong*. Although directors Merian C Cooper and Ernest Schoedsack

emphatically acknowledge the importance of depicting the colossal Kong and the diminutive blond damsel Ann (Fay Wray) within the same, shared space, they also reveal through the movie's film-within-a-film narrative something about the common filmmaking practices of the era. In the moments aboard ship prior to arriving at Skull Island, film director Carl Denham (Robert Armstrong) rehearses a forthcoming scene with Ann.

CARL DENHAM: Now look higher. Still higher. Now you see it. You're amazed – you can't believe it. Your eyes open wider. It's horrible, Ann, but you can't look away. There's no chance for you, Ann – no escape. You're helpless, Ann, helpless. There's just one chance. If you can scream – but your throat's paralyzed. Try to scream, Ann, try. Perhaps if you didn't see it you could scream. Throw your arms across your eyes and scream, Ann, scream for your life!⁵

What is interesting about Denham's direction is that he is essentially shooting one half of a supra-natural encounter that he would later intercut with the footage he intended to shoot of the island's supposed mythic colossus. This assumption can be deduced by the position of Denham's camera. Denham sets and operates his hand-cranked camera directly facing Ann at a neutral angle [*Figure 1.3*]; Cooper and Schoedsack's subsequent medium close-up shot of Ann rehearsing then appears to be taken from the angle of Denham's own camera as his actress looks up and to the right. Through Denham's camera position, framing, and angle, it can be surmised that the diegetic director intended to intercut later shots of the creature for the other half of this sequence in order to *suggest* a shared spatiotemporal plane.

Surprisingly, this formalist, associative technique continues on even in digital era science fiction films. For example, the scene from *Armageddon* that I refer to at the beginning of this chapter also uses this formalist technique to insinuate simultaneity of natural and supernatural elements along a single spatiotemporal

plane. The comedic taxicab driver, leaning out his head out his window, points up and screams, ‘Look at that!’; the shot is immediately followed by an extreme low-angle shot of a meteorite rocketing between two skyscrapers. By segregating the two components (the natural and the supra-natural), the viewer unifies the profilmic and the manufactured image across the edit that, for Bazin, results in a cognitively fabricated union that undermines the perceptual reality of the narrative situation. This editing convention is a long-standing construct of the science fiction genre; startled spectators look up in mock terror, to be followed by a cut revealing some colossal creature, alien entity, or disastrous event. What is more, the persistence of the technique suggests that supra-natural elements of significant size, whether in the form of ape, alien, or annihilation, are tolerably conveyed as inhabiting the same narrative plane as the profilmic, ‘natural’ elements, just so long as it is not the *only* method of conveying a shared time and space.

Just as Cooper and Schoedsack herald Kong’s first appearance by framing the ape adjacent to the sacrificed Ann, the spatiotemporal unification of the natural and supra-natural is as innately understood amongst today’s visual effects designers as it was in Hollywood’s classical era. In the science fiction and fantasy films of the 1950s, famed visual effects artist Ray Harryhausen developed a new method of fusing profilmic elements with stop-motion animation elements. This technology, eventually dubbed *Dynamation*, advanced the verisimilitudinous depictions of the naturalistic with the supernatural within uninterrupted shared space. In fact, marketing campaigns for *Dynamation*’s first feature-length colour film *The 7th Voyage of Sinbad* (1958, US) were built around the film’s unique technology and claimed, ‘Anything the mind can conceive can now be brought to the screen’ (‘This

is *Dynamation*'). Intriguingly, the sentiments purporting authenticity in fantastical images through *Dynamation* were also bestowed upon digital imagery by director James Cameron, who was quoted as saying 'We're on the threshold of a moment in cinematic history that is unparalleled. Anything you imagine can be done. If you can draw it, if you can describe it, we can do it. It's just a matter of cost.' (Parisi, qtd. in McQuire 50) The return of the emphasis on visual authenticity or 'believability' through special/visual effects harkens back to Bazin and the endless pursuit of 'total cinema': the perfect re-creation of creation (21-22). Though *Dynamation*'s assertion seems absurd in hindsight next to the technology of CGI, it nevertheless reveals something of the innate impulse in cinematic visual effects: to create verisimilitudinous, 'realistic' representations of cohabitating natural and supernatural realms.

From the marketing for *Dynamation* to the myriad 'behind-the-scenes' bonus-materials available on DVD, what remains evident is that the extratextual demonstration of how the illusion was accomplished plays a significant role in the attempt to establish verisimilitude and logic-based plausibility within the spectator.

As Dan North writes:

The most engaged spectator (and therefore the one who will represent repeat business) is the one who is always aware that she is being tricked, perhaps has partial knowledge of how that trick is being effected, but who wishes to see *how* that trick *looks* when performed. Special effects operate in the same way, requiring an engagement with the technique as well as the appearance of an illusion, and by granting extratextual knowledge to the viewer, the use of specific techniques can come to possess meaning. (*Performing Illusions*, 182)

The Arrival Scene

Another important aspect to promoting affect through realistic imagery is the Arrival Scene. There occurs, in science fiction cinema, a moment in which the natural world is intruded upon by a supra-natural component; the natural, in this case, exists as a film's diegetically normative world, however disparate from our own Earth-bound experience. This point of intrusion demands that any and all visual special effects employed in creating the illusion must be of a sufficient quality so as to invoke belief or, at least, suspend disbelief. Though often rooted in futuristic/not-yet-attained technologies or the alien 'Other', this initial point of intrusion so imperative to the science fiction genre film is, in fact, not dissimilar to other film forms reliant upon visual authenticity to convey believability to the spectator.

In the essay 'Pornography, Ethnography, and the Discourses of Power,' authors Hansen, Needham & Nichols, focusing on the evidentiary claims of depicted authenticity rather than argumentation or interpretation, discuss the correlations between the two wholly different film forms. To many of the parallels they draw between pornography and ethnography in their essay, I would also graft in science fiction – specifically the alien encounter or the Colossal Creature Feature. Commensurate observations such as their respective need for distance but seldom distancing, their promise of 'something they cannot deliver: the ultimate pleasure of knowing the Other,' and the 'oscillations between the familiar and the strange' suggest the inclusion of science fiction film, which also relies upon a specific visual trope to 'prove' authenticity at the moment of arrival (225).

According to Hansen et al., ethnographers must prove authenticity through the arrival scene, in which the scientists first encounter the people group they have

elected to study. This is often implicit in the documentation of the journey the ethnographers have endured in reaching their Other ('See? It's real! We were really there!'). In pornography, the arrival scene is that moment of graphically realised sexual penetration ('See? It's real! The _____ is inside the _____!'). Both of these film forms rely upon the arrival scene to communicate the filmmaker's presence at the scene and that the images can therefore be trusted as empirically accurate: 'Empirical realism suggests that what we see occurred much as it would have occurred were we not there to see it' (Hansen, et al. 224).

Similarly, in the majority of science fiction texts, the most significant moment of the film is arguably that of the arrival scene. The science fiction film cannot hope to instil a sense of awe and astonishment – the foundation, according to Sobchack, for any science fiction genre film – without a perceptually credible image of the supra-natural's exposure to the familiar and experiential world (*Screening Space*, 43). As when Klatuu's spacecraft first appears over Washington DC and lands on the US capital's Mall in *The Day the Earth Stood Still* (1951, US) or when the enormous 'Rhedosaurus' first appears to attack a passing ocean liner in *The Beast from 20,000 Fathoms* (1953, US), the efficacy of the arrival scene of any science fiction film, in convincing the spectator of its plausibility through its verisimilitude, hinges upon the production values of the film's special effects technology. With the advancement of digital visual effects, films move away from light play (e.g. *Poltergeist* [1982, US], *Close Encounters of the Third Kind* [1977, US], *E. T.: The Extra-Terrestrial* [1982, US]), stop-motion animation, or earlier underwhelming arrivals of saucers entering the diegesis frame-right on fishing string through juxtaposition editing. In contemporary science fiction cinema, arrival scenes

are optically stunning and can be regarded as a litmus test for the film's overall visual effectiveness. Typically marked by intense cloud storms streaked with fire and lightening (as well as a grandiose orchestral score), awestruck human witnesses are held motionless by both disbelief and belief. Films such as *Independence Day* (1995, US), *War of the Worlds* (2005, US), *The Day the Earth Stood Still* (2009, US), *Skyline* (2010, US), *Battle: Los Angeles* (2011, US), *Cowboys & Aliens* (2011, US), and *Battleship* (2012, US) reveal the arrival of the Other with dramatic panache – threatening and menacing, yet captivating and wondrous.

As opposed to the ethnographic film, however, the science fiction 'Other' forces its presence upon Earth, depicting the human race as the primitive tribe of savages who must endure either the aliens' scrutiny or scorn (typically the latter). As idyllic delusions for worst-case scenarios, these invasion films help assuage knowingly-improbable-yet-nevertheless-possible anxieties and bulwark our species against fears of vulnerability, however inflated. Whether victorious by atomic weaponry (*Them!* [1954, US]), computer viruses (*Independence Day*), microscopic bacteria (*War of the Worlds*), or yodelling (*Mars Attacks!* [1996, US]), the planet overcomes the threat.

Often science fiction films will intentionally delay optical mastery of the alien Other through obstructed visualisation. Nevertheless, the implied arrival of the supra-natural is often marked through a sequence of intense mass destruction, much like the inciting incident in any given disaster film. US film and television writer, producer, and director J J Abrams, renown for his near-endless obfuscation on the television series *Alias* (2001-2006) and *Lost* (2004-2010), is particularly adept at prolonging visualisation of the alien terror but insinuating its arrival through scenes

of mass destruction. Though the manic colossus in Abrams's production of *Cloverfield* (2008, US) is never fully realised until its conclusion, the film breaks from its mimetic depiction of quotidian experience through an encounter with an extraordinary explosion in Manhattan and the subsequent destruction wrought by the catapulted disembodied head of the Statue of Liberty. Likewise Abrams's *Super 8* (2011, US) obscures the spectator's vision of the alien until the film's climax, but nevertheless signals the arrival of the supra-natural at the film's beginning through a spectacular train wreck.

These moments of integration between the supra-natural and the natural provide an authenticity of arrival by adhering to Bazin's principle of spatial unification in which the human and, in this case, the supra-natural destructive element interact within a single shot. However, in addition to the matter of shared diegetic space, one must also take note of the *manner* in which these elements are fused within the frame – the *quality* and efficacy of the visual special effects, whether digital or otherwise.

Authenticity in the Indexically Absent

As Sontag notes, 'It is in the imagery of destruction that the core of a good science fiction film lies,' adding that low-budget productions are invariably 'bad' due to their farcical destruction aesthetics (41). Generally, the mark of a film's low production value is determined by a film's ineffectual acting, directing, and overall production design. Within science fiction cinema – as the normative intent of the aesthetics is to induce wonderment rather than camp laughter – these elements become secondary to the quality of visual effects. As Barry Keith Grant writes,

For many viewers the value of (that is to say, the pleasure derived from) science fiction movies is determined by the quality (synonymous with believability) of the special effects. For these viewers, nothing destroys the pleasure of a science fiction movie more than seeing the 'seams' in a matte shot or glimpsing the zipper on an alien's bodysuit. (19, original parentheses)

In this way, much of the economics behind science fiction production is devoted to the value of its visual effects and the development of image generation that complies with Bazin's realism principle of a spatially unified aesthetic. For instance, in marketing the science fiction film *Soldier* (1998, UK/US), a tagline on an advertising display boldly reads, 'From the Art Director of *Blade Runner*.'⁶ This suggests that the film's visuals were its central attraction, despite the fact that *Soldier* was also *written by* the screenwriter of *Blade Runner*, David Webb Peoples (adapted from Philip K Dick's source novel *Do Androids Dream of Electric Sheep?* [1968]). The accentuation of the spectacle in the marketing of *Soldier* deemphasises its narrative, suggesting that, in this instance, the story is simply a vehicle for its visual splendor. Indeed, when considering the depth of *Soldier*'s set design and overall environment versus the depth of its narrative, in which the reigning interstellar superpower sends its most highly trained commando unit to a rubbish dump planet in order to eradicate a commune of vagabonds, the story appears as the weaker of the two.

In his discussion of narrative constructs in film and literature, André Gaudreault describes the bifurcation of the profilmic and the not-profilmic as one of monstration and narration. The monstration is the act of the show, in which principle photography takes place and the profilmic elements perform for the recording apparatus. Gaudreault describes cinematic narration, that is, the actual screening of a film, as the retelling of the monstrated. Through editing and after-effects,

monstration shifts to narration; these post-production elements he refers to as filmographic:

What pertains to the filmographic is any effect, any effect whatsoever, that derives from the cinematic apparatus and that, without affecting in any concrete way the profilmic during the film's shooting transforms the viewer's perception of this profilmic material when the film is screened. Thus, on the one hand, we have the *profilmic*, or everything that is manipulated by the filmmaker when placing it before the camera, and on the other there is the *filmographic*, or all those activities involving the cinematic apparatus and which the filmmaker is also called upon to manipulate. (90, original emphases)

By Gaudreault's terminology, early post-production special effects such as reversed action, double exposure shots, and matte printings are all filmographic, as are contemporary nonlinear editing systems (Avid, Final Cut Pro) and CGI. Applying Gaudreault's two terms to science fiction cinema, the quality of the illusion seems always dependent upon advancing technological filmographic innovations to further enhance verisimilitude and its aesthetic union with the profilmic, despite its fantastic diegetic context. The awe inspired by the sight of King Kong gripping Ann Darrow fizzles as one becomes aware that the figure of Ann was not that of a profilmic Fay Wray but was also generated by stop-motion puppetry. The wondrous battle between Jason and the hydra or the skeleton soldiers in *Jason and the Argonauts* (1963, UK/US) wanes in turn, as stop-motion animation – even attempted in the early developmental stage of *Jurassic Park* – is supplanted by astonishing CGI animation. Yet the quality of digital visual effects is developing as well; the discerning eyes of the present that return to early examples of CGI from the 1990s such as *Terminator 2: Judgment Day* (1991, US/France) and *True Lies* (1994, US) can quickly identify the disparity between the profilmic elements and the filmographic pixels. As always, today's 'real' is tomorrow's 'fake'.

The endless pursuit of satiating the desire for higher quality unified aesthetics – as Stanley Cavell writes, ‘the absolute satisfaction of a craving for realism, for the absolute reproduction of the world’ – works to serve the film’s *value*, borrowing Grant’s term, and its ability to affect (Cavell 147; Grant 19). That is, effective special effects – those that unify the natural and supra-natural into a single spatiotemporality with an aesthetic of empirical plausibility – work to prevent the disruption of spectatorial narrative immersion. We praise and marvel at the efforts and contributions of Ray Harryhausen, Rick Baker, Douglas Trumbull, Richard Edlund, John Dykstra, Stan Winston, Dennis Muren, and Ken Ralston not because of their technological innovations but rather for the manner in which they render the incredulous *credible*. With the introduction of digital effects, however, the awe at the methods behind the visual effects assumes new dimensions.

Entering the Digital Domain

At the close of the 1980s, digital visual effects became an increasingly viable possibility for creating verisimilitudinous images. With this new tool of invoking wonderment through the realisation of perceptually plausible encounters with the fantastic, the 1990s witnessed a swell of science fiction films and a return to the disaster films of the 1970s. As Dan North describes:

For all its surface novelty, the early years of CGI proliferation in Hollywood were almost exclusively devoted to using the technology to rework older, or less ‘hi-tech’ forms of spectacle. [...] What this emphasises is the extent to which computer-generated visual effects sequences, even as they trade on their patina of novelty and futurity, explicitly demand comparison with earlier renderings of similar images. (137-138)

By revamping bygone film traditions with the newest digital technology, early CGI teased us with a new hope of attaining the primal aspiration for a perfect replication of reality. The transition from mechanical to post-mechanical technologies – that is, from a time-based analogue data representation to a computerised conversion of data into electronic binary codes – provided such wonders with this new method for depicting destruction with surpassing perceptual realism. Rather than physically destroying magnificently constructed sets, costumes, and props, and placing countless actors and stunt performers at risk, a theoretical simulation of destruction could be implemented, alleviating the demands of coordinating location, schedule, budget, and safety concerns. More to the point, digital simulations made available the potential to annihilate *everything* – including the unauthorised, sacred, or otherwise inaccessible, such as the White House (*Independence Day* [1996, US]), the Dome of the Rock (*The Omega Code* [1999, US]), or the RMS *Titanic* (*Titanic* [1997, US]) – with greater verisimilitude than could be generated through mattes or models. As Wheeler Winston Dixon succinctly states in his text *Visions of the Apocalypse: Spectacles of Destruction in American Cinema*:

Where once matte lines and other technical imperfections created ‘limit zones’ of visual reality that distances us from the spectacle we witnessed, now CGI makes a tidal wave, an atomic blast, a hurricane, or a meteor impact seem as real as late afternoon sunlight spilling through a back porch window. There is no separation anymore, no zone of the real and the not real. The cinema of the 21st century makes our most violent dreams of self-destruction simultaneously mundane and yet instantly attainable. (132)

Although avant-garde artist Stan Vanderbeek had experimented with computer animation in the 1960s, the application of CGI to create three-dimensional special effects in feature films emerged during the 1970s, with *Westworld* (1973,

US), *Futureworld* (1976, US) and George Lucas's *Star Wars* (1977) (Prince, *Digital Visual Effects*, 14, 19). In these early applications, however, the graphics were confined to either view screens or on-set monitors. In *Star Wars*, for example, the computer-generated image depicts a simulacrum of the Death Star and its equatorial trench – a simulacrum of a simulacrum (Anderson) [Figure 1.4]. Advancing CGI

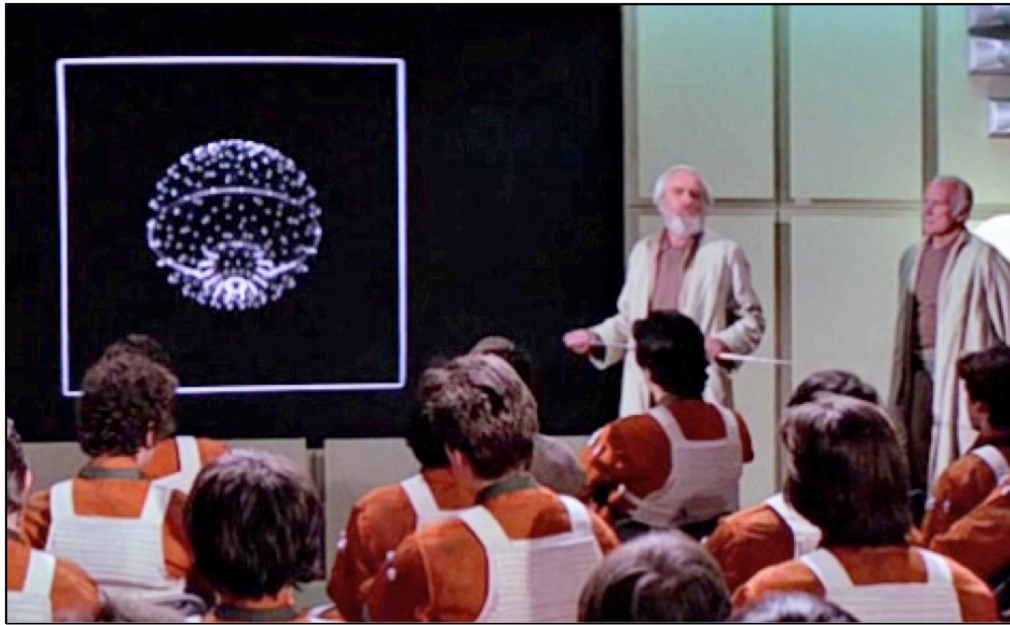


Figure 1.4 *Star Wars* (1977)
An early example of CGI: a rotating Death Star

subsequently appeared in *Star Trek: The Wrath of Khan* (1982, US), *Tron* (1982, US), and *The Last Starfighter* (1984, US), yet it wasn't until Ron Howard's *Willow* (1988, US) and Cameron's *The Abyss* (1989, US) that filmmakers began to push its potential beyond narrative computer game and outer space narratives. *Terminator 2: Judgment Day*, *The Lawnmower Man* (1992, US), *Jurassic Park*, *Forrest Gump* (1994, US), and *La Cité d'enfants perdus* (1995, France) all advanced the possibilities. By the close of the twentieth century, CGI became *modus operandi* for any special effects sequence, and has led to a near-mandatory inclusion of mass destruction within contemporary science fiction genre films.

The transition in filmographic technology towards digitally enhanced visual effects marches forward towards creating a near-perfect verisimilitude of experiential reality and the physical laws of the natural world. Writing in 1993, Philip Hayward and Tana Wollen state:

The moving camera, synch sound, faster film stock, Technicolor, broadcast television, wraparound sound, digital tape; each “upgrading” has enhanced sounds and images. Their improvements have always resulted in a more vivid capture of the real: greater clarity, firmer focus, richer hues. (2)

To this list one can add CGI, digital sound, high-definition, and digital 3D technologies. Indeed, the new millennium has already seen countless funds invested in the development of new technologies and their promise of increased levels of sensorial excitation. Bearing in mind the first widely recognised ‘must-have’ DVD is considered *The Matrix* by the directorial team of Andy and Lana Wachowski (for its menu’s innovative complexity and hidden ‘making-of’ featurettes), the global ascendancy of the Digital Versatile Disc format is relatively new (Krug and Frank 88-90). Yet by 2006 new high-definition disc formats HDVD and BluRay emerged, touting improved clarity of digitally enhanced image and sound.

The Failing Index

André Bazin writes, ‘the screen opens upon an artificial world provided there exists a common denominator between the cinematographic image and the world we live in’ (108). Prior to digital representations, visual recordings required a certain presence of subject; although a filmic image may reflect fantastical elements, such as zombies or unicorns, the recorded image implied a profilmic *sine qua non* subject.

Following the logic of semiotician Charles Sanders Peirce, the mechanically realised image stands as an indexical sign for the 'real' object that allowed it to be recorded, bearing with it its physical and existential correlations (Wollen 122, Atkin 163). The image becomes an indexical sign due to the causal relation between profilmic subject and recorded image manifested through the mechanics of photography. As Roland Barthes states, 'Every photograph is a certificate of presence' (87).

In the mechanical era, images of the marvellous were still dependent upon the use of matte paintings, superimposition, miniatures, stop-motion animation, and camera trickery to create composite shots of the profilmic and the extra-experiential, thereby producing a visual hoax with a degree of verisimilitude proportional to the technical capabilities of the era. Quoted in Bordwell, Thompson, and Staiger's analysis of Hollywood's classical mode of production, the set designer for the Italian period film *Teodora* (1914, Italy) describes the intricate nature of its design:

It consisted in erecting miniatures of every set that was to be constructed. For this alone, separate sets of blueprints had to be made. In a spectacle conceived on so magnificent a scale, the models were essential for the directorial staff to work out the pictorial grouping of thousands of players to define the various angles from which scenes were to be made, to test in miniature the effect of light at disparate heights, and finally to decide upon and record for future reference the exact action of the various players in the different scenes and sets.
(148)

The logistics of aligning these intricately crafted profilmic elements were required as a result of the mechanics of recording. In the digital era, these elements are historical artefacts. Miniatures and paintings are still produced but typically exist to provide CGI technicians with conceptual models during the pre-production process. In the post-mechanical era, profilmic components can cease to be. Indeed, 2004 was the year this technology was put to the test. The entirety of the feature film

Sky Captain and the World of Tomorrow (2004, US), as well as all but a handful of scenes in *Casshern* (2004, Japan) and *Immortel: Ad Vitam* (2004, France/Italy), were shot on a blue- or green-screen sound stage – commonly referred to as the ‘digital backlot’ – with all profilmic elements pared away except for actors, costumes, and select hand props.



Figure 1.5 Marketing spot for ‘Dynamation’
Featured in *The Seventh Voyage of Sinbad* (1958, US)

Dynamation may have proclaimed its ability to manifest anything the mind could imagine, but CGI speaks into being that which the mind conjures and gives it life side by side the living profilmic subjects with such detailed verisimilitude, without the use of mattes, that often the understated digitally conceived elements within the frame go undetected. For example, *The 7th Voyage of Sinbad* is beset by an aesthetic disparity across the edit that forecasts when a *Dynamation* effect is about to appear. By juxtaposing purely profilmic shots, bearing a sharp focus and narrow depth of field, with widely-framed shots bearing a subtly softer focus and slightly darker exposure, observant viewers quickly identify those shots that will

include a supra-natural element through *Dynamation*. [Figure 1.5] With CGI, there exists no obvious visual disparity across the edit.

Surface textures (e.g. hairs, scales, metal, skin) react to varying light sources and natural conditions such as wind and water. Physical bodies – whether alien, spirit, or colossal creature – share physiological attributes with pre-existing mammals such as eyes, appendages, and undoubtedly teeth. Behaviours are restrained by the physical laws and properties of our known world, either defying or succumbing to gravity, currents, climate, terrain, and the passage of time. In this way, the properties of three-dimensional Newtonian space become Bazin's common denominator for the unification of synthetic and live-action – of atoms and of bits, as John Orr describes – so that even in stasis the image is a special effect (137). That is, even when the onscreen elements remain motionless, such as an extra-terrestrial landscape or a deceased alien body, the images nevertheless exist as visual effects predicated on the fusion of the synthetic and the Newtonian. Because digital technology presents visual representations as imagined simulations realised through complex computer algorithms, the primacy of the index as marker of the reality of its profilmic referent collapses.

Rendering problematic the long-running definitions of film realism by the likes of André Bazin, Siegfried Kracauer, and Stanley Cavell (see Chapter Four), digital technology's ability to produce a filmic image without referent required film theorists to return to the drawing board. Stephen Prince, for example, has argued that the bifurcation of film style into the two camps of realism and formalism – that is, the mimetic re-creation of the experiential world governed by Newton's laws of physics and the intentional transcendence of it, respectively – can be zippered back

together ‘by employing, in place of indexically based notions of film realism, a correspondence-based model of cinematic representation’ (31). Rewriting the dynamics of classical cinematic ‘realism’, Prince’s notion of ‘perceptual realism’ looks not at the methods and mechanics of image production but rather at the completed image on screen and its visual correlation to experiential, Newtonian physical reality.

Similarly, Tom Gunning makes his own amendments: ‘The discussion of cinematic realism cannot be allowed to ossify into a dogmatic assertion about the photographic nature of cinema or an assumption about the indexical nature of all photography’ (36). To fill the void left by a defunct ‘index’, Gunning posits an approach towards realism based upon the distinguishing difference between the image in stasis and the image in motion. By stressing the dynamics of image movement, Gunning not only departs from Bazin and Kracauer’s emphasis on the index but also Prince’s visual correspondence approach. In this, Gunning is not so much preoccupied with the accuracy of representation as he is with the impression of reality given by the movements of the represented. One of the more interesting facets about Gunning’s intention here is his attempt to rectify the marginalised animated film in all prior definitions of cinematic realism (34, 38-39). By allowing for the inclusion of animated films in the discourse of cinematic realism, Gunning opens the door to a greater array of cultural expressions, such as Ralph Bakshi’s *Fritz the Cat* (1972, US), Marjane Satrapi’s *Persepolis* (2007, France/US), Ari Folman’s *Waltz With Bashir* (2008, Israel/France/Germany/US/Finland/Switzerland/Belgium/Australia), and Sylvain Chomet’s *L’illusionniste* (2010, UK/France).

As means of substantiating his position, Gunning relies on an early essay by Christian Metz. Providing a phenomenological response to cinema's psychological effects, Metz situates cinema's impression of reality in its ability to engage the spectator into participation through movement. In his essay 'On the Impression of Reality in the Cinema,' Metz writes, 'In the cinema the impression of reality is also the reality of the impression, the real presence of motion' (9). Gunning takes up this mantle and argues for an approach to twenty-first century film realism discourse that emphasises cinematic movement's participatory impact on the spectator. Gunning writes:

Spectatorship of cinematic motion raises new issues, such as the physical reactions that accompany the watching of motion. Considering this sensation of kinaesthesia avoids the exclusive visual and ideological emphasis of most theories of spectatorship and acknowledges instead that film spectators are embodied beings rather than simply eyes and minds somehow suspended before the screen. [...] We do not just see motion and we are not simply affected emotionally by its role within a plot; we feel it in our guts or throughout our bodies. (39)

In championing the synaesthetic effects produced by film movement, Gunning deduces the film's impression of realism by examining its impact on the audience, rather than the mechanics of recording or the final image on screen. He writes, 'Motion therefore need not be realistic to have a "realistic" effect, that is, to invite the empathic participation, both imaginative and physiological, of viewers' (46).

What both Prince and Gunning are intending to accomplish through their theorising is to bridge what they consider a chasm between the digital image and the photographic image. In response to the dichotomous split between film and digital,

image and icon, Jenna Ng argues that this line of reasoning is fallacious because of parameters of the technology:

Whereas the film image appears explicitly “stamped” on the celluloid strip by the direct impact of light, the digital video image is a hybrid progeny, delivered equally from the passing of light as well as the machinic crunching of zeros and ones. The peculiarities of digital technology thus cannot be fully borne out in the prevailing iconicity/indexical divide.’ (Ng 177)

Because the digital recording process requires both light (the indexical photograph) and binary configurations (the digital icon without real-world referent), Ng finds the divide unfounded. Elucidating the image production process in the contemporary digital era, Ng explains its two-step process.

The first involves real-world data acquisition, where relevant subjects are captured as film images. The techniques for achieving this vary depending on the nature of the information required: for example, buildings, streets, locations and backgrounds are taken by photographing the locations and architecture from multiple angles, while movement is recorded by motion capture, a process whereby motion-analysis cameras record movement data. (Ng 178)

The second stage is the digitalisation process, in which all recorded data are transferred into a digital format to be manipulated and rendered by computer software in order to create a ‘photorealistic’ three-dimensional image from the recorded data during stage one (Ng 178-9). While Ng’s insight into the false dichotomy of the photographic/digital divide is well stated, her reasoning is predicated on the image’s ‘photorealistic’ drive. While Ng may well have cause to criticise the dominant position that considers the digital and the photographic relationship dichotomous, it remains an instructive notion in dealing with the cinematic impulse of representing the ‘real’.

As we have seen, previous models of cinematic realism are incomplete: they either strongly emphasise visual mimesis (Steven Prince) or locomotive mimesis (Tom Gunning). This next section will argue for an alternative approach to these, which will be followed by a discussion on how this new definition fits within today's emphasis on 'experiential' spectatorship.

Kinescopic Realism

Following Gunning's Metz-infused reasoning, the underwhelming realisations in low-budget science fiction / disaster films such as *Titanic II* (2010, US) or *Metal Tornado* (2011, Canada) should nevertheless produce a synaesthetic affect. Narrative aside, in order for a science fiction genre film to provoke spectatorial affect, specifically those scenes of mass destruction, it must first qualify for such by subjugating the viewer's disbelief through aesthetic authenticity. The viewer's sense of the visually plausible is generated by an on-screen authenticity dependent upon both Prince's correspondence model of 'perceptual realism' and Gunning's notion of movement through Newtonian space that begets spectatorial participation. The result is a shades-of-grey hybrid that I refer to as 'kinescopic realism', as it impresses upon the viewer a reality through the movement of bodies bearing correspondences with the empirical world.

Kinescopic realism becomes most pertinent in ascertaining the perceived impression of reality within science fiction narrative worlds. From the dream-state bending of the urban environment in Christopher Nolan's *Inception* (2010, US/UK) to the intergalactic adventures of George Lucas's *Star Wars* series, any science

fiction narrative establishes and typically abides by its own internal rules of plausibility and possibility: not only how the natural and supra-natural *look* together but also how they *move* together. Furthermore, kinescopic realism bridges the internal rules of a film centred in the fantastic with the concrete empirical notions of plausibility held by the spectator. A brief tangential discussion about the fundamentals of kinescopic realism will help bring in to focus its relationship with the spectator and representations of mass destruction.

Exemplifying kinescopic realism's cooperative relationship between movement and perception is a scene from Duncan Jones's *Moon* (2009, UK). The film is set in an unspecified future in which the energy crisis has been resolved through the discovery of 'Helium-3': a 'fusion' energy source explained by the advert for the Lunar Industries corporation at the film's opening as, 'the energy of the sun, trapped in rock, harvested by machine from the far side of the moon'. Sam Bell (Sam Rockwell), serving a three-year contract for Lunar Industries, is the one-man skeletal crew hired to maintain the functionality of the moon-based mining operation. Working with the sentient, roboticized computer GERTY 3000L (voiced by Kevin Spacey), Sam collects the rock from the four massive harvester vehicles and ships the Helium-3 back to Earth where it is used to power seventy percent of the world. On a seemingly routine collection, Sam becomes distracted by a hallucination of a woman and collides with a harvester. Sam awakens back in the base and slowly regains his mental and physical acuity, but paranoia grows within Sam as he becomes convinced that GERTY is withholding certain information from him. He manipulates GERTY into letting him explore the outer hull in the second moon rover but instead Sam goes to examine the damaged harvester where he

discovers the first, damaged moon rover and the space-suited body of a twin ‘Sam’ inside. Though in an obvious state of entropy, the injured Sam (Sam-1) recuperates, and a tense relationship between he and Sam-2 develops as they eventually learn that they are in fact two clones in a long line of ‘Sam Bell’ clones manufactured by Lunar Industries.



Figure 1.6 *Moon* (2009)
Sam Rockwell doubles as two corporate drone clones on the moon.

The film’s kinescopic realism aesthetic is quietly stunning, and the scenes that best reflect it are the subsequent interactions between Sam-1 and Sam-2, or more specifically, the interactions between Sam Rockwell and himself.⁷ At the outset, the two Sams intentionally avoid contact, refusing to shake hands or high-five; this is normative behaviour when an actor plays more than one character in a single scene. What becomes evident over the course of the film, however, is that the initial refusal to physically connect is not because of any technological inability to produce a credible image of an actor interacting with himself, but rather the characters’ relationship does not warrant physical contact at that time. Only after the two clones develop camaraderie is there a corporal connection, as when Sam-2 initiates a high-

five with Sam-1, or when Sam-2 places his hand on Sam-1's forehead to check for a fever [Figure 1.6]

Indeed, Jones is quite blatant about revealing Sam-1 and Sam-2's moments of physical contact in a single, wide shot. Often, when an actor plays more than one role within a scene – as with narratives centring on clones, twins, doppelgängers, or with time travel tales where a central character will invariably meet his own former or future self – the production gimmicks or special effects used to realise the interactions between the actor's two (or more) characters are usually quite obvious. Jones shoots *Moon*'s two Sams (and for one brief moment, *three* Sams) as if daring the viewer to find a flaw in the shot's kinescopic realism.



Figure 1.7 *Moon* (2009, UK)
Advancing the notion of kinescopic realism: movement and perception.

One scene in *Moon* that *deliberately* draws attention to the actor's interaction with himself is when Sam-1 and Sam-2 square off on opposite sides of a ping-pong table [Figure 1.7]. Sam-1 (left), the elder of the two, is relaxed, having had nearly three years to practice against the wall. Sam-2, however, appears tense. The ball crosses the net seven times, and on one return Sam-2 even bumps the table with his body, throwing the net out of alignment. What is initially startling about this shot is

the seamlessness of the interacting bodies in motion: the ball, paddles, table, net, and characters move in perfect synchronisation with one another, indicative of Gunning's realism based upon the movement of bodies within the frame. Compounding the complexity of the shot, though, is that it is also perceptually realistic, as Prince defines it; as the shot progresses, it becomes evident that the visual bisection line of the shot that strategically aligns itself with the centre line of the ping-pong net is not an unseen division line for the actor's two characters. When Sam-2 returns the ball past the far edge of the table, he throws his paddle in frustration across the net onto the other side of the table and storms off-screen; he returns, walks along the far side of the table, past the net, and leans roughly onto the table to retrieve his paddle. Following this, Sam-1 also breaks the centre line but from the opposite side of the frame, as he repositions the net thrown out of alignment, first from the foregrounded side of the table, then around to the back.

Kinescopic realism, emerging from the integration of verisimilitude and the representation of Newtonian movement within a narrative space, becomes the standard by which audiences measure the efficacy of the special effects. And this is evident not only in the scenes of character development but also those of the lunar landscape and the science fiction environment. One of *Moon*'s visual effects supervisors Simon Stanley-Clamp, in describing the elements used to create the shots of the harvester machines, reveals the level of detail to which they endeavoured:

There was dust in the plates [background mattes], but essentially it didn't move correctly. Duncan was very keen that, because of the point six gravity, the dust should have this parabolic quality. It should rise up and then down. It doesn't behave as it would on earth. So we created this CG dust and tracked it back on with multiple passes to give it the correct physics for the scale of the harvester while taking into consideration the gravity of the moon. (Seymour, 'Faking the Moon')

The degree of detail attributed to the physical appearance *and* movement of the digitally created elements of the shot suggests that the marriage of these two components conveys the measure of a film's kinescopic realism. In fact, the development of visual effects technology progresses with the intention of producing a more visually arresting marriage of verisimilitude and intra-relational movement of objects, as seems to be the subsuming impulse for each of the major visual effects developers that pervade the industry, such as Industrial Light and Magic, Digital Domain, SPI, Weta, ImageWorks, MPC, Double Negative, and Framestore.

Fxguide.com writer Mike Seymour's article 'Art of Destruction (or Art of Blowing Crap Up)' provides detailed description of the various workhorse programmes being utilised in the production of destruction imagery. Referring to these as destruction 'pipelines', Seymour delves into the two predominant methods of visually rendering the destruction of a filmic subject. The first is a process that is referred to as Rigid Body Simulations (RBS):

RBS is most often relevant to the subdivision of objects due to collision or destruction. [...] Rigid bodies occupy space and have geometrical properties, such as a center of mass, moments of inertia, and most importantly they can have six degrees of freedom (translation in all three axes plus rotation in three directions). (Seymour, 'Art of Destruction')

In order to effectively create the destruction of a rigid body such as a building, for example, RBS programmes must essentially begin with the creation of the pre-fracturing of the object into individual pieces of debris, manipulate the debris' movement in relation to each other (a process known as 'collision detection'), reposition the pieces together like a jigsaw puzzle, and 'glue' the surface of the completed puzzle together until the desired time of destruction within the

sequence. Such RBS programmes, some working in conjunction with one another, include Bullet, Dynamite, Bang, Kali, PhysX, ODE, Houdini, PhysBAM, as well as DMM for the Maya effects software, Exocortex Momentum for XSI, and RealFlow's Caronte Body Dynamics Solver (Seymour, 'Art of Destruction'). As Seymour describes, each approach is better at one aspect of image destruction than others. The Exocortex Momentum, for instance, is a better tool for soft bodies, cloth, and rope, while PhysX is a more effective tool for creating falling and smashing images.

The downside to the RBS approach (pre-fracturing, collision detection, and conversion into a recognisable, pre-destruction object) is that it suffers from a workflow that loops back on itself should the end result contrast with the filmmakers' intentions. When a preliminary destruction sequence is rejected by the director or producer, the visual effects team must then return to the initial pre-fracturing stage to make corrections. Seymour reveals a second method that, while more expensive, effectively eliminates these issues of workflow and time efficiency. Finite Element Analysis (FEA), as opposed to RBS, relies upon a real-time rendering procedure to create its destruction imagery; no pre-fracturing is required because it uses a different method of algorithms to isolate the debris and its subsequent behaviour. 'This speeds up the entire workflow of a destruction pipeline. It is both more accurate, less dependent on tricks and eliminates a looping back in the production pipeline between modeling and simulating' (Seymour, 'Art of Destruction').

This technical overview of visual effects and CGI based destruction pipelines, will no doubt be rendered obsolete in a few years time; however, its inclusion into the discussion helps establish the extent to which the motion picture

industry is reliant upon both verisimilitude and movement within their imagery of destruction. As Seymour states, ‘Developers can assign physical properties to a given object which allow the object to behave as it would in the real world’ (Seymour, ‘Art of Destruction’).

The notion of kinescopic realism has, until now, implied a preference over the appearance of movement rather than movement itself. I should specifically add that movement can augment visual mastery and verisimilitude while still maintaining kinescopic realism. Blurred motion effects, of course, is one method, as when the swinging arms of King Kong are intentionally blurred to give the impression of high-speed movement. But additionally, because kinescopic realism includes Gunning’s notion of affect invoked through movement, the term proves particularly intriguing when considering certain science fiction special effects sequences that surpass any narrative construct and exist as visual splendours for the sake of themselves. For instance, the visual effects spectacles in the prolonged Stargate sequences in *2001: A Space Odyssey* (1968, UK/US), *The Black Hole* (1979, US), and *Supernova* (2000, US/Switzerland) depict abstracted visuals of psychotropic light displays and distorted physical bodies through avant-garde audio-visual displays that affect the spectator through movement and sensation rather than any vestigial narrative element. The kinescopic elements of these prolonged ‘laser light shows’ in each of these films favours the kinetic over the scopic, yet are nevertheless befitting of kinescopic realism. Despite the inability for the spectator to establish optical mastery over these Stargate sequences in *2001: A Space Odyssey*, *The Black Hole*, and *Supernova*, the images are nevertheless ‘kinescopically realistic’ because they are

positioned within an established context corresponding with the Newtonian world and convey an affect of movement based upon its physical principles.

Immersive Cinematic 'Experience'

As Michele Pierson writes, 'The pursuit of aesthetic novelty, innovation, and invention that ideally characterizes visual effects production also answers a cultural demand for the aesthetic experience of wonder' (168). The wonder of innovative visual effects finds itself a comfortable home in the science fiction genre. As of late, science fiction has been a key vehicle for testing advancing technology's immersive, experiential cinema, such that contemporary science fiction genre film assumes characteristics that resemble the 1950s and 1960s era of exploitative exhibitionism from sensationalist filmmakers like William Castle, in which the experience of spectatorship emphasises the physical response.⁸

Even within the context of the twenty-first century, the imperative of optical mastery within science fiction is evident in the film industry's push for an 'experiential' *theatrical* cinema through films designed for IMAX and digital 3-D exhibitions. The expansion of IMAX theatres, boasting a large-format film reel and projection system onto screens up to 80 feet tall, from urban learning institutes to local Cineplexes, further testifies to the increasing pursuit of synaesthetic experiences. When IMAX emerged in the 1970s, its theatres were limited to museums and science centres in select major cities; it wasn't until the early 2000s that IMAX systems began to effect Hollywood exhibition (Enticknap 71). In the late 1990s, IMAX succeeded in developing the technology to exhibit full-length feature films that had hitherto been restricted to a maximum duration of forty-five minutes

due to weight limitations (72). In 2002, the advancement of digital transfer processes from 35mm prints to IMAX's 15-perforation film frame, 70mm format ('15/70-format') allowed IMAX theatres to become, according to the company's 2003 Annual Report, 'a new release window for Hollywood's event films' (IMAX Corporation, 4). Joint ventures with major international theatre companies allowed IMAX to expand from 159 theatre systems at the close of 1997 to, according to its 2012 Annual Report, '731 theatre systems [...] operating in 53 countries,' with 432 of these theatres opening since 1 Jan 2008 (IMAX Corporation). Since 2002, big-budget Hollywood spectacle films such as *The Matrix Reloaded* (2003, US), *Star Trek* (2009, US), and *Transformers: Dark of the Moon* (2011, US) have been exhibited on IMAX screens and each with the added subtitle, 'The IMAX Experience'.

Contemporary theatrical science fiction cinema strives for a film-going 'experience', relying upon some fundamental tenets of cinematic realism as the means to providing the experience. Coherent narrative spatio-temporality and perceptual authenticity are espoused, regardless of how far the narrative subject drifts from experiential reality. What becomes evident in digital technology's potential for kinescopic realism is how quickly visual clarity shifts into spectacle. The impossible pursuit what Bazin refers as the 'myth of total cinema' – that is, the perfect re-creation of creation – is not the terminus, nor exists as clarity for clarity's sake, but rather to lay the groundwork for surpassing the realism with hyper-kinetic visual marvels and to revel in the synaesthetic effects of participating with such a re-creation (Bazin 21-22).

As I discuss in Chapter Two, the notion of film as evidence is a paradox. On one hand spectatorial assumptions, enhanced by certain production techniques, can be employed to connote impressions of mimetic representations of reality. On the other hand, the medium is one of artifice, visually and narratively composed by the intentional hand of filmmakers and studios, artists and hacks alike. The film spectator of the analogue age, in screening scenes of mass devastation, could balance the antimony of absorption through artifice by also engaging in a cathartic delight at the profilmic destruction, such as Sontag describes. Digital simulacra obliterate this cathartic thrill; they replace a physical affect response with a cerebral effect, asking audiences to make a *cognitive* judgment about the simulation's verisimilitude.

Summary

In order to effectively study the representations of destruction within science fiction cinema, a working definition of science fiction must first be established. Due to the fusion of antithetical concepts of science and fiction, the most common approach is through Tzvetan Todorov's writings on the fantastic: an amalgamation of the uncanny and the marvellous. Todorov's concepts, however, describe a narrative mode, rather than delineate a generic corpus and other film genres that utilise the subsuming concepts of the fantastic, for example, include horror and fantasy; however, these genres are defined by means that do not befit a definition of science fiction. Horror, for example, centres on the (intended) elicited emotions of fear, horror, and terror; and while much of science fiction involves the emotions of awe and wonder, too many exceptions exist that do not, as well as the presence of these emotions within other genres, such as the wonderment evoked within fantasy.

Contrary to horror, fantasy films do not look to any emotional state but rather rely upon the iconography of folklore and legends to establish themselves. Unicorns, trolls, and faeries (among myriad others) not only provide the spectator with a framework in which to situate the film's fantastical elements but also exist within the diegesis as *a priori* narrative constructs, unexplained yet contextually credible.

While these cousins of science fiction are also reliant upon Todorov's notion of the fantastic, science fiction bears multiple disparate methods and means of establishing the supernatural through scientific rationality, including time travel, alien encounters, and post-apocalyptic futures. As a result, the (loose) definition I employ hinges upon the construct of scientific rationalisation within the diegesis in order to explain the supernatural phenomenon that pervades the film.

In looking at depictions of mass destruction within this defined corpus of science fiction cinema, it becomes necessary to note the development of the dominant impact aesthetics of contemporary science fiction cinema. Whilst nomenclature and origin differ amongst theorists, the excess of the spectacular pervades numerous genres and film styles, yet equally overwhelming to the senses, specifically sight and sound.

One consistent method filmmakers have relied upon to convey a sense of 'believability', especially within the genre of science fiction, is to depict the fantastic with an aesthetic of realism. Conveying belief of the natural and the supra-natural within a unified narrative has been the work of special effects artists almost as early as the emergence of the medium, as they attempt to allay spectatorial scepticism through visuals suggesting plausibility and authenticity. A significant development

of authenticity in the science fiction film has been the emergence of digital technology, specifically CGI.

Because these post-production computer programmes are capable of generating indexically absent images, without referent or empirically existing profilmic element present before the recording apparatus, various long-established definitions of film realism required amending. As a result of the index-less image, theorists have attempted to redefine the notion of realism away from the indexical notions of semiotician Charles Sanders Peirce in order to accommodate contemporary cinema's referent-less regime. Stephen Prince emphasises what he terms as 'perceptual realism', abandoning the production processes championed by earlier theorists, relying upon the aesthetics of the end product and their correlation to experiential reality as a measure of a film's 'realism.' Tom Gunning, on the other hand, emphasises the representation of movement, rather than any photorealistic correlation, in order to convey a film's sense of realism. Contrary to both, I posit a combination of the two that together create what I refer to as 'kinescopic realism': the cooperation of photographic correlation of the image and the way the disparate elements (profilmic and virtual) act and interact together within the frame. From an overview of contemporary digital imagery programs and providers, it remains evident that kinescopic realism continues to be the goal, yet the spectacle of mass destruction in contemporary science fiction cinema is now compounded by the emerging emphasis on the immersive 'experience' of cinema, as is evident by the surge in IMAX 'experience' films. Kinescopic realism, then, remains the baseline, the lowest common denominator for provoking spectatorial intensities that ideally overwhelm the senses and move beyond mere optical mastery.

CHAPTER ONE NOTES

- ¹ US Supreme Court Justice Potter Stewart, regarding what constituted hard-core pornography, famously declared, ‘I know it when I see it.’ For a discussion on the empirical dilemma as it relates to obscenity in film, see Jef I Richards (1986).
- ² For the purposes of this study I have opted to employ them interchangeably.
- ³ Prince and Hensley report that historical accounts about the project’s specific shots that were juxtaposed with the actor’s neutral expression are varied, and that the scientific method was not applied with any rigor. Furthermore, their own recreation of Kuleshov’s experiment found that viewers interpreted the neutral expression in many ways. In the case of the sequence involving the shot of soup, Prince and Hensley’s participants interpreted ‘apathy, disgust, contemplation, detachment, dislike, indifference, lack of interest, as well as an occasional attribution of hunger’ [70]). That being said, Kuleshov’s experiment did impact the practices of the Russian formalists who advanced the concept into cinematic convention.
- ⁴ Allegedly, the earliest of film audiences, upon viewing Louis Lumière’s *L’Arrivée d’un train* (1895, France), fled the theatre in fear. Film historians, however, now consider this rumor to be a marketing gimmick employed to attract more viewers (Elsaesser 212).
- ⁵ These words are verbatim from the original 1933 film, rather than the shooting script, and though there are minor discrepancies in Noël Carroll’s quotation of the dialogue, the punctuation I use is derived from his citation, which uses Denham’s dialogue to suggest how the audience ought to react upon first setting eyes on King Kong (*Philosophy of Horror*, 18).
- ⁶ The promotional material for *Soldier* (1998) to which I refer is based upon my memory. Appearing in the lower-third of a large cardboard theatre display, I recall the comment, because I found it to be a particularly odd statement; and admittedly, it was that what compelled me to attend the screening.
- ⁷ It seems necessary to state that Sam Rockwell does not have an identical twin brother, unlike actress Linda Hamilton whose twin sister Leslie was used as her

double for scenes that required two Sarah Connors in James Cameron's *Terminator 2: Judgment Day* (1991, US).

- ⁸ William Castle is perhaps the best known among the 1950s and 1960s American B-movie directors that enhanced film screenings by incorporating uniquely designed theatre seats. These seats were installed with gimmicks that, when carefully choreographed with onscreen events, would contact the spectator in such a way as to jolt them into a physical, sensorial response. For example, in Castle's *The Tingler* (1959, US), electric buzzers hidden inside the seats were set to vibrate against the viewer whenever the monster appeared onscreen.



2012 (2009, US)

CHAPTER TWO

Science Fiction and Scientific Fact: Spectacle Aesthetic in the 21st Century

The story was so fantastic and incredible, the telling so credible and sober.

-- H G Wells, *The Time Machine* (92)

The major visual impulse of all [science fiction] films is to pictorialize the unfamiliar, the nonexistent, the strange and totally alien – and to do so with a verisimilitude which is, at times, documentary in flavor and style.

-- Vivian Sobchack (*Screening Space*, 88)

The utilisation of documentary cinema aesthetics, particularly the ‘found-footage’ device, is a ubiquitous trend in twenty-first century science fiction and horror genre films; these films rely upon what Brian Winston refers to as, ‘the scientific inheritance of the camera’ (188). The method of presenting extra-ordinary

science fiction elements through documentary pretences – though evident in renowned films such as *The War Game* (1965, UK), *Zelig* (1983, US), *C'est arrivé près de chez vous* [*Man Bites Dog*] (1992, Belgium), and *The Blair Witch Project* (1999, US) – has become unmistakably manifest in contemporary genre films worldwide. An influx of oxymoronic documentary-science fiction and documentary-horror hybrids has emerged, and from countries as diverse as Russia, Japan, Norway, Spain, and South Africa.

In this chapter I examine the science fiction genre's recent spate of films that have appropriated the aesthetic devices of documentary cinema. First, I provide a backdrop to the 'scientific inheritance' of film, wherein I argue that this assumption stems less from the presentation of fact than from the negation of falsification. When provided with images purporting to be factual, the spectator examines both *mise en scène* and extra-textual considerations for evidence of image tampering or manufacturing, assessing the likelihood of a contrived, fictional image. *Actualités*, newsreels, and later documentaries all established a position as factual – thought not always the case – from an aesthetic and extra-textual context that denied a fictional reading of the image.

Returning to the realm of science fiction, I next discuss the genre's progression towards factual plausibility by similarly attesting to the veracity of the image through the denial of a manufactured image. Films such as *Frau im Mond* (1929, Germany), *Destination Moon* (1950, US), and *2001: A Space Odyssey* (1968, UK/US) can be seen as stepping stones in science fiction's aesthetic drive towards greater factual plausibility and point to its ultimate conclusion as the genre fuses with the new documentary aesthetics of direct cinema and *cinéma vérité*. Yet in so

doing, as contemporary science fiction films attempt to close the gap between the genre's fictional aesthetic and its goal of achieving documentary's aesthetic of factuality, the films nevertheless find themselves inherently bound to a perceived aesthetic of manipulation. As an example, I examine Matt Reeves' *Cloverfield*, which countermands other potential analytical methodologies and reroutes textual readings towards discussions on generic spectacle and impact aesthetics.

A Legacy of Veracity

At any given point in its history, the veracity of the moving image has been questioned as a process of engagement with the text. Whether in the effort to believe or suspend disbelief, spectatorial engagement often involves the persistent reassessment of the image and its relationship to one's perceptual or experiential reality.

Some film genres and forms find this inherently easier than others. Science fiction, horror, and fantasy often rely upon visual effects to establish a sense of authenticity, however implausible the narrative. Experimental cinema and animation prefer to eschew or subvert perceptual reality. Other film forms, however, seem predisposed to instilling a sense of 'truth' or 'reality' within the image – specifically, documentary cinema.

Though the contemporary trend of depicting the fictional through a nonfictional lens may seem a novel concept, filmmakers have been unifying these antithetical styles since the silent era. The splicing in of *actualité* footage into the larger framework of a narrative film, not unlike the use of b-roll stock footage to economise low-budget productions, was a common editing practice during the

1920s. In British filmmaker Anthony Asquith's silent film *A Cottage on Dartmoor* (1929), for instance, he eludes the intrusion of dialogue-driven title cards by intercutting a discussion at a barbershop with various sporting events, suggesting through the juxtaposition of these shots that the man receiving the haircut is conversing about these events with the barber. And during the Second World War, through the cooperative efforts of the Ministry of Interior's Ideas Committee and its assemblage of both documentarians and fiction filmmakers, British propaganda films intentionally fused the respective styles of documentary and fiction film (later referred to as the 'wartime wedding') in order to provide a greater sense of 'realism' in their cinematic representation of the war (Chapman, 'Cinema, Propaganda, and National Identity,' 194, 199). Orson Welles famously mimicked the newsreel style in *Citizen Kane*, and writing in 1949, Parker Tyler discusses the use of documentary techniques to suggest facts and clues to the spectator in US detective films of the 1940s (107-15). Within science fiction cinema, the low-budget Hollywood production *Invasion U.S.A.* (1952, US) incorporates footage from Humphrey Jennings's WWII pseudo-documentary *Fires Were Started* (1943, UK) to depict the diegetic destruction. The genre-defining *Gojira* (1954, Japan) was modified for Western audiences in 1956 (released as *Godzilla, King of Monsters!*) by splicing in match-edited scenes of an American journalist (Raymond Burr) reporting on the tragedy/travesty.

The idea behind the inclusion of journalistic reporting and is that to be at its most effective and affective, a science fiction film should inveigle the viewer into wonderment by convincing her to believe the scientific legitimacy of the fictional text. That is, ask the spectator to suspend her disbelief and become immersed in the

film. Given the cultural skepticism that plagues the contemporary era and its deference towards cynicism, this remains no small task. While some filmmakers have attempted to allay spectatorial cynicism by overwhelming the spectator's aural and visual senses through excessive impact aesthetic spectacles, other filmmakers have attempted to incite a sense of plausibility by combining the pseudo-scientific rationalities of the narrative with pseudo-scientific aesthetics associated with documentary authenticity. The worldwide emergence of films embracing the fantastic through an documentary aesthetic include *Incident at Loch Ness* (2004, UK), *Pervye na Lune* [*First on the Moon*] (2005, Russia), *Noroi* (2005, Japan), *Night-Wolf* (2005, UK), *Big Man Japan* (2007, Japan), *American Zombie* (2007, US/S Korea), *Diary of the Dead* (2007, US), *Paranormal Activity* (2007, US), *[Rec]* (2007, Spain) and its Hollywood remake *Quarantine* (2008, US), *Monster* (2008, US), *[Rec] 2* (2009, Spain), *Cloverfield* (2008, US), *The Fourth Kind* (2009, US/UK), *District 9* (2009, South Africa/New Zealand/Canada/US), *I Am Bish* (2009, Australia), *El Sanatorio* (2010, Costa Rica), *The Last Exorcism* (2010, US/France), *Trollhunter* (2010, Norway), *Apollo 18* (2011, US), *Silent House* (2011, US/France), *Chronicle* (2012, US), *Chernobyl Diaries* (2012, US), *The Bay* (2012, US). Each of these films appropriates the imbedded codes of 'truth' from various documentary film tropes with the idea of triggering the perception of legitimacy and evoking a sensorial response within the spectator. This style of filmmaking has been described under a number of different terms, but for the purposes of this study I will refer to this mode of filmmaking as 'specumentary' – a concept to which I will return in greater detail – for its convergence of 'speculative fiction' and its reliance on the

aesthetics of documentary filmmaking that implicitly convey the ‘scientific inheritance of the camera’ (Winston 188).¹

The Basis for Authenticity

Optical illusions of movement and studies on the persistence of vision independently emerged in 1832 by Belgian physicist Joseph Plateau and Austrian geometry professor Simon Stampfer, with the Zoetrope introduced the following year (Bordwell & Thompson, 4). The Zoetrope’s illusion of movement was produced through slight variations in animated hand drawings; although innovative, its capacity for unremitting affect was limited by its images’ cyclical redundancy, relegating its application to an optical toy. Furthermore, the use of hand drawings suggests that no regard towards authenticity could be derived from such a manipulated contrivance. After all, just because an artist has drawn a series of images that, when juxtaposed, evoke an impression of a galloping horse, does not necessitate the actual movement of a living horse.

Yet since the inception of the photograph in the mid-nineteenth century, the scientific community has considered the medium as evidence of the profilmic’s authenticity, resulting in the pervasive regard of the medium’s veracity (Winston 7). Indeed, photographs are still by and large considered to be ‘proof’ of the existence of something. They are submitted into evidence as regular practice in the court of law; used as a method of establishing pre-existing conditions for home and auto insurance providers; and employed as a tool in diagnosing medical conditions, providing health care, and conducting medical research (X-rays, MRI scans, images of microorganisms, etc).

The supposition of truth within the photographic medium has, with equal fervour, also been bestowed upon pictures in motion. Of course, motion pictures do not always imbue an intrinsic suggestion of veracity. The *moving picture*, emerging with Eadweard Muybridge's 1878 experiment of successively photographing a horse's gait, bore with it the photograph's associative properties as scientific evidence (5). With regular exhibitions of motion pictures emerging in 1895, spectators were introduced to simple profilmic renderings of observable, everyday events, reinforcing audiences' pre-established notion that photographic images are true and 'real'. As Brian Winston states:

For nearly 170 years we have, however naively, tended to believe that, unless there was strong reason to suppose otherwise, the photographic camera did not lie. This assumption is grounded in the original positioning of the camera as an instrument of science and one of its consequences has been the possibility of the photograph being considered as evidence. It is the foundation upon which the documentary film rests. (7)

The Lumière brothers' *actualités* of the familial and the familiar – such as *Repas de bébé* (1895) and *La sortie des usines Lumière* (1895), in which a couple spoon-feed their infant and workers emerge from a factory at quitting time, respectively – helped transition the photograph's legacy as evidence into the moving image, so that spectators perpetually inferred that the depicted events and locales were as they appeared. But as Dan North states, 'Film's claim to essential realistic properties is as erroneous as that of any other medium, if not more so, due to the capacity for deception which is concomitant with its status as a truthful device' (*Performing Illusions*, 19). If the guise of fiction *as if* fact was not simultaneous to the moving picture's presumed ontology of veracity, it did not lag far behind.

Co-founder of the American Vitagraph Company Albert E Smith reveals in his book *Two Reels and a Crank* how he and partner J Stuart Blackton travelled to Cuba to film the Spanish-American War in 1898 but failed to record the Battle of Santiago Bay. Upon their return to New York, rumours leaked that Vitagraph had recorded footage of the battle, and the two men conspired to recreate the event using miniatures and special effects to protect their struggling company (15):

The smoky overcast and the flashes of fire from the “guns” gave the scene an atmosphere of remarkable realism. The film and the lenses of that day were imperfect enough to conceal the crudities of our miniature, and as the picture ran only two minutes there was not time for anyone to study it critically. Deception though it was then, it was the first miniature and the forerunner of the elaborate “special effects” technique of modern picture making. (qtd in Faber & Faber, 16)

Astutely aware of the need for perceptually realistic visuals within fictional renderings of historical events, Smith and Blackton referred to pre-existing military photographs in recreating the miniature battleships and relied upon historical accounts of the event as the blueprint for the staged action of the re-enactment (15). In so doing, audiences, none the wiser due to the absence of any visual cues that might signal a ‘re-enactment’, inferred the footage was evidentiary fact. As Paul Ward states, presenting staged events *as if* unstaged ‘is one of the great red herrings of documentary’ (4).

As the precursor to documentary, the *actualité* took various forms. News reports of current events, such as the Edison company’s Spanish-American war films in 1898 and *San Francisco: Aftermath of Earthquake* (American Mutoscope & Biograph 1906, US) were a popular element to exhibition programmes. Travelogues and ‘scenics’ depicting faraway scenes and examples of the ‘Other’, such as a Native American ritual in *Buffalo Dance* (Edison Manufacturing Co. 1894, US) or the

Lumière brothers' *Départ de Jérusalem en chemin de fer* (1897, France) were also some of the more popular types of *actualités*.

Yet it must be stated that nonfiction films did not comprise the entire breadth of cinema in the 1890s and 1900s. In addition to nonfiction films, cinematic depictions of other performing arts were among the earliest offerings, including various styles of dance, vaudeville acts, and theatre, as in (respectively) *Annabelle Serpentine Dance* (Edison Manufacturing Co., 1895, US), the Foxy Grandpa series (e.g. *Foxy Grandpa and Polly in a Little Hilarity* [American Mutoscope & Biograph 1902, US], *The Boys Think They Have One on Foxy Grandpa, But He Fools Them* [American Mutoscope & Biograph 1902, US]), and numerous Passion Plays (e.g. *La vie et la passion de Jésus-Christ* [Lumière 1898, France], *The Passion Play of Oberammergau* [Edison Manufacturing Co., 1898, US], *Life and Passion of Christ* [Warwick Trading Company 1903, UK], and the thirty-one part *Passion Play* series on the Biblical stories of Jesus in 1903 [US]).

Indeed, narrative films, brief though they were, existed side by side the *actualité*, as with gag films such as the Lumière's *Arroseur arrosé* (1895, France), in which an impish boy causes a gardener to spray himself with his own watering hose, and *Interrupted Lovers* (Edison Manufacturing Co. 1896, US) in which a couple kissing in the park is discovered by the girl's father who promptly separates them by kicking them both in *les derrières*.

Tom Gunning describes early cinema (until 1906-1907) as a 'cinema of attractions' founded on visual stimulations through depictions of spectacle, and as equally evident in the Lumières' *actualités* of battles, marching parades, and beautiful landscapes as in Georges Méliès's science fiction special effects film *Le*

Voyage dans la lune [1902, France])(382-85). Though Gunning initially downplays the integration of spectacle and narrative devices in gag films, Méliès's films, and Edwin Porter's *The Gay Shoe Clerk* (1903, US) and *The Great Train Robbery* (1903, US), Charles Musser clarifies the point – to which Gunning later concedes² – that the notion of a 'cinema of attraction' is but one form of early cinema and not a subsuming construct:

Cinema of attractions was a prominent feature of American cinema of the 1890s but not necessarily the primary or dominant one [...]. To characterize American cinema of the 1890s as 'cinema of attractions' is to move other equally essential aspects of early cinema to the periphery. (405)

The *actualité* and other nonfiction film forms cannot be regarded solely as a 'cinema of attraction' founded on spectacle but rather a complex cinema that also warrants investigation into its suggestions of scientific fact through extra-experiential depictions.

Assessing Factuality Through *Mise en scène*

Departures from experiential reality by means of camera trickery as in *The Execution of Mary, Queen of Scots* (Edison Manufacturing Co. 1895); *Escamotage d'une dame au théâtre Robert Houdin* [*The Conjuring of a Woman at the House of Robert Houdin*](Méliès 1896, France); *Un homme de tête* [*Four Heads are Better than One*](Méliès 1898, France); and *How It Feels to Be Run Over* (Hepworth 1900, US), asked viewers to question the veracity of moving photographic images.

Contemporaneous exhibitions of fantastic illusions and insinuated 'truth' encouraged spectators to develop skills in assessing the perceived factuality of a cinematic image. Of course, early cinema audiences were not hapless. Gunning lucidly

illustrates in his essay ‘An Aesthetic of Astonishment’ that early film spectators were not naïve or helpless against the power of the image but rather had an ‘undisguised awareness (and delight in) film’s illusionistic capabilities’ (876).

For general audiences presented with images purporting to be factual (such as *actualités*, newsreels, and travelogues), the foremost method in establishing the evidentiary character of the image is to analyse the primary source of the image itself. The central purpose of this visual assessment is not to determine factuality, per se, but rather *deduce the improbability of fictitiousness*. In a sense, if the image cannot be proven false, it therefore must be true. And in order to determine the possible falsity of the image, the viewer examines the information provided by the *mise en scène* and the elements working to realise said *scène*. If the subject appears and behaves as it is known to appear and behave in experiential reality, this can lead to inferences of veracity. Furthermore, not only does the spectator examine the representation of the subject but also the means in which the representation was accomplished. One looks to the operational movement of the camera housing (shaky, smooth, or static), the materiality of the film stock (burns, scratches, or hairs on the celluloid, the size and quality of the grains), and the mechanics of the camera ‘eye’ (lens choice, shot size, and clarity of focus) to help ascertain the authenticity of an image. These image-dependent criteria proffer clues that suggest veracity.

For example, in *Départ de Jérusalem en chemin de fer* [*Leaving Jerusalem by Railway*] (1897, France), filmmaker Alexandre Promio depicts a variety of foregrounded people in different manners of dress walking parallel with the train as it pulls into a railway stop; in the background are ruins of walls and the remains of a stone building with a flying buttress [*Figure 2.1*]. Inferring the images are that of

Jerusalem from the title's suggestion, the viewer validates the accuracy of the title through compounded non-contradictory elements within the *mise en scène*, such as the religious dress of a Benedictine monk, the arid climate, the flying buttress implying religious architecture, the ruins of a pre-existent civilisation, and culturally and ethnically diverse peoples. However, the film's *mise en scène* is wholly devoid of recognisable Holy Land features or landmarks (including the corrugated topography surrounding Jerusalem) thereby providing no profilmic evidence as to its *precise* location, which could have just as easily been filmed in the Portuguese Algarve, Spanish Andalusia, or southern Italy.³



Figure 2.1 *Départ de Jérusalem en chemin de fer* (1897, France)
Tracking shot reveals what *might* be Jerusalem

When regarding *mise en scène*, the spectator may evaluate the implied financial cost necessary in fabricating the visible details within the shot. Certain images, were they fictional renderings, would demand exorbitant financial sums.

Visualisations of cutting-edge technology, military panoply, or striking landscapes may be deemed ‘authentic’ due to the implausibility of the cost required for fictionalisation. This suggests a contributing factor to the popularity of travelogue films among early cinemagoers. The extensive rubble and ruins in *San Francisco: Aftermath* (American Mutoscope 1903, US), the severity of the climate in Frank Hurley’s *South* (1920, Australia/UK), or the rugged landscape in Merian C Cooper’s *Grass: A Nation’s Battle for Life* (1925, US), for example, suggest factuality due to the financial burden required to simulate such locations.

As audiences became increasingly convinced by ‘probable authenticity’, the correlating aesthetics became associated with the factuality of the ‘document’. And although veracity is not invoked through images of fact but by persuading the improbability of their fictionalisation, it does not necessarily preclude the *possibility* of fictionalisation. Because documentary film bears certain inherencies regarding spectatorial assumptions about image veracity, the appropriation of these evidentiary-imbedded visual codes into science fiction films’ super-experiential diegetic realms is thought to encourage a reception of plausibility.

Assessing Factuality Through Extra-Textual Considerations

Naturally, extra-textual factors assist in conveying a sense of the moving image’s veracity. Source reputability is a significant factor, as in the unquestioned belief that the Lumières’ *Jérusalem* film is legitimately of Jerusalem based upon their reputable status as pioneers of the *actualité*. Other factors include statutes of legality, cultural biases, professional credibility, and government-led censorship.

In the name of national security, federal authorities have been known to hinder public access to certain films or videos. Perhaps most famously, the US government's suppression of the super 8mm film Abraham Zapruder recorded of President John F Kennedy's assassination in 1963 supports its claim to scientific inscription and authenticity. The years of time and attention devoted to suppressing the Zapruder film implies that the images recorded bear the mark of legitimacy. Naturally, the assassination of President Kennedy stands as a historical event. Despite the conspiracies surrounding what happened outside the limits of the frame, his death is historic fact. Yet even when the Zapruder film became officially public 35 years after principle photography, speculation and conspiracy-rampant conjecture still continue to pervade Kennedy's death (*Image*). Governmental suppression and censorship, therefore, do not establish fact but suggest it, and this is equally evident in films depicting non-historical, fictional events as well.

Peter Watkins's 48-minute film *The War Game* (1965, UK) proves an ideal example of how governmental suppression implies authenticity, even regarding science fiction narratives. Financed by the BBC and initially intended for television broadcast, Watkins presents, through the aesthetics of Britain's long-established legacy of documentary film, a forewarning of the *possible* effects of nuclear war on Great Britain, basing much of the film's assertions on the aftermath of the attacks on Hiroshima and Nagasaki. Watkins depicts an average English city's transition from pre-apocalyptic to post-apocalyptic society with such chillingly accurate logic that *The War Game* was banned from television broadcast by the British government on the grounds that it was 'too horrifying for the medium of broadcasting' (*The National Archives*) [Figure 2.2].

Although it was given a limited theatrical release, *The War Game* was banned from television for twenty years before finally being aired in 1985 to mark the twentieth anniversary of the bombings of Hiroshima and Nagasaki (Chapman 76). Manipulating Cold War anxieties of sudden annihilation, Watkins's flawless execution of the 1960s British documentary form and persuasive direct-analogy reasoning remarkably earned the film the Academy Award for Best Documentary; remarkable because despite its articulacy, *The War Game* is in essence a work of fiction. When dominant political authorities limit the public's access to a film based upon the *presumption* of a potential threat to national security, the consequence is the public's supposition of veracity.



Figure 2.2 *The War Game* (1965)
Faux footage of the casualties of atomic warfare

Similar to Watkins's *The War Game* in both narrative and philosophical intent is the BBC-produced film *Threads* (1984, UK), which centres on life in the

city of Sheffield before, during, and after American and Soviet Union's forces wage nuclear war. As in *The War Game*, *Threads* utilises long-standing documentary techniques to communicate narrative exposition; unlike Watkins's film, however, *Threads* intercuts the documentary form with fictional characters and conventional fiction film forms to humanise the execrable aftermath of nuclear war.

In *Threads*, sparse inclusions of extra-diegetic narration, voiced by veteran documentary narrator Paul Vaughan, provide an oddly detached third-person perspective on the events, imbuing the film as an historical event. Teletype slides punctuate scenes and sequences to provide information about the direct impact US and Soviet actions are having on Great Britain. *Cinema-vérité* cinematography is frequently employed, not only visualising riots and moments of panic but also intimate moments of somber resignation.

But perhaps the most intriguing aspect of *Threads* rests not in the absence of suppression (as opposed to Watkins's antecedent⁴) but in its reliance upon the credibility of the scientific community's participation and assistance. Indicated in the closing credits, an advisor on the programme was physicist Józef Rotblat, an early developer of the atomic bomb and member of the Manhattan Project; succeeding credits then announce the BBC's special thanks to six distinguished professors spanning several fields of study: Carl Sagan (Astronomy), Michael McElroy (Environmental Studies), George Rathjens (US Nuclear Response Strategy), John Erikson (Soviet Military History), Robert J Lifton (Psychology: War and Violence), and Bernard Feld (Physics; assistant to Enrico Fermi on the Manhattan Project).⁵ The inclusion of insights from highly regarded scientists inscribes the science fiction narrative with plausibility. When this plausibility combines with the documentary

form, the resultant suggestion of veracity increases the potential for spectatorial affect.

Thus, as viewers ascertain the probable factuality of the moving image through internal, primary analysis (*mise en scène*, verisimilitude) and external, secondary analysis (political suppression, scientific cooperation), they determine its degree of probable veracity. This method, while complicated by ever-evolving visual effects, continues into the 21st century, as audiences take into account emerging scientific discoveries and progressing technological abilities. As audiences apply various methods and means to determine the degree of fictitiousness within an image, they do so regardless of genre. Westerns, musicals, and historical epics are scrutinized with the same methods as those applied to documentary – which is also true with regards to science fiction. The following section will discuss science fiction's inherent reliance upon emerging scientific fact as a means of suspending disbelief, and the new trend of the abandoning scientific validation for the camera's implied scientific aesthetic.

A Great Leap Forward: Fact and Science Fiction

Within the gulf between the science fiction cinema of the 1950s and 1960s – an age dominated by colossal creatures and atomic bombs – and the spectacle-driven science fiction cinema of the 1980s, 1990s, and 2000s stands the monolith of Stanley Kubrick's *2001: A Space Odyssey* (1968, UK/US). Itself sparking a Great Leap Forward in the evolution of the science fiction film genre, Kubrick's adaptation of Arthur C Clarke's novel continues to astound and influence subsequent generations of spectators, filmmakers, and scholars. Among myriad reasons, Kubrick's vision of

the future is remarkable for its antinomies: melds of prophetic realism and hyper-stylised spectacle, fusions of utopian and dystopian potentialities, the assimilation of simian prehistory and post-future evolvments. In considering the film's release fifteen months prior to the Apollo 11 moon landing, however, perhaps the most immediate marvel is the scientific accuracy of its representations of movement within the vacuum of space. As film critic Roger Ebert states, 'The most amazing remark was made was by the astronauts when they finally got into orbit and when they went to the moon, and they would say, "It was like *2001*"' ('Vision of a Future Passed: The Prophecy of *2001*').⁶

Other science fiction films prior to *2001* sought to represent the realities of space travel through empirical science. Fritz Lang's *Frau im Mond* (1929, Germany) is startlingly prescient in its depiction of aeronautical technology. Predating US and Soviet space programmes by nearly thirty years, *Frau im Mond*'s diegetic premise of lunar exploration is rooted in science, resulting in technological representations that seem to either foreshadow or to have directly influenced NASA technology: a towering, vertically-oriented rocketship is slowly ushered along a bi-rail tracking system out of a massive hangar to its launch pad; the levels of the manned capsule bear a vertiginous design that, during weightlessness, the characters float between; the rocket separates in three distinct phases after its initial launch from Earth; and prior to take-off, the engineers discuss the need to 'slingshot' around the moon using its own gravitational field.

Yet more influential on Kubrick were producer George Pal's films of the 1950s (Kolker 7). Pal's productions of *Destination Moon* (1950, US), *When Worlds Collide* (1951, US) and *Conquest of Space* (1955, US) purport that science and data

should govern narrative direction, rather than relegate it to a far-fetched, ‘imaginary science’ to rationalise otherwise irrational diegeses. Envisioning space travel in stark contrast with films such as *Buck Rogers* (1939, US) or popular science fiction serials *Flash Gordon* (1936, 1938, 1940, US), *King of the Rocket Men* (1949, US), *Radar Men from the Moon* (1952, US), or *Commander Cody: Sky Marshall of the Universe* (1953, US), George Pal’s *Destination Moon* focuses on the pragmatics of travelling to the moon with nary an alien or laser to be found.⁷ And one need only observe the opening images of *Conquest of Space* to note its impact on Kubrick’s vision [Figures 2.3, 2.4].

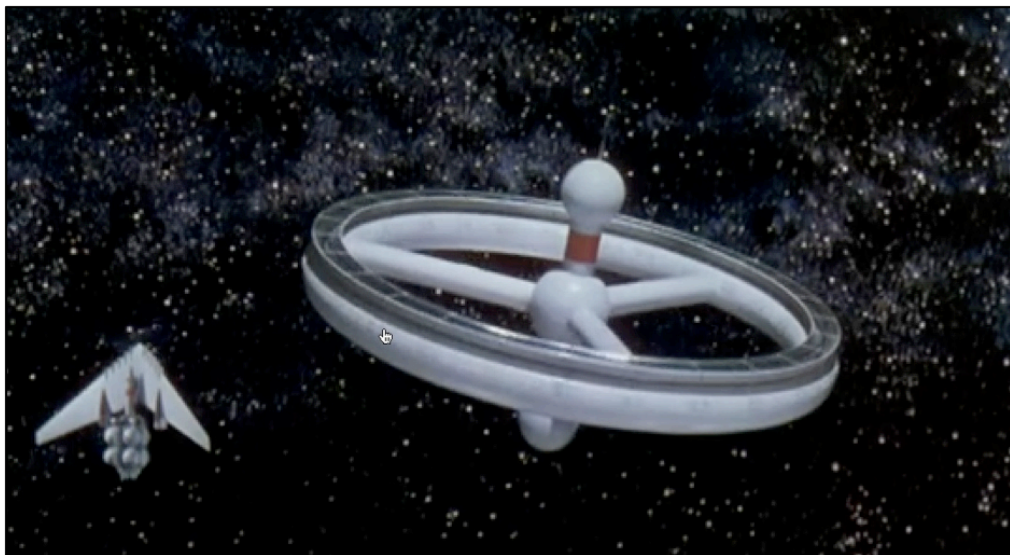


Figure 2.3 *Conquest of Space* (1955)
A revolving ring-shaped space station.

Kubrick’s film, on the other hand, remains decidedly prescient in its science, and though certain details within the *mise en scène* can be considered dated (such as the flight operated by Pan-Am and the Howard Johnson’s restaurant within the space station, two subsidiary businesses no longer in operation), its commitment to a scientifically accurate, and thus plausible, vision of the future generates a sense of timeless authenticity. Through the visual effects of Douglas Trumbull, Kubrick

creates a future world bound by Newtonian-physics in which M C Escher-like contradictions of spatially disparate human bodies are regarded as both scientifically factual and wondrously realised. The film's photorealistic images of waning celestial bodies, weightless human bodies, and advanced technologies all serve to establish a world framed within the parameters of physics and known science, a world that Kubrick would then obliterate in its spectacular, surrealist Stargate sequence and anachronistic finale.

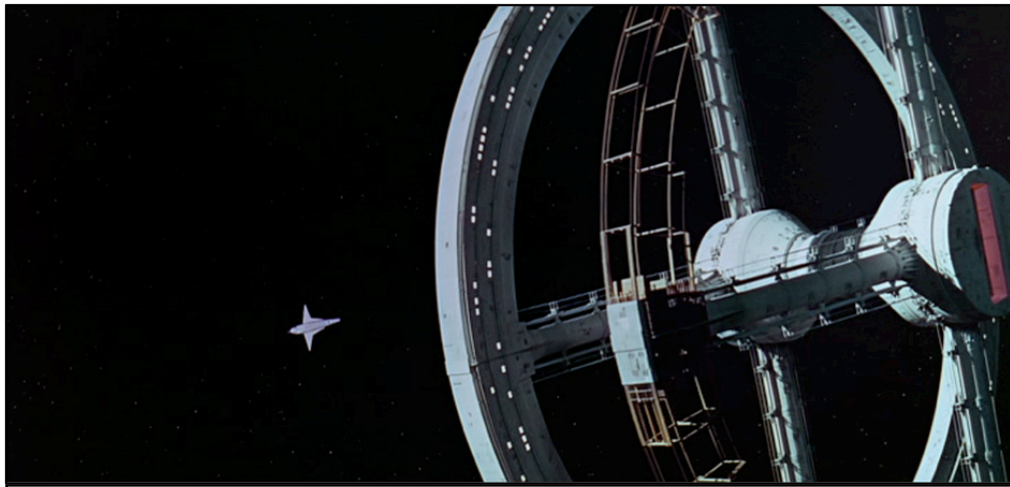


Figure 2.4 *2001: A Space Odyssey (1968)*
A shuttle prepares to dock at a revolving ring-shaped space station.

Kubrick's confounding, overwhelming spectacle can be thus regarded as the forerunner to subsequent science fiction impact spectacles. *2001*, for all its influence, did not beget flattering imitations of time-image science fiction but rather, as John Orr describes, a shift away from 'abstraction back into the realm of the empathic quest and narrative overdrive' through virtual impact aesthetics (30). The influence of *2001*'s spectacle on subsequent science fiction directors such as Spielberg, Lucas, Trumbull, Robert Wise, and Ridley Scott, among others, is markedly evident. *Close Encounters of the Third Kind* (1977, US) employs a similar pattern of establishing an

environment of familiar banality (in this case, contemporary rural and suburban life) only to up-end it with a supra-natural encounter. *Star Wars* (1977, US), though ontologically reliant upon science fiction film serials of the 1940s and 1950s, borrows many aesthetic wonders from *2001*, including the slow reveal of a seemingly endless spacecraft. But these subsequent genre films lie in stark contrast with *2001*.

Orr cites Spielberg's *Close Encounters*, Francis Ford Coppola's *Apocalypse Now* (1979, US), and Scott's *Blade Runner* (1982, US/Hong Kong) as the hallmark films that diverged from Kubrick's 'awesome detachment' and ushered in an aesthetic of spectacle emerging from kinescopic realism (25, 30). This aesthetic dominated science fiction through the 1980s and 1990s with films such as *The Terminator* (1984, UK/US), *The Abyss* (1989, US), *Jurassic Park* (1993, US), *Twelve Monkeys* (1995, US) and *Deep Impact* (1998, US) – acting as both cause and effect of digital effects technology; and the aesthetic persists into the new millennium. While examples to the contrary exist, fiction films predominantly depict a narratively coherent and kinescopically real spatial construction from a third-person perspective. This method of presenting a fiction film's narrative spaces is characteristic of the classical era of cinema but is just as equally applicable to many contemporary films that do not wish to emphasise the artifice of the medium. Stephen Heath has referred to this spatial construction as 'scenographic vision', because the narrative, comprised of a series of individual scenes, is revealed through an aesthetic of spatial continuity where the presence of the camera has no direct influence over the causal progression of the narrative.

As of late, science fiction cinema has undergone an intriguing development, in which ‘scenographic vision’ is abandoned in favour of a more direct aesthetic approach that emphasises a first-person perspective of a narrative account. That is, the camera (and inevitably the camera operator) is directly incorporated into the narrative events. Spatial continuity is maintained, but not through the classical method of juxtaposing shot sizes and angles; instead, spatial continuity is maintained from within the narrative space, immersed and surrounded by the progressive action and reinforced by a ‘septaphonic’⁸ soundscape and the limitless range of camera movement. How this trend trades on observational documentary aesthetics, and how the images communicate the representation of mass destruction, will be the subject of this next section.

Science Fiction ‘Documents’

Documentary cinema has as equally a complex and variegated history as fiction film. Writing in 1949, Parker Tyler reveals certain assumptions regarding what appears to be the *veritas* within the document image and the contrived efforts to establish a sense of verisimilitude within the fictional image. Parker writes, ‘Another name for verisimilitude in art is probability. [...] But in the strict documentary sense probability is disqualified; certainty is the cornerstone of the reflected image of life’ (112). Defining what constitutes a ‘documentary’ remains elusive, and naturally definitions will vary. Should the *actualité*, or its contemporary counterpart the surveillance recording, be included? Can newsreels and travelogues be regarded as ‘documentary’? And should digitally animated re-enactments be considered, as in the case of the Delta flight 191 disaster (Marcotte)?⁹ Must documentary always or

only be defined in relation to fiction film, as a ‘certainty’ juxtaposed with ‘probability’? While ‘documentary’ can be described as ‘factual’, not all ‘factual’ (that is, historical or scientifically empirical) audiovisual recordings are ‘documentary’. Bearing this duplicity in mind, what is referred to here as ‘documentary’ is the tradition of ethical filmmaking that places a primacy on a narrative depicting a factual, historical person or event within a factual or historical space. As Vivian Sobchack describes:

Documentary space is indexically constituted as the perceived conjunction of the viewer’s lifeworld and the visible space represented in the text, and it is activated by the viewer’s gaze at the filmmaker’s gaze, both subjectively judged as ethical action.’ (Carnal Thoughts, 247-48)

Whilst documentary assumes different forms, the implied ethics behind the visuals – ‘indexically constituted’ images cohabitating within the same spatiotemporal reality as the spectator’s own life – remains a subsuming constant. In his text *Representing Reality: Issues and Concepts in Documentary*, Bill Nichols describes four distinct methods of representation in documentary cinema: expository, observational, interactive, and self-reflexive (32-33). Whilst expository, interactive, and self-reflexive are each interesting topics of discussion in their own right, the method of documentary representation most relevant to this study is what Nichols refers to as ‘observational.’

Observational documentaries emerged in the 1960s with the introduction of smaller and more portable recording equipment and a ‘dissatisfaction with the moralizing quality’ of expository documentary (33). Within this method reside the different, yet often confused, styles of direct cinema and *cinéma vérité* (Winston, *Claiming the Real*, 149). In his text *Claiming the Real II*, Brian Winston identifies

the key difference between the two as an issue of subjectivity and presumed objectivity. While North American documentarians assumed a fly-on-the-wall approach in order to transparently and ‘objectively’ observe, French documentarians such as Jean Rouch and Edgar Morin intentionally inserted their own act of observation into the text so that ‘we, the audience, could observe them apparently in the act of observing’ (Winston, *Claiming the Real*, 166). Writing in 1974, Erik Barnow describes it thus:

The direct cinema artist aspired to invisibility; the Rouch *cinéma vérité* artist was often an avowed participant. The direct cinema artist played the role of an uninvolved bystander; the *cinéma vérité* artist espoused that of provocateur. (qtd in Winston, *Claiming the Real*, 166)

This distinction, though, goes largely unheeded. Colloquially, direct cinema and *cinéma vérité* remain interchangeable terms (149). Even North American documentarians considered their observational style *cinéma vérité*. In a letter written to *Film Quarterly* in 1964 intended to clarify the term, James Lipscomb describes it thus:

The *cinéma-vérité* film-maker is a special kind of film journalist who is trying to record what really happens more truly than a reporter taking notes. He turns the camera on because he thinks something important or beautiful, sad or funny is happening before him and he wants to share that vision with the viewer. If there is a story, it is not one that he created, but rather one that he placed himself in the way of watching, a real-life drama. (62)

Observational documentaries strive to depict people’s behaviour and actions through an unobtrusive style of cinematography: ‘to move with [the] characters without interfering in what they are doing’ (Lipscomb 62). Despite how overt or covert the subjectivity of the filmmakers, the observational camp of documentary places the scientific inscription of the camera’s unblinking eye at its centre (in the

digital era, this is often achieved through surveillance footage and hidden cameras in order to maintain the degree of inconspicuousness in its observation). As it will become evident, this representational camp, with its emphasis on the immersion of the camera within the spatial parameters of the event, is most pertinent to the discussion of *Cloverfield*.

As of late, the concept of presenting fictional content through a nonfictional aesthetic has been the subject of much academic discussion. In their text *Faking It: Mock-documentary and the Subversion of Factuality*, authors Jane Roscoe and Craig Hight note the array of terms to which this mode of filmmaking has been referred:

This group of texts have been labelled using a variety of terms; ‘faux documentary’ (Francke, 1996), ‘pseudo-documentary’, ‘mocumentary’, ‘cinéma vérité with a wink’ (Harrington, 1994), ‘cinéma un-vérité (Ansen, 1997), ‘black comedy presented as in-your-face documentary’, ‘spoof documentary’ and ‘quasi-documentary’ (Neale and Krutnik, 1990). (qtd in Roscoe and Hight 1)

Continuing, Roscoe and Hight suggest their own alternative term ‘mock-documentary’ because, for them, it effectively combines the mimesis of documentary film forms and the subversion or ‘parodic agenda towards the documentary genre’ (2). Unfortunately, I find their term as flawed as their predecessors. While Roscoe and Hight cogently identify the group of fiction films that ‘appropriate documentary codes and conventions and mimic various documentary modes,’ they undermine their definition by insisting that the films’ intent is to satirise the documentary form. Science fiction-documentaries are not so much interested in subverting the documentary as they are interested in appropriating its implied veracity as a means of buffering questionable narrative plausibility.

Having been released after Roscoe and Hight’s 2001 text, the body of science fiction-documentaries listed above – *Preyve na Lune*, *Cloverfield*, *District 9*, and

Apollo 18, among others – lies in contrast with their defined terminology. These films do not convey any ‘parodic agenda’ nor direct commentary about the film form itself; rather, this corpus of films taps into the audience’s pre-established assumptions about documentary aesthetics’ associations with ‘fact’ and ‘truth’ in order to advance the suspension of disbelief and evoke spectatorial affect. For this reason I refer to these films presenting science fiction premises through a subsuming documentary aesthetic as ‘specumentary’: a convergence of ‘speculative fiction’ and documentary film forms.

Just as documentaries assume various formal approaches, so too do specumentaries. Some rely upon ‘archival’ footage and interviews to help give shape to the narrative, whilst others prefer a direct cinema approach. Some specumentaries, such as the above described *The War Game*, are difficult to separate from genuine fact. Others, such as Peter Greenaway’s *The Falls* (1980, UK) – a three-hour compilation of individual interviews of purportedly ninety-two (less in reality) randomly selected survivors of a Violent Unknown Event – is an overtly self-reflexive specumentary that calls attention to its hybridised format through the absurdity of the interviews.¹⁰

A more recent specumentary is the 2005 Russian film *Pervye na Lune* which centres around Russia’s secret aeronautical space programme in the 1930s. Through a compilation of interviews and archival footage, the specumentary establishes itself as investigative journalism ultimately thwarted by conspiratorial efforts. The film follows the formation of its first cosmonauts, their training, the efforts to successfully launch a rocket, and the subsequent tracking of the heroic cosmonaut Ivan Harlamov (Boris Vlasov) who, after crashing back to Earth in the mountains of

Chile, was detained by the Soviet government, escaped captivity, and concealed himself as a circus performer.

A similar specumentary concerning aeronautical expeditions to the moon is the film *Apollo 18*, which reveals another, alternative method of constructing the specumentary. Just as documentaries assume different forms such as observational documentaries (those that rely on direct cinema's 'fly-on-the-wall' style or *cinéma vérité*'s 'fly-in-flight' style) and expository documentaries (those, for instance, of David Attenborough which attempt to provide an objective explanation of the natural world, the man-made world, or events occurring in either) so too can specumentaries vary in their own means of construction. *Apollo 18* differs in from *Prevye na Lune* by relying instead upon a pretense of an edited compilation of the astronauts' first-person journey.

Apollo 18 follows three astronauts on NASA's alleged final mission to the moon. Conspiratorially hidden from the public, the film purports to be an edited compilation of the decades-old 'primary source', first-person, found footage recorded by the astronauts in 1973. Astronauts Benjamin Anderson (Warren Christie), Nathan Walker (Lloyd Owen), and John Grey (Ryan Robbins) are sent to the moon on a classified mission to install a series of advanced warning sensors so as to inform the US military of any Soviet nuclear airstrikes. While Grey remains aboard the Apollo command module, Anderson and Walker pilot a lunar module to the moon, where they begin to collect moon rock samples and fulfil their mission. As time progresses, strange occurrences put the astronauts on their guard, and slowly they come to realise that the moon rocks that surround them are in fact living alien creatures. Anderson becomes infected by the burrowing, spider-like rocks, which kill

him from the inside. Walker on the other hand, manages to escape the amassing creatures and return to the module where he lifts off, bound for Grey and the Apollo shuttle. NASA, however, fully aware that Walker has been infected, orders Grey to return to Earth without him. Walker, attempting a space walk to the Apollo shuttle, discovers his suit is contaminated with a myriad of rock-creatures that proceed to ravage his body from the inside out.

Science fiction has always been obsessively interested in the discovery of alien life forms. *Apollo 18*'s documentary style helps to purport this by using as its pretence dated found-footage that exposes a conspiratorial cover-up about miniature moon monsters. Though *Apollo 18* was widely panned by both critics and audiences, this same method of simulating historic footage was found to be most affective in the alien autopsy hoax of 1995, a 17-minute specumentary that producers Ray Santilli and Gary Shoefield sold to US television network Fox on the premise that it was original and authentic footage he acquired from a retired US military camera operator. On 28 August 1995, Fox broadcast the footage that was woven into a larger, one-hour documentary entitled *Alien Autopsy: Fact or Fiction* (1995, US), which attempted to discredit it through various expert analyses. Special effects master Stan Winston and his team presented their opinion about the special effects of the body if it were, in fact, a hoax. Roderick T. Ryan, a combat camera operator for the US Navy during the 1940s and 1950s and the recipient of the Gordon E Sawyer Award in 2000 by the Academy of Motion Picture Arts and Sciences for technological innovations to the industry, was employed to substantiate the autopsy's camera techniques. Forensic pathologist Cyril Wecht, the then chairman of the Department of Pathology at St Francis Central Hospital in Pittsburgh, Pennsylvania,

provided his professional assessment of the autopsy, concluding that the body was ‘humanoid’, though not fully human. The programme’s ambiguity over the validity of the alleged 1947 alien autopsy footage resulted in a swell of media attention, which caused the Fox network to re-broadcast the programme one week later, 4 September 1995.¹¹ What is perhaps most fascinating about the alien autopsy hoax is that it doesn’t so much provide evidence of an alien species as it does provide evidence of how documentary aesthetics implicitly convey the perception of factuality.

While science fiction cinema maintains its reliance on kinescopic realism – that is, the apparent reality of the moving image and the images in movement – the genre has evolved to mimic the veracity of contemporary documentary aesthetics. As noted above, specumentaries had already appeared during the Cold War as in *The War Game*; Peter Watkins’s film, however, resides within science fiction’s apocalypse or post-apocalypse subgenre. The ‘dystopian future’ branch of science fiction – typically earth-bound narratives depicting a barren world caused by nuclear holocaust, environmental retribution, or social collapse – rely on plausible *human-initiated* atrocities to establish its extra-experiential elements. Rather than close encounters with the unearthly ‘Other’, this type of science fiction film exploits the social anxieties regarding errant human agency. In contrast, *Cloverfield* and *District 9* both fuse the antithetical film forms of science fiction and documentary to realise their narratives of *alien-initiated* encounters, though to differing effects.

Cutting Bait: *District 9* and Evidentiary Pretext

While *Cloverfield* remains wholly devoted to its documentary pretext, *District 9* director Neill Blomkamp fails to fully integrate the form. From its beginning *District 9* appropriates a combination of Observational and Interactive documentary styles, assuming a compilation aesthetic intercutting cinéma vérité footage following the central subject, 'archival' footage of the first contact with the alien craft, post-event interviews with professionals, and man-on-the-street reactionary interviews. Blomkamp, however, is either unable or unwilling to sustain this documentary-esque composition.

In *District 9*, an enormous alien aircraft has settled over Johannesburg, South Africa. After a period of inactivity, military personnel breach the craft; discovering a million ailing extra-terrestrial passengers, the government quickly establishes a nearby camp in which to temporarily house and help them. The camp, however, quickly devolves into a permanent slum. Public outcries pressure the government into relocating the creatures away from the city, and political officials establish a task force designed to inform the aliens of their forthcoming move as well as rout any illegal activities such as species reproduction and weapon possession. This necessary exposition efficiently lays the foundation for its narrative of an extra-terrestrial encounter realised through a documentary pretext.

Initially maintaining its charade, the central story follows the unassuming Wikus Van De Merwe (Sharlto Copley) who leads the relocation task force, acting as liaison between the South African politicians who mandate the law and the military soldiers who enforce it. Wikus, displaying the pervasive prejudicial attitude held by

humans towards the aliens, conducts his search and seizure of the alien slum, upending their shanties and giddily burning incubating alien foetuses.

A turning point occurs when Wikus discovers a strange vial of black liquid that he inadvertently sprays into his face. Shortly thereafter he begins a corporal metamorphosis. What hitherto could be described as a meandering structure revealing the cruelty and political imbalance of social apartheid now snaps back into what John Orr refers to as the ‘empathic quest and narrative overdrive’ (30). Wikus’s arm mutates into that of an alien arm, capable of operating the aliens’ species-specific weaponry. Taken into federal custody and regarded as a military tool rather than an individual, Wikus escapes captivity and flees into the alien slum where he develops a tentative partnership with an alien named Christopher whom Wikus believes can help reverse the metamorphosis. As bloodthirsty slumlords and power-hungry soldiers converge on the human anomaly, Wikus successfully helps return Christopher to his mothership, who leaves for home with the promise of returning with a cure.

Subtly and intentionally, *District 9* abandons its documentary pretence. Though Blomkamp bookends the film with interviews and news footage of diegetic events, significant portions of the film are told using conventional fictional film language. Indeed, the established ‘documenting’ camera is curiously given access to private interactions among specific alien characters, including conversations behind closed doors complete with shot-reverse-shot editing and subtitled translation [Figure 2.5]. The abandonment of the pretext indicates the director’s emphasis on the narrative and its central themes, rather than his commitment to any formal cohesion. The most overt themes within Blomkamp’s film are the direct assertions

between the racist aggressions against the alien ‘prawns’ and the racist aggressions against the black community during South Africa’s apartheid regime. The imagery of segregation and the not-so-latent desire for genocide echo more through the progression of the narrative and its shift towards sympathising for the aliens than by its equivocating formal aesthetics.



Figure 2.5 *District 9* (2009)

An over-the-shoulder shot of a conversation between two aliens, forsaking the established documentary aesthetic.

Whereas *District 9*’s narrative and aesthetic constructs lead one towards a fairly straight-forward textual reading, *Cloverfield*’s meticulous adherence to its subsuming aesthetic creates a highly sophisticated film that *suggests* multiple, though contradictory, analyses that ultimately comes back to the discussion of impact aesthetics and Tom Gunning’s ‘Cinema of Attraction.’

Cloverfield and *Godzilla* (1998): ‘Coney Island’ Attractions

In 1949, author E B White concluded his study *Here is New York* with what would become a most prophetic admonition:

The city, for the first time in its long history, is destructible. A single flight of planes no bigger than a wedge of geese can quickly end this island fantasy, burn the towers, crumble the bridges, turn the underground passages into lethal chambers, cremate the millions. The intimation of mortality is part of New York now; in the sound of jets overhead, in the black headlines of the latest edition. Of all targets, New York has a certain clear priority. In the mind of whatever perverted dreamer might loose the lightning, New York must hold a steady, irresistible charm. (qtd in Dixon 17)

Indeed, the charm of imagining the destruction of New York City has been a subject of fascination for countless artists for over two hundred years. As Max Page writes in his text *The City's End: Two Centuries of Fantasies, Fears, and Premonitions of New York's Destruction*, 'No city has been more often destroyed on paper, film, or canvas, and no city's destruction has been more often watched and read about than New York's' (14). Whether by aliens, colossal creatures, meteorites, or atomic bombs, science fiction cinema is drawn to the notion of witnessing the spectacle of the city's destruction without the burden of guilt or responsibility. As E B White states, the fall of New York City holds an 'irresistible charm' and not merely for those maniacal misanthropes who simply want to watch the world burn, but for spectators drawn to the next big-budget destruction spectacular.

After lying dormant for many years, the branch of science fiction cinema known as the Colossal Creature Feature has risen again. In 1998, Columbia Tristar released Roland Emmerich's *Godzilla* (US/Japan), a re-envisioning of the iconic Japanese *daikaiju* [giant monster] but for the digital era, with the big-budget Hollywood blockbuster treatment. Ten years later, Paramount Pictures released *Cloverfield*, similarly a film about a colossal creature run amok in New York City, though antipodal from *Godzilla*. A comparative analysis of these two films will help identify how *Cloverfield* surpasses its predecessor by tapping into the incongruities

that Sobchack posits as the source of the sublime-like pleasure within mass destruction imagery (see Chapter Two), to be followed by a close reading of *Cloverfield* and its multiplicity.

Dan North comments, ‘for all its surface novelty, the early years of CGI proliferation in Hollywood were almost exclusively devoted to using the technology to rework older, or less ‘hi-tech’ forms of spectacle’ (137); Emmerich’s *Godzilla* is precisely this: a re-working of an earlier special-effects dependent film through the availability of digital technology. Emmerich however, appropriates the Japanese icon and its characteristic nature of destruction and re-situates it within New York City rather than Tokyo. By inscribing the symbolism of New York City into *Godzilla*, Western audiences are not only afforded a sense of immediacy and proximity to the destruction but also a means to experiencing greater spectatorial affect through its connotative, symbolic representation; as Page states, ‘To destroy New York is to strike symbolically at the heart of the United States’ (14). A quick synopsis of *Godzilla* will help to reveal the degree of disparity between itself and *Cloverfield*.

Godzilla opens with a montage of atom bomb detonations in the South Pacific: vast mushroom clouds expand beyond the limits of the frame as a group of komodo dragons are inundated with bright light; from its outset, the film establishes that mass destruction will be a subsuming constant. A monstrous attack on a fishing vessel in the South Pacific incites the US military to recall mild-mannered nuclear radiology biologist Dr Niko Tatopolous (Matthew Broderick) from his research on the biological mutations in Chernobyl and apply his expertise to a new and destructive aberration. While a small unit of French operatives led by Philippe Roaché (Jean Reno) perform their own covert analysis, the US military tracks the

creature's path of destruction across Panama and up through the Atlantic Ocean to the US's eastern seaboard. The colossal creature suddenly and dramatically makes landfall on Manhattan Island, where Tatopolous's ex-girlfriend Audrey (Maria Patillo) is, despite her efforts, failing to become a television news reporter. An initial rampage into New York City inflicts massive urban destruction, leading Audrey and cameraman friend Animal (Hank Azaria) out into the streets to record footage of the creature. When the US military attempt a retaliatory strike against the colossal bipedal lizard (inflicting an equal amount of damage to the city), it escapes into the underground system of subways and self-burrowed tunnels.

While New York City is evacuated, Audrey reunites with Tatopolous, but abuses his friendship by broadcasting classified information about his theory on the creature's pregnancy that results in Tatopolous's removal from the US military's service. The military publically disavows the creature's pregnancy and focuses its efforts on destroying the creature. Roaché, on the other hand, finds Tatopolous an invaluable resource and enlists his help as the French operatives infiltrate Manhattan's crumbling cityscape to locate the creature's alleged nest. Feeling guilty, Audrey and Animal set out to prove Tatopolous's theory was correct; the two parties meet at New York City's indoor arena Madison Square Garden, where they discover the creature has laid hundreds of eggs. Nine-foot high hatchlings begin to emerge, rapidly forcing the four remaining survivors – Tatopolous, Audrey, Animal, and Roaché – to take refuge in the arena's press booth, where Audrey sends out a live broadcast that vindicates Tatopolous while Animal records footage of the hundreds of hatchlings. The four survivors escape the infested arena just as US fighter jets destroy the building and the hatchlings inside.

Though the US military considered the parent colossal creature destroyed, it suddenly rises up from amidst the rubble of the arena and pursues Tatopolous and company. Through a combined effort, Rouché and Tatopolous and the US military trap the creature among the suspension cables of the crumbling Brooklyn Bridge where fighter jets finally slay the giant mutated komodo dragon.

While the obvious promise and consummation of mass destruction pervade the film, a special significance is placed on the visual recording of the creature and the central role television news journalism takes within the narrative. Animal is driven by the desire to record, in a sense ‘capture’, the image of the behemoth. Audrey steals a classified video recording of the creature’s destruction across Panama in the hopes that the authentic classified video will allow her to advance her career. The footage Animal records in Madison Square Garden establishes Tatopolous’s theory about the hatchlings as ‘fact’, and the degree to which Animal’s recordings are inscribed with authenticity is revealed by the severity of the violence wrought by the military fighter jets as a direct result. Additionally, the film’s opening montage of atomic bomb explosions assumes a documentary aesthetic: images of the South Pacific islands, komodo dragons, radiation-suited workers, and the subsequent mushroom clouds are realised through a scratched and grainy film stock and handheld cinematography, with an occasionally visible on-screen countdown and sprocket holes at the edge of the screen.

Although *Godzilla* intradiegetically emphasises the necessity to ‘document’ the catastrophic event, the film contradicts itself by failing to acknowledge its own artifice. *Godzilla* rejects the necessity of authenticity through its subsuming aesthetic of impact spectacles and Heath’s third-person, ‘scenographic’ spatiotemporal plane.

Its CGI-enhancements, the flawless lighting, the smooth cinematography, and the implausibly ‘happy-ending’ narrative structure all suggest a conspicuous manipulation and contrived filmic construction that are collectively antithetical to the veracity of the spontaneously recorded event.

These formal concerns, however, are ultimately superficial flesh wounds. The underlying reason for the film’s failure lies not in its spectacle but its refusal of any metaphoric subtext. *Godzilla*’s parentage, those Cold War science fiction films of the 1950s and 1960s, were infused with the social fears and anxieties regarding sudden and global annihilation. In the post-Cold War era, however, Emmerich’s *Godzilla* is left without any such anxiety. As Sobchack writes:

In *Godzilla* [1998], taking on the functions of nearly every 1950s city-stomping giant reptile or insect, Godzilla tromps Manhattan – but lacks the affect generated by Atomic Age anxieties about nuclear annihilation, mutation, and a return to the world as ‘primal sink’. (‘Cities on the Edge of Time’, 85)

While the original *Gojira* from 1954 suggests the destructive creature is a metaphoric representation of the United States and its destruction of Hiroshima and Nagasaki, Emmerich’s post-Cold War *Godzilla* neither bears any direct metaphor nor reflects any social anxieties of the 1990s such as concerns about global warming, political relations in the Middle East, advancing technology, or outbreaks of disease. Furthermore, the contemporary *Godzilla* coyly passes responsibility for creating the radioactive mutation from the US to France, absolving the US of *Godzilla*’s original metaphoric meaning as destructor and annihilator. As responsibility shifts from the US to France, however, the film still refuses to infuse its narrative with any significant subtext by failing to associate this French connection with other atrocities committed in twentieth-century French history. The covert team of French operatives

has been deployed for the purpose of covertly taking responsibility for the consequences of the nation's atomic bomb tests in the South Pacific. As Jean Reno's character Rouché readily admits, 'these tests done by my country left a terrible mess. We're here to clean it up.' The French operatives' mission to cover up a mistake 'we don't want the world to know about' is disquieting, though it passes unnoticed and unquestioned within the narrative. This intent to quietly bury wrongdoing brings to mind France's other hateful cruelties that it has attempted to hide from the world, as in the Vel' d'Hiv Roundup of 1942 or the Paris Massacre of 1961 during the Algerian War, yet *Godzilla* regards the actions of the French operatives as admirable.

Godzilla, then, seems to either trivialise or altogether eschew any subtextual motifs that would resonate with its contemporary spectators. *Cloverfield*, on the other hand, stands in remarkable contrast. Produced by J J Abrams and directed by Matt Reeves, *Cloverfield* emerges ten years after *Godzilla* within a post-9/11 climate rife with anxieties about terminal natural resources, the War in Iraq, and above all, terrorism. Indeed, *Cloverfield* incorporates each of these to varying degrees, bulwarking its familiar narrative with these contemporary social anxieties and fears. Yet *Cloverfield* is remarkable because it not only reveals these anxieties through its narrative events but also through its subsuming aesthetic as a 'found-footage' specumentary.

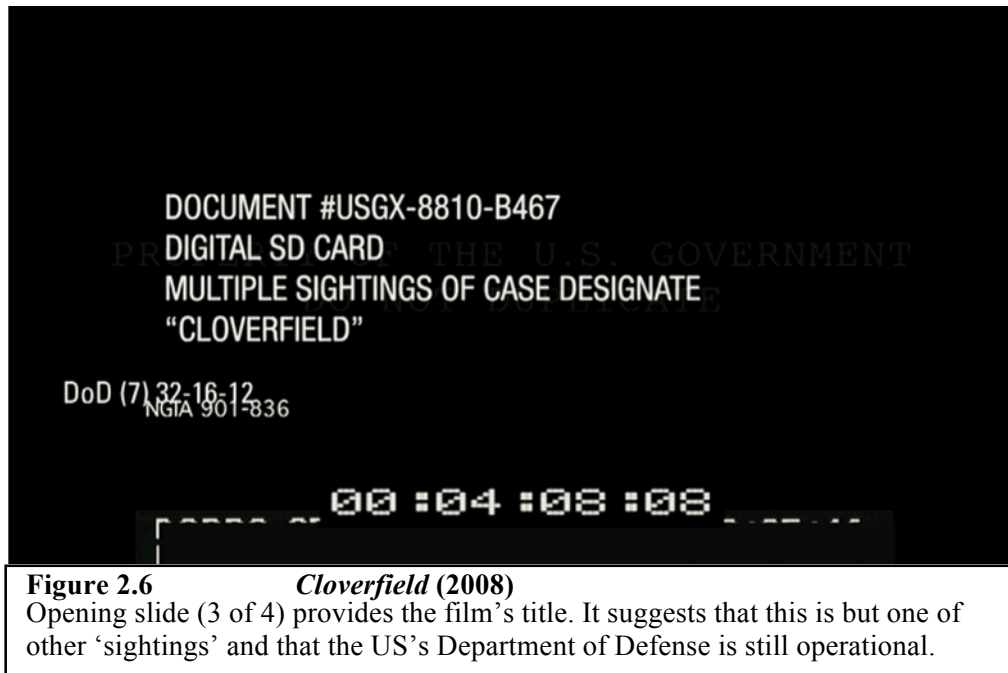
Cloverfield's narrative about a colossal creature run amok is the bread-and-butter formula for the genre, if not the *raison d'être* itself. In this iteration, a group of middle-class Twentysomethings, while at a party for Alpha-male Rob (Michael Stahl-David), is forced to flee when an enormous monster attacks New York City; despite the surrounding danger and destruction, dedicated friends such as Hud (T J

Miller) accompany Rob as he attempts to rescue his estranged girlfriend Beth (Odette Yustman), who is trapped near the top of a skyscraper. This is the basic framework of the narrative; however, a more detailed synopsis will better illustrate the central points of the subsequent discussion.

The film opens with three seconds of SMPTE colour bars and tone and running timecode, simultaneously commencing the found-footage charade and preparing the filmgoer for a video format aesthetic.¹² Four subsequent slides bear a semi-opaque watermark in the background that reads, 'PROPERTY OF THE U.S. GOVERNMENT. DO NOT DUPLICATE.' The slides bear titles that read, respectively, 'U.S. DEPARTMENT OF DEFENSE', 'DARPA', 'Digital SD Card / Multiple Sightings of Case Designate / "Cloverfield"', and 'CAMERA RETRIEVED AT INCIDENT SITE "US-447" / AREA FORMERLY KNOWN AS "CENTRAL PARK"' [Figures 2.6, 2.7]. From there the film opens with a POV perspective from Rob in Beth's high-rise apartment in the early hours of 27 April. Rob and Beth enjoy the freshness of young love and spontaneously decide on a daytrip to Coney Island. A timecode break is revealed by a flash of static white noise and the introduction of a new spatiotemporal realm: the face of Jason (Mike Vogel) looks into the camera, the light and surrounding space has altered, and the date May 22 is stamped into the corner.

Lily (Jessica Lucas) and fiancé Jason finish last minute preparations for his brother Rob's send-off party. Jason, uninterested in his role as videographer, passes off the position to Hud, who subsequently shoots footage of the party and various first-person farewells, including Marlena (Lizzy Caplan), to whom Hud is attracted. Rob arrives at the surprise party, but tension is caused by the late arrival of Beth and

her new boyfriend. After a brief stay, Beth and the new boyfriend leave. Jason gives Rob a relationship pep talk, but they're interrupted by what they assume is an earthquake. The party rushes to the roof where a distant explosion propels fireballs into their general direction. Out on the street, Rob, Jason, Lily, and Hud witness the Statue of Liberty's head hurtling through the city, coming to rest in front of their building. Hud captures a glimpse of the enormous creature passing between



buildings. A distant skyscraper collapses, sending a giant tidal wave of dust and debris towards the surrounding people. Hud, Lily, Jason, and Rob seek shelter in an adjacent convenience store, wait out the attack, then emerge to find the street and various people covered in grey ash, including Marlina. Rob and company decide to evacuate the city on foot over the Brooklyn Bridge among the masses of other New Yorkers. Rob receives a frantic call from Beth, but is cut short when Rob's cell phone runs out of battery. The creature's tail suddenly emerges and destroys the bridge, killing Jason. A stunned Rob snaps back into action when they come across

an electronics store being looted. Hud, Lily, and Marlana follow Rob where he finds a new battery for his phone. Inside the store a news broadcast visually reveals more of the creature, including vicious, spider-like parasites dropping from its body. Rob replaces his cell battery and hears Beth's message: she's trapped and hurt.

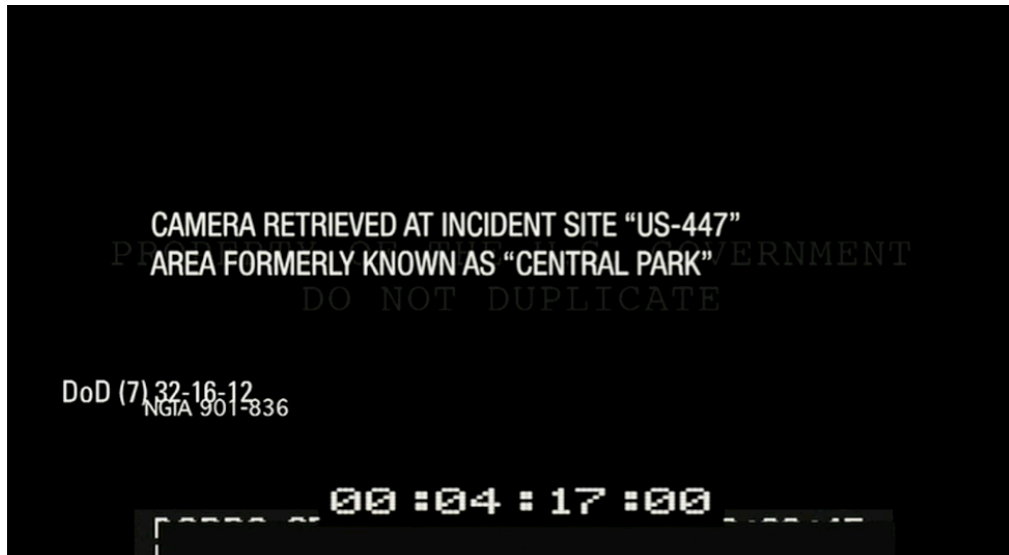


Figure 2.7 *Cloverfield* (2008)
Opening slide (4 of 4) implies the camera will either be abandoned or its operator will be killed and that New York City's Central Park will be destroyed.

Rob sets his mind to rescuing her; Lily decides to help and Marlana and Hud begrudgingly join them despite the city's continued civilian evacuation. The four find themselves in the middle of a combat zone between the military and the creature, and they quickly escape into a subway station. Rob and company decide to follow the train tracks through the tunnel towards Beth's building. An encounter with two parasites leaves Marlana bitten; the four manage to escape up to the adjacent station, and are met by armed soldiers who usher them into a makeshift military command centre and MASH unit. Although he hears the commanding officer report that bombers are en-route, Rob pleads with the arresting soldiers to let them go on their way. Doctors discover Marlana's parasite bite and rush her into a

quarantine tent where she subsequently explodes. Rob, Lily, and Hud are escorted out by the soldiers who inform them of the time and place of the last airlift before the bombing.

Rob, Lily, and Hud discover her lofty apartment building has been knocked over onto a neighbouring skyscraper. Manoeuvring their way across the roof of the adjacent building, the three arrive at Beth's apartment and rescue her from a spike impaled through her shoulder. They hurry down to street level and race for the airlift site. Lily is pulled into the first helicopter and is safely airlifted away. Rob, Beth, and Hud fly off in the second helicopter as the creature threatens the launch pad. Now airborne, Hud records a B-2 airstrike on the creature, resulting in massive explosions and clouds of smoke. Presumed dead, the creature suddenly lunges at their helicopter, sending it into a spinning freefall which then crashes into Central Park. The chaos of the fall jolts into sudden stillness and silence. Slowly, Hud, Beth, and Rob emerge from the helicopter only to meet the creature 'face-to-face'. Hud's camera records his gruesome demise. Grabbing the camera, Rob and Beth take shelter under the Greysheet Arch bridge. Addressing the camera, the couple informs any future viewers of their personal identity and what little they know about the events; explosions bury Rob, Beth, and the camera in rubble; they mutually profess their love. A timecode break reveals a tranquil Coney Island from atop the Ferris wheel, where Rob and Beth enjoy each other's company. A pixelised freeze frame of Beth cuts to black where the end credits roll in standard fashion.

Given the film's basic narrative structure of a handsome young man overcoming a colossal creature in order to rescue the damsel-in-distress trapped in a tall tower, *Cloverfield* could be easily dismissed as a timeless fairy tale, if not for the

manner in which the story is revealed. Exemplifying Leo Braudy's description of genre revitalisation through an 'injection of realism,' the story is narrated through a single, handheld home digital video (DV) camera couched as raw *unedited* 'found footage' (668).¹³ Daniel North, in his essay on the film's obstruction of visuality, writes: 'The spectators are prompted to assume the position of investigators watching a piece of documentary evidence' (77). North's statement is accurate yet incomplete, and I find it necessary to delve into the manners in which the film assumes its pretext as evidentiary artefact as well as the critical quandary pervading the implications that the film's formal approach begets.

Cloverfield's shaky handheld DV aesthetic inherently invokes comparisons to its low-budget horror film antecedent *The Blair Witch Project* (1999, US), whose use of the 'found footage' device helped propel both the film and the form into international fame and infamy. Unlike *Blair Witch*, however, which edits its reels of ostensible source material into a coherent narrative framework, *Cloverfield* assumes an appearance of a single, *unedited* reel of primary source footage. Though this seems like splitting hairs, the distinction is paramount to the film's masquerading realist pretext.

Just as classical realism theorists Bazin and Siegfried Kracauer's champion the photographic medium's ability to render a referent image without human interference (allegedly, discussed further in Chapter Four), *Cloverfield*'s pretence as 'unedited' source footage invokes a sense of authenticity through its illusion of a mediated disaster devoid of post-production manipulators. As a result, the frequent jump cuts and time code breaks do not act as intrusions of discontinuity conveying the hand of post-production engineers but rather the authenticity of operator and

environment interfacing with the camera. As Bruce Isaacs states, ‘There is a tremendous vicarious thrill in the spectator’s perception of the hostile character through a technologically mediated form.’ (142)

Additionally, in contrast to *Godzilla* and the majority of contemporary science fiction cinema, *Cloverfield* maintains its observational, *cinéma vérité* aesthetic by refusing any temporal abstractions (it employs neither slow-motion nor fast-motion effects) as well as rejecting any extra-diegetic sound (e.g. musical score, voice-over narration) or intra-diegetic sound (e.g. inner monologues, hallucinations, telepathic communications). By channelling documentary’s observational style, *Cloverfield* asserts the image as evidence – unabashedly self-aware and yet wholly committed to the formal requirements of a documentary-associated aesthetic.¹⁴

Each genre has certain rules; ‘for a work to be said to have verisimilitude, it must conform to these rules’ (Neale 32). Drawing on literary structuralist Tzvetan Todorov, Jonathan Culler delineates differing modes of verisimilitude, specifically *vraisemblance* to lived experience, or that which ‘seems to derive directly from the structure of the world,’ and *vraisemblance* to generic constructs, ‘to permit both compliance with and deviation from accepted modes of intelligibility’ (164, 172). According to Steve Neale, the Colossal Creature Feature is particularly dependent upon the interaction of generic and sociocultural verisimilitudes – films formed by a fusion of mimetic reality and absurdist fantasy, yet whose existence depends upon the spectator’s satisfaction with the authenticity of their onscreen collision (34). The pleasure the viewer derives from such films is ultimately dependent on its persuasiveness as an ‘authentic’ image.

Even before any spatiotemporal diegetic image is proffered, *Cloverfield* proposes its claim of authenticity and establishes its unedited pretext by displaying header slides that, though deceptively simple, communicate generous amounts of information to the viewer. The viewer knows, for instance, that Central Park no longer exists, relabelled ‘site US-447’; she can further surmise that since the camera was retrieved at that location, the film to follow will most likely conclude there (which it does). Additionally, the viewer is made aware of the continued functionality of the US government in which the Department of Defense not only maintains its central research and development office DARPA (Defense Advanced Research Projects Agency) but also retains a position of censorship over the images of the incident.¹⁵

Just as the implied authenticity of Watkins’s *The War Game* was contributed to by governmental censorship, the announcement of *Cloverfield* as classified and property of the U.S. Department of Defense purport its own politically motivated suppression. The images that are to follow, then, assume a guise of subverted ‘truth’ bearing associations with veracity because of the implied efforts taken to obstruct them. Daniel North writes:

[The opening slide] has been preceded by the customary production and distribution company logos, which establish the film as a commercial property to be consumed as entertainment, but the Defense Department stamp effectively sections off the fiction from those “other” authoritative labels. This creates the pretext of an alternative ownership, and thus, creates a framework within which all subsequent images will be interpreted as a chronicle of actual events – testimony from an eyewitness. (77)

André Bazin argues that the authenticity of the film image is founded on the perception of realism within its frame, however coerced or contrived, and that ‘believability is undoubtedly tied in with [...] documentary value. The events they

portray are partially true' (47, 48). As preconceived, woolly notions of audio-visual veracity evolve within sociocultural contexts, so too do expectations of generic *vraisemblance*. *Cloverfield* attempts to authenticate its subject through sociocultural *vraisemblant* visual associations with contemporary handheld video as well as *cinéma vérité* documentary aesthetics. Just as Orson Welles utilises the forms and aesthetics of the *March of Times* newsreels in his 'News on the March' segment in *Citizen Kane* (1941), so too do contemporary science fiction films' use documentary forms and devices to, 'stretch the sacrosanct bounds of filmed reality' (Isaacs 11).

Eschewing narrative cinema's normative spatial continuum, *Cloverfield*'s single-camera aesthetic seems to fulfil Sobchack's prediction for the genre's future: 'What we move toward, thirst for, in such films, what fulfilment we find in them is in the cinematic realization of an *imaginary action* occurring in what seems to be documented *real space*' (140, original emphases). Indeed, control over narrative space and the interactions among characters, environs, and camera is particularly central to *Cloverfield*.

In renouncing classical spatial construction or what Stephen Heath describes as 'scenographic vision' – that is, the presentation of narrative subjects and actions through the juxtaposition of shots varying in angle and size that nevertheless maintain a unified spatiotemporal *durée* within the scene – *Cloverfield*'s wandering single-camera circumscribes its narrative space through a constant flux of 'in frame' and 'out of frame' elements (86). Noël Burch argues that off-screen space vacillates between existence and non-existence in accordance to the governing demands of the onscreen space; Heath claims that off-screen space is supposititious, in light of classical continuity editing's constant suturing of on-screen narrative space that

presumes a spectatorial presence (Burch 21; Heath 88-89). *Cloverfield* resists both Burch and Heath's analyses.

The film's interminable camera-POV (critically not character-POV, due to transitions in operators and moments of abandonment) is often subjected to character and environment's off-screen influences, which are themselves made manifest by the film's 360-degree soundscape. Off-screen threats exist through audible suggestion, to which on-screen characters and elements react, often providing the motive for camera pans that visualise and substantiate their existence. The notion that sound actualises diegetic elements prior to visualisation (e.g. a monstrous roar, a scream, an explosion) confirms for the spectator an encircling narrative space. As Bazin writes:

The screen is not a frame like that of a picture, but a mask which allows us to see a part of the event only. When a person leaves the field of the camera, we recognize that he or she is out of the field of vision, though continuing to exist identically in another part of the scene which is hidden from us. (105)

The film's opening shot in which Rob overlooks Central Park and the seemingly endless urban landscape that surrounds it first establishes New York City as the arena for the subsequent events. Admittedly, this is a conventional a means to establishing narrative space; however, the unrelenting position of the recording device as the epicenter of these events with the boundaries of the arena reinforced through the *connaissance* of New York City, emphasises *Cloverfield*'s narrative space as existing regardless of camera position, requiring a unified off-screen spatial continuum that, at any given moment, may be captured by the wandering camera. The numerous diegetic elements – the characters, the crumbling urban environment, the military battery, the creature and its parasites – are positioned within a single,

unified spatial environment and exist irrespective of camera position. They act/react/interact in accordance with one another and the spatial environment.

For Bazin, a principle law of realist aesthetics mandates, ‘When the essence of a scene demands the simultaneous presence of two or more factors in the action, montage is ruled out’ (50). Establishing an illusion of realism, then, must refuse editing between referential subjects and special effects shots and incorporate the two within a single frame; the blatant manipulation of intercutting between an ill-tempered colossal creature and the panicking masses undercuts the visual authenticity of their interaction through spatial segregation. ‘It is simply a question of respect for the spatial unity of an event at the moment when to split it up would change it from something real into something imaginary’ (50).

Dependence upon superimposition, matte paintings, or Harryhausen-esque stop-motion effects have long refused montage as a means of unifying, as André Gaudreault terms, the profilmic with the filmographic (90). Yet pre-digital unification was nevertheless limited to stationary, static shots regardless of editing pace. Vivian Sobchack argues that the incongruity between a colossus wreaking destruction and the cold stillness of the camera presenting it imbues the Colossal Creature Features of the 1950s and 60s with a sense of science fiction-specific wonder (143-44). Yet with digital post-production visual effects, not only do the antithetical elements interact, sharing environmental limitations and Newtonian laws, but they do so despite the incessant, unedited repositioning of the camera. Through the advancement of digital technologies, the constant movement of the camera in *Cloverfield* reinforces the illusion of an interaction between familiar and fantasy

within a single spatiotemporal plane. Though Sobchack argues the stillness of the camera contributes to spectatorial affect, prior to this she states:

A great deal of our rising curve of excitation is based on a cinematic teasing of our desire to see ‘everything’ in one uncut long shot, to see what we know is unreal and impossible made real – authenticated – by its presence in a real and familiar context which has been photographed in a manner reserved for actual and real happenings, uninterrupted by either art or commentary. (137)

Cloverfield, seems to fulfil this prophecy: its manner suggests ‘real happenings’, its *unedited* pretext as ‘uninterrupted’, its spatial context ‘familiar.’ By strictly adhering to the visual and aural spatiotemporal laws of observable reality, *Cloverfield*’s ‘found-footage’ illusion employs formal elements that yield other textual considerations that surpass discussions of cinematic realism.

Pasolini Death Montage?

Cloverfield maintains its subsuming aesthetic concept as spontaneous and unedited amateur ‘found footage’ by strictly adhering to the visual and aural spatiotemporal laws of observable reality. Unlike the vast majority of science fiction cinema, *Cloverfield* rejects the genre’s contemporary accoutrements of temporal abstractions, as in *The Matrix* (1999, US/Australia) or *Transformers* (2007, US). *Cloverfield* also foregoes the usage of extra-diegetic sounds such as musical score or voice-over narration, as in *Independence Day* (1995, US) or *The War of the Worlds* (2005, US), and likewise refuses intra-diegetic sound, such as inner monologues, hallucinations, or telepathic communications, as in *X-Men* (2000, US) or *Eternal Sunshine of the Spotless Mind* (2004, US). In realising *Cloverfield*’s ‘found-footage’ illusion, however, the formal elements that *are* employed in lieu of these generic staples yield other textual considerations.

As a result of its ‘unedited’, single-camera perspective, *Cloverfield* finds an unexpected connection with Pier Paolo Pasolini’s comments about the passing of life in cinematic terms. The director states, ‘It is impossible to perceive reality as it happens if not from a single point of view, and this point of view is always that of a perceiving subject’ (3). The subject’s reality occurs from its singular perspective and ‘is always in the present tense’ (3). *Cloverfield* depicts its diegetic reality through a wandering POV shot existing in time as, ‘the story [is] in the process of being created’ (Johnson 50).

Stemming from his comments on the Zapruder film, Pasolini refers to life as one long take that only cuts at the moment of death (5). More precisely, the long take of one’s life cuts at the moment of montage just before death, where life passes before one’s eyes:

Death performs a lightning-quick montage on our lives; that is, it chooses our truly significant moments (no longer changeable by other possible contrary or incoherent moments) and places them in sequence, converting our present, which is infinite, unstable, and uncertain, and thus linguistically indescribable, into a clear, stable, certain, and thus linguistically describable past [...]. It is thanks to death that our lives become expressive. (6)

If Pasolini’s spliced and sutured death montage of a life’s single subjective perspective can be read as a hyper-long take, perhaps *Cloverfield*, can then be regarded as the protagonist Rob’s death montage? Rob provides the film’s first images, directing the camera’s eye as he records Beth in bed, giddy with young love; moreover, Rob provides the final images at Coney Island that terminate with a freeze-frame close-up vision of Beth before cutting to black [Figure 2.8]. In the penultimate shot, Rob directs the camera at himself and Beth as they deliver their ‘deathbed’ addresses and profess their mutual love as an explosion buries them in

rubble. Rob operates the camera in the opening, and he operates the camera at the point of death.

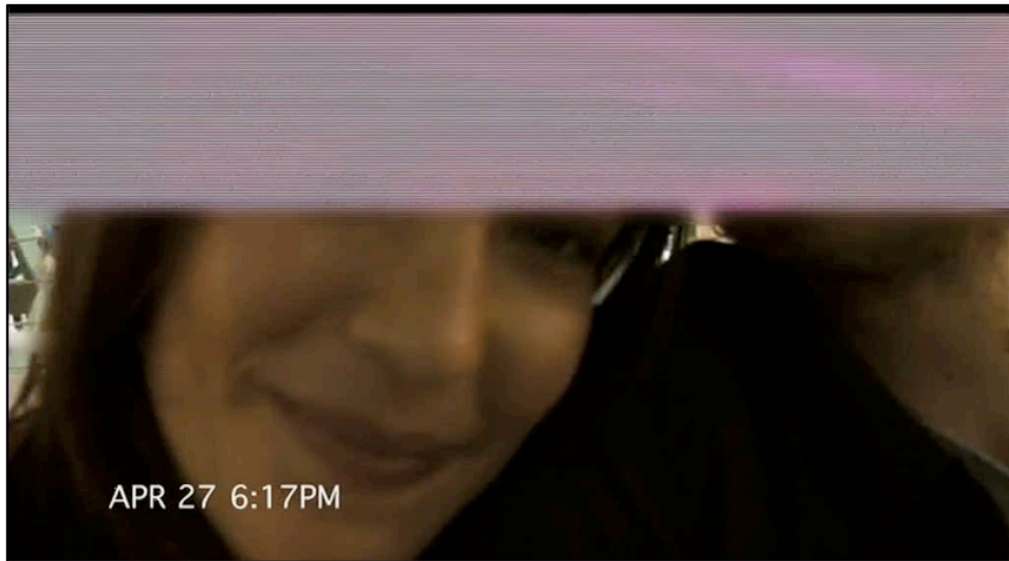


Figure 2.8 *Cloverfield* (2008)
The final image: a freeze-frame of Rob's beloved and object of desire

Admittedly, Rob, within the temporal plane of the creature's attack, doesn't touch the camera until Hud's demise at the film's climax, yet this caveat can be resolved by establishing Rob's centrality to the narrative. Rob is, in fact, the motive for nearly all of the subsequent images, not just those bookending the film. Rob's forthcoming departure to Japan provides the impetus for the party and the presence of the camera (to record his friends' first-person farewell wishes). Hud's candid and occasionally intrusive recordings of the interpersonal interactions at the party – apart from, significantly, his distracted attraction to Marlena – all centre on Rob and begin to reveal the causes behind Rob and Beth's estrangement.

Even admitting aloud that Rob is his 'main guy', Hud maintains a tight orbit around him. During a crucial moment when Rob informs his remaining satellites that he will not evacuate the city but journey to rescue Beth trapped in her towering

apartment, Hud opines that the quest is tantamount to suicide, and then dutifully accompanies the actuated Rob. When Rob emerges from safety, Hud follows. When Rob charges ahead, Hud follows. Ever the proverbial wisecracking sidekick, Hud never leads but remains confined to orbit the protagonist-centric system. Even when Hud's object of desire Marlena violently explodes, Rob wastes no time mourning and presses on for Beth, and Hud follows.

Ultimately, however, the Pasolini death-montage reading cannot stand. The central fallacy in regarding *Cloverfield* as Rob's memory is that the mindscreen – defined by Bruce Kawin as 'a visual (and at times audible) field that presents itself as the product of a mind' – presented through the DV camcorder is *not* Rob, nor Hud, nor any single individual (ix). Despite its obvious subjectivity, *Cloverfield's* perspective is as much a product of an operator as it is without, and often captures images 'created' by the whims of the narrative space. As Kawin succinctly states, 'although a camera does not have consciousness, and cannot therefore be an *I*, it is possible to encode the image in such a way that it gives the impression of being perceived or generated by a consciousness' (ix).

Cloverfield communicates an *impression* of consciousness, yet it can neither be pinned to any single individual nor itself. As mentioned above, Hud's interviews during the party sequence often return to Marlena, an invitee not associated with Rob but who provides an allure for Hud. Despite the specumentary form's suggestion of objectivity, Hud's recordings are nevertheless explicitly subjective. During the party Hud's detached observer flits among its attendees, his prying camera eavesdropping without remorse or regard, and his multiple advances on Marlena clearly exhibiting a subjective mindscreens disparate from Rob's opening mindscreens in the apartment.

Because the viewer is presented not with a character's mindscreen but with impersonal recordings from an inanimate machine across multiple temporalities, the foundation for reading the text as a Pasolini death-montage erodes.

Furthermore, Pasolini describes the singular perspective as always occurring in the present tense (3). This perhaps, more than the impossibility of a mechanical mindscreen, undermines a death-montage reading. Even before any spatiotemporal diegetic image is proffered, *Cloverfield* establishes its pretext through the header slides. The slides, foretelling the subsequent images that culminate at 'Incident Site "US-447" / Formerly known as "Central Park",' suggest that the viewer screening the tape, logged as evidence by the US Department of Defense, exists in a time when New York City has been decimated beyond salvage (i.e. *incident site, formerly known as*) but the United States as a nation remains intact with an operational federal department working to retain records of the cataclysmic event and which the Defense Advanced Research Projects Agency (DARPA) works to prevent the potential threat of similar attacks.

In this way, the present can be seen as the experience of *screening* the video footage, itself existing in the past. Confounding Pasolini's emphasis on film existing in the present, the *Cloverfield* footage reveals not a single temporal past but multiple concomitant past temporalities. Perhaps a textual reading of *Cloverfield* yields more fulfilling results by addressing these disparate temporal planes that suggest the potential applicability of Gilles Deleuze's theories of a time-image cinema.

Deleuzean Palimpsest?

At a cursory glance, Gilles Deleuze's time-image cinema seems keenly applicable to *Cloverfield*. Though the central narrative depicts the attack on New York as transpiring chronologically, this temporal plane is often intruded upon by glimpses of another. The unedited source reel reveals itself to be a palimpsest of images and contemporaneous realities. Timecode breaks during the narrative proper reveal past events running concurrently beneath its surface, exemplifying Deleuze's time-image concept of overlapping temporal *durées*. Deleuze writes, 'It is the coexistence of distinct durations, or of levels of duration; a single event can belong to several levels: the sheets of past coexist in a non-chronological order' (xii). The concurrent temporal layers within *Cloverfield*'s diegesis, revealed by timecode breaks due to moments of camera damage or tape manipulation during its handling on May 22, refract time into two separate planes made evident by the on-screen data imprints: the events on May 22, recording the party and subsequent attack, and the events on 27 April in which Rob and Beth enjoy a morning of young love and a trip to Coney Island. For example, at one point on May 22 Hud rewinds the tape to show the others the glimpse of the creature he just recorded; in so doing the tape reel advances past the point of Hud's initial pause to reveal Rob and Beth on the train bound for Coney Island.

Compounding the multiple *durées* in flux, *Cloverfield* contains crystalline moments of specific images caught in stasis that further suggest the applicability of a Deleuzean reading. Looters in an electronics store stand motionless watching a news bulletin. A white, gilded horse traipses driverless with its empty carriage down an

evacuated boulevard. Deceased protagonists return to enjoy the Ferris wheel on Coney Island.

In addition to the intra-frame juxtaposition of incongruous images, real-time (that is, when one second of diegetic time equals one second of viewing time) long takes also contribute to the film's ambivalence towards temporality. During the confusion of the first attack, Hud records in long take the collapse of a skyscraper. As a subsequent tidal wave of dust and ash rushes towards Rob and company, Hud records their flight into a convenience store and their helpless cowering as the blast rattles the building. Emerging seventy-five seconds later, still without edit, Hud pans across the ash-covered street and the dazed survivors unfortunate enough to have endured it.

One aspect to Deleuze's time-image is the rupture of the sensory-motor schema: 'the rise of situations to which one can no longer react, of environments with which there are now only chance relations, of empty or disconnected any-space-whatever replacing qualified extended space' (261). The long take, real-time depiction of the helplessness of the people within the transitory and irrelevant space of a convenient store seems to comfortably describe a ruptured sensory-motor schema.

Despite its superficial applicability, however, the Deleuzian time-image approach quickly reveals its defects. Central to Deleuzian time-image cinema is an intentional obfuscation of chronology and coherent causality. Deleuze writes:

We are no longer in an indiscernible distinction between the real and the imaginary, which would characterize the crystal image, but in undecidable alternatives between sheets of past, or 'inexplicable' differences between points of present, which now concern the direct time-image. (263)

Both Deleuze's crystal image and direct time-image are characterised by ambiguity, in that they are not riddles to be solved but rather intentionally 'assembled in circuits of images [...] that render indiscernible the virtual and the actual' and 'defy assimilation within commonsense coordinates' (Bogue 199-200). This indiscernibility does not befit *Cloverfield*, despite the interchanging temporalities, because the film is lucidly presented throughout. Data imprints distinguish the two on-screen temporal planes, header slides establish the unedited 'found footage' pretext, diegetic motivations are clearly indicated, and the closed-narrative conclusion provides a neatly wrapped package: elements far removed from Deleuzian ambiguity.

Returning to Coney Island and the 'Cinema of Attraction'

Although the film reveals an intriguing dance between movement-image – that is, images motivated by the chain of causality and which characterise an unbroken sensory-motor schema – and the Deleuzian time-image, in the end it is neither of these that assert dominance over the whole of the film. The struggle between time-image and movement-image for dominion over the narrative space illustrates John Orr's observation that, 'the time image, which absorbed and replaced the Hollywood movement-image, in turn appears to have been replaced by the spectacle-image, which absorbs it' (37). For Orr, as well as for *Cloverfield*, fluctuations between time-image and movement-image merely act in service to the spectacle-image: 'In science fiction time is at the hub of spectacle' (37). The time-image is subsumed and metamorphoses into the spectacle image: timecode refractions and jump cuts act as spectacle stimuli resembling the sudden changing of

channels on a television, sensorial yet quickly comprehended. Despite the frozen, pixelised still images that pepper *Cloverfield*, they do not centre on stillness and cyclical temporality as they do in Chris Marker's *La Jetée* (1962, France), but rather exist to reinforce the subsuming pretence and the visual spectacle of digital technology under duress. The enveloping stillness of Marker's static images, as Orr states, 'is lost in the hyper-modern melodrama of the spectacle-image' (156).

Cloverfield's movement-image is equally reconstituted into the spectacle-image: its damsel-in-distress narrative causality is less reliant upon logic than thrill-centred action sequences that offer the viewer intense images of mass destruction and taunt her with escalating unobstructed exposures of the colossal creature. And not unlike François Truffaut's introduction of *Les quatre cent coups* (1959, France) in which the camera's gradual advancement on the Eiffel Tower terminates beneath the skirt of *la Dame de Fer*, *Cloverfield*'s final image of the creature is a worm's eye view beneath its own skirt.

It seems, though, that Abrams and Reeves had intended this conclusion from the start. However disparate the two diegetic temporal planes may appear, they hinge upon attractions. The 'cinema of attraction' fuels the events on May 22 in which the creature's attack are presented as spectacle-driven impact stimuli (fulfilling the contract between genre and spectator), but the comparatively docile excursion for Rob and Beth on April 27 are also driven by attraction, or rather the *pursuit* of attraction and the fleeting thrills of Coney Island. The lights and sounds of the New York fairground are an apt inclusion to *Cloverfield*; they have been the subject of *actualités* such as *Shooting the Chutes* (Thomas Edison Manufacturing Co. 1896, US; American Mutoscope and Biograph 1903, US), classic Colossal Creature

Features such as *The Beast From 20,000 Fathoms* (1953, US), and contemporary science fiction films *A.I. Artificial Intelligence* (2001, US) and *Men in Black III* (2012, US). Although *Cloverfield* provides little thrill from its brief glimpses of the fairground (the film concludes with an image of its deceased lovers riding the Coney Island Ferris wheel), the film remains devoted to stimulus attractions; its interplay between thrills and the *pursuit* of thrills reinforces its position as attraction itself. Yet its reliance upon *trompe l'oeil* – optical illusions created through visual realism – to communicate the attractions suggests that the appropriation of documentary aesthetics and devices, though they may thwart other potential readings, colludes with impact aesthetics and the return of the ‘cinema of attractions’.

By this reading one can surmise that the implied factuality imbedded within the documentary style in *Cloverfield*, and indeed all specumentaries, is subjugated by spectacle and the ‘cinema of attractions.’ The *cinéma vérité* style – marked by erratic camera movements, imperfect focus, and sudden zooms – are not the by-products of a fortuitously situated cinematographer but as contrived methods for realising the spectacles of the fantastic and the destruction wrought. If these spectacles are to move beyond mere ‘attractions’ and compel the spectator into a meaningful engagement with the text, then, just as with the science fiction films of the Cold War era, the visuals should provoke reflections on the anxieties of contemporary society.

One of the most intriguing aspects of the Colossal Creature Features during the 1950s and 1960s is their intentional manipulation of social and cultural anxieties. American audiences, nervous about the seemingly inevitable conflict with the Soviet Union, would see these same anxieties depicted in films that look to nuclear radiation to justify the giant, city-stomping mutations (*Them!*, etc.). Unlike *Godzilla*

(1998), which eschews any contemporary social anxieties, and *District 9*, which assumes more of a metaphorical sermon on racial inequity, *Cloverfield* infuses its spectacles of destruction with a subtext of substance by invoking memories of the 9/11 Attacks and the subsequent Iraq War, and our dormant fears of terrorism.

Summary

Since the birth of the photographic process, the camera has born an implied legacy of veracity through the scientific inheritance of its indexicality. Whilst fiction film dominates the landscape of cinematic production, journalistic footage imbuing assumptions of truth (e.g. documentary, news reports, tutorials) continues to be woven into fictional narratives, as they have since the early 1900s. As fiction films (e.g. trick films, staged interactions) emerged concurrently with (or shortly after) the *actualité* and the travelogue, spectators developed the skills to discern between the nonfiction film and the fiction film through visual cues within the *mise en scène*, including, among other factors, the camera's operational movements, the materiality of the film, and the spatial relationships within the represented space.

Along with *mise en scène*, extratextual considerations also play a factor in assessing the veracity of the image. Government censorship is one such factor in considering the 'truth' within a film. Most famously perhaps is Abraham Zapruder's film footage of the John F Kennedy assassination, which was suppressed by the US government for more than thirty years. Yet a more curious case how government suppression suggests the veracity of film can be identified in Peter Watkins's *The War Game* (1965), a fictional film about what would happen to the UK in the event of a nuclear strike. *The War Game*, essentially a dystopian science fiction film

conjecturing through logic about the horrors the British people would face in the instance and aftermath of an atomic strike, was banned by the British government from being broadcast on the BBC (the film's financier), an act that in itself suggested to the British public that the elements within the film were not only factual but hazardous to the social fabric.

The line between nonfiction and fiction in the case of documentaries is thin, for often a documentary film portrays elements that were specifically contrived that would otherwise not have occurred. But in considering the obverse, when fictional works (specifically science fiction) rely upon nonfictional elements to realise their film, the effect results in a product infused with the plausibility and credibility of fact. Perhaps the most premier example of this is Stanley Kubrick's *2001: A Space Odyssey*, which relied upon the physics of movement in zero-gravity to help instil a sense of wonder but also keep its narrative grounded through science.

In contemporary science fiction cinema, however, a shift has occurred that relies less on the factuality of the science (or alleged science) of the story than on the implied factuality of the recording apparatus. Though earlier examples exist, such as Watkins's *The War Game*, a trend has emerged in films around the world since *The Blair Witch Project* (1999, US) (though not truly emerging as a noticeable trend until 2005) that, by means of digital recording devices or digitally manufactured 'found footage', relies upon the visual style of the documentary in its various forms to realise an otherwise fictional film. Whilst this form has been described through a variety of names, these 'specumentaries' are predominantly used to help make plausible, through the scientific inheritance of the observational camera, what would otherwise be considered fantastic, such as zombies, aliens, or superheroes. These

fictional films that appropriate the distinct aesthetic style of the documentary form, rely on the scientific inheritance of the camera to convey the plausibility of the narrative, rather than the scientific rationale of the diegesis – it may not make sense, but it looks ‘real’. Examples of these specumentaries from science fiction cinema include *District 9* (2009, South Africa/New Zealand/Canada/US) and *Cloverfield* (2008, US). Although both films appropriate documentary aesthetics to realize their respective stories (the latter involves the presence of a destitute alien species in Johannesburg while the former centres on a colossal creature destroying New York City), these two examples diverge in their dedication to the formal impositions required by the documentary pretence.

District 9, though initially asserting itself as documentary, falls into conventional narrative fiction film techniques, as when a private discussion between two aliens is realised in shot-reverse-shot style and subtitled. By eschewing its artifice, the narrative themes emerge as the dominant focus of the film, whereby spectators are encouraged to consider by way of analogy, South Africa’s apartheid regime and the latent racism still maintained by the people. Yet in the case of *Cloverfield*, the documentary pretence persists throughout the film. By not only strictly maintaining the visual style of the observational documentary form, but also presenting it as *unedited* (thus, un-manipulated and therefore more credible) source footage suppressed by the US government, the film seems to take on our own assumptions about the veracity of the image itself. Whilst readings of *Cloverfield* could branch off tangentially into interpretative discourses on Pasolini’s notion of death montage or a Deleuzian crystalline image through the film’s palimpsest of concurrent temporalities, the devotion to the form more accurately situates it within

the discussion of visual spectacle and the return to Tom Gunning's 'cinema of attractions.' Yet emerging from the film's emphasis on the pursuit and the realisation of spectacle attractions, issues the contemporary social anxieties towards environmental collapse and terrorism.

CHAPTER TWO NOTES

- ¹ Speculative Fiction has been colloquially used as synonym for 'science fiction', although the term 'speculative' connotes fictional elements that extend beyond my established parameters of the genre. 'Speculation' narratives predominantly centre on 'what if?' scenarios and easily traverse across all genres that touch upon the fantastic. Bearing that in mind, whilst horror, superhero, and fantasy documentaries such as *[Rec]*, *Chronicle*, and *Trollhunter* (respectively) well befit the term 'specumentary', my discussion relates only to science fiction-documentary hybrids.
- ² Gunning establishes his position in his 1986 essay 'The Cinema of Attraction[s]: Early Film, Its Spectator, and the Avant-Garde.' However, in his 1993 essay 'Now You See It, Now You Don't' (*Velvet Light Trap* 32) Gunning treats the 'cinema of attraction' as but one component of early cinema among others (Musser 402).
- ³ Whilst *Leaving Jerusalem by Train* (1897) may be devoid of specific landmarks to identify its location precisely, filmmaker Alexandre Promio's excursion through Northern Africa and the Middle East for the Lumières is a documented fact.
- ⁴ In fact, *Threads* (1984) was broadcast before *The War Game*, which was finally aired on the BBC in July 1985 ('*The War Game*').
- ⁵ Fields of study were ascertained by the scientists' online biographies from their respective universities or professional affiliations. *Threads*' credits sequence only lists names.
- ⁶ Indeed, this is a curious comment, for it supposes that prosthetic memories of an experience can preempt and expropriate the actual experience, even one that has never before been endured by any human.

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- ⁷ However accurate *Destination Moon* (1950) attempts to appear, the film remains naïve in its science. At one point, an astronaut drifts helplessly away from the ship, but the New York City cabbie on board heroically climbs out onto the ship's hull and lassoes him back.
- ⁸ As opposed to the four-channel quadraphonic surround sound systems of yesteryear, what I term 'septaphonic' refers to the 7.1 digital surround sound systems that are now employed in theatrical and home exhibition markets.
- ⁹ For a more in-depth discussion of the use of computer simulated re-enactments of historical events, see Mark J P Wolf's 'Subjunctive Documentary: Computer Imaging and Simulation.'
- ¹⁰ Peter Greenaway's *The Falls* is actually more aptly described as experimental avant-garde cinema. It's subsuming narrative of an Unknown Violent Event is maddeningly never discussed but only implied secondhand through interviews with the abnormal survivors. In this case, Roscoe and Hight's term 'mock-documentary' seems applicable for Greenaway's subversion of the documentary form.
- ¹¹ In 2006, Ray Santilli publicly admitted that his film was indeed a hoax. The fiction film *Alien Autopsy* (2006, Germany/UK), co-produced by Santilli himself, is a comedic narrative of the events that preceded and succeeded the production of the hoax.
- ¹² NTSC television broadcasting requires all transmissions to meet standardised colour and sound wave frequencies. Because consumer-grade DV tapes are not supplied with these at the start of their reel, it can be presumed that the bars and tone have been added by government personnel for the purpose of distributing copies of the tape (of which the leaked copy being screened is but one) to authorized conspirators.
- ¹³ This usage of 'found footage' contrasts significantly with Roger Luckhurst's usage in his essay 'Found Footage Science Fiction.' In his essay, Luckhurst refers to filmmakers such as Craig Baldwin and Werner Herzog and their experiments in re-appropriating pre-existing footage into a science fiction narrative through montage. In the case of *Cloverfield*, 'found-footage' refers to the film's pretext as footage recorded on a consumer-grade digital video, which was subsequently 'found' and exhibited as part of its meta-narrative. Films that similarly apply this

pretext include *The Blair Witch Project*, *Monster* (2008, US), *Diary of the Dead*, *Apollo 18*, and *The Chernobyl Diaries* (2012, US).

¹⁴ Although Brian Winston notes that the North American documentary style of Direct Cinema and the French *cinéma vérité* style are fundamentally opposed by their respective opinions on filmmaker participation, I refer to both styles when discussing ‘*cinéma vérité*’ (Winston 149).

¹⁵ DARPA is the central research and development office for the U.S. Department of Defense. According to its website, DARPA’s mission is ‘to maintain the technological superiority of the U.S. military and prevent technological surprise from harming our national security. We also create technological surprise for our adversaries’ (‘DARPA’).



The Day After (1983, US)

CHAPTER THREE

Affect and Echoes of the Sublime¹

There is no spectacle we so eagerly pursue, as that of some uncommon and grievous calamity; so that whether the misfortune is before our eyes, or whether they are turned back to it in history, it always touches with delight.

-- Edmund Burke (46)

In this chapter I argue that the continued escalation of destruction imagery within contemporary science fiction cinema suggests a spectatorial attraction to manufactured encounters with the sublime. Though the sublime has been examined through a number of different lenses, science fiction cinema's enduring enthusiasm for the synthesis of wonder and terror suggests the persistent relevance of nineteenth century philosopher Edmund Burke's notions of the sublime and its underpinning of terror. This encounter with the sublime – or rather, echoes of the sublime – via images of destruction displaces previous notions of the sublime in science fiction cinema, specifically Scott Bukatman's well-reasoned but ultimately dated analysis. Science fiction/disaster films attempt to provoke simulated synaesthetic reactions through digital destruction, with twenty-first century destruction spectacles incorporating (rather than concealing) brutal depictions of human viscera and death within the destruction space. However, these manufactured manipulations are still subject to alienation through spectacle *ad absurdum*.

Writing on science fiction and horror films of the 1990s, David Sanjek states:

The profusion of sequels, remakes, and narratives that amalgamate familiar elements into various forms of pastiche results perhaps not in contempt on the part of the consumers but a weariness bred of sensory overload and intellectual under stimulation. (111)

While impact aesthetic intensities and compounded destruction imagery were prevalent in science fiction films of the 1990s, new contemporary science fiction films bearing intense disaster and mass destruction sequences continue to emerge. Despite sensory inundation, or perhaps *because* of it, science fiction cinema has adapted to the attraction of intensity through visuals of mass destruction to the point that it seems to have become a central construct of the genre. While contemporary science fiction films emerge without the element of mass destruction, such as *Primer*

(2004, US) and *Extraterrestre* (2011, Spain), it seems that these are the rare exceptions. Even in animated science fiction films such as *The Iron Giant* (1999, US), *Monsters vs. Aliens* (2009, US), and *Big Hero 6* (2014, US), mass destruction sequences are crucial to the progression of the narrative. The continued interest in visuals of mass destruction seems to suggest an interest in encounters with sublime-like affectations.

Greg Tuck argues that the spectacular and the sublime are antithetical in cinema. He posits that spectacles are shaped by magnitude and essentially empirically derived, whereas sublimity invokes an idea rather than an indexical image. Regarding this connection between idea (conception) and magnitude (perception), Tuck writes:

Spectacle is dominated by quantity and the sublime by quality: both are an experience of ‘magnitude’, but the dialectic between them tends to play out in favour of the perceptual for spectacle (a measurable content) and the conceptual for the sublime (an immeasurable form). (257)

That is, the sublime is most often identified with a subsuming concept, rather than any specific image. Tuck continues:

For magnitude to please rather than overwhelm the rational imagination, these imagined things must still bear some sort of embodied relationship to our lived human scale of experience. Size does indeed matter but properly sublime threats are not simply empirically or measurably big: they are presentations of the idea of bigness as a thing-in-itself. (261-262)

Tuck’s analysis, however, depends upon a false dichotomy. Tuck’s position is that a minimalistic approach to digital visual effects will allow the subsuming *idea* to overwhelm not its aesthetic presentation. In this, Tuck excludes the possibility of magnitude and visual excitation acting as agents to a sublime encounter through their visual associations to the experiential world. I argue that within science fiction

cinema, encounters of the sublime are manifested through certain depictions of mass destruction; however, not all destruction is sublime.

Identifying the Post-Mechanical Sublime

The locus of the sublime in science fiction cinema as an impact encounter with mass destruction contrasts with Tuck but it also supplants Scott Bukatman's influential analysis on the science fiction sublime. In his essay 'The Artificial Infinite: On Special Effects and the Sublime,' Bukatman characterises the sublime as a 'tension between diminution and exaltation' that suggests an ambivalent duality; the audience gazes upon images of the infinite but transcends the infinite through cognitive understanding of its context (255-256). Bukatman finds, then, that the sublime is the feeling of tension produced by encountering representations of technological wonders and the anxiety they produce (250, 268). Considering his reliance on Douglas Trumbull's special effects sequences from Stanley Kubrick's *2001: A Space Odyssey* (1968), Trumbull's own *Silent Running* (1972), Steven Spielberg's *Close Encounters of the Third Kind* (1977), and George Lucas' *Star Wars* (1977), Bukatman's reasoning is sound. And to be fair, advanced, awe-inspiring technology is often the hallmark of pre-digital science fiction cinema where the characters' diegetic astonishment at the encounter with the supra-natural mirrors the extra-diegetic spectatorial astonishment at the realisation of the visual effects. As Barry Keith Grant notes, 'We marvel at special effects images at once for their fantastic content and for the power of their realisation' (19).

The critical problem, however, is that Bukatman's emphasis on a sublime image produced by special effects is bound to the parameters of the production

process. Sublimity as encounters with technological wonders is confined to a spectatorial affect based upon mechanical recordings of profilmic trickery and post-production analogue composite shots. Bukatman's sublime, then, obsolesces as a result of the digital transmogrification of the medium. With digital technology, the scope of visual possibilities stretches towards the infinite where form, shape, and scale are only bound by the limits of human imagination. By Bukatman's logic, spectacular images wrought by digital effects would also have an artificially infinite capacity for sublime encounters because of their ability to present technological wonders *through* technological wonders. As not all digital visual manipulations are sublime, one must reexamine the attempted provocation of the sublime through audio/visual content and aesthetic context, rather than the technology that manifests it.

Ceci n'est pas sublime

Counter-arguments and objections inherently beset any discussion of the sublime and an important qualification regarding its relationship to science fiction cinema is in order. Concurrent to the rise of digital effects and the escalation of science fiction destruction, we have witnessed numerous catastrophic tragedies and historical disasters. Recent terrorist attacks (e.g. 1995's Oklahoma City bombing, the attacks on New York City and Washington DC on 11 September 2001, the bombings on Bali in 2002, the London bombings in 2005, Baghdad's Green Zone bombing on 25 October 2009) and natural disasters (e.g. the Sumatra-Andaman earthquake tsunamis of 2004; Hurricane Katrina and its subsequent floods in New Orleans in 2005; the 2010 floods in Colombia, China, and Pakistan; and earthquakes in Sumatra

in 2009, Haiti in 2010, and Tōhoku, Japan and Christ Church, New Zealand in 2011) expose the parallels between experienced destruction and cinematic fictions, with journalists often reporting victims' reactions testifying to the "unreality" of the events and their resemblances to filmic spectacles. Cinematic destruction spectacles, however sublime-like, *do not invoke the sublime*; these digital representations of destruction are carefully manufactured stylized renderings.

Though one may feel affected by such atrocities, films bearing an onslaught of destruction and the sudden obliteration of the human presence cannot convey *in equal measure* the affects produced by genuine, historic destruction events.

Witnesses to the sublimity of historical destruction, saturated with astonishment and terror, may attempt to formulate a verbal description for an event beyond description; comparisons to filmic spectacles are arguably the closest illustration, for though they are not sublime, they can often evoke an affect that is analogous. Under the threat of spectatorial indifference, hyper-realizations of destruction – such as the sudden and violent decimation and/or upheaval of assumed stable or predictable entities of urban spaces, mass transit systems, land and seascapes – attempt to physically affect the spectator by presenting a recreated sublime event.

An encounter with the sublime is not an experience subject to intentional invocation; film renderings of mass destruction cannot manipulate the film spectator into a genuine encounter with the sublime for that implies a mastery over or a containment of the event. The nature of the sublime is one that propels beyond human comprehension and cannot be bound by frames or figments: "It immediately involves, or else by its presence provokes, a representation of limitlessness" (Kant, *Critique*, 90). Yet comparisons of experienced sublimity to filmic spectacle persist,

which imply that while mass destruction simulacra are not sublime, these images *can evoke comparable emotions* one might experience in a sublime encounter. Similar, yet diluted, like a refraction or an echo. These emotional reactions, to which contemporary science fiction filmmakers look for spectatorial engagement, are echoes of the genuine sublime.

The 'Genuine' Sublime

Naturally, the notion that sublime simulacra echo *genuine* sublimity requires explication. Unfortunately, for this purpose, what is genuinely sublime is invariably plagued by divagations, finding itself a malleable notion and subject to evolving methodologies each within their own historical contexts. Owing to this malleability, arriving at an absolute definition for the sublime seems difficult, if not impossible. From the eighteenth century empiricism of Edmund Burke and the rationalism of Immanuel Kant, to the twentieth century postmodernism of Jean-François Lyotard and the psychoanalysis of Slavoj Žižek, the sublime seems naturally predisposed to adaptation by tangential modes of discourse. Andrew Ashfield and Peter de Bolla note that even within the scope of eighteenth century writings on the sublime, certain descriptive tropes led to transformations within the discourse: 'In effect the analysis of reading becomes stained by a set of discriminations which it neither knowingly inherits nor necessarily welcomes from the discourse on the sublime' (7).

Often the discussion of the sublime assumes new characteristics as a result of analyses of descriptive elaborations rather than the subsuming concept. Both Kant and Burke are guilty of one such discrimination in their overt (albeit historically contextual) chauvinism. Both men, equally formative in their shaping of later

discussions on the sublime, attempt to better clarify the attributes of the sublime by juxtaposing it with notions of the beautiful. In describing the dichotomous relationship between the two, however, Burke and Kant resort to gendered descriptors, resulting in outdated generalizations at best, and at worst, maddening stereotypes. For example, in discussing the particularities of the beautiful, Burke writes:

I need here say little of the fair sex, where I believe the point will be easily allowed me. The beauty of women is considerably owing to their weakness or delicacy, and is even enhanced by their timidity, a quality of mind analogous to it. (219)

Burke frequently attributes the beautiful (female) to her smoothness of skin and well-measured proportions and consistently refers to women as diminutive, feeble-minded, and superficial in contrast to the nobility and power of men.

Though Kant and Burke diverge at the very foundation of their respective philosophies of rationalism and empiricism, the former's outmoded sexist observations in genderising the beautiful and the sublime are equally as inflammatory:

It is not to be understood [...] that woman lacks noble qualities, or that the male sex must do without beauty completely. On the contrary, one expects that a person of either sex brings both together, in such a way that all the other merits of a woman should unite solely to enhance the character of the beautiful, which is the proper reference point; and on the other hand, among the masculine qualities the sublime clearly stands out as the criterion of his kind. All judgments of the two sexes must refer to these criteria, those that praise as well as those that blame. (76-77)

Kant and Burke's emphases on these elements, intended to elucidate the concept of the sublime through sagacious observation, instead obfuscate contemporary appreciations of the concept. The uses of gender as descriptor, though, have nevertheless informed twentieth and twenty-first century feminist

reexaminations of eighteenth century notions of the sublime.² Must then a definition of the sublime abandon eighteenth century philosophising in deference to contemporary amendments in its male-centred designations?

Further plaguing an absolute definition of the sublime are the prudent arguments of the post-Kantian writers from the Romantic period such as Samuel Taylor Coleridge. Coleridge, for example, reunites Kant's bifurcation of mind and nature in the primacy of the mind's own imagination (Shaw 95-96). He writes:

I meet, I find the Beautiful – but I give, contribute, or rather attribute the Sublime. No object of Sense is sublime in itself; but only so far as I make it a symbol of some Idea. The circle is a beautiful figure in itself; it becomes sublime, when I contemplate eternity under that figure. [...] Nothing that has a shape can be sublime except by metaphor. (qtd in Shaw 95)

For Coleridge, the human capacity to imagine the limitless eternal through natural spectacles witnessed by eyes and ears is a product of the mind's capacity for semiotic representation. Beauty is not in the eye of the beholder; rather, the sublime is. Tourists to Costa Rica are imbued with awe at the eruptions of the Arenal volcano; native guides, however, may not encounter such an overwhelming sensory experience due to familiarity. Similarly, schemers and pickpockets can quickly identify visitors to Manhattan because of their awestruck gaze upwards to the tops of the skyscrapers – a desensitised gesture often absent in Manhattan's residents. As Philip Shaw writes in his monograph on the sublime, 'As the taste for the sublime becomes fashionable, its ability to provoke awe or fear is diminished: after a while every mountain, even a Mont Blanc, fades into indifference' (59). Whatever is deemed as sublime, then, is subjective. How does one identify a definition of the sublime if each encounter is dependent upon the individual? Even within my own

discussion, is the consideration of mass destruction as a sublime experience a valid assumption?

Whereas the Romantics presuppose the imagination's ability to subjectify the sublime, twentieth century postmodernist Jean-François Lyotard argues that the imagination is incapable of comprehending sublime encounters. For Lyotard, the sublime actualizes a break between the event and what we comprehend the event to be:

It is what dismantles consciousness, what deposes consciousness, it is what consciousness cannot formulate [...]. Before asking questions about what it is and about its significance, before the *quid*, it must "first" so to speak "happen", *quod*. That it happens "precedes", so to speak, the question pertaining to what happens. (90)

Between sensorial witness and mental understanding is a moment in which the 'something' has not yet been determined, consumed, or narrated. For Lyotard, the gap between experience and reason reveals the inadequacies of the human imagination in managing encounters with the sublime. Paradoxically, Lyotard considers that the sublime can only be achieved through artistic renderings, or, rather, the speculation of such art, significantly contrasting with my own 'echoes of the sublime' – a point to which I will return (106).

Given the discrepancies among explanations of the sublime within empiricism, rationalism, Romanticism, and postmodernism, as well as feminist, psychoanalytic, and Marxist methodologies, a catchall definition for what is *genuinely* 'sublime', then, cannot be attained. Yet despite the variances within each of their writings, these theorists' and philosophers' specific examples of manifest sublimity seem to bear common characteristics: confrontations with the rages of the natural world, such as the ocean (Burke, *A Philosophical Enquiry into the Origin of*

our Ideas of the Sublime and Beautiful, the storm (Kant, *Observations on the Feeling of the Beautiful and Sublime*), or environmental turbulence (Schopenhauer, *The World as Will and Representation*); sudden encounters with immense darkness, such as an abyss (David Hartley, *Observations on Man*) or a Gothic cathedral (Samuel Taylor Coleridge, *1818 Lectures on European Literature*); the beleaguering reminder of death's nearness such as the Holocaust (Lyotard, *The Differend*) or the sinking of the *RMS Titanic* (Slavoj Žižek, *The Sublime Object of Ideology*). Although the concept of the sublime has endured much transmutation, their examples, employed to elucidate these thinkers' own take on sublimity, share characteristics that suggest the resilient relevance of Edmund Burke's empiricism on a sublime manifested through distantiated terror.

The Burkean Sublime and Distantiated Terror

Edmund Burke's emphasis on astonishment, awe, and wonder resonates with the aesthetics of destruction because of its encompassment of terror:

Whatever is fitted in any sort to excite the ideas of pain, and danger, that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the *sublime*; that is it is productive of the strongest emotion which the mind is capable of feeling. (39, original emphasis)

Burke describes the sublime as a feeling of delight that comes from an encounter with the terrible and horrific, rooted in the primal instincts of self-preservation (86). Through empirical examination of the senses, particularly sight and sound, Burke characterises sublimity as grandeur, power, and infinite. He observes that the sublime, impeding the individual through an arrestment of

astonishment, achieves its most sensorial response when it occurs within the context of a natural world:

The passion caused by the great and sublime in *nature*, when those causes operate most powerfully, is Astonishment; and astonishment is that state or the soul, in which all its motions are suspended, with some degree of horror. (57)

If astonishment is the arrestment of the body by exposure to some sudden terror, the invocation of terror and horror within film encourages connotations of the horror genre. Indeed the bulk of horror films are grounded in the depictions of pain, danger, and physical terror. However, Burke further develops his notion of the sublime by acknowledging additional degrees of sublimity: ‘Astonishment [...] is the effect of the sublime in its highest degree; the inferior effects are admiration, reverence and respect’ (57). The amalgam of terror with awe, then, derivates from horror cinema to embrace that of science fiction cinema, which Grant and Vivian Sobchack define by the genre’s undercurrents of reverence and awe. Whereas in horror cinema the central characteristic of destruction is the inward focus on the monstrous body, the science fiction film focuses its destruction outward toward society, the earth, or the heavens (Grant 18; Sobchack, *Screening Space*, 30).

Sobchack writes,

The aesthetics of destruction please us as a well-mounted slide might please a scientist. The passion and human hunger of the horror film is replaced by the satisfaction of objectivity. Terror is replaced by wonder. (*Screening Space*, 38)

To clarify this last remark, fear and terror in the science fiction film are not *replaced* by wonder but *subsumed* by it. Sobchack continues:

The terrifying aspect of traditional horror films arises from a recognition that we are forever linked to the crudeness of our earthbound bodies; the fear in SF films springs from the future

possibility that we may – in a sense – lose contact with our bodies.
(*Screening Space*, 39)

The horrific has not been exchanged with the awesome but merely incorporated into it. In contemporary science fiction cinema, digitally realised depictions of destruction can create an echo of sublime astonishment of awe in conjunction with an astonishment of fear. The sublime, then, is the visualisation of a catastrophe in which we are horrified at the atrocity but also awestruck at the manner in which it unfolds.

The sublime as a delight from an encounter with the terrible and horrific seems to imply a psychological appetite for sadistic experiences. Burke evades sadism, though, by arguing that the sublime is a byproduct of an exposure to and *removal of* danger that causes a sensation of ‘delight’ rather than ‘pleasure’ (the latter reserved for what is beautiful and joyful, untarnished by exposure to terror)(36-37). He describes this as a ‘removal of pain or danger,’ but Burke is not suggesting that the pain of burning one’s fingers followed by the relief of cold running water is an encounter with the sublime. Burke’s ‘removal’ is rather a physical distancing away from immediate risk of pain or danger yet near enough to be drawn to the threat as an aesthetic delight:

When danger or pain press too nearly they are incapable of giving any delight, and are simply terrible; but at certain distances, and with certain modifications, they may be, and they are delightful. (40)

Distance, then, becomes a prerequisite for a sublime experience, and observed not only in contemporary reactions to destruction and terror but ancient writings as well. Compare, for example, Marc Redfield’s comments on the 9/11 attacks – ‘To those not immediately threatened by it, this disastrous spectacle could

seem at the time at once horrifically present and strangely unreal' (56) – with Lucretius' writings in *De rerum natura* (book 2) from the first century BC:

Pleasant it is when on the great sea the winds trouble the waters, to gaze from shore upon another's great tribulation; not because anyone's troubles are a voluptuous joy, but because to perceive what evils you are free from yourself is pleasant. (qtd in Redfield 73)

The sublime encounter, then, becomes manifest at the disaster's event horizon, at the point just removed from the terror event is one able to be overwhelmed by the sublime. If one is too close, she becomes immersed by the terror; too great a distance from the event and the capacity for affect is removed. For instance, in most of the United Kingdom and Western Europe, the 2010 eruption of Icelandic volcano Eyjafjallajökull and its impact on European air travel during the spring holidays was seen as a nuisance rather than an awe-inducing destructive event (Devlin). As John Orr explains:

We often say, "I was horrified by X," meaning the event whose impact is indirect; we seldom say "I was terrorized by X," because then X becomes the direct source of our terror. Being horrified suggests a distance, a balance between reason and emotion, between visceral reaction and mental judgement. Screen horrors pretend to eliminate the distance and extinguish the power of judgement, making reaction vicarious. The audience is not directly threatened but act out the 'as if' of the melodrama. The spectator goes with a horror which is at once more awesome because mythologised as spectacular image, but more harmless because it is an ocular illusion of the big screen. In virtual spectacle the hidden terror is converted into partial horror offset by the fascination with the sublime, which usually accompanies fear. (39-40)

With cinema, physical distance between spectator and screen, regardless of its method of exhibition, is inherent; however, too much distance may eliminate the potential for encountering echoes of the sublime. In order for the echoes of the sublime to be communicated through visuals of mass destruction, distantiation

should be minimised. Because film is a medium prone to distancing the spectator, invoking these echoes is no small task.

Degrees of Distantiation

Distantiation, for most science fiction filmmakers, is undesired in that it eliminates the affective properties of the image. Often the result of errors or miscalculations in the script or filmmaking process, factors that cause distantiation can develop anywhere from pre-production to exhibition. In classifying the variables that lead to a distantiation of a viewer to a film, four identifiers emerge.

The first is that of the exhibition space between spectator and screen, regardless of its size. Efforts to minimise this distance by attempting to envelope and immerse the viewer are evident by the rise of IMAX and digital 3-D technologies as discussed in Chapter One. These immersive, ‘experiential’ cinemas seem to strain to meet the viewer halfway, with the three-dimensional images literally projecting themselves out towards the audience in order to draw them into the narrative. Outside of the cinema, Smart TVs and computers make online video rentals a popular method of exhibition, as well as streaming services on mobile devices such as tablets and smartphones. And while it seems that a video screen is never far away, the content seems to be in competition for the spectator’s attention. In addition to the fundamental distance between spectator and screen, there are three other degrees in which the viewer experiences distantiation. These are narrative, expectation, and form.

Through narrative, the vehicle that drives the fiction film, distantiation can occur when narratives overextend plausibility or causality. Plot holes, coincidence,

and unmotivated behaviours quickly disrupt spectatorial engagement. In the case of science fiction cinema, elaborate scientific rationalisations must be employed if the narrative is to temporarily suspend disbelief. Whether by amalgamating scientific terminology or warping existing data into erroneous yet seemingly plausible conclusions, attempts are made to thwart the viewer from identifying weaknesses in the story structure. For example, Ridley Scott's *Prometheus* (2012, UK/US), intended as a prequel to the *Alien* series (1979, US/UK; 1986, US/UK; 1992, US; 1997, US), though technically and aesthetically stunning, is beset by a number of narrative inconsistencies because of its efforts to maintain the legacy of the series' subtextual themes of rape, motherhood, Oedipal desire, femininity, infanticide/patricide, the Other, and the division/intersection of the human and the monstrous (Constable 173-78, 191; Neale 103). Convenient coincidences, irrational decisions (as when the scientists happily remove their helmets on an alien planet despite the risk of airborne contaminants, even after the discovery of infectious matter), and inconsistent character behaviour (as when a cowardly scientist thrice attempts to pet the three-foot long, cobra-like tapeworm) are plentiful, but what may be more damaging to this science fiction film's spectatorial immersion are the discrepancies between the onscreen events and known medical science. At the midpoint of the film, the central protagonist Shaw (Noomi Rapace), having just revealed her lamentations over being infertile, discovers she is pregnant with a rapidly developing alien creature; she frantically inserts herself into a snug, womb-like automated surgical machine and self-induces her own abortion. The premature octopus-like fetus is removed from her midsection but then breaks from its embryonic sack and comes to life, struggling against the grip of the machine's

forceps. The surgical machine staples up Shaw's abdomen and she slips away from the flailing fetus, enclosing it in the womb and gassing it in an attempt to murder her tentacled 'baby'. The scene is evidently consistent with *Alien*'s thematic legacy, but the dubious notion that epidermal sutures are sufficient enough to patch up Shaw's major abdominal surgery and allow her to continue her attempts at survival throw her subsequent physical feats in the latter half of the film into doubt.

In addition to narrative incoherence, the disruption of spectatorial expectation is an often-overlooked method of distantiation. Genre films that ignore its generic canon can create distantiation through its disregard for spectatorial expectation. A disaster film emptied of images of destruction affronts the spectator by overlooking the role she plays in establishing the tenets of a genre as well as her expectations of the realisation of these tenets (Altman 180-84; Neale, *Genre and Hollywood*, 18-19).

Alongside narrative and expectation, another method of distantiation is through the formal devices of a film. These devices can be applied through a variety of methods, but ultimately it is the result of the viewer's cognisance of the cinematic apparatus positioned between herself and the subject. Aesthetic choices such as the grainy look of a black and white Super 8mm film stock, as well as the forsaking of 'invisible' continuity editing for jump cuts, bring the recording medium to fore. Especially pertinent within science fiction film aesthetics, an unintentional estrangement can occur through poorly realised elements typified by low-budget production values such as lackluster acting and belaboured special effects. I acknowledge the word 'unintentional' is problematic, though it is not wholly unwarranted; because of science fiction's long-established schema of spectatorial immersion, whether through narrative or visual spectacle. This 'unintentional'

estrangement contrasts with another method of distantiating, Brechtian estrangement. Bertolt Brecht was a playwright who sought to achieve an anti-illusionist theatre experience in which the audience was *intentionally* made aware of the theatricality of the play, where often actors would break from character and directly address the audience as themselves (Bordwell and Thompson 647). It can certainly be argued that some science fiction genre films embrace a Brechtian style of purposeful distantiating such as Godard's *Alphaville* (1965) or even the glut of laughable, direct-to-home market science fiction films such as *Mega Shark vs Giant Octopus* (Asylum Pictures, 2006, US). However, as science fiction cinema tends towards a spectatorial engagement with awe and wonder, narrative or visual immersion to some degree can be identified as a normative condition of the genre.

When these methods of distantiating – incoherent narrative, intermediated film form, and incongruous expectation – beset a science fiction film, the provocation of physical affect within the spectator is improbable. If a science fiction film is to attempt to evoke the echoes of the sublime, distantiating should be minimalised.

Intra-diegetic Sublimity, Extra-Diegetic Absurdity

One of the inherencies of the 'new' is that it quickly becomes familiar. The inclusion of depicted peripheral casualties can be seen as a new development in contemporary destruction spectacles, and it too is subject to familiarity by overexposure. And though terror can affect through visuals of mass death and destruction within the same frame, attempts to overwhelm sensorial receptors and

invoke echoes of the sublime often push the destruction depictions across an indiscernible line into the realm of absurdity.

Since the early 1990s, German-born filmmaker Roland Emmerich has established himself as the leading director of digital destruction epics. Globally distributed features *Stargate* (1994, France/US), *Independence Day* (1996, US), and *Godzilla* (1998, US/Japan) all embrace an impact aesthetic bent on visceral encounters with intense devastation. The international-friendly (yet USA-centric) *Independence Day* is an oft-cited text within academia as it depicts the CGI-simulated obliteration of structures connoting political and commercial power in a pre-9/11 era. In his post-9/11 films of *The Day After Tomorrow* (2004, US) and *2012* (2009, US) Emmerich redirects his attention away from violent confrontations with the 'Other' to focus rather on the tacit social contract of international cooperation between people groups in facing a sudden threat to humanity.

Whereas others disaster films centre on a mass transit system, a building, or a city, in *2012*, Emmerich broadens his scope of catastrophe to a global perspective. Scientists from India and the US predict a worldwide tectonic plate displacement that will obliterate life on earth. An international cooperative of primarily first-world politicians, financed by the world's richest elite, build a collection of arks to ensure the survival of humanity and its cultural heritage. Despite science's advanced warning, the public is left unaware of the looming annihilation, but underground rumours are spreading about a massive construction project in the mountains of China. When the disaster occurs, everyman Jackson (John Cusack), his ex-wife Kate (Amanda Peet), their two young children, and Kate's new husband Gordon (Tom McCarthy), struggle to reach the safety of the arks and in doing so mend broken

familial bonds. As hippie conspiracy theorist Charlie Frost (Woody Harrelson) says, ‘Something like this could only originate in Hollywood.’ *2012* is relentless in its destruction, decimating nearly every culture and people group on earth: the US crumbles, but equally destroyed are Brazil, Italy, India, China, Japan, with status updates predicting the decimation of the whole of South America, southeast Asia, and Oceania (Africa alone remains untouched and becomes the new Eden as a reminder of the continent’s heritage as the site of humanity’s birth).

This portrayal of global destruction immediately distinguishes itself from small-scale, localised depictions as in *Twister* (1996, US) or *Volcano* (1997, US); a counterpoint example to Emmerich’s *2012* is Tony Mitchell’s disaster film *Flood* (2007, UK/South Africa/Canada). *Flood* imagines what would happen if the United Kingdom (but primarily London) were suddenly overwhelmed by a massive deluge. A powerful storm in the North Sea intensifies and moves south, flooding the eastern coast of Scotland and England and carrying with it a tidal surge escalating in power and proportion. As politicians and military strategists deliberate on and enact measures to save the city and its people, the waters pour up the Thames River, overwhelm the flood barrier, and swallow much of greater London. The catastrophe, however, is merely the skeletal framework for the narrative, leaving the film to be fleshed out by the relationships among its central characters that provide the heart of the story and through whom we are encouraged to identify – the standard formula for a disaster genre film.

Disaster films are almost always situated within a diegetic world mimetic to our own lived experience: characters commute to work; interact with family, friends, and co-workers; interface with everyday technology; and live according to the

mandate of Newtonian physics. Within this established narrative space, disaster films emphasise portrayals of human interdependency, but more specifically, they centre on themes of forgiveness and familial healing under the extremes of environmental stress. This is evident in the disaster films of the 1970s such as *Nippon chinbotsu* [*Japan Sinks*] (1973, Japan), in which tense and reluctant Japanese and American relations are reconciled through their cooperative efforts; and *Earthquake* (1974, US), in which an adulterous husband recommits himself to his wife. This formula continues into the 1990s and 2000s, as in *Volcano* which underscores communal relationships and black and white racial healing, *Poseidon* in which a father makes peace with his daughter and her fiancé, *The Day After Tomorrow* which reconciles a father with his son, *Arctic Blast* (2010, Australia/Canada) in which an estranged marriage is revived, and *Haeundae* [*Tidal Wave*](2009, South Korea) which revolves around a number of romantic and familial relationships distanced by secrets until a tsunami draws them together.

Though the skeletal narrative of *Flood* is built around the development of the super-storm heading for the mouth of the Thames River, the bulk of the film adheres to the generic formula *à la lettre*: a broken family – father and son, husband and wife – reconciles as they struggle against a natural disaster. Marine engineer Rob (Robert Carlyle), his estranged father and climatologist Leonard (Tom Courtenay), and Rob's ex-wife and flood barrier expert Sam (Jessalyn Gilsig) learn to forgive one another as they struggle to implement the plan for thwarting the unprecedented deluge of water rushing up the Thames River and save London from destruction. The film is buttressed by its credible visual effects, cogent acting, narrative fidelity and coherence, and scientific plausibility, thus successfully eluding many of the pitfalls

leading to distanciation. Where *Flood* errs is in its depiction of the disaster itself, presenting it as diminutive, localised, and limited.



Figure 3.1 *Flood* (2007)
Localised water surge can't topple Tower Bridge

It is along the plane of the visual effects and the aesthetics of destruction that Mitchell's film diverges from Emmerich's. *2012* and *Flood* both include scenes of water consuming urban spaces, but Emmerich's destruction provides a more intense and visceral visual intensity while Mitchell's is removed, clinical, and cognitive. For example, as the river Thames overflows and the tidal surge flows into London, it overruns the Tower Bridge. The image, though, has been removed from the destruction, containing the destruction within a wide shot while the bridge itself remains unaffected by the surge [*Figure 3.1*]. The viewer is not given a subjective perspective of the rushing waters from bridge-level, but is instead situated within an omniscient, third person perspective and out of harm's way. By removing the viewer from the destruction, not only through the film apparatus but also within the diegesis, spectatorial affect is subverted in favour of a cold, cognitive appreciation of the visual effects.

Contrarily, Emmerich places his camera directly in the path of destruction. Danger for the characters is not distanced but enveloping; the displaced spectator's inability to detach from the destruction diminishes the potential for viewer distantiation. Often the visuals become indistinguishable blurs of colour and shape, rather than defined and recognisable objects under duress. For instance, when the oceans overwhelm the Himalayan mountains in China and crash onto the airport near



Figure 3.2 *2012* (2009)
Pre-impact shot...

the arks, the camera captures the foreboding event in a wide shot in order to reveal the spatial relationships among the scene's elements: the mountains, the airport, and the water rolling closer. Yet this shot is momentary, lasting only four seconds. The wide shot is quickly followed by a cut to a static, ground level shot as the water smashes onto the airfield and into Air Force One [Figure 3.2]. The camera, however, does not cut away as Mitchell does in *Flood*; the shot endures after the flood overruns the camera [Figure 3.3]. Only when the camera is seemingly struck by submerged debris does the shot cut to a new perspective. By prolonging the shot, the images reveal the destruction left in the wake of the impact, distorted by chaos and incapable of intelligible visual mastery. Emmerich reduces spectatorial distantiation

to the most basic level of viewer-to-screen by positioning the viewer within the destructive narrative space. As the rendered image becomes more affective by its proximity to danger and death, it attempts to evoke echoes of the sublime through its astonishment and terror.

2012 proves a curious case. The global devastation coheres with Burke's notion of the imagined infinite within the sublime, as the camera frame cannot contain the destruction's implied endlessness. Emmerich positions the camera within the violence of the narrative space, assuming the image's potential for affect is directly dependent upon the spectator's visual proximity to danger and death, despite the mediated form. However, Emmerich also reveals the disparity between intra-diegetic and extra-diegetic reactions to the visuals of mass destruction. That is, while the destruction is considered sublime by the characters from within the narrative, the spectator, from a position outside the narrative, may regard the same destructive event as overblown absurdity.



Figure 3.3 *2012* (2009)
...continues without edit after impact.

By emphasising their proximity to limitless danger in the narrative space, the central characters experience sublime astonishment within the diegesis. They do not

wail in terror but watch in wide-eyed, open-mouthed shock, encountering terror yet distanced from it by the intradiegetic frames within the escaping cars and planes. During Jackson, Kate, Gordon, and kids' escape from Los Angeles and then Las Vegas, the characters witness apocalyptic devastation through windscreens, windows, open doors, and mirrors [Figure 3.4], intercutting among interior close-up reaction shots of the passengers, exterior reaction shots of the driver or pilot, third person perspectives of the vehicle within the perilous narrative space, and subjective perspective shots of the passengers/driver/pilot witnessing the devastation. The distanciation through these mediating frames allows for the characters to witness the surrounding destruction as an encounter with the sublime; however, this diegetic sublimity is unlikely to incite its echo within the film spectator. For the viewer the amplified, intensified destruction seems to quickly escalate into absurdity.



Figure 3.4 **2012 (2009)**
Framed destruction through windscreen, as the driver grips the steering wheel.

The escape sequence from Santa Monica airport provides an effective illustration. Gordon, acting as pilot, lifts off the ground just as it crumbles away beneath them. Rather than piloting over the ocean or climbing to a safe elevation

over the destruction, he instead manoeuvres the plane just above the rupturing ground, weaving in, around, and under the crumbling city [Figure 3.5]. Skyscrapers collapse before them. Highway overpasses crumble, sending cars and people into freefall. A subway train rockets out from its tube into mid-air and Gordon pilots



Figure 3.5 **2012 (2009)**
Proximity of characters to destruction.

under it. Meanwhile, the characters look about the enveloping devastation with awe-struck expressions as if on a guided tour of the apocalypse. And this scene is one in a long series of escalating near-death experiences that compound *ad absurdum* in both narrative and visual effect. When fleeing their Los Angeles home for the Santa Monica airport (in a limousine), Jackson and family manoeuvre around a cascade of falling cars, under a crumbling elevated freeway, and *through* a collapsing skyscraper. The family stops at Yellowstone National Park to retrieve a map to the location of the arks and again narrowly elude spectacular disaster. In Washington D.C., a giant tsunami throws the USS John F Kennedy aircraft carrier down onto the White House and the self-sacrificing president (Danny Glover). Compounding narrative hurdles and exaggerated, indulgent spectacles potentially undermine the

destruction images' capacity to affect; instead, the incredulity seems to provoke laughable disbelief.

Flood, on the other hand, while less ostentatious in its depictions of destruction, seems to diminish the terror of the destruction through cinematography and editing, and thus echoes of the sublime. Suggesting certain limitations of either production resources or imagination, *Flood* consistently denies a subjective perspective of the impact of destruction. On each occasion, the impact of the tidal surge is frustrated by cutting to either a wide, third-person perspective situated behind the point of impact or a mediated, televisual representation of the destruction witnessed by politicians safely detached from any immediate threat. As the destruction in *Flood* is already hampered by its localisation of the disaster, its visual containment of the overall threat weakens its potential for any sublime-like affect.

Further negating *Flood*'s potential for evoking echoes of the sublime is the film's visual containment of the disaster within the *mise en scène*. The persistent use of computer models to track the progress of the flood minimises the power of the destruction and its potential to affect the viewer. When the Commissioner of Police of the Metropolis (Joanne Whalley) sits before the computer screen to assess the storm's progress up the Thames, the destruction is signified by the light bluish area, framed within a box within her computer screen, and over her shoulder within the frame [*Figure 3.6*]. The reductive visuals of the danger sabotage sublime astonishment and terror through the suppression of the threat. By imposing limits upon the destruction, spectatorial affect is reduced to a cognitive analysis of narrative and image, dissolving the opportunity for an encounter with the sublime.

Similar computer models are utilised in *2012*, but due to the global scale of the disaster, the model is incapable of containing the destruction.



Figure 3.6 *Flood (2007)*
Visual containment of destruction

Additionally, whereas Emmerich intentionally embraces a global perspective and near-global representation, one of the more pronounced missteps in Mitchell's film is its monochromatic representation of London. At each level of narrative importance (i.e. central characters, supporting roles, extras) every character is Caucasian. From the fleeing citizens on the street, to tangential story lines developing secondary characters, to the politicians, military, and scientific communities responsible for saving the city, the viewer is hard-pressed to identify a character of non-white origin. Clearly, this London-centered disaster is not effecting the remaining twenty-five percent of the city's population that does not profess to be white ('London'). The consequence of representing the impact of a disaster on a single race and repressing the multicultural environment of experiential reality

implicitly contradicts the infinite of the Burkean sublime and reduces the scope of the threat.

From the respective applications of destruction imagery in *2012* and *Flood*, the dominant notions to emerge move beyond themes of familial healing towards the realm of political commentary. Mitchell's *Flood* – though not financed, distributed, or connected to the BBC or UK government – is unabashed in its political agenda of reassuring the British public that the government is single-minded and effective in its response to national crises and disaster relief. The quiet consolation and gentle smiles of the government officials after the containment of the disaster lies in stark contrast with the rejoicing of the survivors in *2012*, despite the billions of human lives who have just perished around the world. *2012* depicts governments as conspiratorial and self-serving; although the US President (Danny Glover) is portrayed as noble and honourable, remaining in Washington DC and walking among its wounded, the White House Chief of Staff Carl Anheuser (Oliver Platt), to whom the US presidency falls, is depicted as cold, corrupt, and contemptuous of human life. Seats aboard the arks are priced at one *billion* Euros each, and the salvation of the human race is not for all; it is for the world's wealthy elite.

However, these specifics are narrative elements acting as pretext for the images of destruction. Echoes of the sublime in film are not bound by the contrived framework of story but exist independent of it: it falls to the image to convey such affective representations. Yet not all images of destruction convey a sense of the sublime. Vivian Sobchack describes that it is not science fiction destruction alone that lays the foundation for a sublime-like wonder:

The wonder, then, which is caused by this simultaneous visual collision and collusion does not necessarily arise from the 'aesthetics

of destruction' [...]. The mess is only contributory to the wonder, and not the source of it. Certainly, images of destruction are peculiarly pleasing and satisfying to watch on the screen, but they are not dependent upon the juxtaposition of the real and the fake for their aesthetic effectiveness. (*Screening Space*, 141-42)

For Sobchack, the photorealistic image of destruction is necessary but insufficient.

The wonder and (potentially) the sublime-like encounters emerge from an

incongruity within the context of the represented destruction. She continues:

A volcano erupting in a documentary gives us similar aesthetic satisfaction as Tokyo toppling in *Godzilla*. The wonder of this last grouping of SF films arises from a more particular visual source than destruction itself, a source dependent upon a juxtaposition which creates *incongruence*, 'the same special, deliberate incongruity we see in surrealist paintings... the kind of incongruity which makes one stare and stare and stare because of the confusion of emotional associations attached to different objects placed in the same visual frame.' Thus, demolition, destruction, and wrecking are not essential to the wonder generated by the incongruent content of the images on the screen. The toppling of national monuments by flying saucers, the squashing of automobiles by alien reptilian feet, aesthetically pleasing as they may be in their destructiveness, are finally a flamboyant demonstration of incongruence in action. (*Screening Space*, 142-43; original emphasis)

For Sobchack, the incongruity is the essential component to an image of wonder. Yet her position is incomplete. Audiences are unlikely to experience sublime-like emotions because an alien or an enormous monster destroys a building. A sublime-like encounter emerges from an incongruity within the destruction that *invokes the memories of historical destruction* within our own experiential world. The challenge to the science fiction filmmaker is not to exaggerate the disparity between intra-diegesis and extra-diegesis through escalating visuals but find, within its fiction, analogous elements to experiential destruction.

For one brief moment in *2012*, during Gordon's flight through a crumbling Los Angeles, the stunned pilot – in slow-motion – glances out his window as he

passes a skyscraper torn open and witnesses terror-stricken people hanging from the exposed edge. This passing shot may be the only genuinely extra-diegetic echo of the sublime during the 158-minute film, and it is not invoked by its aesthetics but by an image of incongruity that recalls the memory of experiential mass destruction. In this case, the image of people dangling from the demolished upper floors of the skyscraper suggests the memory of 9/11 and the attack on the Twin Towers and its associated intensities.

By correlating the fictional destruction with experienced destruction, the film encourages a transfusion of affect from the historical human trauma to an analogous simulacrum – from the brief image of a terror-stricken woman on the verge of falling to her death to the personal accounts of the 9/11 attacks, reporting their witness of helpless victims falling from the towers. However ethical, visuals appropriating the genuine, experiential sublime can produce echoes of the sublime within its cinematic fiction.

Summary

While the 1990s witnessed a surge of disaster and destruction-based narratives, their continued presence well into the twenty-first century suggests a dogged pursuit of an affectation derived from astonishment and terror connoting a sublime-like experience. As a result of CGI and the infiniteness of digital technologies, the science fiction sublime can no longer be defined by the wonder evoked through encounters with advanced technology as is argued by Scott Bukatman, nor can it be solely dependent on minimalisation, as argued by Greg Tuck. The sublime as defined by Edmund Burke is a peculiar sensation when faced

with something simultaneously horrific and beautiful. Often films centering on images of destruction fall prey to aesthetic exaggeration in search of artificial astonishment, such as in Roland Emmerich film *2012* (2009) and Tony Mitchell's *Flood* (2007). So rather than the affectations emerging from the incongruity of science fiction destruction that Sobchack champions, the post-mechanical sublime in science fiction cinema manifests through Burkean astonishment and terror evoked by images of mass destruction that intentionally invoke the memory of historical, experiential destruction events. As I discuss in the next chapter, it appears that the echoes of the sublime, if dependent upon cultural memories of historical trauma, still reside in image authenticity and restrained destruction realisations.

CHAPTER THREE NOTES

- ¹ Portions of this chapter have been previously published as 'Watching the World Burn: Intensity, Absurdity and Echoes of the Sublime in Contemporary Science Fiction Destruction' in *Terror and the Cinematic Sublime* (MacFarland & Co, 2013) and have been reproduced with permission. Copyright is held by MacFarland & Co.
- ² Christine Battersby, for example, in her text *Gender and Genius* (1989), discusses the overt sexism of Kant and Burke's comments on the sublime as the context for the repressed potentiality of genius in women, subjugated by eighteenth century male-dominated assumptions (74-76). Patricia Yaeger and Barbara Freeman also reorient the sublime away from misogynist undertones to include the feminist perspective on encountering the sublime.



War of the Worlds (2005, US)

CHAPTER FOUR

A Transfusion of Affect: Evoking Historical Catastrophe in 21st Century Science Fiction Destruction

The most curious spectacle in life is that of death.

-- Alexandre Dumas, *The Count of Monte Cristo* (281)

Thus far in this discussion on the representation of cinematic destruction, there has been a subsuming constant (briefly touched upon in the conclusion of Chapter Three) that requires specific consideration, namely the relationship between the aesthetics of destruction sequences in science fiction cinema and those of contemporary historical catastrophes. Correlations between recent tragic events

involving mass destruction and cinematic representations of mass destruction events are pervasive and can be identified through both narrative and aesthetic similarities. Connections between diegetic motive and historic causation are easily identifiable: a cinematic earthquake may quickly call to mind any number of earthquake disasters in recent years. What remain more intriguing to this study are the *aesthetic* connections between science fiction/disaster texts and historic events.

If science fiction cinema in the 1990s can be characterised as a period of overindulgence in the application of emerging CGI technology, as both Michele Pierson and Angela Ndalians suggest, science fiction cinema of the twenty-first century reveals a bifurcation of aesthetics (86-87, 125; 256 [respectively]). One approach escalates on from its 1990s predecessors in a style of visual carousel made possible by further technological advancements, as in *Star Wars: Episode III – Revenge of the Sith* (2005, US), *Avatar* (2009, US), and *After Earth* (2013, US). The other, more intriguing branch of the aesthetic bifurcation reveals an abstemious hesitation towards digitally enhanced visual excess, from which emerges a curious cooperation between CGI effects and early film realism techniques that together function as a method of infusing – or, rather, transfusing – its visuals of destruction with a latent affect more commonly associated with the memories of recent historical destruction.

I open this chapter by revisiting the form of ‘traditional’ film realism that emerged with André Bazin and Siegfried Kracauer and two of the formal techniques that these theorists considered as particularly adept at representing the reality of the experiential world – the long take and what I will refer to as *die Abfälle*, a modification of Kracauer’s notion of refuse and garbage within the *mise en scène*.

Bearing these techniques in mind, I then examine their application within contemporary science fiction destruction sequences from Alfonso Cuarón's *Children of Men* (2006, US/UK), Alex Proyas's *Knowing* (2009, US/UK/Australia), and Matt Reeves's *Cloverfield* (2008, US) as a means of instilling within the science fiction images an impression of factuality.

From the decay of *die Abfälle* in physical spaces, I proceed to the decay of the human body: the representation of death specifically within *mass destruction* imagery and its contribution to inciting affects better associated with recent historical catastrophes. Though depictions of death have been present in disaster films for decades, from *Deluge* (1933, US) and *San Francisco* (1936, US) to *Deep Impact* (1998, US) and *The Day After Tomorrow* (2004, US), the genre nevertheless shies away from fully revealing the instance of death, resorting to visual obstructions and audio effects to imply said deaths. It is remarkably recent that science fiction/disaster films have risked depicting the *instance* of death within the context of mass destruction spaces.

By examining both traditional techniques of cinematic realism and depictions of death *within* the *mise en scène* of mass destruction spectacles, I argue that the subsequent images bear with them the sensorial memory of recent historical catastrophe trauma. When filmmakers appropriate these memories in their efforts to achieve a spectatorial response, the effect serves to facilitate a transfusion of affect from the experiential to the imaginary, in which recalled emotions incited by memories of genuine destruction are transferred onto the synthetic images of destruction depicted in contemporary science fiction cinema.

From Science Fiction to 'Real'

One of the central tenets of the science fiction film is the act of tethering its fantastical fiction to scientific fact, regardless of whether the science is genuinely accurate or just convincingly probable. This grounding through seemingly evidentiary science establishes a foundation for narrative plausibility, without which the presence of extra-experiential elements would otherwise drift into the realm of fantasy. The genre's predominant method of achieving this fusion of fact and fiction has typically been to allow science to infiltrate, and often direct, the narrative. And with new scientific knowledge comes greater scientifically rationalised fictions. For example, the scientific breakthroughs in DNA research and genetic cloning during the 1980s and early 1990s provided the scientific basis for *Jurassic Park* to help rationalise the existence of living dinosaurs; indeed, both the film and Michael Crichton's source novel proved so persuasive in its science that at the time of the film's release in 1993, the subject of its scientific probability became the topic of much journalistic discussion, and even influenced the Nobel Prize committee to comment upon the film's application of science in its statement honouring the advancements of DNA research that year.¹ The predominant method of grounding science fiction's fantastical narratives through scientific (or pseudo-scientific) rationalisation has been through expository means. As in the case of *Jurassic Park*, the viewer's impression of the plausibility of a science fiction film emerges from its narrative – with its scientific explanations accounting for why the fantastical elements' presence is reasonable – closely followed by the efficacy of the film's visual effects rendering the extra-experiential elements. However, a different yet equally effective approach has recently emerged. This approach tethers the supra-

natural elements of science fiction to scientific rationale through the appropriation of film aesthetics that spectators associate with factuality.

As discussed in Chapter Two, certain styles of filmmaking are imbued with ‘the scientific inheritance of the camera’ (Winston 188). As some methods such as documentary, travelogue, *actualité*, and newsreels connote factuality, fiction films that exploit the aesthetics of these ‘factual’ forms are also instilled with a sense of similar authenticity. In the case of contemporary science fiction films, an emerging trend has surfaced – one that depicts mass devastation through a subsuming aesthetic of connoted authenticity. By interweaving its non-experiential fictions with documentary or journalistic aesthetics, the science fiction film tethers its fantastic elements through its associative ‘scientific inheritance,’ alleviating the narrative from bearing the burden of communicating plausibility in total. Consequently, this method diminishes the role of expositional scientific rationalisation within the structure of the narrative. For example, the opening sequence in the colossal creature film *Monsters* depicts through a helmet-camera an attack on a military conveyer by a fifty-foot iridescent octopus. The aesthetics of the action assume the properties of observational documentaries utilizing surveillance cameras, in which the green-tinted, low-resolution (e.g. lacking sharp focus, heavily pixelised), and dynamic movement suggest the veracity of a frenetic military firefight. The bodies of soldiers and a blond woman lie scattered on the ground, a man (later revealed to be the protagonist) cradles the woman and cries for help amidst the rifle fire and muzzle flashes; a surveillance camera aboard a fighter jet captures its approach and attack on the colossal creature. Seconds before this event, however, the spectator is provided with intertitles in order to establish a frame of expectancy:

Six years ago... NASA discovered the possibility of alien life within our solar system. A space probe was launched to collect samples but broke up during re-entry over Mexico. Soon after new life forms began to appear and half the country was quarantined as an INFECTED ZONE. Today... the Mexican & US military still struggle to contain 'the creatures'... (*Monsters*)

While these introductory titles establish the reason for the aliens' presence and lay the foundation for the film's premise, they remain a weak attempt to convey any sense of 'realism' or persuasive rationality to the subject, with merely a passing invocation of the National Aeronautics and Space Administration (NASA) to suggest a thread of scientific veracity. Instead of elaborating at length on the 'how' or 'why' of the aliens' presence so as to substantiate its plausibility, the intertitles merely provide a vague framework for the subsequent film. The film relies upon documentary's aesthetics of veracity – our intuitive impression of factuality that emerges from the associations with documentary film techniques and equipment (surveillance cameras equipped with night-vision) – to convey its 'realism' and plausibility, as in the first images of the attack on the convoy by the giant octopus.

One issue that emerges from these destruction sequences appropriating the aesthetics of 'fact' is that, in doing so, the viewer is able to draw a correlation between the depicted cinematic fictional events and the memory of contemporary historical destruction events. 'As Steven Keane has stated in connection with his study of the rise and fall of disaster films, repeated scenes of destruction in film 'are born out of times of impending crisis.' (Cornea 263)

In recent years a number of science fiction films have emerged that bear more than passing vestigial aesthetic similarities to tragic, historical mass destruction events.² With some films, the correlations are foregrounded by the diegesis, as the films' narratives follow the same trajectory of progression as certain historical

events. Films such as *Nihon chinbotsu* [*Sinking of Japan*] (Japan, 2006), *Flood* (2007, UK), and *Haeundae* [*Tidal Wave*] (South Korea, 2009) all rely upon a massive aquatic deluge as the central narrative component through which the viewer follows myriad characters striving to stop, minimise, and/or survive the disaster. Because the source of the destruction in these natural disaster narrative films is identified – not only by the diegetic events but also by their titles – as being similar to that of some of the genuine disasters in recent history, these films presuppose clear narrative associations to the historic events they so closely subsequent: the catastrophic floods in Indonesia, Sri Lanka, and India in 2004; in New Orleans, USA in August 2005; Malaysia and Indonesia from December 2006 to January 2007; and the Indian state of Bihar in August 2008, among others. Tony Mitchell's *Flood*, although based upon Richard Doyle's 2003 novel of the same name, inescapably invokes references to these catastrophic floods, and *Haeundae* directly references the Sumatra-Andaman earthquake of 2004.

While these films purport a direct diegetic link to historic destruction by way of the source of the catastrophe, a more intriguing group of other films assume an *indirect* connection; that is, the depictions of mass devastation find their correlations with the historic through *mise en scène* and a subsuming aesthetic style of factuality. In this group we find films such as *War of the Worlds* (2005), *Cloverfield*, and *Monsters* in which the depictions of destruction are the products of fictionalised colossal or alien creatures that nevertheless recall journalistic coverage of recent disastrous events through their aesthetic associations. These films appropriate documentary visual styles and techniques so as to encourage 'belief' in its images of mass destruction and incite affective responses. For the introductory sequence in

Monsters, for example, director Gareth Edwards films the attack through first-person, green-hued, night-vision helmet-cams and a *cinema vérité* documentary style that evoke the images disseminated across television and online video channels from journalists on the frontlines during the Persian Gulf War and Iraq War. Similarly, the protagonists' sudden encounter with the colossal creature in *Cloverfield* and its subsequent firefight also evoke these same contemporary historical wars and their inherently correlative emotions.

In one sense disaster films, constructed around the promise of depicting intense sequences of mass destruction, can be seen as exploitations of genuine disaster's spectacular nature, temporarily assuaging our desire to witness (from afar) such catastrophes. In another sense, disaster films communicate a warning to the general public of what traumas to expect when the upheavals of the natural world do occur. However, the science fiction film reveals a uniquely affective quality in its capacity to invoke memories of historical disaster events through allegory, allusion, or metaphor. The aesthetic correlations between fiction films and nonfiction events must be addressed, and perhaps the most effective approach is to return to the long-running discussion of film aesthetics and cinematic realism. The next section will discuss some of the fundamentals of classic film realism and how the techniques that allegedly convey 'realism' have been incorporated into contemporary science fiction cinema.

Recalling the Two Main Tendencies

Susan Sontag's statement that the genre is predominantly centred on destruction has never been more accurate than with the science fiction films of the

post-mechanical era ('Imagination of Disaster', 43). And while contemporary science fiction cinema relishes its hyperbolic sequences of mass destruction, there has also been a re-emergence of traditional realist film techniques – those advocated by theorists André Bazin and Siegfried Kracauer – incorporated into the science fiction films' aesthetic of spectacle and destruction. This section details the essence of these two theorists, the techniques they favour in rendering a 'realistic' cinematic image, and how these techniques have been employed in contemporary science fiction films in order to convey a sense of realism within an extra-experiential narrative.

Championing the uniqueness of the film medium, Bazin and Kracauer's early discussions of the 'essence' of cinema and the 'cinematic' are founded upon the mechanical and indexical properties of photography which they associate with the true nature and calling of cinema, as rooted in an unrivalled ability to record and represent the experiential world.³ Both theorists respectively reject film forms that perpetuate a subtextual ideology. For example, Bazin finds a deeper theology beneath the aesthetics of the represented, referring to the image as mummified by the camera into an eternal truth, and argues that if a film's narrative coherence 'is to become a truth of the imagination, it must die and be born again of reality itself' (14-15, 47). Kracauer, meanwhile, assumes a more humanist approach. He balks at the manipulative power of classical narrative film language and its ability to act as a vehicle for ideological pressures on unsuspecting spectators, such as those of Germany's Weimar Cinema during the Interbellum (*From Caligari*, 58-60).

For Kracauer, the properties of the film medium divide into two categories: the 'basic' and the 'technical'. Because the medium emerges from the principles of

photography, Kracauer regards the ‘basic’ properties as the mechanics of photography within the recording apparatus, which consist of the camera, the film stock, the subject, and a light source, among others. The ‘technical’ properties of the moving image Kracauer regards as the formal devices of the medium, such as editing, shot composition, frame rate, and ‘certain “special effects”’ (*Theory of Film*, 29). In delineating between these two categories of ‘basic’ and ‘technical’, Kracauer, then, ultimately describes the differing properties of the production and post-production processes: the elements required for recording a profilmic subject (the ‘production’ stage) comprise his ‘basic’ properties of cinema, and the elements used to sculpt the raw recordings into a completed and exhibited film (the ‘post-production’ stage) comprise the ‘technical’ properties of cinema. In the context of contemporary filmmaking practices, CGI and other digital visual effects can be grafted in among Kracauer’s other ‘technical’ devices, because, like editing and frame rate manipulation, they too are post-production tools employed to construct the exhibited composition.

According to Kracauer, cinema further bifurcates into two main tendencies. Those that favour the manipulative powers of film’s technical properties over the basic, he considers ‘formalist’; films that favour the basic properties of the medium and the inherent reflections of the experiential world over the technical are deemed ‘realist’, or as Kracauer refers to it, ‘cinematic’. Indeed, Kracauer’s theory on these two tendencies, lucidly illustrated through the disparate styles of early film visionaries Louis Lumière and Georges Méliès, was maintained by film theorists for decades (*Theory of Film*, 30-36).⁴ Kracauer describes the realist tendency as one that ‘records and reveals the physical world,’ with an emphasis on movement in order to

underscore its uniqueness from photography; he describes the formative tendency as one that extends beyond mimetic representation into ‘realms of history and fantasy’ (*Theory of Film*, 32, 35). As if portending the dizzying impact aesthetics that characterise much of digital era science fiction cinema, Kracauer writes, ‘Often enough, formative aspirations clash with the desire to render reality, overwhelming it in the process’ (*Theory of Film*, 12). Yet Kracauer himself admits times when the obverse occurs, and formal elements *enhance* the rendering of reality – a point to which I will return (*Theory of Film*, 30).

Arguing in the same direction, though along different lines, is André Bazin, who interprets the photographic nature of film to somewhat different ends than Kracauer. Bazin, whose writings (in terms of relevance and contribution to contemporary film scholarship) have outpaced those of any other of his ‘realism’ contemporaries, finds that, emerging from the mechanics of photography, the medium of film best displays its unique, ‘cinematic’ attributes when it emphasises its ability to render space and time as a mirrored reflection of our own experiential reality (108).⁵ Indeed, Bazin advocates any technique that helps improve the realistic impression of the narrative’s spatio-temporal plane, and specifically honours the ‘deep focus’ shot and the *plan-séquence* (or, more accurately, the ‘long take’)(35-36, 50). The difference between the long take and the *plan-séquence* is negligible but conspicuous: a *plan-séquence* is the term used to describe the technique of recording an entire scene in a single take, from beginning to end; a ‘long take’ is a shot whose duration extends beyond what would have been classically edited through a variety of shots (Bordwell and Thompson 209).⁶ Their slight differences aside, Bazin praises the techniques’ ability to convey a sense of both space and time in which the

spectator is free to observe the intricacies of the spatial relationships and the elements throughout the frame, as well as feel the pressure of time on the transpiring narrative events. As the long take is especially important within certain contemporary science fiction's sequences of mass destruction, I will return to it in greater detail in the following section.

One key aspect of the long take that Bazin cherishes is the freedom it allows for the viewer's eyes to roam around the frame at will. Reflecting on Orson Welles's *Citizen Kane* (1944, US), Bazin finds that the advent of the deep focus shot is, 'a capital gain in the field of direction – a dialectical step forward in the history of film language,' because 'its structure is more realistic' (35). According to Bazin, the deep focus shot bestows upon the viewer the power to choose what she should see within the spatio-temporal plane of the frame (when combined with the long take so as to render such inspection possible) without feeling manipulated into following the object of intended focus that seems inherent within classical editing paradigms. These deep focus shots, however, can also be used to trick the eye's perception of the diegetic plane. Despite Bazin's assertions concerning *Citizen Kane*'s cinematic realism as following from its use of long take and deep focus, Welles also utilises these techniques to twist and play with the viewer's perception of the spatio-temporal plane, as Bruce Isaacs lucidly points out (30-31).

In the *plan-séquence* shot in which Charles Foster Kane signs away his fortune, Welles composes a trick shot through his use of deep focus and depth of field. As Mr. Thatcher and Mr. Leland sit at a desk in the foreground, Kane walks from the desk, through the mid-ground to the deep background and towards what had hitherto been unassuming rectangular windows along the back wall. As Kane

approaches the back wall, the windows that initially appeared fairly standard in size now assume a hyperbolic grandeur as the viewer realises that, when Kane stands beneath them, these are massive windows set six feet off the floor and tower over the diminutive Kane. Isaacs writes, ‘While the scene is exemplary of deep focus as a cinematographic device, it is also an example of Welles’s ingenious use of deep focus to deliberately encode the Real with an inherent artificiality’ (31). Just as Welles uses the long take and deep focus techniques to convey a sense of spatio-temporal realism, he also reveals how these techniques can augment the spectator’s perception and suggest the medium’s inherent artificiality. The techniques are not themselves realistic, but have the ability to mimetically convey a spatio-temporal plane comparable to that of experiential, Newtonian reality, regardless of content. In fact, Bazin himself concedes that the structure of the deep focus shot is more realistic, ‘[independent] of the contents of the image’ (35); Kracauer, likewise, concedes that ‘in certain cases the knowing use of a variety of techniques may endow otherwise nonrealistic films with a cinematic flavor.’ (30) As Warren Buckland states in his discussion of *Jurassic Park*:

We can even argue that (however paradoxical it may sound) the shots showing the humans and digital dinosaurs interacting are the digital equivalent of the long takes and deep focus shots praised by André Bazin for their spatial density and surplus of realism, in opposition to the synthetic and unrealistic effects created by editing. (29)

Bazin’s work can be characterised as ‘descriptive’; he illustrates why certain aspects of cinema are deemed ‘realistic’ through analyses of cinematic attributes and techniques. Kracauer’s observations, on the other hand, can be characterised as ‘prescriptive’; he calls for a cinema of realism, rather than one of subtextual and subconscious ideological manipulation, and lays out which techniques and methods

are best used to achieve it. Despite these differences of approach, where Bazin and Kracauer both align and praise as wholly ‘realistic’ (they use the term ‘cinematic’) is the subjugation of tricks and gimmicks by the spatio-temporal plane surrounding the profilmic subject within the sequence. Long takes and deep focus for Bazin, and the depiction of *die Abfälle* and of phenomena overwhelming the senses for Kracauer, can all be used to breathe a sense of spatiotemporal realism into scenes that are otherwise disparate from the experiential world (Kracauer 54, 58). Here, Kracauer’s concession suggests that even in a film genre such as science fiction – a genre dedicated to the application of new and emerging visual effects technology where often the spectacular *is* the intended goal – certain techniques may be applied to infuse the film with a ‘cinematic [realistic] flavour’. In this way, contemporary science fiction’s incorporation of classical realism techniques helps establish of sense of spatiotemporal authenticity to its otherwise obtuse convergence of natural and supra-natural content.

Realist Techniques in the Science Fiction Plane

As discussed in Chapter One, even those films that employ the visual and audial razzle-dazzle of impact aesthetics will nevertheless first establish an aesthetic baseline of what I term *kinescopic* realism – the cooperative effort of perceptual verisimilitude and Newtonian movement that creates a foundation on which the exaggerated spectacles are built: ‘An artificial world, provided there exists a common denominator between the cinematographic image and the world we live in’ (Bazin 108). In some instances filmmakers are applying the forms and techniques of earlier eras, approaching the implementation of CGI as a subtler and more nuanced

tool than the films centred on indulgent spectacles. This restrained usage of digital technology, can help stimulate theoretical, theological, existential, and philosophical questions derived from the aesthetic interpretation of narrative events. In this way, the filmmakers align their use of digital technology with Kracauer's position, so that the CGI or visual effects are subsumed by his 'basic' principles of film. In effect, it is Kracauer's position that the 'technical' may be used, so long as it is employed in service to the overall impression of profilmic realism. This next section I will dedicate to elucidating how the long take technique and an emphasis on *die Abfälle* within the *mise en scène* of science fiction sequences of mass destruction lend their subjects greater potential for spectatorial affect.

The Long Take and *die Abfälle*

The sequence shot has been staple of world cinema since the post-WWII era, used notably in the films of Welles, Otto Preminger, Kenji Mizoguchi, Miklós Jancsó, Andrei Tarkovsky, Béla Tarr, Martin Scorsese, and Aleksandr Sokurov, to name a few. The long take has been applied for a variety of reasons. It can help authenticate the physicality of the performance, as with *Tom yum goong* (2005, Thailand) which includes a four-minute shot in which martial arts master Tony Jaa defeats an entire criminal organisation as he battles his way up to the mob boss's penthouse. The long take is sometimes used to communicate a pivotal plot point within a film's narrative; for example, it is employed to great effect in *El secreto de sus ojos* (2009, Argentina, Spain) in which an extreme wide shot of a football stadium from a helicopter concludes on the pitch in an extreme close up on the antagonist, finally apprehended after a frantic five-and-a-half-minute chase

throughout the stadium.⁷ A director may elect to shoot a scene in a long take for the mere technical challenge of it, most famously with Alfred Hitchcock's *Rope* (1948, US) but also with Sokurov's *Russian Ark* (2002, Russia/Germany), the first full-length feature film to be shot as a single take (Bordwell and Thompson 209).

Although it can and has been used to augment the passage of time – as in films such as *Slaughterhouse-Five* (1972, US), *Notting Hill* (1999, UK/US) and *Signs* (2002, US), all three of which depict gradual seasonal changes transpiring without edit – more often the long take is applied in the Bazinian sense: to enhance the scene's spatial relationships under the pressure of time. Still a prevalent tool amongst contemporary directors, it seems to be mostly used (if not abused) in establishing the spatial dynamics of frenetic locations, such as newsrooms, hospitals, battlefields, train stations, and even spaceships (as exemplified by *Serenity* [2005, US], in which an introductory long take meanders from outside to inside and throughout the protagonists' spacecraft as the crew hurriedly labours to avoid burning up during atmospheric re-entry).

Where Bazinian long takes, (i.e. those that underscore an 'objectivity in time' in which 'the image of things is likewise the image of their duration, change mummified as it were' [Bazin 14, 15]) become most relevant to the discussion of science fiction destruction is in their ability to depict the destruction through an aesthetic that emphasises the experiential reality of the spatio-temporal plane over a prolonged period of time, without the intrusion or interruption of an edit. Many cineastes have taken to referring to this union of the image's diegetic spatiotemporality and the temporal duration of the act of viewing as 'real-time', though the term is somewhat inaccurate. Malin Wahlberg writes,

Real-time approximation may be a suitable term for the frame-breaking effect caused by a take whose length matches the duration of the filmed event. It, however, has less to do with the static camera or the long take as such, than with the relative signification of cinematic duration: the various expressive functions and psychological effects that figures of extended time may have in film. Isochronal representation does not automatically result in a frame-breaking event, although when the viewer is consciously aware of time passing on the screen she may reflect on metafilmic aspects such as the artifice of camera framing, the length of the shot, or film viewing. (93)

That is, ‘real-time’ is less about formal techniques such as the long take than it is about the unification of the time required to view the film and passing of time portrayed within the film. Some examples of films that *purport* to occur in ‘real-time’ while nevertheless using traditional editing schemas include *High Noon* (1952, US), *Nick of Time* (1995, US), *Phone Booth* (2002, US), and *United 93* (2006, France/UK/US). David Bordwell looks to the terminology of the Russian Formalists of the 1920s to describe these two different temporalities. Bordwell writes:

The imaginary construct we create, progressively and retroactively, was termed by Formalists the *fabula* (sometimes translated as “story”). The more specifically, the *fabula* embodies the action as a chronological, cause-and-effect chain of events occurring within a given duration and a spatial field. [...] The *syuzhet* (usually translated as “plot”) is the actual arrangement and presentation of the *fabula* in the film. It is a more abstract construct, the patterning of the story as a blow-by-blow recounting of the film could render it. (*Narration*, 49-50)

When filmmakers unify *fabula* and the *syuzhet*, they may nevertheless employ most conventions of the narrative film form, including montage. The long take that Bazin praises as ‘realistic’ unifies *syuzhet* and *fabula* within a single take, suggesting that when images of destruction are depicted through this manner of long take, through a unified *syuzhet* and *fabula* without edit, they bear different realistic connotations than those destruction sequences employing contemporary cinema’s

impact aesthetics. Though films such as *San Francisco* (1933, US) can effectively convey a sense of horrific destruction through the chaos of fast-paced discontinuity editing, the long take remains an unblinking eye to the destruction events transpiring within an established spatial plane under 'Real' time (Bazin's 'objectivity in time' where one second of diegetic time equals one second of viewing time). It seems then, that though the content of science fiction cinema is far from what Kracauer and Bazin initially conceived as 'realist', this technique becomes all the more powerful when one acknowledges that the use of the long take, in realising the destruction within the context of a fantastical narrative, subsequently imbues the images as seeming plausibly realistic, while still comprehending their fabricated ontology. As Bazin writes, 'If the film is to fulfil itself aesthetically we need to believe in the reality of what is happening while knowing it to be tricked' (48).

From an amassing number of instances, I will delve into three particular key examples of the long take within contemporary science fiction cinema in order to help elucidate the paradox of how a formal technique can inscribe a sense of 'realism' onto a genre that ontologically depends upon a wholly non-experiential narrative framework; in addition, I will demonstrate how that the established sense of 'realism' can infuse the fiction with spectatorial affects associated with recent historical destruction events. First I will examine a long take from Alfonso Cuarón's dystopian future film *Children of Men* so as to show how Kracauer's 'technical' properties can remain subordinate to the realism of the scene's spatial and temporal dynamics. Next, I address a scene from *Cloverfield* that was broached in Chapter Three in order to convey how iconography and *die Abfälle* can be used within the long take to evoke the memory of recent historical disasters. The last long take I will

examine is one from the otherwise forgettable science fiction film *Knowing*, so as to extract how the unbroken spatio-temporality, the iconographic associations with history, and *die Abfälle* within the images of destruction combine with unflinching depictions of mass death in order to transpose the affectualisation from historical destruction to that of science fiction artifice.

Children of Men

Cuarón's *Children of Men* is a bleak and fascinating contribution to the science fiction genre's depictions of dystopian futures. Set in the year 2027, the narrative depicts a degenerative future in which the human race has been slowly devolving into anarchy since the female gender went inexplicably barren eighteen years prior. Protagonist Theo (Clive Owen), a former activist turned disillusioned ministry employee, ekes out an apathetic existence in London amidst a violently crumbling British society in which aggressive protests are a daily norm, and where immigrants are forced into internment camps bound for deportation. Theo's life is suddenly up-ended when his ex-wife Julian (Julianne Moore), leader of the militant group The Fishes, convinces him to help her escort a young woman Kee (Clare-Hope Ashitey) to a rendezvous point on the English coast, along with Kee's 'lady-in-waiting' Miriam (Pam Ferris) and the Fishes' second-in-command Luke (Chiwetel Ejiofor). En route, they narrowly escape an ambush by a violent mob, but Julian is killed. Hiding out among sympathisers, Kee informs Theo that she is pregnant, and that she is to meet a ship named *Tomorrow*, a floating sanctuary belonging to The Human Project, an altruistic group of scientists independently working to preserve the human race. While Luke advocates that the Fishes use the baby to their political

advantage, Theo discovers Luke's conspiratorial connection with the violent mob from the previous attack, and secrets Kee away. Theo and Kee ultimately smuggle themselves into an internment camp at Bexhill-On-Sea that lies near *Tomorrow's* route, where Theo delivers Kee's baby. Luke and the marauding mob attack the internment camp, and Theo is separated from Kee and the baby. During an intense battle between the militants and the British army, Theo rescues Kee and the baby, escaping the camp in a hidden rowboat. Theo dies from a gunshot wound suffered in the rescue, and Kee and the baby are rescued by the passing *Tomorrow*.

Though Cuarón uses conventional shot-reverse shot editing during most of the film's dialogue sequences, his masterstroke is his decision to use the long take during the film's suspenseful action sequences. While most other directors would typically realise the action sequences through a rapidly paced editing schema and an oppressive non-diegetic score to convey the intensity of the scene, Cuarón relies on the long take and minute augmentations of diegetic sound to intensify the scenes' suspense through the pressure of time and to evoke a spectatorial affect through its breathtaking suspense. The four-minute scene in which the raging mob ambushes the car and kills Julian proves a prime example.

While travelling towards the rendezvous point, the five central characters (Theo, Kee, Julian, Luke, and Kee's *au pair* Miriam) idly chat, peel an orange [*Figure 4.1.a*], and, after reminiscing about their early protest years, Julian and Theo reenact their youthful game of playing catch with a ping-pong ball using only their mouths – all within the confines of the car. During this exchange, the camera has passed from the rear of the car, to the front dash, and pivoted to show in profile Julian in the front passenger seat with Theo behind her [*Figure 4.1.b*]. The camera

then pans to face the front windscreen; a burning car rolls down the adjacent hill and blocks the road ahead [*Figure 4.1.c*], and a 360-degree pan reveals a raging mob of anarchists storming the car from all sides [*Figure 4.1.d*]. The camera pans to Luke who frantically begins driving away in reverse, then back to face the windscreen as a motorcyclist speeds towards them and aims a gun at Julian. At the moment of the gunshot, blood splatters on the lens [*Figure 4.1.e*] and all ambient sound goes quiet, leaving only the muffled reactions of the horrified characters and a ringing tinnitus. The revving engine signals the return of the diegetic sound as the motorcycle speeds up alongside the car; Theo throws open his door, violently knocking the bike over. Luke turns the car around and drives away, as Theo and Miriam attempt to stop the blood gushing from Julian's neck [*Figure 4.1.f*]. A caravan of police vehicles speed past them in the opposite direction but one quickly returns into view through the rear window. Admitting he can't outrun the police car, Luke pulls over and tells the others to get out their passports [*Figure 4.1.g*]. Two police officers approach the vehicle with guns drawn; the passengers wave their passports and yell that they are British citizens. The officers lower their guns, and suddenly Luke shoots the two policemen and exits the car. Theo also exits the car, the camera passing through Julian's shattered window as it tracks with him, and confronts Luke who threatens him at gunpoint to get back in the car [*Figure 4.1.h*]. Luke drives away, leaving the camera behind to watch the departure [*Figure 4.1.i*], and then pans over to the two dead policemen on the road [*Figure 4.1.j*].



Figure 4.1.a *Children of Men*
First frames establish space



Figure 4.1.b
Pan right for ping-pong ball catch



Figure 4.1.c
Pan to windshield reveals blockade



Figure 4.1.d
360° pan reveals surrounding mob



Figure 4.1.e
Blood on lens from behind Julian



Figure 4.1.f
In front with lens blood removed



Figure 4.1.g
Moment of invisible cut?



Figure 4.1.h
Camera tracks with Theo outside



Figure 4.1.i
Exterior shot of fleeing car



Figure 4.1.j
Pan right to conclude shot

The scene exemplifies how CGI and post-production manipulation can remain subordinate to Bazin's aesthetic of spatio-temporal realism even within a science fiction narrative. Cuarón's shot *appears* to transpire without edit and elapsing in real-time. Yet a behind-the-scenes featurette included on the 2007 released DVD reveals that Cuarón's long take was only made possible by creating a uniquely rigged vehicle. An enclosure was built above the interior of the vehicle's chassis in which four people were to be situated during the filming (the director, the special effects coordinator, the remote camera operator, and the focus puller). A grid-like rigging was installed, under which hung the principal camera; designed to remotely dolly forward and backward and rotate 360-degrees, the remotely operated camera was able to provide a full range of angles to cover the confined five-person verbal exchange and the subsequent attack [Figure 4.2.a-b]. Cuarón's vision required a technical complexity that could have been easier accomplished by employing either a conventional editing schema or green-screen technology (in which the surrounding images are superimposed onto the profilmic green background through post-production chromatic effects), yet he refused, favouring to capture the aesthetic attributes revealed within the minutiae of the *mise en scène* that results from shooting on location ('Under Attack').

In divulging his method for obtaining this shot, Cuarón also reveals that his long take was, in fact, a composite of *at least* two shots, seamlessly sutured together through CGI in order to maintain its impression of an unbroken fragment of real time. The opening of the long take clearly transpires from within the rigged production vehicle; it's fluid panning and tracking within a confined space in which no camera operator could physically inhabit. The conclusion of the long take,

however, terminates outside of the car, tracking out of the passenger window to reveal the vehicle's exterior in wide shot as it departs. At a point between the police car's appearance in the rear window and Luke's murderous attack on the officers, then, a deftly opaque edit occurs.⁸ The footage from the principal camera attached to the chassis's rigging is supplanted by a handheld Steadicam shot that tracks through the shattered front passenger window as Theo exits the car.



Figure 4.2.a *Children of Men* (2008)
Rigged vehicle for long take



Figure 4.2.b
Birds-eye view of rigged interior

As Bazin writes, 'It is simply a question of respect for the spatial unity of an event at the moment when to split it up would change it from something real into something imaginary' (50). Cuarón's respect for the scene's spatial unity is evident; the cut is so imperceptible that pin-pointing the exact moment where the edit occurs is not only impossible but also pointless, for Cuarón's decision to include a cut is only to preserve the spatial realism of the shot by revealing both the inside and the outside of the vehicle. Despite Cuarón's inclusion of a masked cut, then, the shot can nevertheless be considered as unbroken through its application of digital visual effects to accentuate the unified spatio-temporal plane. In principle Cuarón's masked edit recalls previous examples in which the cuts during a long take are masked. Alfred Hitchcock's *Rope* (1948, US), for example, famously masks some of its cuts when a person or object passes in front of the lens, rendering it completely black for at least a frame, so that during the editing process the two shots can be 'seamlessly'

juxtaposed and still maintain the appearance of a unified spatio-temporal plane. In the era of digital editing processes the black frame is unnecessary, as Cuarón demonstrates; where once one could unquestionably pinpoint the moment of edit, the issue is now moot. When the digital processes erase every visual trace of edit, the long take's spatio-temporal plane remains unbroken.

Additional CGI elements, such as a digitally manufactured ping-pong ball and the erasure of blood splatter on the lens during a whip pan, further elucidate Cuarón's position that a realist aesthetic is best achieved when the digital visual effects are held subordinate to the narrative events, regardless of the content. Through the deft usage of the long take technique, Cuarón's vision of a dystopic future, though wholly fictional, creates a palpable and uncomfortable aesthetic plausibility. While *Children of Men* also exemplifies Kracauer's notion of cinematic realism through the depiction of refuse, I will next address what I refer to as *die Abfälle*, within the *mise en scène* of a long take from Matt Reeves's *Cloverfield*.

Cloverfield

In *Theory of Film*, Siegfried Kracauer refers to the ugly aspects of life (garbage cans, gutters, sewer grates, littered streets) captured within the *mise en scène* as 'refuse' (54). This term, though, distinctly addresses trash. For the purposes of this study, which includes the destruction of both man-made and natural structures, noting the trash within the frame does not seem comprehensive enough. In scenes of mass destruction, consider the genesis of the rubble, the dust or ash, or the process of seeing human viscera created during the chaos, not only center frame, but also in the depth of the corners of the frame. These aspects have less to do with

trash or refuse and more to do with the process of decay and observing the transition from whole objects to fragments. As a result, I have chosen to refer to these aspects within the *mise en scène* as *die Abfälle*. Although Kracauer originally published his text *Theory of Film* in English, this German term seems to encapsulate much of what I am attempting to convey. According to the Langenscheidt New College German Dictionary, *die Abfälle* refers to waste, refuse, and rubbish, but additionally can refer to slaughterings, clippings or filings, a steep slope or regress, and also the falling of leaves in autumn (21). This entropic progression seems to better encapsulate not just the refuse of a littered street but also the decay of the commonplace, either gradual or sudden and explosive.

Cloverfield, as discussed in Chapter Two, retells the narrative of a colossal creature run amok in New York City; the uniqueness of this iteration lies in its aesthetic rendering of the familiar narrative. The film adopts an *unedited* found-footage aesthetic in which partygoers record the creature's destructive attack on the Big Apple and the protagonists' rescue of a damsel-in-distress through a single consumer-grade, hand-held digital video camera. Because the long take is an established convention of amateur home video cinematography, its usage within the film's subsuming aesthetic is frequent, yet one shot in particular proves noteworthy.

After feeling what is presumed to be an earthquake, protagonist Rob (Michael Stahl-David) and sidekick/videographer Hud (T J Miller) rush up to their apartment building's rooftop with a crowd of others in order to determine what has happened. A distant explosion propels flaming projectiles in their direction and Rob, Hud, and the rest of the partygoers frantically race down to street level where a 165-second long take begins. The street overflows with hysterical people; Hud, Rob,

brother Jason (Mike Vogel), and Jason's fiancé Lily (Jessica Lucas) panic about what to do. Hud pans left and witnesses the decapitated head of the Statue of Liberty rocketing through the city, pin-balling off of buildings and cars, rolling past Hud, and finally coming to a stop in front of their building. Hud's disembodied voice cries out in terror, as he zooms in on Lady Liberty's eye. A zoom out reveals a crowd of witnesses approaching the scarred copper head, snapping pictures with cell phones. A sudden tremor causes Hud to whip pan left, and he captures a glimpse of an enormous creature passing between two skyscrapers. A distant tower collapses, sending a giant wall of dust and debris towards Hud and company. Rob, Jason, Lily, and Hud seek immediate shelter in an adjacent convenience store. Hud records their stasis as the looming ash cloud engulfs the shop windows. The electricity in the shop goes out, casting everything into darkness except the pale gray windows. Emergency lights flicker on. Tremors rattle the shelves, spilling goods onto the floor. The shop's windows shatter; choking ash and fumes rush in, forcing Hud to drop the camera on its side as he and the others gasp and cough. A brief moment passes and Jason and Rob cautiously emerge from the convenience store, followed by Hud and camera. On the street, the scene bears no resemblance to its former façade, having changed from familiar and recognisable metropolis to fiery disaster zone. The surrounding buildings have suffered severe structural damage and are pocked with small fires. Piles of rubble lie all around. Paper debris gently floats down onto the street now cloaked in gray ash; survivors shuffle through the street, dazed and ash-covered [Figure 4.3].

As with *Children of Men*, Reeves's long take is also a composite of multiple shots, digitally sutured to appear as unbroken while still maintaining a unified spatio-temporal plane. This long take attempts to convince the viewer of the authenticity of the destruction event by showing in a single take (allegedly) the recognisable New York City street prior to the event and the demolished landscape that follows.



Figure 4.3 *Cloverfield* (2008)
die Abfälle destruction and reference to the fall of the World Trade Center

Yet this scene of mass destruction bears its significance through its depiction of *die Abfälle* and its connotative iconography. That is, *Cloverfield* invokes an affective response through its application of *die Abfälle* within the *mise en scène* of its long take context. Kracauer refers to what he terms ‘the refuse’ as a particularly realistic because it brings to fore the ‘blind spots of the mind’ (53):

Many objects remain unnoticed simply because it never occurs to us to look their way. Most people turn their backs on garbage cans, the dirt underfoot, the waste they leave behind. Films have no such inhibitions; on the contrary, what we ordinarily prefer to ignore proves attractive to them precisely because of this common neglect. (54)

In the *Cloverfield* sequence, the commonly neglected *Abfälle* dominates the frame, impelled into violent motion as if in retribution for its disregard. The wall of dust, the fallen and sparking street lamps, the rubble, the fires, the shattered glass, and the falling stocked goods all overwhelm a frame jostled about by the pressures of the surrounding environment. Regarding the photography's impression of realism through visible imperfections, Susan Sontag writes:

For the photography of atrocity, people want the weight of witnessing without the taint of artistry, which is equated with insincerity or mere contrivance. Pictures of hellish events seem more authentic when they don't have the look that comes from being 'properly' lighted and composed. [...] By flying low, artistically speaking, such pictures are thought to be less manipulative. (*Regarding the Pain of Others*, 23-24)

Cloverfield happily embraces imperfect cinematography, as evidenced by the scene's jostling handheld camerawork, abstract angles, prolonged moments of an environment devoid of characters, and its pixelised materiality. In this case the visuals of *die Abfälle*, revealed through flawed and seemingly spontaneous cinematography, suggest a less manipulated, thus more genuine, account of the transpiring events. The depiction, then, is instilled with a sense of kinescopic realism through its unified spatio-temporal plane, however flawed the recording, *and* the overwhelming presence of *die Abfälle*. Yet the realist aesthetic is not the end goal, as evident through the scene's iconography that unmistakably references the historical destruction of the World Trade Center in New York City.

The image of the collapsing tower, immediately followed by the tsunami of dust and debris, although presented within the context of a colossal creature attack, provokes a spectatorial association with recent history through its connotations to the events on 11 September 2001. Indeed, the film *intentionally* alludes to the

destruction of the 9/11 Attacks, as David Waine, the special effects coordinator for *Cloverfield*, describes the wall of dust as ‘the leading edge of the building exploding and collapsing just like in the Trade towers’ (*Cloverfield*). Furthermore, the film’s image of the catatonic, ash-covered witnesses recalls the media coverage of the ash-covered New Yorkers. Thus the science fiction film *Cloverfield* intentionally recalls the memory of 9/11 and the affects experienced during the historical destruction event in an attempt to provoke a spectatorial affect from its own destruction imagery: a transfusion of affect that assists in the overall impact of the fantastical film’s impression on the spectator. As Bazin writes: ‘It is that fringe of trick work, that margin of subterfuge demanded by the logic of the story that allows what is imaginary to include what is real and at the same time to substitute for it’ (Bazin 47).

The transfusion of affect is encouraged through the cooperation of 1) the long take’s unified spatio-temporal plane, 2) the prominence of *die Abfälle* within the narrative space, and 3) the destruction imagery that iconographically recall recent historical destruction events. And yet, however plausible the aesthetic representation and iconographic the demolition may seem, destruction imagery may be at its most affecting when mass casualties and human death are realised within its scope. Declassified US documentary footage of early atomic bomb tests at the proving grounds in New Mexico, Nevada, and the Marshall Islands may invoke a sense of awe at the explosions’ magnitude and power, but pale in comparison with the sublime-like terror evoked from footage of the atomic bombs dropped on the dense populaces of Hiroshima and Nagasaki. The third long take example combines an unbroken spatio-temporality, iconographic associations with historical destruction,

and *die Abfälle* with unflinching depictions of mass death, further transposing affectualisations from historical events to that of science fiction artifice.

Knowing

In Alex Proyas's film *Knowing*, astrophysics professor John Koestler (Nicholas Cage) happens upon a code that predicts future catastrophes and ultimately the destruction of the world. Though he attempts to warn the imminent victims and thwart the disasters, he is ultimately powerless against Earth's seemingly resolute fate, and resigns to allowing his young son to travel with ambiguously angelic aliens to another world and begin life anew. Burdened by its reliance upon coincidence to advance the narrative, as well as an overtly Judeo-Christian presence, the film would be wholly unmemorable if not for a horrific two-minute long take mass destruction sequence.

While sitting in gridlocked traffic on a remote stretch of motorway waiting for emergency crews to resolve a minor auto collision, Koestler realises that the code he discovered is a running list of Earth's most catastrophic events, complete with dates (most of them past, but some in the future) and geographic coordinates. Suddenly conscious that the next listed catastrophe is to occur at his precise coordinate on that exact date, Koestler approaches a police officer about the present traffic accident. Abruptly, the officer looks up; his face fills with terror. Koestler turns to see an enormous commercial airliner tear through power lines, bisect the roadway with its wing, tumble into the adjacent field, and explode into a blazing ball of fire and smoke. The camera zooms out a fraction, in a fraction; a whip-pan back to Koestler in wide shot, dumbfounded. The jostling handheld camera pushes in and

arcs around to face him in a medium shot. Koestler races towards the wreckage; the camera tracks with him in profile in a medium close-up and then pulls around behind him, widening to reveal the bluish grey steel and black smoke-filled landscape set against a gloomy overcast sky broken up by pockets of burning orange [Figure 4.4].



Figure 4.4 *Knowing* (2009)
Nicolas Cage running towards airplane wreckage

Koestler reaches the wreckage and finds a passenger lit ablaze, screaming and sprinting past. Koestler races on and finds another person burning alive. He douses the flames with a nearby blanket and moves on. Panning away from Koestler, the camera zooms slightly in and refocuses on the remains of the airliner's tail, where people leap down and rush to get away; it suddenly erupts, engulfing them in the fireball. The camera pans back to Koestler smothering the flames on another passenger and pushes in to a medium close-up. A woman screaming for help gets his attention and he rushes over to her, but another explosion propels debris towards them and the camera, sending her running away. Koestler moves deeper into the wreckage and finds a man engulfed in a hemisphere of flames, screaming; the camera circles around to Koestler as he looks on, helpless. Other cries for help turn his attention, and he sees a man hanging halfway out of a hole torn into the plane's

hull; Koestler pulls him out away from danger and begins chest compressions; the camera pushes forward into a single shot of Koestler, who is grabbed by two emergency medics and ushered aside. In medium close-up, Koestler pants from exhaustion, his eyes in disbelief as he takes in the horror of the destruction around him; cut to black.

As with *Cloverfield*, the long take is used to depict a destruction event through a unified spatiotemporal plane that recalls recent historical catastrophes, despite its science fiction context. What is most striking in this example, however, is not the movement of the camera, the wreckage of the plane, or its references to historical events, though each is notable. What emerges as most remarkable, rather, is the shot's horrific and unrelenting witness to the instances of mass death wrought by the destruction. Passengers flail and scream, then collapse into stillness. Escaping survivors are engulfed and blown apart by a sudden explosion. The transfusion of affect from the historical to the fictional, then, is not only bound up within the destruction of inhabited space but also the destruction of the inhabitants themselves. The next section of the chapter will further elucidate this new development of depicting death in contemporary science fiction/disaster cinema.

Death in Destruction

Disaster films have a rich history, and though in my introduction I argue their inclusion under the umbrella of science fiction, they are also commonly regarded as a genre unto itself.⁹ While disaster epics tend to adhere to a common *narrative* structure of common people enduring an uncommon natural catastrophe, thematically the films emphasise the healing of human relationships and the sanctity

of life. This is evident throughout film history and regardless of budget, from *Atlantis* (Denmark, 1913) to *Poseidon* (2006, US), from *2012* (2009, US - \$200 million) to *2012: Doomsday* (2008, US - \$250,000) (*IMDb.com*, *The-Numbers.com*).¹⁰ The centrality of humanity is justifiable; without spectatorial identification with the characters, the disaster is emptied of all human connectedness and only resonates cognitively through an appreciation of the destruction aesthetics. As greater spectatorial affect arises from recognition of the human condition within the narration, disaster epics are intrinsically bound to portrayals of human and familial interdependency during extreme environmental stress. Which is, of course, the film's *raison d'être*:

At least one subgenre of the science fiction film, the apocalyptic film, is founded on the promise of scenes of mass destruction. In these films [...] we eagerly await the climactic tidal wave that will sweep over New York and its famous landmarks of Western civilization. (Grant 20)

Although disaster film narratives may champion familial healing and the sanctity of human life, their market value lies in the fulfilment of guaranteed spectacle. In the evolution of the contemporary science fiction/disaster film, spectacles of destruction are no longer confined to depicting the demolition of the inanimate but revel in the exhibition of sententious instances of human death within the destruction space. In referencing apocalyptic Hollywood films, Wheeler Winston Dixon states, 'All that matters is destruction, with a continual wave of fresh victims as scenery' (124).

Necroscopy in Digital Destruction Sequences

In her 1993 essay on representations of death in narrative cinema, Catherine Russell states, ‘In the cinema, spectacular violence has become the sign of a crisis of vision, seducing the spectator into a belief in the unrepresentable – the death of an actor’ (174). Though she centres her discussion on images of death in the auteur films of directors Jean-Luc Godard, Peter Greenaway, and David Lynch, Russell’s comments are just as applicable to genre films, and not only science fiction/disaster films but also horror, Westerns, war epics, and historical dramas, in which the depiction of human casualties is a central construct. Indeed, one indefatigable constant throughout film history has been the pursuit of depicting human expiration in new and disgusting ways through an ever-evolving lens of kinescopic realism. In this way, Alexandre Dumas’ quote from *The Count of Monte Cristo* at the opening of this chapter seems perpetually applicable, in that the observance of the instantaneity of death is spectacle *par excellence*. Indeed, the bearing witness to the representation of death is evident from the very earliest of films, such as *The Execution of Mary, Queen of Scots* (Edison Manufacturing Co. 1895, US) and three early films on Joan of Arc: *Joan of Arc* (Edison Manufacturing Co 1895, US), *Exécution de Jeanne d’Arc* (Hatot 1898, France) and *Jeanne d’Arc* (Méliès 1900, France).¹¹

In *The Execution of Mary, Queen of Scots*, a dozen people fill the screen: two executioners draped in black stand centre stage in the mid-ground; eight soldiers carrying long pikes are situated just behind them in a line shoulder to shoulder; in the foreground is an Elizabethan-dressed woman standing before a chopping block, flanked by two female attendants. The attendee screen right affixes a blindfold on ‘Mary’. She resolutely kneels at the chopping block, and the executioner raises his

axe; a jump cut occurs and a dummy is substituted for the actress; the executioner swings the axe down and decapitates the look-alike dummy. Mary's attendants act horrified, the soldiers move forward to view the body, and the executioner holds the head aloft for the camera. Though roughly fourteen seconds long (depending on the projectionist's hand-cranked frame rate), *The Execution* is a remarkable artefact for two distinct reasons. First, the spectacle of death supports Tom Gunning's argument of early cinema (pre-1906, before the dominance of narrative) as a cinema of visual excitation and spectacle (Gunning 382). Secondly, it also reveals the ubiquity of a distinct trick-shot special effect, the same stop-start jump cut technique that proved so effective for George Méliès in his early films of science fiction and fantasy.

Throughout many of his films, Méliès used this technique to great effect, including the now legendary film *Le voyage dans la lune* (1902, France). In this earliest of science fiction films, scientists from earth travel to the moon, and in their explorations of its subterranean caverns, discover an intimidating species of creature called the Selenites. When the scientists strike the Selenites with their umbrellas, the creatures burst into a cloud of smoke. This trick shot and special effect was created in the same manner as what was used in *The Execution of Mary, Queen of Scots*: freezing the profilmic action, stopping the camera, removing a character from the frame, inserting a substitutive element (e.g. a dummy, a skeleton, a puff of smoke), and resuming the camera and the action. In the case of Méliès, however, the Selenite was a fictional and whimsical character. By vanishing into smoke, Méliès erases the Selenite so as to maintain his own particular brand of cinematic innocence and a youthful sense of wonder throughout the film. After all, a darker interpretation of *Le voyage dans la lune* could read the film as a lunar invasion by Earthlings who

viciously attack the fragile Selenites and assassinate their king. Méliès, however, maintains a pervasive nescience throughout the film by refusing any identification with the Selenites and underscoring the optimism of the adventurous spirit within the fantastic events. Mary, Queen of Scots, on the other hand, is not supra-natural but a historical figure and arguably best known for the very act of being beheaded. Furthermore, unlike the Selenites who vanish into smoke, her post-mortem body not only remains visible but her severed head is held up as testament. The visualisation of death, in the case of *The Execution of Mary, Queen of Scots*, is the central focus and attraction of the film.¹²

As motion picture production procedures advanced, with more intricate nuances and embellishments, so too did filmmakers' approach to realising on-screen death. In 1916 filmmaker D W Griffith released the extraordinary epic *Intolerance*. Intercutting four different eras of history (the fall of Babylon, modern-American urban crime, the St. Bartholomew's Day Massacre in 1572, and the events leading to Jesus' crucifixion), Griffith weaves a complex tapestry full of innovative thematic and narrative techniques in addition to its cinematographic innovations. Indeed, for myriad reasons, *Intolerance* is a film artefact of great historical significance, yet for the purposes of this particular discussion, its depictions of death become most pertinent. In his detailed analysis of *Intolerance*, William Drew writes:

Griffith was unsparing in detailing the carnage of warfare. His shots of hand-to-hand combat, in which soldiers are decapitated or impaled with lances, are so vivid that, at a revival screening twenty years later, dowagers 'especially wilted under the bloody moments.' (125)

One example of this carnage occurs during the siege on Babylon roughly halfway through the film, in which two warring armies battle hand-to-hand. Two soldiers square off in a medium-wide shot as other soldiers wage war behind them.

The armour-clad soldier frame-left attacks with his sword but is parried by the soldier frame-right, who then lops off the former's head. As with *The Execution of Mary Queen of Scots*, the spectator is again witness to a decapitation; in this instance, however, no edit between the parry and the decapitation occurs; the background battle continues without visual interruption, as does the foregrounded action of the victor and the falling corpse. Another minute of the battle elapses when again a soldier attacks, is parried, then decapitated without interjecting edit. What is remarkable about these shots is not the subject of the decapitation but the visual aesthetic of how the subject is revealed: a seemingly unedited medium-wide shot of the death of an actor. Naturally, repeat screenings reveal Griffith's method: the actor to be decapitated has positioned his head beneath the level of his shoulders, hidden by costume and shield (a technician-manipulated mannequin could not buckle at the knees nor drop the sword in such manners as are depicted). This reveals the acute degree to which Griffith was aware of the intrusion of editing within the realism of the shot. If Griffith were to have included an edit – that is, to have stopped the camera mid-attack as in *The Execution of Mary* and replace the subject with an artificial replica – the resultant jump cut would have undermined the verisimilitude of the battle. Not only would the foreground combatants have shifted their spatial position (however minutely) but so too would have all of the other warring parties situated in the midground and background of the frame. Furthermore, Griffith positions his shots of decapitations within a larger context of numerous shots that do not convey any special effects, treating them with the same properties and juxtaposing them equally among the many edits conveying the size and ferocity of the ancient battle. The special effects shots of the decapitations are given no

preferential treatment amongst their neighbouring shots, and thus helps convey the horrific violence of ancient hand-to-hand combat.

It should be acknowledged that the accepted tenets of depicting death vary from genre to genre. As witnessed in *Intolerance* and later in *Ben Hur* (1959, US), *Sodom and Gomorrah* (1962, US/Italy/France), and *The Passion of the Christ* (2004, US), visceral depictions of death in narratives set in the ancient era are a necessary generic component in order to plausibly convey the horrific violence that permeated the epoch. In the Horror genre film, the representation of death, in all its grotesque glory, is often what determines a film's financial success; the manner in which a character is, often literally, turned inside out reveals the genre's dependence upon a visceral instance of death. In *classic* Western, gangster, and noir films, depictions of death are usually implied by juxtaposing sound ('bang-bang') and a staggering character, who may or may not have noticeable bullet wounds (though this is no longer the case, as evidenced by films like Quentin Tarantino's *Reservoir Dogs* [1992, US], Steven Chow's *Kung Fu Hustle* [2004, Hong Kong/China], and Kim Jee-Woon's *The Good, the Bad, and the Weird* [2008, South Korea]). Curiously, science fiction and disaster films have typically avoided such viscera.

As if obeying an unspoken precedent set by Méliès himself, science fiction/disaster filmmakers have typically eschewed depicting the instant of death for something more visually palatable: special effects wonders and vacated destruction spaces. Throughout the mechanical era (the film era predating the digital age in which the motion picture camera and film stock were the means for the medium), depictions of human death by horrific cataclysms were often dependent upon editing. Whereas historical epics, horror, Westerns, and noir genres underscored the

depiction of death, the science fiction/disaster genre has curiously employed certain techniques to both imply and *conceal* mass human loss. For instance, the earthquake sequence in the disaster film *San Francisco* (Van Dyke, 1936) stands out as a remarkable example of rapid, discontinuity editing during Hollywood's classical era. Between 1935 and 1946, the average shot length (ASL) for a studio picture was nine seconds (Bordwell, Staiger and Thompson 61). Remarkably, the duration of *San Francisco*'s 150-second urban destruction scene averages one shot per second, its pacing-intensified terror well-predating Alfred Hitchcock's infamous shower scene in *Psycho* (1960, US). Yet despite *San Francisco*'s splendid spectacle, the scene nevertheless relies upon the inference of death through an Eisensteinian model of shot juxtaposition. That is, when a shot of a crumbling building is followed by a shot of a screaming woman looking upwards, the inference the viewer makes is that the woman has died from the falling debris. Although the demolition of buildings and fleeing people do share some screen space through rear projection and faux set designs, the depiction of human casualty wrought by the catastrophe is only realised through editing's associative properties. Medium close-up shots of terrified people looking skywards are followed by cuts to barrages of falling bricks, collapsing buildings, and clouds of dust, implying the burial of their bodies through the edit. Rather than expose the viscera, these representations in effect erase the atrocity's impact upon the body. The chaos conveyed through the discontinuity editing conveys the *impression* of destruction, rather than a kinescopic realism in which destruction and character exist along the same narrative spatio-temporal plane.

In arguing against the Eisensteinian model of meaning conveyed through editing as exemplified by *San Francisco*, André Bazin writes, 'When the essence of

a scene demands the simultaneous presence of two or more factors in the action, montage is ruled out' (50). What Bazin calls for, then, is the shared narrative space between elements that could be otherwise separated; in the case of films bearing elements of the fantastic, this fusion between profilmic actor and post-production effects is paramount. In the 1950s, a post-production, special effects technology called *Dynamation* emerged from the studio of Ray Harryhausen. Through *Dynamation*, filmmakers could merge profilmic actors with Harryhausen's famous stop-motion animation in order to depict this Bazinian principle of shared narrative space between the two otherwise disparate visual elements. In fact, the marketing strategy for *The 7th Voyage of Sinbad* (1958, US) emphasised its use of *Dynamation* along with the claim that: 'Anything the mind can conceive can now be brought to the screen' – a claim often echoed with the advent of digital visual effects ('This is *Dynamation*'). Yet even in films that have the ability to plausibly realise the physical actor and the special effect within the same spatiotemporality, science fiction films nevertheless tend to avoid the stillness of the instance of death. For example, in *The Earth vs. the Flying Saucers* (1956, US), the death of armed soldiers firing against alien invaders is depicted by transmogrifying their bodies from corporeal subjects into mirages that vanish without imparting any physical evidence of their prior presence (such as impressions in the ground or vacated clothing) [Figure 4.5]. For science fiction, the depiction of the brutality and the horrific that accompanies the representation of death contrasts with its ethos of wonder.

Bazin's principle of shared narrative space between the elements – a 'law of aesthetics,' as he refers to it – remains the central focus for contemporary filmmakers of science fiction and fantasy, in which the extraordinary and supra-natural exist

alongside the human and the mundane within the frame, including the realisation of mass human casualties (50). In post-mechanical cinema, science fiction films are equal to the task of using digital visual effects to visualise the unflinching gruesome death, as are other genres. Robert Zemeckis uses CGI in *Death Becomes Her* (1992,

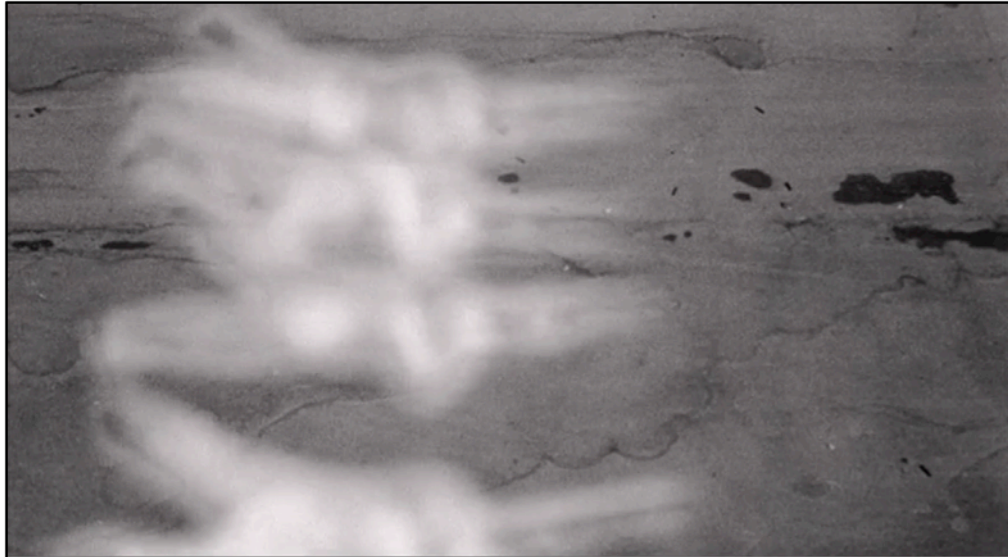


Figure 4.5 *Earth vs. the Flying Saucers* (1956)
Soldiers firing rifles from prone position fade out without trace of physical evidence

US) to realise the gaping mortal wounds in the otherwise lively characters. Though Steven Spielberg conceals all carnage from full view in *Jurassic Park*, in *The Lost World: Jurassic Park II* (1997, US) the director places centre frame two Tyrannosaurs ripping a primary character in half. *Star Trek: First Contact* (1996, US) concludes with a flesh-eating virus devouring the human portions of the Borg queen. But until the mid-2000s, rarely were spectacles of human death included in sequences of mass destruction. As Sobchack writes:

In our present culture, then, we create and have access to delimited and overdetermined representations of death. A taboo subject, it titillates us in our fictions as a ‘pornography’ that objectifies and enacts violent mortifications of the human body while, in its quotidian process and event, it remains unnatural and unnamable in both our social relations and those indexical forms of representation that point to them. That is, even in those representations that do speak and

‘name’ death, there is a tendency to avoid showing its presumed actual moment onscreen. (*Carnal Thoughts*, 232)

Intriguingly these deaths, within the context of mass destruction, have not been allowed to *expire* within the scenery until recently. Counter-intuitive as it may sound, the demise of Dixon’s ‘fresh victims’ mentioned above is never visually realised *in full*. Consider the horrific flash-forward nuclear holocaust sequence in James Cameron’s *Terminator 2: Judgment Day* (1991). Sarah Connor (Linda Hamilton) beats her hands against a playground fence to warn her idyllic double and the other mothers and children of the impending danger – then an intense flash of light fills the frame. Here, Cameron intercuts between the destruction of Los Angeles and the deaths of the playground visitors. Connor grips the chain link fence, screaming, as the atomic blast fillets the skin from her bones and reduces the embracing mothers and children to ash – as horrific a death as any horror film can conjure. Contrarily, the blast’s impact on the urban space levels buildings, cars, and trees but never depicts the people *within* this space, relying on the playground deaths to connote the death of every other person that ought to have occupied the vacated urban landscape. Because destruction spectacles primarily focus on heavily populated centres (with distinguishing landmarks as geographical referent), connotation and inference are the tools by which human casualty is suggested, relying upon intercutting inanimate destruction and reaction shots of the panicking masses within the narrative space to convey the trauma. By intercutting shots of empty urban spaces with panic-stricken reaction shots, the spectacle attempts to humanise the destruction; however, the fatalities are ultimately concealed, suggested in the off-screen space. Bodies are swept away by water, blurred by debris, buried by rubble, forced out of frame, and otherwise digitally erased from view.

Illustrating this intriguing paradox is Roland Emmerich's 2004 epic disaster film *The Day After Tomorrow*, in which the director digitally decimates most of Los Angeles and New York. Despite the vastness of the depicted damage, its impact on the inhabitants is never graphically realised; instead, the film focuses on the simulated destruction of the geography and recognisable urban landmarks. When a barrage of tornadoes strikes Los Angeles, an intrepid weatherman gleefully reports on the severity of the damage around him, but he is suddenly swept away by the iconic 'Angelyne' billboard as it rushes at the camera. Without edit, the shot pans left to follow the billboard as it spins away from camera; the weatherman's body has vanished, erased from the frame despite its wide angle. During this same storm, a seismologist is allegedly crushed inside his sports car by a rolling commuter bus, yet this too is only inferred through juxtaposition: a shot of the seismologist in his car cuts at the point of impact to a video-pixelated wide shot from a helicopter cam (breaking the 180-degree rule in the process). A few minutes later, a janitor opens an office door in a high-rise and looks out onto a decimated Los Angeles, where two peripheral characters stood just seconds before. Although rare examples can be identified, this is predominantly the *modus operandi* for science fiction/disaster spectacles, including digital spectacle films from the 1990s, such as Michael Bay's *Armageddon* (1996, US), Mimi Leder's *Deep Impact* (1996, US), and Emmerich's *Independence Day* (1995, US) and *Godzilla* (1999, US/Japan).^{13, 14}

In the twenty-first century, however, mass destruction imagery has begun embracing the visualisation of these moments in which the life of the characters comprised within the frame ceases. In an overview discussion of the many faces of the disaster genre, Maurice Yacowar concludes with the observation that an effective

genre film should adhere to but slightly augment the genre's conventions in order to cultivate the unwritten expectations of the audience (295). Steven Spielberg, together with long-time collaborator and editor Michael Kahn, augments the science fiction genre – slightly but significantly – by including the visceral depictions of corporeal death in his re-envisioned adaptation of H G Wells' novel *War of the Worlds* (2005).

Towering alien tripods rise up from beneath the streets of Boston as witnesses stand watching in disbelief. As the Bostonians stare up in fearful wonder, a man steps into the foreground holding a consumer-grade camcorder, 'recording' the authenticity of the event. An arcing reaction shot of protagonist Ray Ferrier (Tom Cruise) and others follows, and we see the reflection of an alien tripod in a car's windscreen – a superficial, depthless reminder of its nonexistent index. The sequence cuts to a low-angle shot of an alien tripod as its high-pitched whine grows louder, and then two blue beams of light burst forth. Here, the shift within the diegesis from awe to terror is communicated in a poignant visual motif. Spielberg and Kahn cut to a street-level shot in which the camcorder drops to the road, its side view-screen open; the shot pushes in on the camcorder's screen as the alien lasers blast through two fleeing people and obliterate their bodies into ash. The mediation of the instance of death through the view-screen of the camcorder acts as a reminder to the spectator of the cinematic (thus fictional) nature of the visualised deaths. Henceforth, *War of the Worlds* revels in depicting death within the mass destruction events. Shortly following the shot of the abandoned camcorder, the scene then cuts to others reduced to ash in their panic to flee the tripods. As one frightened woman is fleeing, her face suddenly assumes a haunted, ghostly, Edvard Munch-like scream that abruptly

ruptures into dust, which Ray, running behind her, bursts through and becomes enshrouded in her ashes [Figure 4.6.a-c].¹⁵



Figure 4.6.a-c *War of the Worlds* (2005)
Fleeing woman (a), mutates into Munch-like scream (b), and bursts into ash,

Similar depictions of death occur during Ray's attempts to flee with his family to safety, which finds passersby and peripheral Bostonians either reduced to ash or suffering under the destruction wrought by the alien tripods. Indeed, the presence of death, both its instantiation and the post-mortem bodies, play a significant role in the establishing the pervasiveness of the destruction within the film and its subsuming pessimistic tone.

War of the Worlds incorporates mass casualties into its *mise en scène* not only as a method of shocking the spectator but also, within the diegesis, to help convey the breadth of the destruction beyond the immediate narrative space surrounding the protagonists. Indeed, at two separate moments the dead are seen in transit, conveyed by both fire and water. At one point, Ray's estranged daughter Rachel (Dakota Fanning) excuses herself from the others in order to relieve herself, and she wanders past a line of trees adjacent to a nearby river. She stops and takes note of the tranquillity of the passing water, but that tranquillity is suddenly disturbed by the presence of a floating body, then two, then hundreds; the emotionally sensitive Rachel is horrified yet unable to look away. Similarly, another instance finds Ray and Rachel Ferrier trudging down a road amidst a large mob of other equally dismayed refugees; they come to a railroad crossing and, standing at

the barrier, witness the swift passing of a runaway train ablaze, its charred passengers noticeable in the windows. The inclusion of these visions of death in transit act as reminders of the mass destruction occurring elsewhere off screen, and also suggest mass destruction events occurring beyond the confines of the geography of the narrative.

While *War of the Worlds* may well be one of the first, the inclusion of the visceral deaths of human beings within the context of mass destruction has become a prominent feature in other science fiction and disaster genre films of the twenty-first century. *Poseidon* (2006, US), though predominantly focusing on the masses of post-mortem bodies, includes two separate instances in which the camera tracks with passengers falling to their death, with the image cutting away only after the deadly stillness has been established. The introductory attack on the USS Kelvin in J J Abrams' *Star Trek* (2009, US/Germany) includes a cutaway to a panicking crewmember that tracks with her as she's violently sucked out of a hull breach into the quiet vacuum of space. In *Knowing*, a derailed subway train steamrolls over scores of people, some leaving blood splatter as they strike against the windows. The human presence within the destruction brings to fore the traumatic nature of the mass destruction event.

These portrayals of human death within the depictions of mass destruction are reified by tertiary characters: undeveloped extras and bystanders who's only narrative and aesthetic function is to die *onscreen*. The realisation of their deaths is peripheral within the *mise en scène* (as opposed to some horror cinema's 'money shots' in the form of visceral mutilations that tend to dominate a given sequence), and the visuals remain focused on the larger context of the mass destruction imagery.

These deaths are marginalised by the coldness of the camera: the shot bears witness to the characters' sudden demise and moves on, inculcating an apathetic quality to their death, regarding it with as equal an interest as a shattering chandelier. Yet this necessarily must be, for if the emphasis for these films remains situated on the spectacle, and since the depiction of death is spectacle *par excellence*, then the direct envelopment of the tertiary characters into the narrative event escalates the atrocity of the mass destruction.

Furthermore, the implication is that, within the diegesis, these 'innocent bystanders' going about their own personal business find themselves the victims of an act unrelated and disconnected from their individual pursuits. This is in itself one of the more predominant social anxieties of the contemporary era: the notion that we ourselves may become the victim of a mass destruction event (e.g. terrorist bombing, massive earthquake) to which we are only associated by physical proximity. In this, the terror of the presentation of death within the context of mass destruction imagery emerges from the absence of control; the casualties of the uninvolved amass despite their unrelated connection to the protagonist-centric narrative. The inclusion of these peripheral deaths within the three-dimensional narrative space of mass catastrophe, however callous, is an intriguing development in the evolution of the science fiction/disaster genre in that it helps substantiate the terror of the event. Casualties of mass destruction are no longer concealed or connoted but incorporated into the *mise en scène* in the pursuit of greater spectatorial affect.

Death in Documentary and Fictive Spaces

Witnessing a human life suffer and perish within a context of a factual, historical destruction event is indeed a terrifying experience and can deeply affect the viewer both consciously and subconsciously. When the human life assumes a visually represented form set within the cinematic form, a significant shift occurs. As Sobchack states, ‘Safely contained by narrative, often represented in hyperbolic forms and structures, [visualised deaths] titillate and offer a mediated view that softens the chaotic randomness and ferocious threat they present in the real world in which we live’ (*Carnal Thoughts*, 231). With cinematic representations of death, the spectator must rely on extratextual considerations in order to appropriately or accurately gauge the degree of their emotional reaction, and perhaps the most immediate consideration is the factuality of the image itself. The visualised death of an on-screen subject within *documentary* space, for example, is implicitly embodied as factual within the viewer because of the narrative mode in which the death occurs.

Defining documentary space, Sobchack writes:

Nonfictional or documentary space is thus of a different order than fictional space that confines itself to the screen or, at most, extends offscreen into an unseen yet still imagined world. Its constitution is dependent on an extracinematic knowledge that contextualizes and may transform the sign-functions of the representation within a social world and an ethical framework. [...] Documentary space is indexically constituted as the perceived conjunction of the viewer’s lifeworld and the visible space represented in the text, and it is activated by the viewer’s gaze at the filmmaker’s gaze, both subjectively judged as ethical action. (*Carnal Thoughts*, 247-48)

The presentation of space within the narrative mode of documentary adheres to certain assumed, but ethically derived, boundaries. That is, the spectator relies upon the assurances of the filmmaker that the documentary depicts elements within her existential world or its correlative historical past. The camera, inhabiting the

space, records the transpiring events that seem to (but by no means necessarily) occur independent of the camera's presence.¹⁶ Thus when death is realised within the documentary film, the spectator, having accounted for the text's assumed factuality, reacts (e.g. horrified, angered, saddened, relieved) at its representation, conditioned by the foreknowledge that the event witnessed onscreen was ethically composed as 'factual'.

The extratextual considerations of the documentary film form contrast with those of the fictional film form, which necessarily construct and contrive their scenarios in order to realise their intended narrative. In the fiction film, the spectator's reactions to visualised deaths are buffeted by her awareness of its contrivances. The falsity of the form (as well as the tacit understanding that fiction film cannot depict the unrepresentable death of an actor) exists as an *a priori* condition within the embodied viewer, such that when a character expires on-screen (whether this is a protagonist or a tertiary background extra is immaterial), the death is mediated through its fictional context. The viewer, aware of the contrivances used to create the image of death, may indeed be moved emotionally and physically by the event, but will nevertheless understand this event to be a manipulated artifice. That is, despite the audience's awareness of the image's status as fiction, the visceral scene in which the alien explodes from John Hurt's chest in *Alien* (1979, UK) still produces an emotional and physical sensation of horrific fascination. According to Sobchack the fictional status of the character's environment, regardless of the cinematic space's existence as a genuinely observable and inhabitable location, buffers the viewer from the embodied experience of witnessing an unmediated human death (247-48). Yet sometimes, the death of a – critically, *nonhuman* –

creature on film, whether in documentary or fictive spaces, creates a startling moment in the spectator, forcing her to concede to the veracity of the image. Echoing Sobchack, Malin Wahlberg writes,

The staged violence and death in fiction film belong to the diegetic realm of movies and television series. The sudden appearance of an actual death, however, contaminates the fictive space-time in terms of an authentic ending of lived time and the eerie transformation from moving body to inert object. Vivian Sobchack refers to this event as a documentary moment because it represents a fictive event that coincides with the record of an actual death. (46)

The ‘documentary moment’ Sobchack refers to specifically is the death of the rabbit in Jean Renoir’s *La règle de jeu* (1939, France) that ‘ruptures the autonomous and homogeneous space of the fiction,’ (*Carnal Thoughts*, 269).¹⁷ Sobchack writes that the death of the rabbit in Renoir’s film:

exceeds the narrative code which communicates it. [...] it is taken as an indexical sign in an otherwise iconic/symbolic representation. That is, it functions to point beyond its function as a narrative representation to an extratextual and animate referent, executed not only *by* but also *for* the representation. The rabbit’s death violently, abruptly punctuates narrative space with documentary space. (*Carnal Thoughts*, 247)

In these instances in which an animal is put to death for the sake of the observant camera, the narrative function of the onscreen animal is superseded by a more prominent function, which is to horrify the spectator at the brutality of the image (Sobchack’s intrusion of the factual ‘documentary space’ into the otherwise fictional space of the contrived story). Wahlberg and Sobchack purport that these events ‘contaminate’ the fictional story with nonfictional images of death. Because this term ‘contaminate’ bears such a strong negative connotation, it suggests that the fictive space becomes infected, polluted, or spoiled by these non-fictional elements. I would argue that these images of death do not contaminate so much as they inject a

sense of mortality into their respective films – not unlike Leo Braudy’s ‘injection of realism’ into various genre films (668). And while these animal deaths are rare – the vast majority of contemporary productions declare within the end credits the absence of harm to the animal kingdom during filming, and indeed the US’s now-defunct Motion Picture Production Code of 1930 declared that ‘apparent cruelty’ to animals ‘must be treated within the limits of good taste’ – depictions of the instance of *human* death are virtually nonexistent (rpt. Doherty, 349).

Occasionally, a camera captures the instance of accidental human death, but the ethicality of its dissemination for entertainment purposes is always brought into question. For example, the fatal shooting of actor Brandon Lee during the filming of *The Crow* (1994, US) and the death of actor Vic Morrow during a stunt sequence on the set of *Twilight Zone: The Movie* (1983, US) were indeed captured on film, yet to include their respective takes within their films’ fictional context would sever the coherence of their narrative mode by infusing it with the historical death of a human being (what is more, the inclusion of these images within the context of the fiction film extends beyond the limits of Western culture’s social mores and would be considered wholly insensitive to the actors’ respective families).

While the representation of human death disrupts the fictive spaces, its representation in documentary spaces, while jarring, complies with its context. In the documentary *Black Fish* (2013, US), which chronicles the use and abuse of orcas in captivity by theme parks such as Sea World, multiple trainers are shown caught in the jaws of killer whales. The deaths are reported and discussed, and footage of the helpless and sometimes bloody bodies is depicted, yet the cessation of life is never fully realised. It seems that Sobchack’s remarks remain accurate: ‘Of all

transformations of the lived body in our culture, the event of death seems to pose a particularly strong threat to representation. Indeed, it seems unrepresentable' (*Carnal Thoughts*, 233). Furthermore, while the rare documentary footage of the expiration of a human being does exist (as in Abraham Zapruder's film of John F Kennedy's assassination, for example) and therefore 'presentable' if not 're-presentable', it too, like its fictive counterpart, succumbs to extratextual pressures as in the notion of 'bad taste', which recalls the dynamics of cultural ethics and social taboos. As Julian Petley states, 'The representation of death in non-fiction films is obviously constrained, too, by the limits of signification, but it is also constricted by the various taboos surrounding "real" death in our society and thus has always to be ethically justified' (183).

The inherent consequence of including the documentary element into the fictive space is the evocation of spectatorial response, and, whether conscious or unconscious, suggests that this desired spectatorial reaction is the motivation for rupturing the fictional narrative mode. Indeed, many science fiction films do not merely include the depiction of human death but situate the spectacle at the centre of the narrative's premise, often involving a futuristic audience deriving voyeuristic pleasure through public displays (usually televised) of human death, such as *Death Race 2000* (1975, US), *Endgame: Bronx lotta finale* (1983, Italy), *The Running Man* (1987, US), *Battle Royale* (2000, Japan), *Death Race* (2008, US/Germany/UK), *Gamer* (2009, US), *The Hunger Games* (2012, US) and *Catching Fire* (2013, US). The overexposure of images of death within fiction films minimises its ability to significantly evoke spectatorial affect. Again, Sobchack writes, 'In both our

televisual and cinematic fictions, “sudden,” “discontinuous,” “violent,” “inappropriate,” and “atrocious” deaths have become the norm’ (231).

Returning to the case of science fiction scenes of mass destruction, the deaths of fringe characters within the destruction space and their sudden cessation of embodied movement (most often gestures of panic and active flight responses), ‘that stands as the symbol of death,’ as Sobchack writes, may be regarded as startling but their instances of death are not bestowed with an opportunity on which the spectator can linger; rather, the camera continues on in its fidelity to the central characters’ struggle for survival (*Carnal Thoughts*, 235). In this way, the potential for spectatorial affect is subverted by the sanitisation of the destruction event (in twentieth century destruction sequences) through the removal of the human presence.

Conventionally constructed science fiction/disaster films – that is, those films within the genre that do not purport a documentary style or aesthetic but abide by a classical, continuity editing schema – have predominantly focused on the destruction of ‘places’ and ‘things’, with the intentional omission of ‘people’ that either reveals latent sociocultural mores and taboos or the general acknowledgment of their status as ‘unrepresentable’ (*Carnal Thoughts*, 233). The recent trend in depicting the moment of death amidst destructive events, however, has taken steps towards provoking affectualisations within the depiction of death by attempting to reify the destruction through documentary cinema’s associations with factual aesthetics. The spectator, then, when presented with a documentary film aesthetic, regards the onscreen subjects and transpiring events with the assumption that the filmmakers, distributors, exhibitors, et al. have acted ethically and maintained the integrity of

their images' relationship to the profilmic elements within the experiential reality. As

Brian Winston states,

'Given the ideological power of the realist image in claiming to be trustworthy, it is clearly legitimate to use a faked documentary form to force the audience, as it were, to confront its credulity in such images and its prejudices about what they might represent.' (37)

The documentary space, the presumed Newtonian space of quotidian existence, is regarded as factual, but more importantly, so too are the deaths and destruction that transpire within this space. When science fiction films present themselves as depicting a documentary space, they are intentionally attempting to appropriate the viewer's pre-established notions regarding the factuality of documentary space, in order to infuse their fantastical narrative elements with the implied aesthetics of fact.

All images bear the power of suggestion, and no more so than within the moving image in *durée*. The filmic image has the capacity to recall specific cultural memories to the forefront of the spectator's mind by tapping into long-standing literary motifs such as allusion, metaphor, and connotation. Appearances and similarities evoke the memories of *a priori* events and images both fictional and nonfictional, but here within these cinematic images of mass destruction, dominant memories of experiential trauma may come to fore. Films bearing intense sequences of destruction can recall the memories of experiential destruction. When Spielberg depicts mass urban destruction in *War of the Worlds*, the invocation of the memories of the attacks on September 11 is suggested. Andrew Gordon writes:

My question is whether, by translating the events of 9/11 into the context of a fictional horror story, Spielberg is helping the culture to overcome the trauma, or 'unconsciously colluding with dominant political forces,' or simply exploiting the horror of real events. (253, citing Kaplan 66)

While Gordon here claims that Spielberg relies upon Wells's source novel as a pretext for adapting the 9/11 Attacks for the screen, he raises an intriguing question regarding the ethics of destruction imagery and its relationship to trauma. Roger

Luckhurst writes:

Trauma has come to be theorized as something that pierces the protective filters of the psyche. A traumatic event is one that exceeds the ability of the mind to assimilate it within the parameters of normal mental functioning, leaving a distinctive and sometimes disabling trace in the psyche. (*Science Fiction*, 27)

Do these images of mass destruction and their implicit connotations of experiential trauma have an *abreactif* function and promote through re-experience the psychological healing from traumatic events? Or do these images paradoxically promote the suppression of the traumatic event by blurring factual memories with implanted imaginings, relegating the event to the status of fiction. While these questions are better suited to a study in trauma theory and film, I would posit that what remains evident from the phenomenologist perspective is its physical and emotional effects upon the spectator, embodying the memories of historical destruction through science fiction cinema's capacity for metaphor and allusion.

Narrative associations with sources of destruction are one facet of this transference. Natural forces wreaking mass destruction in a film recall the historical destruction events from the same natural force. But beyond this exists another method that relies upon a transference of spectatorial affect from the *a priori* memories of historical destruction. A number of contemporary science fiction films rely upon allusions to experiences of events of actual destruction to incite spectatorial affect. For example, in *Monsters*, when the two central protagonists finally cross from Mexico into Texas, they arrive to find an abandoned border

crossing and decimated residential areas. For nearly five minutes, the two walk amongst the wreckage where palm trees and beachfront homes on the Gulf of Mexico once stood. Yet these images are striking not because of the giant corpse of an octopus-like alien lying amongst the destruction but that these images of decimated homes and landscapes recall those witnessed after Hurricane Katrina. The memories of the historical mass destruction event are invoked by the science fiction narrative and the correlative emotions are transfused from the experiential to the imaginary.

Summary

While science fiction films of the 1990s predominantly revelled in hyperbolic spectacles and impact aesthetics made possible by advancing digital technologies, the new millennium has seen the release of a number of science fiction films that elect to curtail their capacity for visual splendour and employ it in service to realist aesthetics. Cinematic representations of destruction, through the unification of digital visual effects and traditional formal techniques – those championed by Siegfried Kracauer and André Bazin for conveying a sense of experiential reality, such as the long take, deep focus, and *die Abfälle* within the *mise en scène* – evoke the memories of historical destruction events. For Kracauer, film records and reveals, and all post-production efforts including montage and special effects must not only be subordinate to the reality of the indexical, profilmic images but also be employed to emphasise them. For Bazin, the cinema ought to first and foremost emphasise its ability to reflect our own experiential reality like a mirror (108). Yet for both theorists the long take, specifically that which depicts a spatiotemporal plane in

which *syuzhet* and *fabula* are unified, reflects a spatiotemporality that is (or, rather, can be) equivalent to our experiential reality.

Nevertheless, experiential reality can be manipulated and augmented to ‘encode the Real with an inherent artificiality’ (Isaacs 31). Some contemporary science fiction filmmakers have taken to applying the long take’s capacity for presenting a ‘realistic’ impression of cinematic images to realise key scenes in order to convey a sense of authenticity. Films such as *Children of Men*, *Cloverfield*, and *Knowing* all rely upon the long take to communicate a sense of the horrific authenticity of the represented destruction within its science fiction context. Whilst *Children of Men* strategically relies upon the long take to amplify the suspense of the shot through the pressure of time, *Cloverfield* looks to the long take as a formal mandate within its pretence as amateur found-footage. Yet perhaps the most horrific example of realised destruction through the long take comes from the film *Knowing*, in which the pressure of time and *die Abfälle* within the destruction space are combined with the visualisation of the instances of gruesome human death to maximise its potentiality for spectatorial affect.

The presentation of the instance of death is a surprisingly new development within the context of cinematic mass destruction spectacles. The representation of death on film has been ubiquitous since the introduction of the medium. *The Execution of Mary, Queen of Scots* (1895), for example, is a narrative-less re-enactment of the famous beheading from 1587. Death was also an important aspect of George Méliès’s film *La Voyage dans la lune* (1902), but it depicts the demise of its alien creatures through puffs of smoke, rather than displays of the viscera as in *Mary, Queen of Scots*. In this, Méliès establishes a precedent that champions a sense

of science fiction wonderment that glosses over the atrocities of death within its narrative. Although science fiction films eventually embraced the viscera, and do depict (rather well) the instances of death – as seen in films such as *Jurassic Park II: The Lost World* and *Terminator 2: Judgment Day* – Méliès's precedent was specifically maintained *within the context of mass destruction spectacles*. Through the atomic bomb films of the 1950s and 1960s and even into the 1990s and early 2000s, the bodies of the innocent inhabitants of destruction spaces (predominantly urban and therefore implicitly populated) were essentially erased from view, including such CGI-dependent blockbusters as *Independence Day*, *Armageddon*, *Godzilla* (1998), and *The Day After Tomorrow*.

A change occurred with Steven Spielberg's *War of the Worlds* (2005), which specifically depicted instances of human death amidst its mass destruction events. The presence of death pervades the film, and both the instantaneity of death and post-mortem bodies contribute significantly to the film's *mise en scène* that imbues its pessimistic perception of humanity in crisis. As evident by other films such as *Poseidon*, *Knowing*, *Star Trek* [2009], *2012*, and *Monsters*, the trend of depicting human death within the larger context of mass destruction imagery is to reveal these deaths in the peripheral, with equitable interest as the obliteration of other inanimate objects within the frame. Those whose role it is to die for the insatiable camera are marginalised by its indifference. These human deaths are at once spectacle, but also plausible within its fictional narrative space.

Occasionally, this fictional space is imposed upon by the veracity of documentary space, severing the narrative schema; this occurs primarily through the depiction of factual death (when an indexical image coincides with the historical

death of its referent). Whereas human death is absolutely forbidden by cultural mores, these historical deaths are strictly non-human yet nevertheless create a jarring visual experience that ruptures the fictional world with documentary (that is, ethically composed and scientifically factual) spaces. The justification for such intrusions is that these images effectively evoke spectatorial affect.

Yet from the usage of each of these formal and technical devices – documentary aesthetics, documentary space, the long take, *die Abfälle*, and the inclusion of peripheral human deaths – emerges a group of films that, while still generically science fiction, invoke the genuine traumatic memories of past, experiential destruction. When witnessing the collapse of a distant skyscraper and its effect in *Cloverfield*, viewers are *encouraged* to remember the fall of the Twin Towers. Likewise, when witnessing the horrific plane crash in *Knowing*, viewers are encouraged to recall the fate of flight United 93, though certainly other historic examples may be invoked. When viewing the destruction wrought by natural disasters such as in films like *Nihon chinbotsu [Japan Sinks]* (2006), *Flood* (2007), *Haeundae* (2009), or *Hereafter* (2010, US), spectators are encouraged to recall the terrible historical events that they connote. The depiction of mass destruction events, and the bodies therein, reference genuine, historical events of mass destruction as a means to compel the viewer to emotionally connect and react to the fiction of the film.

CHAPTER FOUR NOTES

¹ In October 1993, Dr Kary Mullis and Dr Michael Smith were awarded the Nobel Prize in Chemistry for their pioneering work in genetic research. Put simply, Mullis

created the PCR (polymerase chain reaction) technique that made it possible to replicate trillions of copies of DNA from a single gene fragment. Smith was honored for developing ‘a method used to splice foreign components into genetic molecules’ (Browne). Both scientists’ innovations are evident in the fiction of *Jurassic Park*: Mullis’s work establishes the scientific capacity for cloning the dinosaur DNA retrieved from fossilised mosquitoes, while Smith’s work provides the rationale for splicing-in frog DNA to complete any missing portions of the dinosaur DNA sequence (thus making plausible the dinosaurs’ sexual metamorphoses towards a heterosexual environment in order to procreate). In a statement honouring the Nobel Prize recipients, the prize committee commented that a ‘fantastic application [of PCR] has already inspired authors of science fiction [...] and the very popular film *Jurassic Park*’ (Browne). For a genre film’s scientific rationalisations to be so highly regarded and to have influenced even the esteem of the Nobel Prize committee is a remarkable achievement indeed.

² Though I acknowledge the term *historical* is one not without semantic problems, I nevertheless opt to use it for lack of a more concise and befitting substitute. The term *Real*, for example, is fraught with a *mêlée* of connotations and would presumably confuse the reader by the proximity of notions regarding film *realism*. A *recorded* event implies a degree of authorship to the account, in so much as a *record* is constructed by an individual perspective. The term *genuine* seems to immediately raise questions about the ‘disingenuous’. *Historical*, on the other hand, conveys the historicity and lived experience of the events as well as suggest an authenticity of presence.

³ Bazin and Kracauer are but two. Other significant contributions to the early inquires on the essence of film include Rudolf Arnheim, Theodor Adorno and Max Horkheimer, and Stanley Cavell.

⁴ Film academia at present no longer considers Kracauer’s ‘two main tendencies’ as solvent, primarily as a result from Tom Gunning’s influential ‘Cinema of Attractions,’ which unifies these iconic filmmakers under the umbrella of providing early film audiences with compelling visual illusions:

One can unite [Lumière and Méliès] in a conception that sees cinema less as a way of telling stories than as a way of presenting a series of views to an

audience, fascinating because of their illusory power (whether the realistic illusion of motion offered to the first audiences by Lumière, or the magical illusion concocted Méliès), and exoticism. (*Early Film, Its Spectator, and the Avant Garde*, 382)

- ⁵ A paradigmatic example of how theorists respectively consider Bazin and Kracauer decades after initial publication can be found in Peter Lehman's collection of essays, in which Dudley Andrew exalts Bazin's work with adulation, and Noël Carroll tears Kracauer's theories asunder (Lehman).
- ⁶ As a technique the 'long take' is not constrained by the shot count within a scene, and therefore more prevalent than the *plan-séquence*, which occurs when a scene transpires in one (and only one) uninterrupted shot.
- ⁷ Technically, like those depicted in *Children of Men*, this 'long take' is the product of multiple shots (in this case, seven) digitally sutured together to appear as one seamless five-and-a-half-minute *plan-séquence* ('*El Secreto de Sus Ojos*').
- ⁸ As I say, this point is moot. I will note, however, that at the moment when Theo, dominating the frame, raises his bloody hand to the camera, a nearly imperceptible variation in his movement occurs that suggests that this is the locus of the seam.
- ⁹ Wallflower Press's 'Short Cuts' series on film genres includes two editions of Steven Keane's *Disaster Movies: The Cinema of Catastrophe* (2001, 2006) – one of the few texts solely discussing disaster as a separate and unique genre.
- ¹⁰ Estimated.
- ¹¹ Though Charles Musser refers to Edison's 1895 *Joan of Arc* in his text *The Emergence of Cinema: The American Screen to 1907* (86) and a description of the film exists on IMDb.com, no such entry can be located in the American Film Institute, the US Library of Congress, or the British Film Institute online databases.
- ¹² Intriguingly, the US Library of Congress's copy, posted to its YouTube channel, reveals severe scratches and decay on the film stock, which only enhance present viewings as the jump cut becomes less noticeable beneath the optical noise on the film's material surface.
- ¹³ A singular exception of a science fiction/disaster film predating the contemporary trend of depicting the instance of death within a mass destruction event is the made-for-television film *The Day After* (1986, US). Paralleling many of the same sentiments purported by *The War Game* (1965, UK) and *Threads* (1984, UK), *The*

Day After details the events prior to and subsequently after a nuclear strike in rural America. Yet unlike other genre films of its sort, *The Day After* situates its mass destruction event on the general public who remain the true victims of such an atrocity. Its cessation of bodies, along with the exposed viscera borne by the destruction, is both startling and unsettling.

- ¹⁴ *Armageddon* does offer the nearest thing to a simulacrum of visualised death within the destruction space during a scene in which two bodies fall along the z-axis, towards the camera, along with the steeple of the Empire State Building. However, only one body impacts at street level, which crushes the bonnet of a taxi but immediately rolls off-frame so that again the stillness of death is withheld from view; the other falling victim disappears entirely.
- ¹⁵ While the sudden reduction of the human body to ash may seem tantamount to the erasure of the body, the physical remains are what differentiate this eradication from the vaporization in Méliès's *Le voyage dans la lune* or *The Earth vs. the Flying Saucers*. The ashen remains of the fleeing woman act as, within the diegesis, an index of her existence hitherto. Not unlike the petrified ashen remains of the victims of the eruption of Mt Vesuvius at Pompeii and Herculaneum, the ashes act as an indexical reminder of the victims' violent and sudden obliteration, rather than their complete erasure from the frame. As such, when Ray frantically brushes the ashes from his clothes and hair, the viewer interprets his behaviour as a response to the remains of the deceased clinging to his body.
- ¹⁶ This is not to say that the documentary camera is always an objective witness, divorced from its subject matter. As detailed in Chapter Two, some documentary film styles intentionally insert the apparatus and production process into the event, thus effecting and altering their progression. A direct analogy of Werner Heisenberg's quantum physics argument can be applied, which roughly states that the very act of observation inherently changes the object of study (20, 24-26). Unless otherwise explicitly expressed (as in overtly reenacted or dramatised historical events), most documentaries that do not purport to be self-reflexive (that is, a documentary film that does not reflect on or address its status as a documentary film) predominantly *suggest* some degree of objective witness within the experiential world.

¹⁷ In addition to Renoir's *La règle de jeu*, other films that display the indexical death of an animal that simultaneously coincides with the historical death of the referent animal include the execution of a buffalo in *Apocalypse Now* (1979, US), the decapitation and disembowelment of a sea turtle in *Cannibal Holocaust* (1980, Italy), and the beheading of a chicken in *Caché* (2000, France/Austria/Germany/Italy/US).



***La Jetée* (1962, France)**

‘And soon afterwards, Paris was blown up.’

CONCLUSION

While cinematic depictions of destruction have been present since the early years of film, and well predate the moving image in the fine arts, its escalation in contemporary cinema requires examination. This thesis has broached the subject of mass destruction imagery through the genre of science fiction in order to analyse how these images fuse the superlatively fictive image with the factual. While kinescopic realism – the fusion of perceptual realism and Newtonian movement – is fundamental for depicting such extra-experiential visuals, its suggestion of authenticity, derived by what ‘appears plausible’, is merely the lowest common denominator in creating the image of mass destruction. Destruction imagery falls under the dominant aesthetic regime of the spectacular, pushing past the limits of the senses, equivocating between wide, distantiated framing and shots in which the

camera seems enveloped by the catastrophe, and wherein images blur across the screen matching a soundscape that merges the inhuman destruction with the terrified human voice.

Divided into four chapters, this thesis escalates from notions of science fiction plausibility to contemporary spectacles of mass destruction, the Burkean sublime, and the aesthetic correlations between science fiction destruction and recent historical catastrophic events. The first chapter establishes a working definition for science fiction, based upon Tzvetan Todorov's writings on the fantastic, and isolates the corpus of this study from other neighbouring genres (specifically, horror and fantasy) through science fiction's narrative reliance upon scientific rationalisations and implied scientific reliance (as in the case of futuristic technology or post-apocalyptic tropes).

From this working definition, the issue of scientific plausibility is examined through an analysis of arguments regarding aesthetic realism in the digital era. Stephen Prince diverts cinema's reliance upon the reigning orthodoxy of indexicality as posited by Charles Sanders Peirce by focusing not on production processes but rather the verisimilitude of the final image. Also attempting to realign notions of realism in the digital era, Tom Gunning looks to the associations of movements in film as a means of establishing aesthetic realism. Yet both Prince's and Gunning's models of realism for the digital era reveal limitations. An extraterrestrial may appear physically plausible but if its movements do not adhere to Newtonian physics than it fails in the spectator's mandate for aesthetic plausibility. Similarly, an alien's movements may be depicted with careful adherence to Newtonian physics, from its gait to the wind moving through its hair, but if its appearance fails to appear

‘realistic’ while in stasis, then the spectator’s expectations for aesthetic plausibility are unfulfilled. As aesthetic realism remains the baseline for which most science fiction films strive, a new definition of realism for the digital era emerges, one that unifies both physical verisimilitude and Newtonian movement, which I refer to as kinescopic realism. The kinescopic image establishes a credible arena, in both form and movement, in which the mass destruction spectacles can plausibly unfold.

The second chapter examines the contemporary spectacle aesthetic and its relationship with documentary aesthetics. Documentary relies on long-established associations of implied truth carried over from the ‘scientific inheritance of the camera’ (Winston 188). *Mise en scène* and other aesthetic considerations, though, are not the only method of conveying the factuality of a film. Government suppression, support from the scientific community, and the reputation of the filmmakers also impact the viewer’s assumptions of a film’s factuality. Bearing these internal and external considerations in mind, a number of science fiction (as well as horror and fantasy) films have emerged that make use of established documentary tropes in order to suggest a degree of authenticity within their supra-natural narratives. In fact, first-person films, referred to in this thesis as ‘specumentaries’, such as *Cloverfield* and *Apollo 18* rely upon their aesthetic associations with the science of the camera, rather than on science-infused narratives as in traditional third-person science fiction films, to convey a sense of plausibility. In the case of *Cloverfield*, the ‘found-footage’ illusion, while problematising textual analysis through potential (though ultimately erroneous) readings as Pasolinian Death Montage or Deleuzean palimpsest, can be seen as a return to the ‘cinema of attractions’ and the escalating pursuit of mass destruction spectacles.

The third chapter argues that science fiction's continual usage of mass destruction imagery can be seen as a response to a persistent spectatorial attraction to encounters with the sublime. Relying upon notions of the sublime as put forth by Edmund Burke, the sublimity of science fiction destruction, while manufactured echoes of sublime-like events, unites awe and terror that is both compelling and repulsive. While previous definitions of the science fiction sublime centre on technology (as put forth Scott Bukatman) or the idea of immeasurable size (Greg Tuck), I suggest that the science fiction sublime stems in part from what Fredric Jameson refers to as a 'peculiar kind of euphoria' produced by overwhelming spectacles of destruction. This is not to say, however, that all destruction spectacles are sublime. For example in the case of Roland Emmerich's 2012, the incessant destruction, while perhaps a sublime encounter to the intra-diegetic characters, quickly becomes absurdist to the extra-diegetic viewer. Distantiation, though a prerequisite for the sublime encounter, can easily thwart what might otherwise have been an awesome yet terrifying spectacle, whether through visual containment or implausible narrative contrivances. Ultimately, sublimity in the science fiction film emerges from mass destruction images that invoke cultural memories of experiential trauma.

The fourth and final chapter examines the relationship between historical destruction events and the appropriation of their associative emotions through the aesthetics of destruction and emerging trends in depicting human death. The image of destruction can be considered motivated by the presumably subsequent spectatorial affect of shock, awe, terror, and wonder to create an emotional and physical reaction within the viewer. This becomes especially evident when

considering the recent inclusion of the human representations of death within mass destruction spaces. The depiction of the human presence within the destruction event at once escalates the spectacle and personalises the terror. Hitherto, mass destruction imagery centred on the representation of primarily urban narrative spaces in violent and sudden upheaval, relying upon inference to account for the mass casualties. The inclusion of the *visible* human body, and its cessation, into the destruction space escalates the terror by introducing a visual point of reference for the scope and grandeur as well as the violence of the event.

Compounding the escalation of destruction spectacles is the curious aesthetic connections between the science fiction image of destruction and its overt correlation to genuine, historical destruction images. Filmmakers have taken to the mimetic recreation of visuals associated with historical destruction events (as in amateur recordings uploaded on Internet video sites, surveillance camera footage of passing catastrophic events, or helmet-cam footage of military engagements), thereby provoking memories of historical destruction events. Whether through a specumentary pretense or documentary aesthetics (i.e. *cinéma vérité*), filmmakers attempt to associate their fiction with the general public's memories of the factual in order to strengthen its affect on the viewer. It seems, though, that these associations with the memories of historical traumatic destruction events can evoke more than simple 'intensities' and vicarious thrills or shocks but invoke something far more resonant. When science fiction destruction representations associate their extra-experiential narrative with visuals associated with factual destruction events, the resultant image bears a capacity for a sublime-like resonance that pushes beyond mere generic consumption. Given the prevailing trends towards cynicism and

disillusionment, it can be concluded that science fiction genre films are accessing cultural memories of death and destructive events in order to better attract and affect the skeptical spectator through its narratives of the fantastic.

While there is a fairly large body of existing scholarship on death, science fiction, realism, spectacle, and the sublime, this thesis has attempted to unify them all through the overarching concept of the representation of destruction, thereby carving out new territory for further discussion and examination. And given the continuing production of destruction-centred films, it seems that further discussions are not only warranted but also necessary. Through centring on the representation of mass destruction, I hope that this study represents a new direction for science fiction scholarship that has hitherto focused on subjects such as representations of technology, race and gender. It marks a return to empirical notions regarding the sublime, and it bears the potential to impact the ongoing scholarship on trauma and memory.

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