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Never Seen Before—Again:

Aesthetic Adaptation and Transmedia Storytelling Networks in the Age of Digital Cinema

by

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DISSERTATION

Submitted to the Department of English and Film Studies

in partial fulfillment of the requirements for

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Wilfrid Laurier University

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Abstract

The primary purpose of this study is to re-evaluate the theorization of the narrative/non-narrative divide in cinema because there is still far too much rich information that is being lost in the chasm left between these two positions, particularly when it comes to the study of spectacular imagery. Working beyond the binary construction of a narrative/non-narrative divide allows for a more nuanced and dynamic analysis of the information that is conveyed by the cinematic image and, more specifically, by way of its aesthetic design. By no means is this study championing image over story or any other such formulation; rather it aims to free both image and story from the constraints of narratological binary models and the binary language of narratology, because in practice cinema does not adhere to narrative/non-narrative narratological models. It is through an exploration of contemporary theories of visual effects that I launch my investigation. I argue that there are many agents (and agencies) that convey information in the cinema and that not all information will come in a form that is easily described by narratological terminology. Visual effects have become a focal point of the narrative/non-narrative divide and thus provide a constructive territory in which to interrogate: (1) how visual effects theory influences the theorization of contemporary film aesthetics; (2) how as film theorists we have arrived at this moment in which narrative disruptions occupy such an integral part of digital film theory; and (3), what we are missing if we maintain our current binaristic narrative/non-narrative rhetoric. Ultimately, the purpose of this study is to propose a dynamic, non-binary model to address the post-narrative/non-narrative nature of cinema: the theory of aesthetic adaptation.

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Introduction

Current Approaches to Interpreting Visual Effects in the Digital Age

Much has been written since the late 1990s and early 2000s about the digital turn in all aspects of global culture, but in relation to cinema, the consequences of cinema's growing adoption of digital technology are still in the earliest stages of discovery. One of the most compelling analyses of cinema's "turning point . . . wherein the relative positioning of the photographic and the digital was reversed," is D.N. Rodowick's *The Virtual Life of Film* (2007), in which he, in a seemingly contradictory statement, suggests that "there is no inherent discontinuity cleaving the digital from the analogical arts, at least from the standpoint of contemporary film practice" (28; 8). Digital cinema, it appears, is at once business as usual for filmmakers, and a radical break from historical conceptions of the cinema's identity for film theorists. In order to rectify this disparity, Rodowick returns to the materiality of the medium, rather than filmmaking practices, as the cause of the disjuncture between the analog and the digital. Rodowick points out that the greatest "cleaving" is occurring between classical and contemporary conceptions of film theory, which is based precisely on the materiality of film itself: "While historically many important debates in film theory have based themselves in a certain materiality, it is nonetheless a historical actuality that film has no persistent identity" (23). The complication, then, is that there is a disparity between the identity of cinema and the goal of contemporary digital film theory, which is to explain what precisely the identity of contemporary cinema entails, by defining which components, characteristics, and functions comprise the essence of digital cinema. Digital film theory as an object of study thus appears to

be somewhat of a precarious endeavor considering that the identity of cinema is only ever provisional, which has only become more apparent in the digital age.

At least part of the complication in theoretical terms is caused by the fact that cinema is both definable in medium specific terms, and yet malleable to the point that a complete shift in medium does not in fact cause an “inherent discontinuity” between analog cinema (e.g., images captured via celluloid stock) and digital cinema (e.g., images captured and processed algorithmically as information on hard drives).¹ What is necessary, in light of the challenges digital cinema poses to existing theories of cinema’s identity and in light of Rodowick’s astute observation, is not *a* film theory that seeks to define cinema’s *character*. Instead, what is required are set of provisional understandings that address the myriad forms and contingent modes of capture and display that constitute a particular understanding of cinema. What is required is to define cinema in contingent terms, and to understand that one of cinema’s most consistent characteristics is its propensity for change. Change is business as usual for cinema. What is of particular interest, in relation to the shift from analog to digital cinema, is that it is forcing us as film theorists to reassess our goals, reassess how we have qualified the identity of cinema to this point, and how we articulate such things.

This study, therefore, seeks to do two things: the first is to provide an argument that contemporary theories of digital cinema rely too heavily on what we might term *monological*

¹ Similar debates regarding whether a shift in technology constitutes an inherent discontinuity between the film texts preceding and proceeding the change in technology have occurred at several points in film history: during the advent of sound, the onset of colour film, and more recently between analog and video in the 1970s and 1980s. According to Kevin F. McCarthy and Elizabeth Hemeghan Ondaatje in *From Celluloid to Cyberspace: The Media Arts and the Changing Arts World*, the shift to video allowed for a greater number of artists to make films in the 1970s, but as is the case with such changes in technology, there was a conservative counter-reaction to the democratization of film (26-27).

analytical frameworks, that is frameworks that attempt to explain the function and subsequent value of a certain aspect of the cinema by way of a single logical system. For example, the theory that visual effects generate a sense of wonder is monological because it privileges certain aspects of cinema's technologies as *the* primary character of the cinema and subsequently attaches *the* primary value of the cinema to the capabilities of that technology. Film stock, for example, is theorized to have an indexical quality (i.e., that which is in front of the camera is automatically imprinted onto the film without human interference), which in turn has encouraged many theorists to argue that the value of cinema is found in its ability to capture the world/reality in its true form. I would argue that this is a monological framework, because it encourages a hierarchy of experiences, and that all other understandings of the cinema are of a secondary nature. For the purposes of this study, I am largely interested not in questions of the digital image's indexicality (or the lack thereof), but questions regarding the similar positioning and privileging of certain technologically determined valuations of the cinema. Of particular interest is how visual effects and spectacular imagery are theorized to provide experiences of wonder, based on wonder's intellectual qualities. The monologic of wondrous, intellectually stimulating spectacular images, I argue, prevents more complex understandings of cinema. In particular, by engaging with *polylogical analytical frameworks* (frameworks that encourage an understanding that cinema is ever-evolving and that cinema cannot be defined by any single primary experience) there will be greater theoretical flexibility in understanding cinema as a constantly evolving, provisional media form. While *monological frameworks* provide clear heuristic categories, such frameworks lead to what we might term *static valuations*, definitions of cinema that, by virtue of their rigidity, are forced to compartmentalize cinema into a specific media form, with a specific, and clearly demarcated historical development. My goal here is to push beyond these limiting

frameworks, toward a polylogical framework, a means of identifying and defining cinema that relies not on a rigid historical placement, but that instead sees cinema as a medium in flux, in continued development.

The basis for this argument comes from three sources: (1) because cinema is a technologically dependent medium, technological change and novelty are core elements of its persisting identity and, therefore, the material forms of cinema are always already under pressure to adapt and evolve as cinematic and video technologies continue to develop new forms of storage and new modes of display; (2) the aesthetic history of special and visual effects highlight a simultaneous adherence to and departure from historical aesthetic norms, which requires a dynamic and nuanced understanding of continuity and difference; and (3) a more dynamic and nuanced understanding of visual effects theory can influence the broader understanding of cinematic aesthetic design and, in particular, how cinematic aesthetic design can be viewed as an active agent in the processes of intertextuality and adaptation.² Ultimately, I will propose a model that it is influenced by a particular view of Darwinian adaptive theory in order to map this rather diffuse, but significant, web of influences.³ I am particularly interested in the Darwinian

² By “aesthetic design,” I am referring to the film’s overall style, but I am using this term instead of style because style tends to be analyzed as a passive or secondary by-product, that is produced to service of the film’s narrative. I use the term aesthetic design to emphasize the process by which creative agents engage with other similar styles and stylistic flourishes of precursor films to develop and convey information beyond what film scholars would typically refer to as the film’s narrative. I am interested in highlighting the value of this kind of active design process to suggest that films are always conveying information to spectators even in the absence of action-driven “story.” Ultimately, I argue that the term “narrative” is largely inadequate, as it is far too constrained by linguistic concerns, and films convey information by way of a broad array of multi-sensory channels, to the point that the image, and the way in which it is presented (i.e., its aesthetic design), is always conveying information of one kind or another.

³ I should point out here that this project does not adhere to the approaches and concerns put forth by the Literary Darwinists (as championed by Joseph Carroll) nor those of the McLuhan school and the Media Ecologists. This is not to say that I am opposed to either of these

adaptive theory because it provides a productive homology for film theory. It also provides a fruitful correlative for considering a system that is both conservative in preserving its nature, and yet demands consistent and perpetual change.

My second purpose is to provide an analysis of how visual effects have come to be theorized as they are, in order to highlight why the current theorization of effects needs to take a different tack, and to trace how monological frameworks of narrative disruption have constrained the discourse of cinematic aesthetics. In doing so, I highlight how visual effects reflect cinema's identity as a provisional, contingent, and constantly adapting media form. In this study, I challenge some of the many, many objections posed by popular critics who claim that visual effects are one of the reasons, if not the leading reason, for contemporary cinema's loss of strong storytelling, and that such vacuous, empty spectacles are "pure images, devoid of symbol" (Brody, n. p.). According to *The New Yorker* critic Richard Brody, pure images lack a deeper meaning as they are "pure sensation" "nearly empty of sense."⁴ The proposition that there can be a "pure image, devoid of symbol" is highly problematic, of course, as the image is never devoid of meaning or symbol. The objections regarding digital technology's intrusion into contemporary cinema are also mirrored in the theoretical discourse of post-classical scholars, whereby

approaches, but, for this project, the technological determinism of the Media Ecologists subscribes to a position that does not allow for enough interaction between evolving technologies and existing trends and conventions. As for Literary Darwinism, the mining of quantified datasets (Eric Rabkin and Carl Simon), or the determination of content based on Darwinian notions of mate selection and aesthetic evolution (Barbara Creed's *Darwin's Screens: Evolutionary Aesthetics, Time and Sexual Display in the Cinema*), are also beyond the purview of this project, which works primarily in the pseudo-metaphorical terms of the Darwinian Entangled Bank, closer in kinship to the work of Gillian Beer's *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction*.

⁴ Rather ironically, where many critics criticize contemporary effects laden films for their lack of narrative depth, Brody celebrates the "pure image" as the height of contemporary digital cinema because it is a cinema purely of affect.

contemporary Hollywood films are viewed as a pale version of their former selves, as they have now been reduced to a bricolage of corporate design built merely to justify the display of the latest and greatest visual effects. In pushing beyond such popular objections, it is necessary to understand how visual effects could be positioned as somehow antithetical to storytelling in the first place and what in fact constitutes a “visual effect” and if effects more broadly can be truly considered distinct elements from a film’s broader aesthetic design. What I argue is that while spectators are certainly drawn to attractions, there is a nuanced distinction between marketed attractions (attractions seen in trailers and other marketing materials) and the spectacles that are cinematographically integrated and narratively immersive (spectacles seen during the viewing of a film), which I deem an *integrated spectacle*. Marketed “never seen before” attractions are in fact quite distinct from the in-film spectacles, which I discuss in greater detail in the next chapter.

Considering the apparent distinction between the two goals of this project (the argument to move beyond monological analytical frameworks and to explore the theorization of visual effects), it is pertinent to explain that in fact one is dependent on the other. In exploring the theorization of visual effects, it is apparent that monological frameworks and static valuations of visual effects’ narrative functions are not viable long term solutions to understanding how film aesthetics convey information. In response to this set of issues, I propose to provide some options that will assist in developing a dynamic framework for filmic analysis based on Darwinian evolutionary theory. As André Gaudreault points out, even though highlighting or debunking the contradictions within existing theoretical positions may be a popular activity, it is an ineffective academic pursuit unless an alternative position is offered to help mend the existing rifts, which is the ultimate goal of this project. In exploring contemporary analytical models of

visual effects, ranging from Michele Pierson's account of wonder, Kristen Whissel's notion of the emblem, and Shilo McLean's narrative analyses, to Andre Gaudreault's and Tom Gunning's Cinema of Attractions,⁵ it is apparent that visual effects theory is currently championed by a collection of singular positions. Each of these positions then tends to explain what the defining values of visual effects are: effects worthy of study either generate wonder, function as attractions, offer moralistic lessons, or they are essentially the vacuous distractions that contemporary critics malign them for being and are unworthy of academic attention.

For every instance of wonder, why can there not be an instance of productive familiarity? For every instance of attraction, why can there not be those invisible effects that work to elide themselves? For every site of intense signification, why can there not be an equal example where visual effects are used to emphasize a singular and focalized significance? Truly, the answer is that there are, but our theoretical models must adapt if they are to account for these conflicting logics. While current theories tend not to account for this kind of contradictory or dynamic experience, the problem does not inhere in the visual effects themselves, but rather in how theorists approach the study of effects. The greatest difficulties the current theorization of visual effects suffer from are hierarchical experiences and static valuations. By this I mean that even though wonder, for example, may offer a significant experience for a number of spectators, it cannot be privileged in theoretical terms as a penultimate experience, because in doing so a

⁵ Cf. Michele Pierson's "CGI Effects in Hollywood Science-Fiction Cinema 1989-95: The Wonder Years" (*Screen*, vol. 40, no. 2 (1999), pp. 158-176) and *Special Effects: Still in Search of Wonder* (New York: Columbia University Press, 2002); Kristen Whissel's *Spectacular Digital Effects: CGI and Contemporary Cinema* (Durham: Duke U Press, 2014); Shilo McClean's *Digital Storytelling: The Narrative Power of Visual Effects in Film* (Cambridge: The MIT Press, 2007); and Tom Gunning's "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde" (*Wide Angle*, vol. 8, no. 3-4 (1986), pp. 63-70.), Scott Bukatman's *Matters of Gravity: Special Effects and Supermen in the 20th Century* (Durham and London: Duke U Press, 2003); as well as Gaudreault, André and Tom Gunning. "Early Cinema as a Challenge to Film History" (*The Cinema of Attractions: Reloaded*. Amsterdam: Amsterdam University Press, 2006).

hierarchy of cinematic experiences is created, and, subsequently, “secondary” or contradictory experiences are often overlooked or simply rejected because they do not fit the theoretical model. The problem with this structure is two-fold. First, if wondrous experiences are privileged, those films which are not designed to encourage moments of wonder are either overlooked by effects scholars or they are seen as lesser films; when films are overlooked, it encourages a-historical understandings of effects and certain contributions that effects have made to some modes of display go unacknowledged, such as the ideological implications of aesthetic design seen in blockbuster and “popcorn” films, such as the *Transformers* series (Bay 2007, 2009, 2011, 2014, and 2017).⁶ Second, this structure also encourages a static and monological determination of the cinematic experience, which actually limits the scholarly exploration of cinematic aesthetics, particularly when scholars are faced with intermedial and digital films that reject or challenge traditional aesthetic designs, such as *My Winnipeg* (Maddin 2007) or *2046* (Wong 2004). Certainly, neither film’s aesthetic design fits within the current models of wonder, attraction, or the emblem. Both films nevertheless provide spectators with complex networks of information by way of their aesthetic design, and are therefore worthy of study. A considerable amount of the information conveyed by the aesthetic design of these films (or any other film for that matter) may be subliminal for most spectators, yet that information is present and is significant for film theory. The purpose of this study, then, is to explore the broader implications that effects have for cinematic aesthetic design, Hollywood marketing strategies, advances in new technology,

⁶ I will provide an analysis of the ideological implications of the aesthetic design of *Transformers* in the fourth chapter. In brief, however, it is important to note that there is a binaristic, West vs. East, complicity built into the design of *Transformers*, as Optimus Prime is painted in American, red, white, and blue, whereas BoneCrusher, as the enemy of the state, is painted in sandy, desert colors. Furthermore, the franchise, by way of its cinematographic and aesthetic design, marketing campaigns, and choice of protagonists, staunchly champions patriarchal power structures and reinforces contemporary blue-collar Republican values.

spectator engagement with information networks, and current conceptions of digital aesthetic theory, which is largely predicated on the theorization of visual effects.

The exploration of visual effects and, by extension, cinematic aesthetics, would greatly benefit from a broader analytical structure that is capable of incorporating existing monological analytical frameworks (e.g., wonder, attractions, emblems, etc.) into a model that is dynamic and allows for greater fluidity, growth, and the adaptation of aesthetic theoretical concepts. One other such approach is taken by Bob Rehak in *More than Meets the Eye: Special Effects and the Fantastic Transmedia Franchise*: "Academic accounts within cinema and media studies have done a great deal to delineate and historicize special effects' techniques and meanings, but have engaged far less with the way they function outside and among traditional narrative and generic homes" (5). In this study, I seek to develop such a theoretical framework, one in which visual effects can be appreciated as heterogeneous cinematic elements that provide spectators with access points to several layers of narrative information, elements that are always adapting and developing in relational meaning, and thus are never static or fixed in their meaning.

Furthermore, as D.N. Rodowick suggests, cinema "is itself a conceptual virtuality, though populated with concrete objects, that varies unceasingly, and therefore, to extract the codes that give this sense narrative and cultural meaning is a process that is, as Freud would have said, interminable" (19). The theoretical models that are developed to analyze such a dynamic object of study must therefore be equally dynamic and adaptable. I would argue that also, in addition to Freud, though, Darwin's adaptive theory offers a productive parallel because cinema as an institution is a virtual ecosystem, and, like natural ecosystems, its health is dependent on variability, continual change, growth, and adaptation within its environment. While Gary R. Bortolotti and Linda Hutcheon pose biological adaptation as a kind of homology for the process

of filmic adaptation, I believe that the homology can be extended to account for more than what would traditionally be considered an "adaptation" in the transference of a story from one medium to another (e.g., intermedial transference of novel to film). The biological model of adaptation is particularly appealing because it maps change as a consistency, change is constant for the natural world, and, as Thomas Elsaesser notes, many theorists see change as "business as usual" (226).⁷ As theorists, though, we tend to rely on models that are less adaptable than the properties we study. For the moment, however, I will leave this argument to one side and return to it in greater detail in the third chapter. More immediately, for the sake of clarity and accessibility, it is pertinent to begin with the initial impetus of the work, which is the study of digital visual effects and their current modes of theorization.

Part of this study's purpose is to display the rather difficult and complex issues of studying what is labeled "digital cinema," in an effort to problematize the distinction between digital and analog cinemas. Even though I initially sought to develop a clear and concise theorization of the function of cinematic visual effects, it became clear that to do so would only be for purely heuristic purposes, which in application would be largely untenable. Beyond the most basic definition of visual effects, which is the addition of a visually perceptible digital object to previously shot/captured footage, it is impossible to contain such phenomena or to draw clear and distinct boundaries around visual effects as a particular object of study. I will explore the troubling implications of such questions: Why, for example, is "the thing" from the most

⁷ It is important to note that what Elsaesser describes as business as usual for many theorists is the narrative structure of the "three- or five-act model of Western drama" (228), which is not the same suggestion I am making. I am interested in exploring rather how technological change is literally business as usual for Hollywood, particularly when it comes to the production of spectacular effects. What is productive in Elsaesser's term is that there is a fundamental tension at work between consistency and adaptive change, a tension that is difficult to model with the current theory.

recent iteration of *The Thing* (van Heijningen Jr. 2011) recognized in popular criticism as a visual effect over the color timing in *O Brother, Where Art Thou?* (Coen brothers 2000) when both images are achieved by digitally manipulating prerecorded footage? Which digital elements are responsible for generating a different signification when it comes to analog and digital creatures in the ‘creature feature’ sub-genre? Or is there an ontological difference between analog and digital creature features? Is there a difference between the creature battles of *King Kong* (Cooper and Schoedsack 1933) and *Pacific Rim* (del Toro 2013), and, if so, are these differences due to any inherent characteristics of digitality? Does the lack of the *Jaeger*’s and *Kaiju*’s indexicality in *Pacific Rim* affect the signification of the images? All of these issues are complex, and clear-cut boundaries between analog and digital objects, between visual effects and broader aesthetic designs, can only be accepted at face value, because upon closer inspection the borders that separate these objects become increasingly indeterminate. In its simplest form, the analog/digital divide is of course predicated on issues of medium specificity, but even this truism is more ambiguous than it appears. Both analog and digital technologies are themselves highly diverse, and even based on the quintessential division between analog and digital cinemas, the mode of image capture and storage, shifting from celluloid film stock to digital data, is much more complex than is generally acknowledged. Can we accept that *Festen* (Vinterberg 1998) is of the same medium as *Guardians of the Galaxy Vol. 2* (Gunn 2017), considering that the former is shot in 480i on digital videotape, while the latter is shot in 8K Redcode RAW and stored on solid state hard drives, such as the RED MINI-MAG? Neither of these cameras utilizes the same technology, and, as a result, the images are dissimilar, and yet they are both considered to be digital cinema. The same can be asked of *Arrival of a Train at La Ciotat* (Lumière Bros. 1895) and the more recent *Dunkirk* (Nolan 2017). Both are shot on celluloid, but again, each of these

technologies (i.e., the types of film stock and the cameras used to shoot the films) is nothing like the other. In fact, I would argue that there is more in common between the images captured for *Dunkirk* and *Guardians of the Galaxy Vol. 2* than there is between *Arrival of Train* and *Dunkirk*. Thus, it is pertinent to address certain issues of medium specificity before launching into the four-fold focus of this study, which is the study of contemporary digital theory, effects cinema, the informational conveyances of aesthetic design, and narrative networks.

D. N. Rodowick, quoting Noël Carroll, details one of the key issues of the medium specificity argument, while highlighting one of the central tenets of digital cinema's detractors:

Carroll argues, quite rightly, that the recording and presentation technology of film (thus the physical structure of the medium) has evolved continually with respect to the desire to achieve new aesthetic purposes or effects: "our stylistic aims, needs, and purposes lead to changes in the very physical structure of media . . . The physical structure of a medium does not remain static. It is modified as a result of the needs and imperatives of our existing and emerging styles, genres, and art movements. Those often literally shape the medium, rather than the medium dictating style." (Rodowick 40)

Digital detractors use the fact that because the medium evolves continually due to new technological developments, which are developed to satisfy the demands for stylistic adaptations, it leads to a lack of "good" filmmaking in the digital age. Instead of telling stories, the general sense of the detractors is that digital cinema merely displays images because that is the primary function of the digital object; the digital object is defined by its to-be-looked-at-ness. What is overlooked, however, is that stylistic change is one of the few constants in the cinema, and that "good" filmmaking has survived up until this point, and therefore, it must not be technological change or stylistic adaptation that has led to poor filmmaking practices. Between Rodowick and

Carroll, there is an understanding that cinema, and media more broadly, are predicated on change, difference, and adaptation. In this respect, digital cinema as a change, an innovation, another one of cinema's many adaptations, is business as usual. In fact, change is one of the few constants. Stasis, in a world that is constantly evolving, shifting, and competing, is the equivalent of death. Each time a new technology allows for stylistic change, however, there is a contingent of cinephiles that lament the passing of the medium's "true" form. The true form of cinema, though, never has and never will exist. Of course, one can lament the fact that a well-celebrated and consistent style is no longer in popular use, but such a concern can only ever be a personal one. The medium will change, and in fact always has.⁸

The aspect that is overstated by Carroll, however, is the hierarchizing of technology over style. To privilege technology over style is to take the position of technological determinism, as the McLuhan influenced theory of media ecology suggests, and to privilege style over technology is to privilege culture as the force that determines the development and production of technology, as the theory of cultural constructivism suggests. Both avenues, I would argue, are less than productive because they exclude one potentiality or the other in any historical context (it is technological developments that leads to new style, or new style that leads to technological developments), which is a monological, binary construction. Because I am rejecting this monological, binary structure, it may appear that I will take an uncommitted stance, but I would suggest that rather than a unidirectional analysis of style and medium, what is required is an interrelated analysis of how the two influence each other's development (that x influences the

⁸ If we take for examples both the constant evolution in camera, lens, and film stock technologies, we can see certain stylistic features developing out of these innovations (which are admittedly often more minor than the shift from analog to digital technology). *Citizen Kane's* (Welles 1941) deep focus shots are a product of technological change, and a change, therefore, of the medium. The same could be said for the shift in film stock that allowed for the capture of greater contrast and the subsequent stylistic development of film noir.

development of y , and y influences the further development of x simultaneously). Both technology and style feed into one another, and are mutually influential (which can be formulated as xy , rather than $x=y$). Overall, this suggestion does not appear to be overtly radical. Yet, in film studies, when it comes to the analysis of visual effects, to this point film scholars have largely committed themselves to such either/or positioning.

In terms of analyzing visual effects, there are several monological frameworks that tend to be fairly exclusive. For example, Michele Pierson's analysis of visual effects suggests that the value of visual effects is predicated upon their ability to generate wonder.⁹ Exploring how visual effects generate wonder, in and of itself, is a fruitful and productive venture and is applicable in many contexts, particularly when new technologies are employed. For example, the emergence of the theory of wonder can perhaps be seen as the first stage of the more recent digital turn's emergence from what Rick Altman would call a period of "crisis historiography" (Altman, n. p.). Crisis historiography is a period wherein "new media, when they first emerge, pass through a phase of identity crisis, a crisis precipitated at least by the uncertain status of the given medium in relation to established, known media and their functions" (Gitelman and Pingree xii).¹⁰ The exploration becomes problematic, however, when a monological framework is utilized as the defining feature of the exploration, as is the case in Pierson's work, in which the value of visual effects is implicitly measured by their ability to generate wonder. To evaluate visual effects only via the logic of wonder is to do so within a framework defined by a single logic, which limits the

⁹ It is important to note that because Pierson is concerned with digital films that create wonder while focusing on how digital images can create moments of wonder, Pierson only privileges texts that use effects to create wonder, while dismissing others based on the lack of wondrous potential.

¹⁰ Altman's initial reference to "crisis historiography" is an unpublished personal correspondence, which does not include a concise definition.

theoretical potential of such effects. Those effects that do not generate wonder become poor visual effects or ineffective effects, and subsequently less likely to attract academic attention. The ineffectiveness is not in the effect, but in the model that proposes that effects have certain primary, static, and constant functions in cinema. Furthermore, wonder itself, in the context of visual effects, is defined as a monological and constraining framework. The theory of cinematic wonder values the curiosity generated by wonder in purely scientific and technical terms, rather than as the origin of all philosophy, as it is proposed by Aristotle and Plato (Plato 55). In other words, contemporary wonder is generated when one is confronted by an aesthetic object, and one becomes curious about how it came into existence in scientific or technical terms. For example, if I *wondered* how a rainbow came into being, I would find the answer in technical terms: it is the byproduct of refracted light through raindrops. In terms of special or visual effects, the question becomes, how did the filmmakers do that? Did they use a person in a suit to portray Godzilla, or did they use stop-motion animation and wire-armature models? The value of wonder, in this sense, is specifically technical.

Wonder's monological framework precludes the wonderment of culture, history, and/or other states of being. Cinematic wonder, for example, as it is currently theorized, does not allow for a spectator's curiosity to be sparked in cultural terms, which precludes an intellectual journey that examines how one style of image is adapted from one culture to another, though this obviously happens. Scholars are frequently confronted by unfamiliar aesthetic objects and subsequently become curious about their origin, and attempt to explain how these objects came to exist. The issue, then, is not that wonder exists in relation to visual effects, but that scholars tend to close definitions while generating monological explanations (inadvertently or otherwise) in an attempt to define the object of study. The typical formulation of cinematic wonder goes

something like this: in the 1980s, visual effects tended to generate x . Therefore, the value of effects is x during this period. Subsequent research then includes this formulation as if it were a static function: the value of effects is x as defined by existing research, and therefore contemporary effects either reflect x or are lesser than previous effects because they no longer perform x . The shortcoming in this formulation, however, is not that the effects either do or do not perform x , but that the analytical model or logic does not account for dynamic change, let alone a dynamic state of being. For example, even though the majority of digital effects during the late 1980s to the mid 1990s may have been primarily designed for the spectator's aesthetic contemplation, there are underlying cultural and corporate factors that are overlooked in determining why this was the case.

Moreover, by glossing over the underlying cultural conditions that encouraged a specific kind of engagement with visual effects of the 1980s and 1990s, the identity of effects take on the characteristic of wonderment and aesthetic contemplation. In perceiving effects as having a static identity, or at least an identity predicated on existing characteristics, a network of interrelations is revealed between cultural narratives surrounding innovative digital technologies and the (overlooked) manifestation of aesthetic objects on screen. As Rodowick and Carroll suggest, this approach is a kind of

Grecian or Platonic essentialism, whereby a theorist hypothetically presents a necessary condition for an art form because it is found useful for understanding that art form.

Essentialism is philosophically undesirable, however, first of all because most art forms are demonstrably not self-identical either formally or substantively; and second, because the concept of medium is correlated in an often confused way with material, instrumental, and formal definitions; and finally, because the presumed physical structures of media are

historically variable and highly responsive to inventive purposes that are not foreseeable.
(Rodowick 38)

The identity of visual effects, then, in response to this kind of media essentialism, can only ever be viewed as contingent and provisional as defined by the common characteristics observed in the majority of the visual effects (or at least in the most “visible” and high profile visual effects) of the moment, rather than an overarching, intrinsic characteristic of the effects themselves.

This is not to say that the material means of production, or display for that matter, have no aesthetic influence, and therefore no influence on the informational conveyance of the image. As Rodowick ponders,

For the type ‘Fritz Lang’s *M* [1931]’ to persist, it must have a template, that is, a medium. If all celluloid copies of *M* were destroyed, we would certainly be grateful to have a DVD. But we might also continue to wonder if it were a *film*, and consequential aesthetic questions would be raised by this reflection. (40)

The celluloid copy of *M* is distinct from that of the DVD even though the differences may only be minute, and ultimately these minute differences may only present minor shifts in the spectator’s experience of the film.¹¹ The point, though, is that there is a difference based in the medium of presentation, and the question becomes whether or not as film scholars we

¹¹ Certainly, this exploration of medium specificity begs a number of further questions regarding what should be considered when analyzing the spectator's experience of a film, such as does the exhibition also make a difference as you could watch a DVD on a TV or laptop, while watching a film in the cinema? These questions require further exploration and extend beyond the purview of this study, but Francesco Casetti in *The Lumière Galaxy: Seven Key Words for the Cinema to Come* provides an astute analysis of contemporary viewership in the introduction. With the adoption of digital technologies, however, there have been new developments in sound and systems to increase the sensory experience of the theater, and certainly watching a contemporary digital blockbuster on a laptop, tablet, or phone is not the same as watching it in the theater. This is not to suggest that one experience is better than the other, or that one is “proper” cinema and the other is not, but to acknowledge that the experience of Dolby's Atmos sound system in theatre is considerably different than hearing sound on a set of headphones.

essentialize the characteristics of the medium as a constant, and that any deviation from such assumptions about the constant and static identity of the medium be somehow unfaithful to the medium, or somehow performing a lesser function. As Rodowick notes, “[m]uch can be said about medium specificity that is nuanced historically and without legislating what artists should or should not do” (41). And, yet, when it comes to visual effects, this is often exactly what happens.

The first chapter of this study seeks to explore how certain conceptions of visual effects have come to dominate the critical paradigm of digital aesthetics. I will argue that the theorization of visual effects is too greatly influenced by Hollywood’s marketing of effects as spectacular attractions. I will argue that there is a distinction between the marketed attraction and the display of novel images during the film-going experience that has been largely overlooked to this point. To pose a scenario, if Phil Tippett’s stop-motion analog dinosaurs occupied the place of Industrial Light and Magic’s digital dinosaurs in *Jurassic Park* (Spielberg 1993) as the production team originally intended, and the scenes were shot in the same fashion with latex-skinned metal armature figures occupying the exact same positions instead of the digital figures, would the digital characteristics that scholars have attributed to the wondrous attractions of the dinosaurs still be theorized in the same way? We must ask: how has the theorization of visual effects been affected by the marketing of novel digital objects, as opposed to the experience of the moment of its display? Pierson argues that the digital imagery of the late 1980s to the mid-1990s is presented to the viewer in order to be contemplated aesthetically, leading to the generation of wonder and curiosity in the spectator. The question must be raised if this is a purely digital phenomenon, or if analog images can create similar wondrous affective responses from spectators, and furthermore, if the value of visual effects is actually predicated on their

ability to generate wonder? Also, if the value of effects is not predicated solely on its wondrous potential, how and why did this conception and theorization of visual effects originate in the first place? And, then to explore how wonder can be re-evaluated in light of new applications some twenty-five years after its initial theorization, because wonder is a consistent affective spectatorial response to the cinematic image. To begin addressing these questions, the first chapter examines the contemporary treatment of visual effects, largely in relation to how they are marketed to spectators, in order to highlight how the marketing of effects, as “never seen before” objects, has influenced the critical discourse. Essentially, just like the spectators who bought into the novel digital visual displays of the 1990s, so have theorists.

There are a number of complicating factors, however, that have contributed to the analysis of the digital object as novel, and in the second chapter of this study, I explore the historical and theoretical influences that have contributed to the development of contemporary digital effects theory. In particular, I trace two separate threads: first, the theory of wonder from Plato and Aristotle, through Descartes and Philip Fisher, to Pierson; and second, the theory of cinematic attractions from Sergei Eisenstein through to Gunning and Gaudreault. The purpose of doing so is to highlight why theorists maintain that narrative disruption is a kind of ethical gold standard, which I argue is largely due to the Marxist underpinnings of much of contemporary digital film theory and how this has informed the analysis of “good” visual effects as being narratively disruptive. Effects have largely been theorized in terms of their disruptive potential to offer a defense of their scholarly worth. The difficulty with this position, however, is that it still perpetuates the broad disavowal of effects’ serious academic treatment, because it suggests that there are a few mere moments worthy of academic attention, while the vast majority of effects (and by extension digital aesthetic design more broadly) do not conform to the criteria of worthy

effects outlined by these theories. The consequence is that while these early forays into the analysis of effects certainly draw attention to the valuable contribution that the theorization of visual effects make to the broader theories of cinema, they align the theorization of visual effects with other existing theoretical systems, overlooking many of the new challenges that effects offer to theorist. Early Soviet Constructivist film theory (reinforced by Brechtian theatrical theory, such as the *Verfremdungseffekt*,¹² and the application of Shklovskian literary concepts, such as *ostrannenie*,¹³ to film theory) for example, influences the conception of cinematic attractions, which in turn provides the justification for the critical analysis of effects as narratively disruptive. As long as effects adhere to the criteria established by these earlier theories, they are shown to be worthy of serious study, but in providing the justification for their serious study in this way, scholars have created a biased, monological environment that has constrained the study of effects. It is important that as theorists and film scholars we mine the existing structures that define our theoretical positions in order to determine if the existing structures assist in illuminating our current subject, or if our current subject is defined by existing structures. In addition to such explorations, new models, and new potentialities must be developed to address any such shortcomings.

In order to address the broader, more complex structures of contemporary effects (and cinematic aesthetic designs more broadly), I propose that using a theory of aesthetic adaptation informed by Darwinian ideas is a constructive step forward. The third chapter of this study

¹² *Verfremdungseffekt* is a theoretical concept coined by Bertolt Brecht in *A Short Organum of Theatre* published in 1949, which is described as “a representation that alienates . . . allow[ing] us to recognize its subject, at the same time mak[ing] it seem unfamiliar” (192).

¹³ *Ostrannenie* is a theoretical term coined by Viktor Shklovsky in 1913 to describe art’s “making strange” potential, to make strange that which is otherwise passively accepted as normative, to encourage the active reassessment of such things (“Introduction” 11).

explores the potentialities of analyzing a cinematic text as a single “organism” within a larger environment, and how the principles of aesthetic adaptation and Darwinian adaptation can be seen as a structural homology, they share a structural resonance. By viewing aesthetic and Darwinian adaptation as structural homology it helps to illuminate the complex layering of information conveyed within cinematic texts by way of their aesthetic design. This chapter is concerned with how cinematic information is conveyed via the visual register. The purpose of this chapter is to challenge how theorists perceive contemporary narrative, and to suggest that narrative disruptions are largely impossible to achieve in cinematic texts because there is always information of one kind or another being conveyed. Typically, when a there is a large-scale digital object on screen (e.g., the dinosaur from *Jurassic Park* or *Independence Day*'s [Emmerich 1996] flying saucers) the objects tend to occupy a privileged position and they are designed to attract much of the spectator's attention. While this observation reflects many of the current theoretical positions, the difference is that in these moments in which the digital object is privileged there tends to be an intensification of information, a kind of narrative nexus rather than a disruption or a suspension of narrative.¹⁴ In order to explore the significance of this narrative intensification, or the creation of a narrative nexus, theorists must challenge the current

¹⁴ By information I am referring to that which is conveyed or represented by a particular arrangement or sequence of things, but by arrangement, I mean more than immediate juxtaposition of two shots presented one after the other, for example. By arrangement, it is more abstract and related to the processes of adaptation, familiarity, and the interactions of existing knowledge with when new stimuli are presented. While I recognize that “information” is a loaded term in media studies due to its traditional definition as a pattern opposed to noise, but when I refer to information, I do so intentionally because I mean more than what is traditionally understood as “narrative content.” Narrative content is the content and events necessary to advance the plot, explain indications of character motivation, etc., but part of my contention in this study is to explore how diegetic narrative content and non-diegetic information interact and inform one another. I am, therefore, using a term that allows for a broader, more complex understanding of how spectators' existing knowledge of other media properties interacts with the narrative content presented by a film, and that the combined effect is the generation of new information.

understanding of “the” narrative. In other words, theorists must look beyond the diegetic narrative, because there are many narratives that exist simultaneously; there are many different threads of information that are present when such objects appear on screen. Many of these threads are currently being overlooked because they do not adhere to conditions established by theories of narrative disruption. The emphasis created by theories of narrative disruption is placed on visual effects’ ability to create moments of space, absence, emptiness, while conveying a lack of information, so that the spectator has an opportunity to critically reflect on what they are seeing. When the dinosaurs appear in *Jurassic Park*, however, it is a moment of intense signification, of excess, and of informational proliferation, not a moment of absence, and this chapter seeks to propose a model for examining aesthetic designs that engage polylogical moments and the polynarrativity of these broader, more complex networks of informational conveyance.

The last chapter of this study examines the implications of analyzing innovative aesthetic moments as moments of intense signification and informational intensification rather than as narrative disruption. I analyze a collection of examples where the current conceptions of effects and digital aesthetic theory overlook the implications of the complex interweaving of narrative information. The complexities of the information conveyed are currently unaccounted for because these moments of informational intensity do not conform to the current theoretical structures. The last chapter is essentially a theory in practice chapter, in which I explore how a film’s aesthetic design offers spectators an access point to complex webs of information based on how the film property fits within its own niche environment. This chapter ranges from international art film to the analog creature features of Ray Harryhausen, and from Hollywood’s

“popcorn” blockbusters to pro-amateur fan films.¹⁵ I move between these film texts (or constellations of films) in order to analyze how each of these film texts conveys information by way of its aesthetic design. The final chapter of this study explores the many values and influences that effects have on cinematic meaning making. In this chapter I argue that effects do not have a static value, but instead engage with their own narrative networks, and that each display of visual effects has the potential (via visual systems) to contribute to the meaning of a film, and that they do so by engaging with the processes of adaptation by way of its aesthetic design.

¹⁵ I am using blockbuster in the popular vernacular sense as a film with a high production budget that is designed for mass market consumption (i.e., the tent-pole film) in an attempt to secure a significant economic return. Even though blockbusters, in this sense, often have a lower return-on-investment (ROI) than other productions, the net-gain can still be significantly greater. For example, the ROI for *Paranormal Activity* (Peli 2007) was significantly greater than *Avatar*'s (Cameron 2009), 13000:1 to 11.76:1, respectively, but *Avatar* still grossed \$2.594 billion more than *Paranormal Activity*. In using ‘blockbuster’ in this sense, I am doing so knowing that a ‘blockbuster’ is not a genre. I use the term, however, to highlight the confluence between significant investments, mass market design, technological innovation, effects-centric production demands, conservative plot design, conventional set-pieces, and the science-fiction/action genre, usually associated with this type of production. For example, the list of the top fifteen highest production values highlights a rather consistent ‘type’ of film (the list is ranked highest to lowest in uninflated U.S. dollars): *Pirates of the Caribbean: On Stranger Tides* (Marshall 2011; \$378.5), *Pirates of the Caribbean: At World's End* (Verbinski 2007; \$300), *Avengers: Age of Ultron* (Whedon 2015; \$279.9), *John Carter* (Stanton 2012; \$263.7), *Tangled* (Greno and Howard 2010; \$260), *Spider-Man 3* (Raimi 2007; \$258), *Harry Potter and the Half-Blood Prince* (Yates 2009; \$250), *The Hobbit: The Battle of the Five Armies* (Jackson 2014; \$250), *Batman v Superman: Dawn of Justice* (Snyder 2016; \$250), *Captain America: Civil War* (Russo Brothers 2016; \$250), *The Fate of the Furious* (Gray 2017; \$250), *Spectre* (Mendes 2015; \$245), *Star Wars: The Force Awakens* (Abrams 2015; \$245), *Avatar* (\$237), and *The Dark Knights Rises* (Nolan 2012; \$230). Even though many of these films are of different genres (action-adventure, science-fiction, action, fantasy, and variants thereof) they largely reflect a similar production design and a reliance on effects (special and/or visual), and it is based on this conception of the blockbuster that I use the term. There are exceptions, however, such as *District 9* (Blomkamp 2009; \$30) and *Pan's Labyrinth* (del Toro 2006; \$19) whose budgets are well below the blockbuster threshold. I would still include these films, though, as they trade on the established conventions of blockbuster filmmaking and are made largely in response to these other films.

This study, therefore, explores the contingent and complex interrelations of visual effects as one element of the broader aesthetic design of cinematic texts. While exploring the significance of the information conveyed via the aesthetic design of these texts, I seek to challenge monological conceptions of visual effects and, by proxy, of aesthetic designs. As a result, this study seeks to address a rather diverse set of questions, while exploring several distinct theoretical territories, and as a byproduct this study foregrounds the vicissitudes of contemporary digital film studies and the complex interrelations that are present within the cinematic image. Truly, this study challenges the comfortable distinctions between the heuristic categories that come to define so many of film studies' interdependent camps, which in this case are the analog and the digital, the novel and the familiar, as well as narrative and non-narrative images. Ultimately, it is my aim to explore the possibilities and benefits of dismantling our current heuristic categories, and to embrace a more dynamic, complex, and difficult set of interactions in order to gain further insight into the informational conveyances of contemporary cinematic texts.

Chapter 1

New Technology and the Persistence of Cinema's Death:**Visual Effects and the Influence of Blockbuster Aesthetics and Marketing on the Cinema**

Rather ironically, the father of the famous Lumière brothers who screened the first projected film, Antoine Lumière, "warned a patron desirous of purchasing a Cinématographe that it was an 'invention without a future'" (Gunning 35). Yet, ever since Antoine Lumière rang cinema's death knell in 1895, which also happened to be the year of its inception, cinema has lived a rather long life, or perhaps more aptly many long lives (Belton 260).¹⁶ According to many theorists and critics, though, it has been a life that has been lived in a continual state of pulmonary failure at best, or at worst, only ever as a continual shadow of its former self, trapped in a state of perpetual entropy. Cinema, in this sense, is already the living dead, much like the zombie pulling itself from the grave, thrusting one hand in the air as evidence of life, while resisting its final death rattle.¹⁷ Yet, the sentiment of Antoine Lumière, that cinema is an "invention without *a* future" (Cahill 260), may have been more accurate than he could have

¹⁶ As Belton notes, however, it is Tom Gunning, via Bernard Chardère, who attributes this declaration to Lumière père, in "Moving Away from the Index: Cinema and the Impression of Reality" (*Differences*, vol. 18, no. 1, 2007, pp. 35).

¹⁷ Cinema's death has been declared a great many times. Some more recent examples in popular criticism range from statements such as The Boston Globe's "Someday we may look back on 2016 as the year the movies died" in the wake of *Suicide Squad*'s disappointing critical reception, to those issued by more prominent filmmakers, such as Ridley Scott and Martin Scorsese in *Quartz*. The latter can be summed up by Scorsese's claim that "Cinema's gone." In terms of film theory, Paolo Cherchi Usai's half-theoretical, half-artistic meditation, *The Death of Cinema: History, Cultural Memory and the Digital Dark Age* (2001) most elegantly highlights that cinema's death is both inevitable and constant.

possibly known.¹⁸ Clearly, though, the cinema has far exceeded its potential as the futureless, living-dead medium. In this sense, Lumière has been proven to be wrong time and time again, as cinema is still very ‘healthy’ at least in terms of economic return, but nevertheless Lumière’s statement illuminates perhaps the quintessential characteristic of cinema itself.¹⁹ Cinema, it appears, is always-already without an identifiable and mappable future, a future always in crisis, while perpetually *just* averting such crises. As scholars, theorists, critics, and fans, we must recognize, then, that cinema’s crisis of identity, of a life on the verge of unbecoming, is a fundamental tenet of cinema’s identity. Cinema’s identity is itself predicated on the fact that its identity is always in crisis, or at least in “crisis,” as its potential futures are redefined.

Cinema’s consistent association with death extends well beyond the continual loss of its identity, to the liminal characteristics of the images captured by the camera and reproduced by the projector. Cinema captures and reproduces living images, images of life itself, but, as Gunning explains, “[n]ot life as it was once lived...but trapped like the vampire and ‘forced to repeat the same gestures over and over again . . . condemned to an eternal repetition’” (Qtd. in Abbott 43).²⁰ Gunning’s assertion that cinema is doomed to eternally repeat is revealing. I would argue that the inherent characteristics of the medium contribute to the perception that cinema is consistently on the verge of death, because it is the medium itself that plays the same images

¹⁸ Emphasis added, "without *a* future..."

¹⁹ According to the Motion Picture Association of America’s annual "Theatrical Market Statistics," in 2016 the global box office total was \$38.6 billion, with a 1% increase year over year, and the domestic box office earned \$11.4 billion, with a 2% year over year increase. Since 1980, the domestic box office has seen an annual growth rate of 4.02%, exceeding inflation’s benchmark of 3%.

²⁰ Cf. Laura Mulvey, *Death 24x a Second: Stillness and the Moving Image*. London: Reaktion Books, 2006.

“over and over,” as it is “condemned to an eternal repetition” (ibid). The apparatus that is responsible for playing cinema’s images, and the means by which these images are created, captured, and projected, however, is/are in a constant state of flux and reconfiguration. The vicissitudes of the cinema/death theoretical formulation is an infinite labyrinth of endless possible correlations and potentialities, wherein none of the potentialities preclude the others, like the Borgesian “Garden of Forking Paths.” For example, Siegfried Kracauer, in the 1960s, noted that the spectator’s own mortality is made manifest at the moment of re-watching a familiar film:

he is bound to realise, shudderingly, that he has been spirited away into the lumber-room of his private self . . . In a flash the camera exposes the paraphernalia of our former existence, stripping them of the significance that originally transfigured them . . . we respond to them also with emotions which range from fright at the sudden emergence of our intimate being to nostalgic melancholy over the inexorable passing of time. (56-57)

In other words, Kracauer's spectator becomes aware of the familiar sensation of the past that has now become alien to them due to their awareness that this moment is no longer. Laura Mulvey locates the manifestation of cinematic death in the still-frame: “at the point of convergence between the old and the new, the easily accessible freeze frame brings the presence of death back to the ageing cinema. The still, inanimate, image is drained of movement, the commonly accepted sign of life” (22). Mulvey's notion of locating death in the still image is akin to Bazin's theorization of the image as a means to "mummify" and "preserve" and in both cases death is located in a lack of movement (Bazin 8).²¹ The purpose of highlighting these different interrelations of the cinema/death formulation is that theorizations of cinema/death are manifold,

²¹ Cf. Philip Rosen, *Change Mummified: Cinema, Historicity, Theory*. Minneapolis: U Minneapolis Press, 2001.

interweaving, and located at numerous axes and intersections of film theory, and yet there is an underlying paradox that fuels this perception of lifelessness: stasis, inanimation, a lack of movement are the markers of death itself, and yet change, growth, and adaptation, make manifest the passing of time and the inevitability of death, while change itself marks the “no-longer-ness” of the previous formulation. Cinema, it appears, cannot be anything but a harbinger of death, paradoxically, as the image is both a manifestation of that which is no-longer (stasis, death) and of what will always-forever be (stasis, life).

Cinema is itself rather contradictory in terms of its identity: doomed to a Sisyphean fate of eternal repetition, and yet consistently recreating itself to meet consumer demand for ‘newness’ as a byproduct of, and participant in, modernity. Cinema’s inconsistent identity, and its oft-announced death, is logical, according to a kind of fidelity logic. As Martin Scorsese suggests, “The cinema I grew up with and that I’m making, it’s gone” (Qtd. in “The movies are dead”, n.p.). Scorsese, of course, is right: the means of film production have changed since he directed his first short film, *Vesuvius VI* in 1959. The formulation of cinema’s identity misses the mark, however, as the history of cinema, like the identity of cinema, is one of technological change, or, as Sean Cubitt suggests, cinema’s “history is not a plenum but a proliferation of interruptions” (9). Addressing the writing of media history more broadly, Cubitt suggests, “[w]e cannot but write the history of media as a history of discrete events, but in doing so we must insert gaps between those events, gaps that, as differences, generate further instabilities” (9). In a similar vein, cinema’s characterization as always-already on the verge of death is a reflection of its historical representation as a plentitude of differences, a representation that has been created out of heuristic necessity as cinema has been divided into genres, sub-groups, and other categories. What becomes lost in creating these heuristic categories are the broader historical

continuities, and the specific historical antecedents of the contemporary media forms that occupy the current moment of difference. For example, what are the historical continuities between the early stop motion films of the 1920s and 1930s and contemporary blockbusters? Beyond the lineage of effects technicians that connect the earliest effects films to contemporary ones, how have the narrative strategies and the aesthetic concerns of these early films informed the aesthetic concerns of contemporary blockbusters?²² Cinema and its projected images are a manifestation of, and a response to, recognizable generic conventions, borne in and by the conventions of sameness, much like the characterization of the zombie and vampire, of the Nietzschean sense of eternal return, and yet, technologically, cinema is constantly reconstructing itself. It is in this fundamental tension between the cinema's consistent repetition of recognizable projected images, and its consistent reinvention of its own technological apparatus, that I am seeking to launch the investigation for this study.

But what is it this time, specifically, that has drawn the ire of critics and naysayers, and that has once again warranted the ringing of cinema's death knell?²³ Technology has been the

²² The lineage of effects technicians is more specifically a line of character animators, from Willis O'Brien, to Ray Harryhausen, to Phil Tippett, to Travis Knight, who connect the earliest monster films, such as *King King* (Cooper and Siodmack 1933), to the foundational films of digital blockbusters, such as *Jurassic Park* (Spielberg 1993), to the most recent alt-mainstream animation releases by Laika Studios, such as *Kubo and the Two Strings* (Knight 2016).

²³ It is also possible that some critics resent the growing box office dominance of contemporary digital blockbusters, because digital technologies held the promise to democratise cinema, and such critics could see the potential of digital freedom of expression being coopted by the ideological machine that is Hollywood. Nevertheless, one possibility does not preclude the other. Digital technologies have certainly offered Hollywood more tools to create greater spectacles, allowing digital blockbusters to maintain dominance in the box office, or at the very least guarantee that blockbuster theatrical releases with an emphasis on spectacle should be watched on the big screen. At the same time, there is an increase in fan made films and amateur digital releases via digital distribution platforms such as YouTube and even Twitch TV, but the modes of consumption are vastly different, as are the monetary support and the profits earned by the different digital texts.

agent of change that has once again called cinema's vitality into question, but this time, unlike color tinting, matte-paintings, optical-sound, 3-D technology, three-strip technicolor film stock, wide-screen, mono-pack Eastman color film stock, hand-held cameras, and so on, digital technology is actually going to drive the stake into the heart of this vampiric medium one final time, at least according to the likes of Christopher Nolan, Quentin Tarantino, Martin Scorsese, Ridley Scott, and many others. In spite of the combined wealth of experience that these filmmakers hold, history suggests that there is a more likely outcome, one that appears to be much more even in its response: cinema will survive, as it has innumerable times before. Cinema, with each new technological advancement, opens a new possibility, a new forking path, and much like the Borgesian labyrinth, each new change leads to the proliferation of new potentialities, while not precluding any of the previous possibilities. In light of this recent and more fervent call for cinema's demise, it is necessary to call into question how the identity of the medium has been qualified, and to question how the research questions regarding the status of cinema's identity have been formulated, instead of, once again, prognosticating the demise of what has proven to be a rather tenacious and adaptable medium.

At each new technological turn, there are those who call for the death of cinema. As Shilo McClean points out regarding recent developments in visual effects, “[s]ome scriptwriters have suggested to me that a story is no longer necessary as long as a film has sufficiently impressive digital visual effects. This, however, is not said as a compliment to the standard of effects usage. It is more like speaking ill of the dead—an RIP for storytelling while the digital effects dance on its grave” (2).²⁴ Yet, as McClean also points out, this complaint is nothing new. One of the more

²⁴ Further complicating matters in terms of storytelling's demise, is that the pressure for blockbusters to perform in the international market (i.e., China, India, Mexico, etc.) where cultural specificity of a particular story can interfere with audience engagement, is only

prominent examples is the concern for cinema's artistic potential, and the reactionary *cinéma pur* movement (c. 1920-1930), championed by René Clair. The *cinéma pur* movement was a response to cinema's adoption of synchronized sound and color film stock technologies. The most significant concern being that such technological changes could be exploited by industrialists, detracting from the artistic potential of the medium, by instead conforming to the popular demands of the public. According to Clair,

“par exemple, du cinéma parlant, monstre redoutable, création contre-nature, grâce à laquelle l'écran deviendrait un pauvre théâtre, le théâtre du pauvre, dont les pièces—spectacles et texte seraient tirés par centaines d'exemplaires... (On n'apprendra pas sans frémir que certains industriels américains, parmi les plus dangereux, voient dans le cinéma-parlant le spectacle de l'avenir et qu'ils travaillent dès maintenant à réaliser cette effrayante prophétie.)” (34)

["for example, of the talking movies (i.e., the talkies), a fearful monster, an unnatural creation, thanks to which the screen would become a poor theatre, the theatre of the poor, with its plays – shows and texts – produced in hundreds of copies... (You will note with trepidation that certain American industrialists, among the most dangerous, see in the talking pictures the spectacle of the future, and that they are already at work on realizing this frightful prophecy.)]²⁵

increasing. The pressure to perform internationally has encouraged an action-centric aesthetic design, as visceral action tends to interfere less with the engagement of international audiences. The highest grossing Hollywood films at the Chinese box office for example are: *The Fate of the Furious* (Gray 2017) earning \$2.6 billion; *Furious 7* earning \$2.4 billion; *Transformers: Age of Extinction* (Bay 2014); *Avengers: Infinity War* which has currently earned \$1.6 billion; and *Transformers the Last Knight* (Bay 2017) \$1.5 billion.

²⁵ Translation is my own.

Essentially, synchronized sound and the cinema as “talkie” would undermine the cinema’s unique artistic characteristics and capabilities, that is, that the “Art that comes from such an instrument be an art of *vision and movement*” (Beaver 23).²⁶ Of course, Clair would go on to make several sound films of significant artistic merit, but nevertheless Clair’s initial concerns mirror the surprisingly consistent response to the anxiety caused by each iteration of cinema’s newest technological reformation and subsequent identity crisis. What is particularly interesting is that in each of these responses, the new technology is imbued with the perceived power to overwhelm the existing technologies. For example, with the introduction of synchronous sound, cinema became the “talkie,” emphasizing the active characteristics of the new technology, while diminishing the power of the already established elements of the medium as passive: sound acts upon cinema and reformulates it, while the established conventions of cinema remain passive in light of the new technology’s power. Each new technology that is added to the scope of cinema essentially reforms the identity of cinema itself, which, of course, is true in one sense. What is overlooked, however, in this conception of technological integration is twofold: the first being that cinema also influences the functions and characteristics of sound technology, and like the

²⁶ While sound cinema is often conflated with the first “talkie” which is commonly accepted to be *The Jazz Singer* (Crosland 1927), synchronized sound cinema has a long history. Films were accompanied by live music long before 1927 and Thomas Edison intended to synchronize sound and image by 1885. In terms of the talkie, though, the first Vitaphone film, *Don Juan* (Crosland) was released in 1926 the year before *The Jazz Singer*. Nevertheless, *The Jazz Singer* was a significant economic success, drawing in \$2.625 million, which eclipsed the earnings of Warner Bros. previous higher earning film, *Don Juan*, which earned \$1.693 in rentals. After the success of *Don Juan*, and *The Jazz Singer*, Warner Bros. continued to produce synchronized sound films that set new records for rentals. In 1928, Warner Bros. released *The Singing Fool* (Bacon) which become Warner Bros. highest grossing film, drawing in \$5.916 million in global rentals. Based on the economic success of these films, other studios also raced to take advantage of audience demand for synchronized sound and “talkie” films, encouraging the broader adoption of the technology as an industry standard.

source texts of all adaptations, the existing properties, just like the already established conventions and elements of cinema, remain fully intact.

The typical logic regarding these technological changes operates as follows: each new technological addition functions as an adjective to requalify the noun, which then forms a new modified and reconstituted noun. Cinema adds synchronized sound to its technological repertoire, and cinema becomes “sound cinema,” or, in terms of a more recent example, the addition of digital technology to the cinema’s technological repertoire manifested as “digital cinema.” The change is always driven by the “new” technology, and defined by the influence that it has as an “active” new technology, whereas cinema, being the already established, “old” technology, is positioned as “passive.” Hence, “digital” modifies “cinema,” rather than privileging the power of existing technology to qualify the new technology (e.g., cinema’s digital). Questions posed by theorists exploring the “new” digital cinema betray an inherent prejudice for technological determinism, where the most recent technological developments determine the mode and function of cinema’s social, cultural, and aesthetic significance. Research questions are formulated on what appear to be grounds similar to Clair’s (e.g., how have digital technologies transformed cinema?), situating digital technologies as the active agent of change, while relegating cinema to being a passive bystander to the influence of this new technology.

This study, then, seeks to reformulate the question and to ask, instead, how has cinema influenced the use of digital technologies in its pursuit of the creation of images? And, subsequently, if cinematic structures have encouraged a particular style and use of digital imaging technologies, what would be a constructive model to analyze this influence? In exploring the influence that cinema has had on digital imaging technologies, however, what I am

concerned with is not a direct inversion of the “how has digital affected cinema?” question. Instead, what I am concerned with is exploring what the best strategies are to encourage the analysis of the mutual influence that cinema and technology have on the other. To use Mikhail Bakhtin’s language (and the language of adaptation theory), how do these technologies function dialogically? I am also interested in exploring how certain fundamental theoretical paradigms in film theory have encouraged the recurrence of concern regarding cinema’s death in light of new technological innovations/adaptations, rather than developing an understanding of cinematic identity that is itself constantly in flux. Cinema is not always-already dead without a future, and it never has been. Cinema is constantly reformulating its identity to adapt to its environmental conditions, participating in the, so to speak, “natural” processes of adaptation and survival, the fundamental processes that necessitate and allow all things on this planet to negotiate the influences of environmental change. Change is a fundamental tenet of life itself, while death is stasis. It appears as though film fans, critics, and theorists have the formula backwards. Technological change is the lifeblood of cinema.

It is from the position of accepting that technological change is an inherent characteristic of cinema’s identity, and that cinema exerts equal influence over the ways in which new technologies are utilized in the development of cinematic images, that this study will launch its investigation of one aspect of digital cinema. Of course, it should go without saying that reports of cinema’s death have been greatly exaggerated (many times over), and this study will seek to move beyond the question of cinema’s relative vitality to explore instead the modes and the means by which cinematic and technological developments influence one another, and how this mutual influence can be analyzed in the context of contemporary cinema.

Digital Cinema

“Digital cinema:” this simple descriptor, which comprises the majority of contemporary cinema, has encouraged as much scholarly debate as any other current issue in film studies. Much of the research being undertaken, however, examines the affect of digital technology on the manner in which the cinematic object is created and projected. This study, therefore, seeks to invert the fundamental assumption that digital technology is changing the cinema. By no means is it my aim to suggest that digital technology is not changing cinema; there are many texts that take up this question. Instead, or in a complementary way, I am interested in how cinema influences the digital or how cinematic conventions affect the way that digital technologies are employed in the cinema and the types of images that are subsequently created. I am interested in challenging the formulation that digital technology actively changes cinema, while cinema merely receives the change passively. This assumption ignores the long history of technological development in the cinema, as cinema’s own history is truly one of technological development, and the cinema has never been a passive receiver of change. Instead, the relationship between existing cinematic structures and new technologies is one of interdependence and mutual influence between the potential of new technologies and the demands (in this case) of a well-established mode of largely narrative cinema. Thus, this study seeks to determine how the cinema has in fact influenced the development and use of digital technologies. As a result, this study will interrogate the three primary assertions that researchers maintain regarding the main influences that digital technologies have had on narrative cinema: (1) that digital spectacle’s primary role is to inspire wonder in its viewers; (2) that digital attractions are narratively disruptive; and (3) that digital spectacle is described in largely binary terms—either as an empty spectacle (suggesting that the spectator’s relationship to the image is a passive one) or as a

thoughtful wondrous novelty (suggesting that the spectator's relationship to the image is an active one).

In this study, I seek to confront the assumption that digital spectacle is a wholly new ahistorical phenomenon by highlighting its historical continuities and its aesthetic antecedents, as spectacular images have been a fundamental characteristic of the cinema since the first train arrived in 1895. Truly, cinema is not close to death, but merely engaging new technologies in its latest adaptation. What does need to be questioned, however, is the way in which the value and function of cinematic spectacles and attractions are theorized. Cinema is changing and adapting, not dying, and the theorization of cinema must adapt in turn. The theorization and assessment of digital spectacle is currently complicated, though, because there is a lingering socio-ethical assumption that narrative disruption holds the key to positive cinematic socio-ethical engagement. As an additional compounding factor, the theory of wonder is also often defined (and championed) as being antithetical to narrative, which again needs to be challenged and rethought. In this study, I therefore propose a framework that accepts the mutual influence that digital technology and cinema have on each other. Reminiscent of the kind of work that Elsaesser proposes in "The New Film History as Media Archeology" (in which media and its contingent technologies, are traced and studied), Ariel Rogers highlights the historical antecedents of contemporary digital 3D: "Digital 3D thus displays important connections both to the spectacular screen technologies of the 1950s, including widescreen and stereoscopic 3D (as well as their descendants, IMAX and IMAX 3D), and to the digital cinema movements of the late 1990s and early 2000s" (187). The implications that such technological developments have for aesthetic design highlight the significant need for methodological models that account for a system that is predicated on repetition with difference. It is important to have a model that can

account for "The kinds of phenomena . . . [that] take place at multiple levels, on multiple fronts, over time periods extending into years and decades, in articulations whose unpredictability requires an adaptive eye to follow," as Bob Rehak suggests (8). What is required is a model that can manage the consistent conservative logic of adapting successful historical antecedents.

Considering that I am concerned with digital cinema, as well as the effects narrative cinema has had on the development of digital technologies and vice-versa, it is necessary to define precisely which aspects of digital cinema I am interested in. Digital cinema studies comprises a considerable range of phenomena, and there is much more work to be done in the field, but for now I am interested primarily in the digital imagery that is a manifestation of digital cinema. What is digital cinema? This project set out to answer this question by exploring one of its many potential research areas. Ultimately, digital cinema is nothing more than cinema itself, because radical transformations, historical ruptures, and seismic shifts in the development of filmmaking technology are part of cinema's *modus operandi*. Digital cinema is business as usual. This is not to say that there has not been an exponential increase in the number of technological advancements in the film industry since the full-scale adoption of digital technologies circa 1993, but this is to say that such advancements and changes—adoptions and adaptations—are, in fact, typical. It is not cinema itself that has been radically transformed by this shift from being a largely analog enterprise to a largely digital one, but instead it is the ways in which we approach, analyze, and study cinema; this distinction requires some thoughtful consideration in light of the persistent concern regarding cinema's well-being. By no means is this a suggestion to reject the existing digital cinema theory, but instead I would suggest that, as film theorists, we stop attempting to prove what cinema *is*, and instead ask ourselves, what *many* things can cinema be? There is a significant difference between seeing cinema as a static object with fundamental

characteristics and imperatives (i.e., *real* cinema is predicated upon the truth-value afforded by film-stock), and seeing cinema as a set of processes, technologies, and affects that are constantly in flux. Maintaining the perspective of the fundamental and monolithic cinema—that *it is* an art of vision and movement (via the *cinéma pur* movement via Rene Clair), that its value is in alienating the spectator (Eisenstein’s theory of attractions), that its storytelling functions are undermined by visual effects and “excessive” aesthetic stylings—obfuscates both existing and emerging characteristics of the cinema that may not conform to the established characteristics or “rules” of cinema.

This study was largely inspired by my own interest in contemporary digital cinema (mostly consisting of Hollywood’s blockbuster/tent-pole films from 1993 to the present), special and digital effects, science fiction and fantasy film, and the popular criticism of visual effects. Of particular interest was the fact that effects were being positioned as the primary agents by which spectators engaged with contemporary blockbusters (they either hindered cinematic and narrative immersion, or they were the reason to see the film in the first place). Beyond these particular interests, I was also inspired by D. N. Rodowick’s suggestion that “[p]eriods of intense technological change are always extremely interesting for film theory because the films themselves tend to stage its primary question: *What is cinema?*” (3), or as Kristin Whissel suggests, the changes digital technologies have brought to the fore have “given rise to scholarly debates about medium specificity and film’s “essential” identity” (2). Following this line of inquiry, it is productive to ask several questions: does the shift in technology actually constitute a radical break in the historical modes of filmmaking? What kind of cinema are we actually talking about when, in the context of digital cinema, we ask “what is cinema?” And, is it actually radically different than precursor ‘cinemas’? In order to answer these questions, and to address

how digital technology affects the cinematic image it is necessary to explore a broad swath of digital cinema's cornerstone films.²⁷

What is digital cinema? Digital cinema is any cinema (or cinematic object) that uses digital technology to shoot, create, distribute, and/or project motion pictures.²⁸ At this point, it would be difficult to find a non-digital mode of cinema, as contemporary theatres are projected digitally (89.8% of global theater screens are digitally projected as of 2014 according to IHS Cinema Intelligence), and to find an analog home theater system would be unique challenge in 2018. Even by 1993, with the release of *Jurassic Park* (Spielberg 1993), which marked the major turning point for the popular recognition of digital cinema as digital cinema in Hollywood, digital cinema was already over 25 years old and flourishing in numerous aspects of film production (areas that I will explore in greater detail below). In 1967 the first digital film, *Hummingbird*, was submitted to the 4th International Experimental Film Competition in

²⁷ Cf. *Star Wars* (Lucas 1977), *Tron* (Lisberger 1982), *The Abyss* (Cameron 1989), *Terminator 2: Judgement Day* (Cameron 1991), *Jurassic Park* (Spielberg 1993), *Independence Day* (Emmerich 1996), *The Fifth Element* (Besson 1997), *The Matrix* (The Wachowskis 1999), *District 9* (Blomkamp 2009), *Avatar* (2009), etc.

²⁸ While "motion pictures" is a broad and somewhat indistinct term, I use it in the colloquial sense to mean commercial feature-length fiction films, however, I do not intend to limit the definition to exclude such media as television shows, fan films, or any other visually presented narratives for that matter. While I recognize that by using "motion picture" here as a synonym for "film" or "cinema," what I am really saying is "digital cinema is cinema that uses digital technology to make cinema," which is tautological. This is intentional, however, to resist the temptation to define "digital cinema" as something other than cinema itself. If the history of cinema is a history of technological developments and adaptations, then digital technologies are yet just another adaption in the history of cinema. Nevertheless, I also want to suggest that even though Lev Manovich's definition of digital cinema in *The Language of New Media* suggests that digital cinema is a combination of many graphical and auditory digital media elements, and that it is therefore a more polylogical approach than traditional cinema, Manovich's sentiments are applicable to all of cinema. What digital cinema does for contemporary film theory is allow for the assumptions that theorists have made about traditional cinema to be challenged by a new set of circumstances and conditions, which has led to the realization that there is more to the theorization of cinema than initially anticipated.

Brussels, Belgium by Charles Csuri and James Shaffer. Although it would have been impossible to anticipate the influence that digital technologies were going to have on the future of Hollywood cinema, the release of *Hummingbird* actually marked the first brush that Hollywood would have with digital cinema. At that same festival, it would have been equally impossible to anticipate the impact that Martin Scorsese would have on Hollywood's future: he won the Prix de l'Âge d'Or for *The Big Shave*, a short film displaying the hyper-violence that would soon come to be a defining trademark for Scorsese. There are even earlier examples of digital animation than *Hummingbird*, however; for example, in 1961 the Swedish Institute of Technology created a digital vector animation of a planned highway that was broadcast on Swedish television, but Csuri and Shaffer's short film is the first known example of digital "cinema" proper. It would, however, take another six years before computer generated images would be integrated within a major motion picture.

Michael Crichton was commissioned to direct an adaptation of his novel, *Westworld*, in 1973: a theme-park gone awry story, that, beyond the narrative of cinema's technological advancement, parallels the themes of *Jurassic Park* quite significantly, which is interesting in so far as *Westworld* provides an early model of what the future of Hollywood cinema will look like on many levels. The park is owned and marketed as a refuge by the Delos Corporation, where guests can do as they please. Unanticipated safety failures, which in this case are caused by a computer virus of sorts, allow the androids to react to their ill-treatment perpetrated by the guests of the park with violence, which is a rather human response. The first 2-D digital image was used in the film to represent the Gunslinger's (Yul Brenner) point-of-view, as he sees Peter Martin (Richard Benjamin) escaping into the desert on a horse. The shot of the android's vision functions both on an extra-diegetic level as a novel display of technological achievement, and

also, on diegetic level, as the pixelated shot is a thematically logical aesthetic manifestation of the futuristic vision. The shot itself, a reverse shot, juxtaposes different modes of vision: ‘human vision’ (i.e., 35mm projected widescreen, shot in Anamorphic Panavision and an aspect ratio of 2:35:1) and ‘futuristic android vision’ (i.e., that of 0.1K resolution, approximately 100x40 pixels, printed onto 35mm film and projected in the same manner as the ‘human vision’ of course). Even in these early uses of digital technology, the means of representation are already being codified in terms of "future" and "past."²⁹ Nevertheless, it is at this moment in 1973, with its now rather archaic future-vision, that Hollywood’s digital future is confirmed. In 1976, *Futureworld* (Heffron), the sequel to *Westworld*, continued to push digital imaging technologies by displaying the first three-dimensional computer generated images in a major motion picture by including them within the frame on monitors in Delos’ research labs, again perpetuating the futuristic associations of digital imagery. It is with the release of *Star Wars* (Lucas) in 1977, however, that the future orientation of digital imaging technologies is truly solidified, but in a rather roundabout manner.

The Industrial Aesthetic of Spectacular Digital Magic

Even though *Star Wars* bridges the gap between existing analog effects and the future of digital cinema, the film itself only includes a single scene with a conspicuous digital shot, one that is in fact far more regressive than *Futureworld*’s rendering of three-dimensional human faces and hands. The scene of the ‘Trench Run Briefing’ includes a three-dimensional wire-frame model of the Deathstar’s trench, which concludes with an image of the “small thermal

²⁹ Thinking of "future" vision in terms of 0.1K resolution (a total of 400 pixels) is rather ironic, considering that the most recent release from Marvel studios, *Guardians of the Galaxy: Vol 2* (Gunn 2017), was shot using the Red Weapon 8K S35 camera, recording its images on a sensor comprised of 8192x4320 pixels, capturing images in a total of approximately 35 million pixels.

exhaust port” (*Star Wars: A New Hope*) for a total of approximately 47 seconds of screen-time. *Star Wars*’ more significant digital contribution is notable due precisely to its inconspicuousness; in terms of the advancement of digital technology, the digital motion control camera system built by John Dykstra, the Dykstraflex, allowed for a significantly more efficient shooting of both models and their traveling mattes, producing a more seamless shot composition.³⁰ Even though Dykstra was officially removed from *Star Wars* prior to its completion because George Lucas felt that too much of the film’s effects budget and production time had gone into constructing the Dykstraflex, the film earned top honors at the 50th Academy Awards for Best Visual Effects, beating out the *Close Encounters of the Third Kind* (Spielberg 1977) led by Douglas Trumbull. On the heels of the massive economic and critical success of *Star Wars*, Industrial Light and Magic (ILM) became the apogee of special effects and digital technology innovation. What allowed for ILM’s consistent success between 1977 and 1999, however, was its focus on the development of, and investment in, increasingly efficient digital imaging technologies.³¹ In an interview with *Cinefex*, Richard Edlund, the special effects supervisor for *Star Wars: The Empire Strikes Back* (Kershner 1980), highlights the synergistic correlation between the advancements of

³⁰ A travelling matte is for the creation of a black silhouette (which creates a transparent “blank” background behind an object), so that the desired object can be imposed onto a background of choice. The travelling matte is the opaque silhouette that borders the image intended to be in focus. The matte itself can isolate a moving actor or any other moving object filmed on special masking film, or against a special blue or green backdrop. This is done in order to combine at least two separate images to create a single image.

³¹ ILM remains financially successful, but the effects market has become increasingly saturated and networked since the release of *Star Wars: The Phantom Menace* (Lucas 1999). *The Phantom Menace* rounded out ILM’s most successful decade, considering that seven out of ten of the 1990s’ number one films based on the domestic box office had effects completed by ILM, or Pixar (originally a subsidiary of Lucasfilms): *Terminator 2* (Cameron 1991), *Jurassic Park* (Spielberg 1993), *Forrest Gump* (Zemeckis 1994), *Toy Story* (Lasseter 1995), *Titanic* (Cameron 1997), *Saving Private Ryan* (Spielberg 1998), and *Star Wars: Episode 1- The Phantom Menace* (Lucas 1999).

ILM's business, aesthetic, and technological interests while discussing the "Quad" optical printer, which is digitally controlled:

We had to build our own printer from scratch, because the standard optical printers that you find in this business are really geared for your more basic dissolves and blowups and things like that—not for intricate composite photography . . . All the equipment we have is designed in such a way that it is totally interfaceable, and the grand design . . . is based on the concept that everything we make now is computer-controlled. Therefore, it is malleable in that you can change the function of it by reprogramming the computer . . . so it's not likely to become obsolete nearly as fast. (7-8)

Edlund elaborates further on his role in advocating for the investment in these technologies, and he specifically highlights the fact that technological investment is in the long run a cost-saving and aesthetically efficient venture:

I had to stick my neck out a long way because it was a prototype and was going to cost a half million dollars or more, but I was convinced that we needed it in order to put the picture together and it would be something we could use for many years to come; so it was a capital investment. It finally took us about a year to build it, but it worked amazingly well right from the start . . . quite a few shots we had to actually degrade the composite image in order for it to fit properly with the background photography. (11)

There are a number of elements here worth noting: (1) the new digital equipment is a 'next-step' in the advancement and adaptation of existing and familiar filmmaking technologies; (2) the function of the equipment's design is equally weighted in terms of its aesthetic capabilities and its efficiency in terms of reducing the amount of time spent per shot to achieve an effects shot (therefore, more effects laden shots can be constructed in the same amount of production time

and the base cost per shot is reduced); (3) the investment in the current equipment is adaptable for future use, which highlights the clear awareness that the cinematic technology is going to advance and be improved upon; and (4) aesthetic homogeneity is the ultimate aesthetic achievement according to the corporate logic of ILM's designers (an issue to which I will return later). Based on this logic, there is one thing that Industrial Light and Magic's corporate logic made very clear: the future of digital cinema is a future grounded in economic and aesthetic efficiency (in terms of both reducing the time/money spent on effects production to achieve the image, and reducing image degradation during the effects production).

The Implications of Digital Cinemas

It is at this intersection of digital technological advancement, the development of a corporately dominated aesthetic, the reification of the blockbuster's marketing, and the realization of filmmaking efficiency that contemporary concerns surrounding digital cinema become clear. As a result, studying digital cinema as a cohesive object is a nearly impossible task. What is clear in examining even a brief history of digital technology is that digital cinema is a broad, diverse, and complex subject. Subsequently, for the purposes of managing the complexities of digital cinema, it is pertinent to divide the study of digital cinema into at least four broad sub-categories, each of which has its own set of questions and concerns: (1) Digital (Pre)Production and Capture; (2) Digital Effects and Image Creation; (3) Digital Processing and Editing; and (4) Digital Distribution.

Digital (Pre)Production and Capture

The effects that digital technology have had on film production are still largely unexplored, and perhaps are even beyond the purview of film theorists, as I have yet to find any scholarship examining the affects that digital storyboarding or on-set work flows have had on the theorization of cinema.³² It is nevertheless still useful to highlight that digital technologies have affected the on-set production attitudes of filmmakers. As a category, then, digital (pre)production is the study of how digital technology affects pre-production approaches to filmmaking (e.g., animatics: animated story boards) and the approach to the on-set production of a film. The greatest influence, to this point, is the impact of digital technologies on the on-set work flow of film shoots by allowing more footage to be captured at a lower cost, which has encouraged longer and/or more takes (though this has not necessarily translated into longer takes on the screen³³) and for the “dailies” to be accessible immediately after they have been recorded. Digital cameras have mountable hard drives that collect footage and must be exchanged for an

³² While this may be true for live-action cinema, Dan North's *Performing Illusions: Cinema, Special Effects and the Virtual Actor* (New York: Wallflower Press, 2008) is an exception that explores the historical development of the synthespian. There are works, however, that discuss the effects of digital production on animation, both in terms of workflow and theorization of the medium itself. For example, Scott Balcerzak and Jason Sperb's *Cinephilia in the Age of Digital Reproduction: Film, Pleasure and Digital Culture: Vol. 1* (New York: Wallflower Press, 2009); Paul Wells' *Re-imagining Animation: The Changing Face of the Moving Image* (Lausanne: AVA Publishing, 2008); Paul Kanyuk “Brain Springs: Fast Physics for Large Crowds in WALL•E” in *IEEE Computer Graphics and Applications* 29.4 (July-Aug. 2009); and Thomas Lamarre's *The Anime Ecology* (Minneapolis: U of Minneapolis Press, 2018).

³³ The more famous exceptions to this observation being *Russian Ark* (Sokurov 2002), *Gravity* (Cuarón 2013), *Birdman* (Iñárritu 2014), and *The Revenant* (Iñárritu 2014). Most iconic long takes in Hollywood's digital cinema can be attributed to cinematographer Emmanuel Lubezki, the frequent collaborator of Terrence Malick, Alfonso Cuarón, and Alejandro Iñárritu, rather than the directors themselves. Even though longer takes are certainly much more easily attained digitally than with analog technologies (depending on the quality of the film resolution and the size of the digital SSD storage drives), the more common propensity of editors has been the opposite: to shorten the duration of shots, à la *The Bourne Trilogy* (Liman 2002, Greengrass 2004 and 2007), via digital editing programs.

empty one when they reach their storage capacity. In 2012, Christopher Nolan suggested that digital cameras are much more like their analog counterparts as a result, because, generally speaking, there was still only approximately ten-minutes of shooting time before breaking to reload the camera is necessary, but now in 2017 this is no longer true. The most recent RED WEAPON 8K W camera, with a 1TB SSD hard drive, can record a maximum of 300 MB/s, which converts to about 55 minutes of the highest resolution footage that can be shot before the hard drive needs to be switched. If the smallest 120GB SSD hard drive is used, however, it creates a similar workflow to analog cameras, as it will only be able to capture approximately 9 minutes of footage (*RED*).³⁴ Even more so than the hard drive's capacity, and the potential for great lengths of unbroken shooting time, the greatest affect that digital technologies have had upon film production is that the footage on each hard drive can be transferred to a computer with a larger storage capacity for cataloguing and archiving without the cost of developing the film. Thus, more digital footage can be captured for a lower cost than collecting and developing hours upon hours of analog footage, increasing the demands placed on the editorial team. With the increase in shooting and storage capacity, an attitudinal shift has come, what Guillermo Del Toro calls a "we can fix it in post" mentality (del Toro; n. p.), by stitching together elements from the many different takes. Werner Herzog has also offered his insights: "When I see young filmmakers who come excitedly at me and they say 'oh, I shot 450 hours,' my heart sinks. We are not garbage collectors. We are filmmakers. We are thieves . . . Just hit and run. And, get away with film" ("Werner Herzog Teaches"). It is from these kinds of comments that digital

³⁴ These figures are calculated using the highest resolution attainable by contemporary cameras (8K) and the highest data conversion rate (300MB/s). However, if filmmakers were to choose to shoot in a lower resolution, the shooting time per hard drive increases significantly. For example, to shoot 6K footage consumes 200MB/s, which equates to about 83 minutes of shooting time, and to shoot 4K consumes 72MB/s, which equates to about 238 minutes.

cinema has garnered a fairly negative reputation, for being a primary agent in the demise of storytelling in contemporary cinema.

According to critics of the post-classical cinema, the art of storytelling has been ‘under siege’ at least “since the 1970s” (*The Way 5*). As Hollywood reorganized itself, shifting from a vertically integrated business structure to a horizontal one, some critics have suggested that the narratives of post-classical films (in particular the tent-pole films and blockbusters) are, as Thomas Schatz explains, as “[e]qually fragmented” as their business model (Schatz 23). Yet, with each change in new technology, each new corporate restructuring, and each new phase in Hollywood’s historical development, there continues to be a contingent of critics that disparage the shift to this “new” thing. Similar to Rene Clair’s 1921 criticisms about the loss of cinema’s artistic potential to the corporate logic of American businessmen, Jean Epstein decried sound as a distraction from the image, cinema’s purest state of informational conveyance, eight years before the advent of synchronized sound and the “talkies”. Epstein suggests that any elements that take attention away from the image are mere distractions from cinema’s true identity as a “cyclopean art”: “One cannot listen and look at the same time . . . Music which attracts attention or the imitation of noises is simply disturbing” (15). And, with each turn, the crisis of identity reemerges. The point being that, while the criticisms of digital detractors are by no means baseless, they are part of a history of medium conservatism that resists change regardless of the cause, and operates with a kind of fidelity logic, implying that the ‘authentic’ cinema (i.e., an idealized cinematic mode) is the best, proper, most artistic (pick your adjective) form of cinema. Digital cinema is just another form of cinematic change in a long history of changes that is nevertheless spurned by the resistance of medium conservationists. It is undeniable that digital technologies are affecting certain approaches to filmmaking. Like all changes throughout the

course of cinema's history, however, technological change is merely a catalytic agent that allows filmmakers to achieve certain creative ends. If the art of storytelling is truly under siege, or on its deathbed, it really has very little to do with the technology, and everything to do with the creative agents who employ such technology.³⁵ Unlike the media ecologists, who suggest that society and, by extension, culture, is a technologically determined construct,³⁶ I am much more inclined to suggest that there is a negotiation and mutually influential relationship between and among society, culture, and technology.

Digital Processing and Editing

³⁵ While changes and developments in technology clearly affect the degree to which information can be conveyed to spectators, and can provide new methods by which stories can be told, this does not mean cinema in the digital age, for example, is going through a radical transformation. Change and adaptation, in terms of storytelling styles, cinematic modes of display, and technological developments are constants in the history of cinema. The Talkie, for example, is said to have revolutionized cinema, but so much of our contemporary work and theory suggests that the talkie really is not/was not revolutionary in the sense that there were several small changes that manifested in the mainstream adoption of sound technology, and cinematic storytelling has continued to change and adapt well after the Talkie was introduced, as well. There were many changes occurring in storytelling before the talkie arrived, and many that came after. As theorists, it becomes easy to point to those "moments" and to say, that is where it all changed. Digital technology is in much the same boat, but I would like to challenge the idea that digital is the cause of radical transformation. Change in storytelling is constant. Change in technology is constant. It is not digital that caused these changes; it is the desire for change that created the conditions wherein digital filmmaking can become manifest. Once digital is adopted, though, its presence again affects the environment, which encourages further change. Digital technology, in and of itself, is not radically transformative. It is a question of transformation, of change, of adaptation, yes, but it is not radical, because such change and adaptation are the rule not the exception.

³⁶ Cf. Marshal McLuhan's *Understanding Media* (New York: Mentor, 1964); Neil Postman's "The Reformed English Curriculum" in *High School 1980: The Shape of the Future in American Secondary Education* (ed. Alvin C. Eurich. New York and London: Pitman Publishing, 1970); and Robert K. Logan's *Understanding New Media: Extending Marshall McLuhan* (New York: Peter Lang Publishing, 2010).

I have intentionally skipped the second category of effects, as it will be the focus of the rest of the study, and I will return to a broader discussion of visual effects and their implications at the end of this section. Digital processing, and digital editing tools, are comprised of those tools that have replaced the analog editing, color timing, and other post-production processes that are not related to the creation of visual effects. There is certainly overlap between the editing, color timing, and visual effects tools, but for the sake of establishing manageable heuristic categories, it is a productive distinction to make. Digital editing, much like other digital practices, evolved from analog practices, and it is largely a byproduct of attempts to protect the original film negative while creating a process that is more cost and time efficient when working with duplicate prints. For example, in 1956, Ampex introduced a two-inch quadraplex video tape that could be used to create a work print of the original film negative. Over the course of the production, working with the video tape would become more time and cost efficient, as filmmakers would not have to develop multiple copies of the shots on film stock. The initial video system was difficult to use, as the video tape lacked a time code, so knowing where to cut the video tape exactly was quite difficult, which led to the development of the CMX600 digital editing system in 1971. The system is the first major cornerstone in the development of digital editing systems, as it provided a digital timecode for the work print video tape, which allowed for much more precise editing, and it also did not require any actual cutting to create the work print. The digitization of the film meant that a low-quality, black and white, viewable copy of the film could be edited and played back based on the time cues established by the editor. Once the editor was content with the editing of the work print, the master copy would then be cut to match the off-line work print. It is from these developments that contemporary digital editing and color timing began, and they were in place long before the work that Walter Murch did in editing *The*

English Patient (Minghella 1996) legitimized the Avid editing system as a viable alternative to analog editing processes for Hollywood. In fact, the CMX 600 was introduced a quarter-century before *The English Patient* won the first ever Academy Award for a film edited via a digital system, and it was already an extension of analog video editing processes that began forty years before Avid's mainstream induction by Hollywood's editors.

Digital Distribution

In terms of the effects that digital technologies have had on the cinema to this point, the distribution channels afforded by digital file sharing make digital distribution one of the most interesting areas for future study. It would have been impossible to anticipate how the development of codecs, digital transfers of film images, digital projection systems, and digital delivery of cinematic content would so greatly affect the ways in which media would be seen and shared. Legal distribution channels comprising mainly short videos, such as YouTube, and bit-torrent networking sites that exist in a legal gray zone, such as The Pirate Bay, have created new channels for monetizing content, but with file sharing new legal challenges have arisen to protect intellectual property and media rights. There is much work still to be done in this area regarding copyright concerns, piracy, content mash-ups, fan edits, media remixing, and much more. The focus of this study, however, is largely concerned with the aesthetic implications that have been generated by the development of visual effects technologies.

Digital Effects and Image Creation

For the most part, discussions of digital cinema have been dominated by discussions of the second category, effects, or, in the digital age, VFX (visual effects), and this is largely

because VFX are currently one of, if not the, primary agent driving the advancement of cinematic technology. They also happen to be the most visible and noticeable of all the digital categories, and they are marketed to cinema-going audiences as the most significant object of interest when it comes to viewing digital cinema. As a result, pursuing the influence of VFX on the cinematic image became my object of inquiry, but it also became evident very quickly that the aesthetics of VFX owe much to their historical antecedents, and therefore I had to shift my exploration to account for the influence of pre-digital effects. Furthermore, when pursuing theoretical accounts of contemporary VFX, it also became clear that the effects being discussed were the visual set pieces of major blockbuster films. As a result, the present mode of inquiry was undertaken, whose object is the more general role of spectacular imagery in contemporary cinema, as well as the process by which scholars and critics have come to understand VFX as spectacular imagery. In order to study spectacular imagery, a number of theoretical perspectives require attention and revision to generate a greater degree of specificity, and by extension, so do the perceptions of blockbuster films that have been theorized through existing lenses.

Kracauer's Spectator: Being Aware of Difference

Much like Siegfried Kracauer's fictional spectator who becomes aware of "the paraphernalia of our [the spectator's] former existence" and the "inexorable passing of time" due to the camera's ability to fix a moment in time, contemporary digital cinema in a sense is contemplating its relationship with its own history, and the history of cinema writ large. This is a rather complicated sentiment, however, as moments of adaptation highlight both the similarities and differences between cinematic historical moments. There are a series of interrelations, for example, between the adaptation of a specific monster movie set-piece: the moment when King Kong pries apart and breaks the Tyrannosaurus Rex's jaw in the original 1933 *King Kong*

(achieved via stop-motion animation), which is replicated in Peter Jackson's version in 2005 (via computer-animation), but also in Gareth Edwards 2014 version of *Godzilla*, in which Godzilla pries apart the jaws of the large female MUTO (the acronym assigned to the monster/villain meaning "Massive Unidentified Terrestrial Organism") to breathe atomic fire down its throat. The significance of the adaptive strategy here exceeds any singular theoretical formulation of effects, digital cinema, or even traditional narrative theory, as the set-piece is a pinnacle moment in which King Kong's strength and sympathetic characteristics are proven to Ann Darrow (Fay Wray).

Jackson's adaptation of this moment into the digital context fulfills the conditions established by Kracauer's spectator, where the original is shown to be absent due to the difference of the present experience, but in a rather celebratory homage, and, simultaneously, with a kind of "nostalgic melancholy over the inexorable passing of time" (57). *Godzilla*, by contrast, adapts this moment with a much more complex interweaving of nostalgic homage to the original (and even to the 2005 Peter Jackson version), but one that overtly displays the logic of the summer blockbuster as genre, which seeks to display that which has "never seen before," while maintaining a rather conservative slate of narrative repetitions. The moment in *Godzilla*, therefore, is both homage and overt display of intertextual one-upmanship, in which Godzilla not only breaks the jaws of its primal foe, but also adds the overkill of atomic fire, engaging in the broader popular fan debates of which monster is truly "King of Monsters," while also hinting at future marketing plans. This moment, essentially, constitutes an intertextual node, wherein "true" fans will be aware of the lineage of this moment and what it suggests about the future: that sometime soon, a *Godzilla/King Kong* crossover will be inevitable (contemporary blockbuster development strategies are nothing if not consistent: *Godzilla vs. Kong* has recently been greenlit

and is slated to be released in 2020). Thus, even beyond the scholarly discourse of effects, digital cinema appears to be self-reflexively negotiating its own relationship to, or rather within, “traditional cinema,” by self-reflexively highlighting the inter-textual (inter-diegetic) relations via largely aesthetic means in adapting generic set pieces.³⁷ VFX films appear to be mounting a challenge of their own, wherein typical analysis of “in-your-face special effects” are deemed to be too limited to map this network of influences, adaptations, and intertextual narrative intersections (Prince 24). As a result, the way in which VFX criticism is approached must also change to reflect shifting attitudes towards the perception and uses of VFX.

This shift in criticism is particularly pertinent as contemporary VFX become much more prolific, while contemporary VFX films are becoming increasingly difficult to define as a cohesive body of cinema (if this were ever possible in the first place). With increasing consistency, VFX films are self-reflexively interrogating their own identity as digital cinema, while also challenging the notion that VFX are largely “interruptive spectacle[s]”³⁸ (“CGI Effects in Hollywood” 165). Interruptive spectacles can be defined as images that announce themselves with enough aesthetic force that the spectator can no longer be “taken in—to be deluded—by the simulacrum” as the awareness of the spectacle’s wondrous appearance obstructs

³⁷ I am defining “traditional” cinema as pre-digital, theorized as having a strong indexical relationship with its profilmic subject. I will argue, however, that separating these two “modes” of cinema into pre/post-cinematic traditions is actually a false divide, and that digital cinematic techniques are in fact an extension of traditional filmmaking practices. This is not to say that studying the influence of digitality on cinema is unwarranted; it is to say rather that digital is not a cinema apart.

³⁸ By ontology I refer to the properties and characteristics of VFX and, by extension, those of cinematic digitality. Unlike André Bazin's reflection in “The Ontology of the Photographic Image,” however, I do not locate the image's ontology in its ability to resemble its subject. While I am also concerned with the discourse of realism, I ultimately argue in Chapter 4 that the “resemblance complex” still occupies a significant place in the contemporary discourse of film aesthetics, but resemblance does not “determine the species of the photographic image” or rather the cinematic image (7, 8).

the spectator's attempts to "maintain their disavowal of the cinema's artifice" (*Special Effects* 103). An example of what could be defined as an interruptive spectacle is the bullet-time effect in *The Matrix*, in which Neo dodges bullets in super-slow motion, although in what follows I will reject an understanding of such a spectacle as solely interruptive. Such films as *District 9* (Blomkamp 2009), *Jarhead* (Mendes 2005), *Pan's Labyrinth* (del Toro 2006), and *Chronicle* (Trank 2012) expose the fact that VFX technology has a much greater influence on the production and reception of the film's image, and cinema at large, than can be accounted for with current theories of digital spectacularity, of immersion and Brechtian-style distancing. Rather, contemporary VFX films are thematizing and challenging traditional notions of how visual effects function, by narratively integrating and cinematographically muting the digitality of their VFX within the image, foregrounding the fact that contemporary VFX films are forcing the cinema into an ambivalent space of an immediate and hyper-mediated double-logic. Even when these spectacles are *less* narratively integrated (even though I will debate the merits of narrative disruption in the second chapter), contemporary moments of self-reflexive digitality (e.g., wondrous visual effects) are governed less by the logic of disruptive, attraction-based or exhibitionist cinema, and more by the logic of intertextuality and adaptation. Ultimately, the analysis of contemporary digital wonder is a study of how information is conveyed by way of cinema's visual channels and how such information has the potential to function beyond the cinematic image itself.³⁹ In short, I will argue that the 'wonder years' appear to be far from over, but our understanding of wonder must adapt as the cinema is adapting. Contemporary VFX films

³⁹ Tom Gunning, "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde" *Wide Angle*, vol. 8, no. 3-4 (1986), pp. 63-70. The tendencies of exhibitionist cinema promote the acknowledgment of VFX as disruptive cinematic attractions, or, in other words, VFX privileges visual attractions solely for the sake of promoting a novel and uncritical viewer experience.

are challenging, if not rebuking outright, the theorization of digital effects as intrusive objects constructed merely for viewer contemplation, or that VFX function as a third-party mediator; therefore, our understanding of wonder and contemporary theories of digital cinema must also be challenged.

These moments of digital self-reflexivity highlight four issues in which the accepted conceptions of VFX and digitality require further examination: the first is whether, based on my discussion of the restricted understanding of wonder, the wonder years are in fact over. The second is to discover if conspicuous and spectacular digital images are disruptive or alienating. The third issue to explore if VFX can truly be situated on an integrated/non-integrated axis (i.e., immersive/disruptive). And, the fourth is to explore which cinematic elements are responsible for immersive/disruptive effects if they are not caused by VFX. I will argue that the immersive and disruptive effects are the byproduct of a self-reflexive negotiation of generic conventions, rather than being a byproduct of VFX's digitality. Ultimately, I will argue that digitality and conspicuous VFX are not governed by a logic of disruption and that they play a far more complex and integrated role within narrative cinema. Overall, I am primarily interested in exploring these issues while challenging the way VFX have been analyzed in critical discourse, as well as in digital blockbuster films, because these films have provided a cornerstone for digital cinema theory. Theories of VFX based on blockbuster aesthetics have largely come to misrepresent the theorization of VFX and, by proxy, digital cinema more generally. Furthermore, in analyzing contemporary uses of VFX, it is apparent that the ontology of VFX has largely been defined by the discourse surrounding VFX films, rather than by a close analysis of a given film's digitality. The purpose of the next section is therefore to destabilize received conceptions of VFX and their accepted functions, in order to push the dialogue around contemporary VFX past

the conversation about “gaudy special effects and fantasy creatures,” so that the ontology of VFX, digitality, and the digital cinema can be examined with a clearer and more objective eye (Prince 32).

Simulation, Assimilation, and Integration

In order to work towards an understanding of the theoretical and practical functions of VFX within the cinema and, by extension, cinematic digitality, it is helpful to explore the aesthetic diversity of contemporary digital film. On the one hand, there are examples of digital art films such as *Russian Ark* (Sokurov 2002), in which the entire feature is a single digital take that was then heavily manipulated in post-production in order to generate the desired cinematographic and narrative effects.⁴⁰ On the other hand, there are the more recent Hollywood blockbusters, such as *Pacific Rim* (del Toro 2013), which brings the digitally rendered warring factions of the human/mechanical *Jaegers* (giant robots) and the other-worldly monstrous *Kaiju* (Godzilla-esque creatures) to live-action cinema, in the more traditional vein of wondrous and spectacular VFX filmmaking. The latter example most clearly resonates with Pierson’s description of the CGI wonder years, with its vibrant “techno-futurism—[and] its [simultaneous] insistence on the centrality of the computer-generated image (“CGI Effect in Hollywood” 159). Even though *Russian Ark* lacks the “techno-futuristic” aesthetic of chrome and gloss, however, it is itself a techno-futuristic cinematic product. Sokurov’s film also self-reflexively contemplates the significance of its own digitality, questioning the function of cinema and memory within the

⁴⁰ Other examples of what I call “digital art films” include *Festen* (Vinterberg 1998), which is shot on compact handheld Sony DV camcorders and leverages the low-resolution, low-grade color capture technology for thematic purposes; *Atanarjuat: The Fast Runner* (Kunuk 2002), which marries digital technology and oral storytelling; *2046*, which utilizes both analog and digital technologies to generate a sense of intermedial juxtaposition; and, *Caché* (Haneke 2005), which contemplates the ever-presence of the digital recording eye.

digital archive—in this case the digitally constructed *arkive*—in relation to the omniscient ever-recording digital-eye. On a narrative level, it would be difficult to find two films further removed from one another. Ontologically, however, they are essentially kin, due to their extensive use of post-production VFX and the nature of their algorithmically collated image stored on hard drives.

While it may seem misguided to suggest that the digitality of *Pacific Rim* and *Russian Ark* are comparable because they seem so disparate, the two films are separated by *style* rather than their technological influences. *Russian Ark* is stylistically and aesthetically distinct from *Pacific Rim*, as it boasts a *cinéma vérité* style and apparent immediacy as the shot is presented in a point-of-view style that makes the image appear to be less “staged” (ergo, less removed from the immediate moment/more authentic or natural), it is still just as representative of digital cinema. For example, one scene in *Russian Ark* that stands out as being digitally enhanced is when “the European” opens a door to discover a man making coffins during WWII. While *Pacific Rim*’s opening scene, which depicts a Kaiju destroying the Golden Gate Bridge, appears to be digitally animated in its entirety, it is actually a composite of digital animation, live-action shots, and color balancing during the digital intermediate process, just as is *Russian Ark*’s coffin sequence.

According to Rodowick, even beyond the blending of live-action and digital elements in both films, because each is filmed with digital cameras, every shot in either film is a “digital event” (140). While I hesitate to use Rodowick’s term here because I do not want to invoke arguments of indexicality, as I would argue that the value of indexicality is often overstated, the purpose of using this term is to highlight the shared medium-specific traits of *Russian Ark* and *Pacific Rim*. Nevertheless, the issue of indexicality must be addressed as the term “digital event”

is predicated on the distinction between indexical and non-indexical images. *Russian Ark*, if we accept Rodowick's theorization, is not indexical because the image is stored as data (it is converted from image into data, and when projected, converted from data into image via algorithm) rather than being a product of the immediate impact of light upon celluloid. The image, therefore, is always mediated by a human hand, as the coding, the algorithms (written by engineers), determine the outcome of the image, rather than the image being an immediate and unalterable impression on celluloid. I would argue that the valuation of the indexical image has always been precarious, because when light hits a celluloid strip the silver-halide crystals reorient themselves and collect in the lightest areas, and to me, this is itself a kind of conversion, of light via a mediating chemical reaction (rather than algorithm) into a stored image. Image creation and image storage are always a process of conversion, of mediation, but the issue Rodowick raises is that there is a difference between *human* mediation, and *organic* or *chemical* mediation. But, making this distinction actually deviates from C. S. Peirce's original theory of indexicality, by which the connection between signals is automatic. Peirce, for instance, uses the example of fire and smoke as having an indexical relationship, because where there is smoke, there must be fire. What is automatic in terms of the relationship between light and film stock is that light causes silver-halide crystals to reorient themselves. The suggestion that the image is an accurate representation of what existed in front of the camera when the light contacts the film stock, and that the accuracy of the image is therefore an indexical *byproduct* of that reorganization, is logically precarious. While this may seem like a rather tedious bit of nitpicking, it is an important distinction to make when evaluating the theoretical arguments that predicate cinema's truth-value on the indexicality of the image.

What is indexical, however, is the projected image, which is an automatic byproduct of

light being shone through filmstock, regardless of whether that image is in focus or not. I recognize that digital conversion of light into data via algorithm and analog conversion of light into intensities of silver-halide crystals via chemical reaction are not the same. Nevertheless, when the distinctions between the processes are truly scrutinized, it seems to me that the willingness with which indexicality has been/is accepted as an indicator of analog film's truth-value is suspect at best. Furthermore, I question the value of the truth-claim argument in the first place. Essentially, I agree with the sentiments of James Cameron when it comes to assessing the value of the indexical image's authenticity, when he asked, "When was it [cinema] ever real?" in response to Martin Scorsese's comment that "No one's going to believe what they see anymore, because it's not real." (*Side by Side*). Arguments of truth-value and the cinema's ability to capture that which is "real" and "authentic" is much like fidelity criticism in adaptation studies, which also is concerned with preserving the authenticity of an existing object, and both perspectives constrain the exploration of the complexities of cinema's storytelling capabilities. Truth-value, for me, will only ever be valuable as a byproduct of extra-diegetic knowledge and not something inherent to the medium itself. I know that *Russian Ark* is shot on location in a single-take because of the promotional materials that surround the film and, therefore, I accept it as authentic in a certain sense. This sense of authenticity, however, cannot be considered a byproduct of the medium of storage, whether it be analog film stock or digital data. To bring this argument full-circle, while both *Russian Ark* and *Pacific Rim* are akin in terms of their digital qualities due to their post-production processes and their medium of storage, there are more interesting differences between these films that are based on their different modes of iconic reference rather than their indexical issues, therefore the difference between these two films is a difference in style, not one of indexical reality or digital fabrication.

While it is not my intention to evaluate the validity of theories of indexicality, it is nearly impossible to write about digital cinema without engaging indexicality to some degree. Nevertheless, in this case the purpose of using Rodowick's term, the 'digital event', is ultimately to highlight the rather contradictory nature of digital cinema scholarship. According to the logic of the event, both *Russian Ark* and *Pacific Rim* are subject to the conversion of light input to data, and from data to light output via algorithmic calculation, because they are shot using digital cameras. If this is the case, then both *Pacific Rim* and *Russian Ark* are of the same family, and yet both films are treated very differently due to the style of their digital images and the style in which they are presented. Ultimately, I argue that it is not the digitality of the image that determines its meaning, but the style by which the image is presented that determines the way in which spectators evaluate the image's qualities and meaning. Even though these two films are quite different in terms of their style, what is similar between *Russian Ark* and *Pacific Rim* is that they challenge traditional conceptions of spectacular digitality. While it could be argued that *Russian Ark* is not a digitally spectacular film, due to its downplayed, naturalistic, low-light, visual style, I would argue that *Russian Ark* is, in its own right, is digitally spectacular. If we define digital spectacularity as a display of novel digital technology on screen, then *Russian Ark* must also be considered as such, because it is precisely that: a display of novel digital technology and its capabilities. It can only exist because of the digital camera and the growth of digital storage capacity. Much like the need to broaden the definition of wonder to understand the multitude of curiosity-driven responses that spectators have in relation to spectacular images, the language used by theorists to define "digital cinema," and the digitality of the image, is also in need of redefinition.

Blockbuster Marketing: *Avatar* and *The Matrix*

It is pertinent at this point in the argument to return to Michele Pierson's analysis of digital cinema. Pierson's work tends to reify opposing camps of the digital image, and ultimately I will argue that these opposing camps are a byproduct of aesthetic design, rather than being qualities that can be applied to digital objects specifically. The reason why it is important to make this distinction is that Pierson's two categories of digital effect have little to do with the effects being digital and can just as easily apply to non-digital effects. Pierson argues that Steven Spielberg's *Jurassic Park* (1993) was one of many early 1990s science fiction films that "offered viewers the opportunity to participate in a popular cultural event" that celebrated the advancement and inclusion of digital technologies in feature films, which is certainly true ("CGI" 158). The byproduct of this analysis, however, is that Pierson creates two oppositional heuristic categories, forming two oppositional camps, along the lines of disruptive and immersive effects. Pierson suggests the effects that are noticeable are effects that participate in popular cultural events, and those that fade into the background do not contribute to this celebration. Michele Pierson describes these two camps as: (1) the "simulationist", which is defined by VFX that are displayed as interruptive spectacles that "put the display of the digital artifact—or computer-generated image—at the centre of the entertainment experience" (ibid., 158); and (2) the "assimilationist", which is defined by VFX which, "instead of presenting the computer-generated image as an aesthetic object, [are] directed towards integrating the special effect into the action" (ibid., 167 and 175). In other words, the simulationist effect draws attention to itself, whereas the assimilationist effect is "assimilated" into the overall image, and thereby does not draw attention to itself. Pierson nevertheless fails to explore the aesthetic, thematic, and narrative elements of *Jurassic Park* that frustrate the assumption that *Jurassic Park*

is in fact, solely, a simulationist film. Contrary to Pierson's analysis, *Jurassic Park's* digital effects actually destabilize the threshold between the simulationist and assimilationist aesthetics, between disruptive and immersive aesthetics respectively. Furthermore, the simulationist and assimilationist positions, I will argue, do not in fact construct a true binary, because the effect itself does not always determine whether or not it calls attention to itself, and therefore the effect itself cannot be disruptive or immersive. What tends to determine whether the digital artefact is something to be looked at is the marketing of the film, filmmaking techniques, and the generic conventions that encourage viewers to focus on a particular object in a particular moment, rather than being an intrinsic characteristic of the effect itself.

In order to more clearly separate these terms into two readily recognizable and contrasting camps, I describe the one camp as "non-integrated" effects, which incorporate the disruptive simulationist and techno-futurist aesthetic, and the other as "integrated" effects, which incorporate the non-invasive assimilationist and illusionistic aesthetic. Integration is useful in this context, as it also suggests a certain degree of cinematographic immediacy, invisibility, and photographic verisimilitude. Integrated effects (like the integrated "numbers" of the musical) also suggests that there is a certain degree of narrative motivation regarding the use of VFX, the implications of which I will explore in relation to *Star Wars* in the fourth chapter. In brief, though, the reason that cinematographically integrated effects are considered to be narratively motivated is because non-integrated effects draw attention to themselves (i.e., non-integrated effects are photographically heterogeneous, or aesthetically distinct from the rest of the image), and therefore, distract from the narrative or halt it entirely. The binary is therefore based on the aesthetic design of an image: an aesthetically homogeneous image is narratively immersive, and an aesthetically heterogeneous image is narratively disruptive. Ultimately, however, I will argue

that this kind of dialectical construction of visually homogenous and visually heterogeneous images is a flawed pursuit. Nevertheless, VFX have garnered a reputation for being disruptive, and I will argue that this is, in large part, due to blockbuster marketing strategies and the fulfilment of the subsequent generic expectations of such strategies.

Blockbusters, from Pierson's "wonder years" to the present, market and sell novel digital attractions, and such strategies subsequently mark certain cinematic moments as distinct from the rest of a given film. They are marked as distinct because they have already been privileged during the marketing campaign, thus priming film audiences to view these moments as something spectacular. During the actual viewing of the film, however, the experience of these moments is not defined solely by the external marketing strategies, even though such strategies certainly do influence the spectator's engagement with the film. The viewer's experience of these privileged moments is much more complex and nuanced than current studies account for, and, by exploring the marketing of *Avatar* (Cameron 2009) and *The Matrix* (Wachowskis 1999). The first is exemplary for its iconic status and its quintessential blockbuster marketing tactics, whereas the second is exemplary for the process by which the film's attractions were marketed and how these attractions subsequently ceased to function purely as attractions during the viewing of the film. From these examples, I will elucidate how the theorization of digital spectacles have been largely influenced by the marketing strategies of contemporary blockbusters.

Since Pierson wrote "The Wonder Years", there have been a number of "wonder films" that promote their use of cutting-edge digital technologies via marketing campaigns that "illustrate what special effects are capable of doing" (la Valley 144). The example *par excellence* is James Cameron's *Avatar* (2009), as the centrality of the digital image as spectacle is evident in

both the marketing and the reception of the film. *Avatar*'s extended trailer clearly presents traditional cinematic SF elements, as human actors (Terrans) are shown to be in conflict with an alien species (the Na'vi), while human culture is inundated with and metamorphosed by futuristic technology. Other, more specific and familiar SF images and tropes are depicted in the trailer, as well. For example, the analog mechanical "mech" suits from Cameron's earlier films *Aliens* (1986), and, to a certain degree, *The Terminator* (1984), are re-presented digitally in *Avatar*. The familiar SF images are foregrounded in the first half of the trailer (0:00-1:45), juxtaposing them with the new and unfamiliar cinematic SF elements in the second half of the trailer (1:45-3:30), elements that above all else are presented as cutting edge digital spectacle. The unfamiliar SF elements of *Avatar* are "shot" against brightly lit, and luminescent, digitally composited alien landscapes with motion-capture animated actors. The result of the juxtaposition between familiar SF elements and the new elements is that there is a privileging of the spectacular unearthly aesthetic of Pandora's environment, or rather, the new and unfamiliar elements of digital spectacle. In the first half of the trailer, Colonel Miles Quaritch (Stephen Lang) even references the iconic "I've a feeling we're not in Kansas anymore" line from *The Wizard of Oz* (Fleming 1939), suggesting to both the characters within the diegesis and to future viewers watching the preview trailer that Pandora, the planet, and *Avatar*, the film, are wondrous and unfamiliar places of magic and illusion.⁴¹ Most importantly, this unfamiliar, privileged space (Pandora and the second half of the trailer) is also the space of digital spectacularity. As the trailer suggests, the cinematic space of *Avatar* is constructed precisely in order to foreground the novelty of the digital spectacle. As David Edelstein of *New York Magazine* writes, "The narrative

⁴¹ This reference proves to be rather ironic considering the generic trappings and narrative familiarity from which *Avatar* suffers. Truly, *Avatar* is most certainly "like home" when it comes to mass market blockbusters.

would be ho-hum without the spectacle. But what spectacle! *Avatar* is dizzying, enveloping, vertiginous” (n. p.). Owen Gleiberman of *Entertainment Weekly*: “As visual spectacle, *Avatar* is indelible, but as a movie it all but evaporates as you watch it” (n. p.). According to these critics, it is precisely because of its digital spectacularity that *Avatar* succeeds. The success of *Avatar*’s digital spectacularity, however, is not predicated upon generating moments of distancing—whereby moments of intense digitality “produce...a distinct break in the action”—rather, a much more complex relationship exists between and among the viewer, digital cinema and Hollywood conventions (“CGI Effects in Hollywood” 167).⁴²

The spectacularity of *Avatar*’s digitality has as much to do with the conventions of Hollywood’s blockbuster aesthetic as it does with the film’s VFX. The Hollywood blockbuster aesthetic cinematographically and narratively privileges, if not demands, effects-based spectacles, regardless of whether the spectacle is produced by physical, mechanical, or optical SFX, such as *The Dark Knight*’s (Nolan 2008) mechanical explosions or *Star Wars*’ (Lucas 1977) optical rotoscoping, or digital VFX, such as *Avatar*’s and *The Lord of the Rings*’ (Jackson 2001) digital characters. Pierson suggests that, in order for a film to promote a sense of wonder, VFX must be recognized as “a visual and temporal disruption in the cinematographic space,” and, therefore, wondrous and contemplative VFX must also be a cinematographic and narrative disruption (“CGI Effects in Hollywood” 170-171). Defining wonder only in relation to

⁴² For further evidence of the narrative/spectacle divide as noted in *Avatar*, there are many other critics who made similar suggestions: “While it [*Avatar*] wasn’t the most original narrative, it serves the film well, even if it was merely a template for Cameron to show us this gorgeous world and its landscapes” (Beck); “Cameron’s eye-popping visuals are the story, particularly because the actual narrative is too simple to sustain the 150-minute run time” (O’Connell); “*Avatar* is great to look at, often astonishing and sometimes beautiful. But, oh, is the story pedestrian” (Westhoff); and, though less typical, there are those that maintain the narrative/spectacular imagery from the opposite position, “Filmed in mind-blowing IMAX 3-D, the story is so entertaining that I soon paid little attention to the 3-D” (Medley).

cinematographic and narrative disruption is now more challenging because contemporary VFX driven films are offering more complex uses of VFX. Analyzing these complex sequences exposes the way in which contemporary theories of disruption essentialize the theoretical potentialities of how digital cinema can promote wonder and contemplation. In other words, the current theoretical understandings of how viewers interact with VFX—as well as cinematic images generally—tend to create or coerce analyses that fit within the monological framework of disruption. In other words, the relationship between and among viewers, the cinematic narrative, and the digital object, is more complex than the binaristic rhetoric of distancing and immersion effects, or cinematographically and narratively integrated and non-integrated VFX, allows for. It is also important to note that Pierson's analysis of VFX is developed in relation to Tom Gunning, Miriam Hansen, and Charles Musser's various analyses of the cinema of attractions. The discourse regarding the cinema of attractions suggests that technological and cinematic interactions are distinct, which encourages the VFX (as technology) versus the narrative (as cinema): "Early audiences went to exhibitions to see machines demonstrated, (the newest technological wonder, following in the wake of such widely exhibited machines and marvels as X-rays or, earlier, the phonograph) rather than to view films" (Gunning 66).⁴³ Certainly, the extended comparisons between the attraction style of exhibitionist cinema and contemporary trends in digital blockbuster cinema are a natural fit, as both forms of cinema—exhibitionist and digital blockbuster—are indebted to innovative and novel technological developments. Yet, to conflate the ways in which these styles of cinema are received and how they function elides the unique aspects of both styles.

⁴³ Cf. Miriam Hansen, *Babel and Babylon: Spectatorship in American Silent Film* (Cambridge, MA and London: Harvard University Press, 1991) and Charles Musser, *Before the Nickelodeon: Edwin S. Porter and the Edison Manufacturing Company* (Berkeley and Los Angeles, CA and London: University of California Press, 1991).

Another element that fuels the comparison of these cinemas is that the marketing of Hollywood blockbusters promotes this sense of exhibitionism. For example, one of the television trailers for *Hugo* (Scorsese 2011) claims that “You won’t see anything like it this year, maybe never,” before describing the film using the key term, “Spectacular” (“*Hugo*”). This sense of digital exhibitionism, however, is constructed and promoted by way of an extra-cinematic apparatus, and it is not, ontologically, a component of the digital image. The novelty and spectacularity of digital imagery is an external logic that is applied to it by way of extra-filmic sources, such as marketing campaigns, paratextual materials (e.g. “the making of” DVD extras), trade papers, critical reviews of VFX films, and other related sources. Within the film, however, the “intrusive” nature of the digital image tends to be more complex, an issue that I will elaborate upon further in the next chapter. For the moment, it is important to note that accepting the view that externally constructed and marketed exhibitionism dictates, or even supersedes, the viewer’s interaction with the cinema—narratively or otherwise—is far too extreme. For example, in her analysis of the first two *Jurassic Park* films, Pierson constructs a historical narrative of linear progression, suggesting that VFX have shifted from being generally narratively and cinematographically non-integrated (simulationist) in *Jurassic Park* (1993) to narratively and cinematographically integrated (assimilationist) in *The Lost World: Jurassic Park* (Spielberg 1997). According to Pierson, the digital image is therefore no longer wondrous, because it ceases to disrupt the narrative and temporal flow of the film, thereby ceasing to alienate the viewer. The escape of the Tyrannosaurus Rex in *Jurassic Park*, however, clearly echoes Pierson’s analysis of the digitally driven action of *The Lost World*, where “the CGI dinosaurs share the same space as the characters in the scene; threatening to trample all underfoot in a sequence that integrates live-action footage and CGI effects in a dynamic composition which pushes the action to the fore”

(“CGI” 176). Essentially, the ontology of *Jurassic Park*’s VFX, like many of the other early ‘90s VFX-laden science fiction films, has largely been defined by the discourse surrounding the film, rather than a close analysis of the film’s digital imagery itself.

Another strong example of this kind of attraction-based rhetoric can be found in discussions of *The Matrix*, where the exhibitionist tendencies of the trailer and the marketing campaign are conflated with the moments of VFX as experienced during the viewing of the film. As Neo (Keanu Reeves) dodges the bullets fired by Agent Jones (Robert Taylor) on top of a building during the rescue of Morpheus (Laurence Fishburne), both cinematic and diegetic time slow to a crawl, as Neo enters “bullet-time”. Bullet-time is a visually impressive effect combining formal filmmaking techniques (e.g. the construction of a green screen set surrounded by series cameras, offering a full 360-degree view of the action) and visual effects (e.g. the computer-generated bullets, the digital rendering of the scenery, and the erasure of Keanu Reeves’ support wires). Bullet-time visual technology, and this scene in particular, formed a central component of *The Matrix*’s marketing campaign. The image of Neo flailing backwards is the final image of the official theatrical trailer, as Morpheus states in voice-over narration “I can’t tell you what the Matrix is. You have to see it for yourself” (“*Matrix*”). The marketing for *The Matrix* suggests that *The Matrix* must be seen, that it is a visual spectacle. *The Matrix*, in this respect, is represented as a Gunning-esque attraction, and this rooftop scene in which Neo is shot at by Agent Jones in bullet-time can be considered such an attraction. Even though the fact that *The Matrix* and the bullet-time sequences are marketed as attractions may appear to provide evidence that counters the claim that cinema or the cinematic narrative is not at odds with spectacle, the trailer exposes the way blockbuster marketing tactics focus on selling attractions. The viewer’s experience of the bullet-dodging scene while watching the film is markedly

different than the experience of watching one element of the scene via paratextual materials, such as the trailer, which markets attractions, and it is therefore theoretically problematic to conflate these two experiences into one and the same.⁴⁴

Even though there is certainly a relationship between spectator interest and attractions, these moments of spectacular VFX do not solely disrupt the cinematographic image (via the presentation of heterogeneous visual elements) or narrative to the point that they alienate or distanciate the spectator. These moments of digitality often function to draw the spectator into the film, while simultaneously allowing them to revel in a sense of wonder and awe. VFX, therefore, do not function as an attraction in Gunning's sense, or a moment of wonder in Pierson's sense, as both of these terms are predicated on narrative and cinematographic disruption and spectatorial alienation (i.e., it is only from a distance that spectators are able to contemplate the significance of the attraction). What is in question, then, is not that spectators are drawn to attractions, but that when marketed attractions become cinematographically integrated and narratively immersive the attraction's significance changes as it becomes instead an integrated spectacle. I would argue that they are in fact quite distinct experiences, as viewing a "never seen before" effect in a trailer (and largely without context) is designed to pique interest and curiosity, which are then subsequently satisfied during the viewing experience of the film. The marketed attraction no longer functions to pique curiosity in the same way when it is delivered within the context of the diegetic narrative. Although Gunning highlights the fact that early audiences went to experience the marvels of technology rather than to view films, I

⁴⁴ This scene, in particular, is quite useful in this case because it is actually narratively integrated, as the scene occurs at a critical juncture that determines whether Neo can in fact save Morpheus and/or fight an Agent and survive, and cinematographically integrated, as the image is governed by the "realistic" logic of the diegetic world. And yet, as the image's colors are "realistic" earth tones, the spectacular movements of Neo and the Agent are motivated by the exploitation of the matrix's codes.

disagree that attractions become absorbed by narrative cinema, as once the attraction becomes part of the cinematic narrative, it ceases to function as an attraction in the strictest sense. The attraction that is marketed via the trailer may be what draws a spectator to the cinema, but once the attraction becomes a part of the cinematic experience, and narratively integrated, its significance shifts to cinematic spectacle.⁴⁵ What is necessary in relation to contemporary VFX films, however, is not to reject either Gunning's discussion of attractions, or Pierson's discussion of wonder, but rather to revise and build upon the discussion. According to the double logic of new media, it is possible that VFX can function dualistically: a cinematographically and narratively integrated spectacle can in fact still allow the spectator to wonder and/or be in awe. VFX actually promote a sense of immediacy and hypermediacy simultaneously. Even though Jay David Bolter and Richard Grusin have already accounted for the double logic of new media generally, the significance of this dual logic in relation to VFX exposes the fact that VFX have been approached rather one-dimensionally (mono-logically), and have been defined largely in relation to blockbuster marketing, while spectators' experiences of VFX and VFX driven films have not been fully accounted for.

Beyond the Binary of Simulationist/Assimilationist or Integrated/Non-Integrated Effects

Pierson's definition of wonder is predicated on the notion that VFX need to be disruptive, they need to generate a breach in the narrative, in order for film audiences to be able to recognize and contemplate them. The end result is that VFX are discussed as either integrated or non-integrated elements of the cinematographic image. My contention with such a definition is that it

⁴⁵ In this case, I am referring to an attraction as a "never seen before" effect, but it does not necessarily have to be the case, it can be whatever the trailer constructs as being "attractive" to the spectator.

establishes VFX as a mediating force that can impede the viewer's access to the cinematographic image. It is something extra that is either included within or added onto the cinematographic image. Such a definition is problematic for two reasons: (1) it elides the processes that mark VFX as unique, and (2) it allows for a certain resistant attitude to be cultivated in cinema scholarship, as VFX are treated as an alien and intrusive presence that inhibits engagement with the narrative.

The VFX of both *Jurassic Park* and *The Matrix*, as well as the VFX of other wonder year and contemporary VFX films, function beyond the binaristic model of integrated/non-integrated effects. Rather, the digital spectacle of Hollywood blockbusters functions according to the double logic of new media. According to Grusin and Bolter, in order to satisfy "our culture's contradictory imperatives for immediacy and hypermediacy, film demonstrates what we call a double logic of remediation. Our culture wants both to multiply its media and to erase all traces of mediation: ideally, it wants to erase its media in the very act of multiplying them" (Bolter and Grusin 5). This double logic is readily apparent in films such as *Jurassic Park* and *The Matrix*, and *Strange Days* (Bigelow 1995), which is a primary film Grusin and Bolter use to explain and define their theory of intermediality, in which they describe hypermediacy, the process by which contemporary immediacy is often achieved by proliferating media. Although *Jurassic Park's* and *The Matrix's* digital objects, the dinosaurs and the bullet-time effect, respectively, are less obviously self-reflexive than the point-of-view shots from *Strange Days*, the dinosaurs and the bullet-time effect, in fact, function in a similar manner. In the spectacular moment when the Tyrannosaurus breaks through the fence in *Jurassic Park*, as with the moment when Neo dodges bullets, a series of immersion techniques are utilized to draw viewers into the film's narrative. Thus, these effects operate on two levels simultaneously: they mark the fulfilment of the film's

marketed promise of delivering an attraction, and they tend to mark a film's turning point at which immersion techniques are at their peak.⁴⁶

During the actual viewing of the film, however, the relationship the viewer has with cinematographically and narratively integrated VFX is quite different from the relationship they have with the attractions marketed by film trailers, and the relationship between contemporary viewer and VFX is also quite different from the relationship Gunning describes the early cinema viewer having with the cinema of attractions. While viewing a trailer, the attraction is apparent as attraction, as these attractions are typically state-of-the-art digital images shown completely out of context, and which on the surface appear to be at once illogical, yet visually appealing (e.g. how is it possible that Neo can move as he does? Why are people in the same space as dinosaurs?). Within the film, however, these moments become narratively integrated and narratively motivated according to the conventions of Classical Hollywood style as described by David Bordwell in *The Way Hollywood Tells It*. Pierson's desire to qualify *Jurassic Park* as a non-integrated example of digital cinema is curious, as she fails to separate the marketing campaign surrounding *Jurassic Park*'s digital cinema exposé from the film text itself. In other words, a trailer is a distinct genre, different from the film itself, and yet developing and working with the same content. *Jurassic Park*, in fact, clearly destabilizes the binaries of integrated and non-integrated, or simulationist and assimilationist, presenting the digital spectacle within a double logic of new media, troubling the assumption that the digital object is a truly disruptive force within the diegesis.

In fact, there is an entire cinematic logic that motivates the treatment of these spectacular

⁴⁶ This is not to suggest that these digital effects do not vary in relative degrees of reflexivity, but merely that these moments function with a similar governing logic; that these moments of marketed attraction are actually embedded in the narrative by way of immersion techniques, altering the significance of the effect from attraction to narratively integrated spectacle.

moments in blockbuster films, which I call moments of revelation. These moments of revelation (e.g., when the T-Rex breaks through the fence, or King Kong appears out of the jungle in Peter Jackson's *King Kong*) are not digital cinematographic and narrative disruptions, but rather they are functions of the narrative conventions of blockbuster cinema. This is not to say, however, that these moments do not promote a sense of wonder and awe, eliciting an affective viewer response, while simultaneously foregrounding the digital artefact. The moments of revelation in *Jurassic Park*, Peter Jackson's *King Kong*, and Gareth Edward's *Godzilla*, for example, narratively *and* cinematically privilege the digital image. One of the clearest example of this privileging occurs in *Independence Day* (Emmerich 1996), which, contrary to Pierson's claim, is not governed by a "'make-do', B-grade aesthetic," but rather offers "the biggest and most spectacular special effects sequences seen up to that time" ("CGI Effects in Hollywood" 175; *Twentieth Century Fox: The Blockbuster Years*). Most importantly, however, the visual effects are not a spectacular distraction from the narrative itself, but rather during the revelatory moment when the massive city-destroyer ships—"over fifteen miles in width themselves"—ominously break through the cloud cover, the VFX become the narrative *and* cinematographic focus (*Independence Day*). These moments of revelation are the products of the narrative conventions of the blockbuster film.

In the era of blockbuster VFX there is an extensive list of films that utilize the moment of revelation set-piece, but in order to recognize that this is a convention of the blockbuster genre rather than a characteristic of digital effects, a comparison with pre-digital examples is necessary. This moment of revelation is apparent even in the seminal blockbuster film, *Jaws*

(Spielberg 1975).⁴⁷ When the shark is finally revealed in full alongside the Orca's hull, for example, it is at a moment of peak narrative tension. It would be difficult to argue that the moment of the shark's revelation in *Jaws* is a narrative disruption (or, for that matter, when the Phantom's mask is removed in *The Phantom of the Opera* (Julian 1925); or when the Death Star is revealed for the first time in *Star Wars*; and so on), and yet, when such a moment of revelation focuses on a digital object it is categorized as narratively disruptive, which is inherently problematic.⁴⁸ These moments of revelation are in fact not narrative disruptions at all, and rather mark the "peak" points of narrative immersion. Gene Siskel, for example, noted in his 1993 review of *Jurassic Park* that the film "has a number of peak thrills, at the level of the attacks in *Jaws*, and it has moments of real wonder, but when the animals are off screen, the film really lags." Siskel's rhetoric does not reflect a sense of digital distancing during these moments of revelation; in fact, it appears to be the exact opposite. Siskel appears to be distanced from the narrative during the points in which the film "lags," precisely when the digital images, the dinosaurs, are absent, suggesting that immersion and distancing have more to do with a film's structure and narrative design than the visual effects themselves. Yet, Siskel still utilizes the key terms, as he suggests that *Jurassic Park* has "peak thrills" and "moments of real wonder," as in

⁴⁷ *Alien* (Scott 1979) and *Star Wars* (Lucas 1977) also provide further examples. Even earlier, however, *The Phantom of the Opera* (Julian 1925) offers one of the most iconic pre-blockbuster revelatory moments.

⁴⁸ While *The Phantom of the Opera* may appear to be at odds with many of the contemporary films discussed to this point, there is a line of influence that connects all of these films. *The Phantom of the Opera* is an early monster movie that has one of the quintessential moments of revelation, and the monster movie genre has replicated that revelatory moment consistently, through the cycle of Monster films in the 1930s, to the B-horror/monster films of the 1950s and 1960s, to the seminal blockbuster films such as *Jaws* and *Star Wars*, which then further inspired contemporary blockbuster filmmakers to utilize similar tactics. While this sequence of influence may seem rather diffuse, there are a collection of pivotal figures that discuss such influences, such as Guillermo del Toro's many discussions of early monsters such as the Phantom and Boris Karloff's monster, among many, many others.

Independence Day when the ships first arrive above the cities.

These moments of revelation do tend to generate a sense of awe and wonder, yet these moments also tend to mark the points of the deepest narrative immersion, even as they are also at the same time a revelation of the technological achievements of VFX. This dual sense of immersive wonder is not, strictly speaking, solely a characteristic of the digital cinema, but rather is as much a characteristic of the Hollywood blockbuster aesthetic. When these moments of revelation also focus on the digital artefact, however, there is a dual appreciation for the image, governed by the double logic of new media. This duality suggests a simultaneous narrative and non-narrative appreciation for the digital image, as there is an immediate relationship to the digital object (the awe generated by the impressiveness of a T-Rex's presence), and a hypermediated relationship to the digital object (witnessing the impressive achievements of cinematic technologies). Interestingly, however, when the shark is revealed in *Jaws*, there is a very similar, if not the same, aesthetic design used as when the T-Rex in *Jurassic Park* breaks through the fence (e.g., the extra-diegetic music changes tone, there are awe-struck reaction shots of the characters, and the framing focuses on the creature as object of fascination). It is therefore necessary to consider how VFX and digital technologies are theorized relative to SFX and pre-digital cinematic technologies. This sense of duality, however, also suggests that there is a simultaneous appreciation of the filmic and extra-filmic components of the cinematic object.

Working with this sense of complexity of engaging with multiple levels of narrative, however, I would be remiss to suggest that wonder does not exist, or that it has ceased to be a rather common affective spectatorial response. My rhetorical strategy was to push the theory beyond discussions of narrative disruption, encouraging that it be evaluated in light of the

discussion of aesthetic design, akin to Bob Rehak's theory that aesthetic objects (i.e., special/visual effects) can become the organizing center for transmedia properties. In evaluating how the theory of wonder operates in the post-1993 period, in relation to contemporary wonder films, it is clear that there are many moments of wonder; for example, the scene in which Godzilla pushes through the Golden Gate Bridge in the 2014 version of *Godzilla* (Edwards), or the moment when the camera zooms/cranes out to expose the massive dystopic wasteland sandstorm of nuclear proportions in *Mad Max: Fury Road* (Miller 2015). These wondrous moments, though, share their generic designs with their historical antecedents, as characters in both *Godzilla* and *Mad Max: Fury Road* have their full attention consumed by the subject that has caught their eye (Godzilla and the sandstorm, respectively). In both films, the sound is diminished before Godzilla and the massive sandstorm are displayed in full, and then the sound both produced in each case is unleashed at an exaggerated volume. Furthermore, as is typical of other wondrous moments, the camera also zooms/pulls out/cuts to display the full size of the wondrous object (Godzilla or the sandstorm) that dwarfs the characters who look at them. And, finally, both Godzilla and the sandstorm unleash some kind of violence onto the cinematographic space and the characters contained therein. Wonder is certainly alive and well. The issue is that the language of wonder heretofore has been constrained by binaristic models. In looking beyond the crisis historiography proposed by Pierson, however, there are certainly many facets to wonder, as the scenes themselves are designed to create an abundance of narratives, an overwhelming sense of presence, and wonder itself occupies a space of multiplicity and abundant meaning.

VFX in Practice: *District 9*

In order to move past binaristic theories of digital spectacularity, I will explore two trends that have developed that shed new light on the ontology of VFX, the first being what I call muted digitality. Muted digitality is the use of VFX to elide certain elements within the cinematic image, non-conspicuous uses of VFX, and the effort to mask the presence of digital objects within the cinematic image. In *Jarhead*, for example, invisible digital effects are utilized extensively to mask the desert landscape's natural, though "unrealistic," appearance. In *Pan's Labyrinth*, invisible effects are used to digitally efface Doug Jones' legs in order to enhance the inverted leg design and goat-like features of the physical faun suit.⁴⁹ While it may appear as though I am merely rebranding the assimilationist description of effects, it is important to note that I am interested in discussing the muting of digitality to suggest that the immersive and disruptive qualities of effects are not actually a byproduct of digitality. Rather, the disruptive or immersive potentiality of the image has everything to do with the way the cinematic image is designed, and yet we treat VFX as if *they* are the things that dictate whether or not they hide within or disrupt the narrative. The VFX in *Jarhead* and *Pan's Labyrinth* are largely not constructed as spectacle, but instead function to mute the image's unwanted elements. The digital qualities of the image cannot be seen, and, thus, the inherent nature of digital's spectacularity also must be understood to be less about digitality, and more so about generic convention and other marketing and filmmaking strategies.

The second trend is a self-reflexive exploration of digitality from within digital cinema, and therefore, by extension, an exploration of contemporary cinema itself (e.g., the digital long takes in *Russian Ark* and *Birdman* (Iñárritu 2014), or the intermedial juxtapositions within Wong

⁴⁹ See also, *Amelie* (Jeunet 2001), in which the streets of Paris are digitally "cleaned" of graffiti and other obtrusive markers of a too-authentic reality.

Kar-Wai's 2004 film *2046*).⁵⁰ These combined movements within digital cinema destabilize the perceived boundaries between traditional and digital cinema. The ultimate effect in either case suggests that digital cinema is not something other than cinema itself; digitality is merely another element of cinema, albeit an extremely influential one at this juncture. That said, this kind of technological development and change is a consistent aspect of cinema. Even though examples such as *Avatar* and *Transformers: The Last Knight* (Bay 2017) stand as reminders that the use of digital spectacularity within the blockbuster aesthetic is alive and well, *District 9* presents itself as a defiant counter-example to the traditional wonder film, and an example of the digital cinema's potential: a film that self-reflexively foregrounds the muted digitality of its own spectacle, while also meditating on its own function as digital cinema.⁵¹

During the opening sequence of *District 9*—from the presentation of the credits until Sharlto Copley, who plays Wikus, is selected as the field officer in direct command of the alien mass eviction—the film utilizes multiple cinematic media and aesthetic styles in order to confront and destabilize the traditional Hollywood blockbuster aesthetic. *District 9*, for example, blends aesthetic styles, such as documentary and found footage, with that of the glossy high-end digital blockbuster. In the bottom right corner of the screen, the image is even watermarked by

⁵⁰ It could be argued that *Russian Ark* and *Birdman* are ontologically distinct, considering that *Russian Ark* is genuinely comprised of one long take, whereas *Birdman* is comprised of multiple takes/shots digitally stitched together. I would argue, however, that *Birdman* and *Russian Ark* are of the same ilk because each utilizes different forms of digital technology to achieve its long takes. The significance in this instance is less about the long takes and more about the fact that both films use technology in order to push and redefine the current bounds of the medium.

⁵¹ These two films were selected as comparative examples because both films were released only months apart in 2009, and yet both take an entirely different approach to their use of VFX. Second, both films were critically and commercially well received, as 91% of the 258 critics that reviewed *District 9* on *RottenTomatoes.com*—the popular film review site—awarded the film a positive review. *Avatar*, respectively, received positive reviews from 83% of its 290 reviewers. And, third, these films occupy polar-opposite positions on a science fiction VFX film scale.

the fictional stamp of Multi-National United (MNU), suggesting that the film is in fact a mockumentary, while still providing a real world referent, as MNU is clearly a satirical reference to the United Nations (UN). Beyond this, the opening sequence, which is largely shot on digital cameras, has one scene—in which the MNU cuts into the ship and discovers the prawns—which is actually run through and re-recorded on a video-cassette recorder (VCR), which means that the opening sequence is comprised of two technically distinct media: digital video (Redcode RAW and HD Video, to be specific) and VHS analog video. The significance of this is that the pre-digital VHS footage connotes, ironically, a higher-degree of immediacy/simulation than high-end Blockbuster VFX due to the VHS footage's low-grade aesthetic, even though it displays one of the most digitized “shots” of the entire film.⁵² As Stephen Prince notes, VHS' graininess, “looks more alive” on the level of the image, even though this is paradoxically due to the fact that this is an analog recording of a digitally created event, and that the life-giving qualities of the VHS-grain attributed to the image are actually one step further removed from the image's inception (Prince 31). Beyond the liveliness of the image itself, however, the manner in which the VHS footage is shot suggests that someone was “there” to shoot the footage as if it were a home movie, and yet this sequence is actually one step further removed from the actual moment of this shot's creation.

Although *District 9*'s title privileges the location and the spatial aspect of the digital spectacle—much like its VFX blockbuster predecessors, such as *Jurassic Park* and *The Abyss* (Cameron 1989)—the film narratively confronts and, ultimately, frustrates the privileging of this space. The second interviewee of the film, Grey Bradnam (Jason Cope), announces *District 9*'s

⁵² Russell Kilbourn, in *Cinema, Memory, Modernity: The Representation of Memory from Art Film to Transnational Cinema* notes that there is a similar distinction between film stock and analog video exploited in Koreeda's *After Life* and David Lynch's *Lost Highway* (179-180).

South African provenance, while calling attention to the atypical nature of its non-American-centric narrative, pitting itself against other such blockbusters as *Independence Day*: “Now, to everyone’s surprise, the ship didn’t come to a stop over Manhattan, or Washington, or Chicago, but instead coasted to a halt directly over the city of Johannesburg” (*District 9*). *District 9*’s title is ironic, however, as the film does not document the life and times of *District 9*’s alien “prawn”; instead it documents the *graphic* transformation of Wikus, as his biologically human body transforms into an alien other on the level of the diegesis. This diegetic transformation has a double function, however, as Wikus’ transformation into the alien other marks a formal shift, as the human subject becomes an increasingly digitized and hypermediated “other” on the level of the image. *District 9*’s narrative impetus, then, is to document this *graphic* transformation, and, as such, the film immediately undercuts the revelatory logic of the blockbuster, by throwing into question which “subject” is being revealed to the spectator: the alien other, or the digital other.

Even the typical moment of revelation is completely undermined in *District 9*, as the alien “prawn” are initially displayed less than three minutes into the film, immediately dispelling suspense. The actual revelatory shot, colloquially referred to as the “1,000,000-Alien Shot”, is wholly underwhelming (Frazer; n. p.). The shot underwhelms on two fronts: first, narratively, unlike the powerful and majestic Tyrannosaurus in *Jurassic Park* that destroys its restraints, the prawn have to be freed from their inoperable ship, foregrounding the prawn’s rather unspectacular nature and the general ineptitude of the prawn as a species. And, second, the shot is displayed as retrograde graphically speaking, as this is also the shot that Blomkamp runs through the VHS player, effectively muting the glossy digitality of the image. On the level of the image, this aesthetic choice undermines the digital novelty of the shot itself, as the digital prawn are immediately associated with the “old,” “inferior” and “out of date” medium of VHS. The

spectacularity of the prawn's digitality is therefore cinematographically and narratively undercut. Even the initial exterior shots of the prawn's craft are narratively and cinematographically unprivileged, as the ship is presented in an extreme long shot and slightly off-center. The second shot of the ship is captured on what appears to be amateur VHS camcorder footage, and, furthermore, instead of focusing on the alien craft itself, the camera zooms in on the helicopters that approach the ship in order to cut into the hull.⁵³ At no point is the digital "alien" object privileged within the opening shots. Even though the shot is certainly trading on the found-footage aesthetic of more recent successful sci-fi and horror films, it reinforces the notion that it is the style of display that largely determines the impact upon the spectator's relationship with the on-screen image. By this I mean that it is the broader aesthetic design of the film that determines whether the digital ship fades into the background or if it is part of the central focus of the shot. It is not the digitality of the object that determines whether it is an object of focus, or whether it is integrated or non-integrated; it is rather the way that the object is treated in terms of the broader aesthetic design of the film/image that encourages this kind of spectator relationship. It is not that the ship in this case cannot generate a sense of wonder in the viewer, it is that the shot of the ship is not designed to generate that wonder.

As Blomkamp suggests, meshing the *cinema verité* camera work with a science fiction alien aesthetic and well-constructed VFX creates a kind of stylistic "strange reality"

⁵³ It is only of minor interest here that the "found-footage aesthetic" of *District 9* trades on the success of precursory films such as *Cloverfield* (Reeves 2008) and *The Blair Witch Project* (Myrick and Sánchez 1999) while also anticipating the veritable onslaught of "found-footage" digital blockbusters that have come after. My primary interest is to highlight that the digital ship fades into the background, and is part of the broader aesthetic design rather than being the central focus of the shot. The point being that it is not the digitality of the object that determines whether it is an object of focus, regardless of whether it is integrated or non-integrated. It is to suggest, moreover, that it is not that the ship cannot generate a sense of wonder in the viewer, it is that the shot of the ship is not designed to generate that wonder.

(“Special”).⁵⁴ As he explains, in order to present the VFX with a higher degree of narrative and cinematographic integration, they must be *treated* without privilege:

You build your computer-generated aliens and you put them in to your real live-action background. You treat the effects no differently to anything else. I think that when you start treating them as visual effects and you put them on a golden kind of pedestal then they become important . . . it starts to make them feel synthetic. (“Special”)

Blomkamp’s rhetoric echoes the foregoing discussion, suggesting that the narrative and cinematographic privileging of the VFX in the blockbuster form accentuates the alien and unnatural dimension of the digital image. The significance of this is that, ontologically, VFX and digitality have been theorized to be something other than cinema (i.e., a disruptive presence), when in fact it is the narrative and cinematic treatment of the digital image that has pushed digitality to a space of otherness within cinema. By challenging the traditional blockbuster aesthetic and form, *District 9* exposes that VFX—or digitality per se—are not solely disruptive elements within the cinema.

If, as Pierson suggests, the golden age of digital spectacle has come to a close, then what has become of digital cinema if it no longer privileges VFX as its cinematic object? Since Pierson’s analysis of the golden age, the digitality of the cinema has been decentralized and democratized. There has been a proliferation of VFX, yet there has also been a diminishing of their gloss, chrome and sheen. In short, there has been a muting of the image’s digitality and a

⁵⁴ According to David Bordwell and Kristin Stewart, “the *cinema-vertité* film . . . minimized voice-over commentary and put the filmmaker on the scene as the situation unfolded. It could, its defenders asserted, neutrally record the facts and let the audience draw its own conclusions” (410). In this instance, the footage appears to be captured by someone who is seeking to capture “the reality” of the situation, rather than trying to embellish any of the shots, or produce any kind of creative focus.

move has been made to use VFX to erase as much as it is used to create in the years since 1995.⁵⁵ The digital, in this sense, now pervades the image while erasing its traces. The digital is at once everywhere and nowhere, and with this sense of invisible pervasiveness comes the current state of digital cinema, in both form and style, spectacle and nuance. Although this situation may appear to reflect Pierson's suggestion that VFX have produced an assimilationist aesthetic, and are therefore no longer wondrous, Pierson overlooks the fact that wonder does not have to be predicated on aesthetic heterogeneity, nor does wonder have to be relegated to explorations of the technical. Instead, spectators can be wondrously curious about why the prawn are represented as they are, or why the film is set in Johannesburg. Wonder, in this sense, is as much of a cultural exploration of the image's origins, as it is of its technical elements. Regardless, it is in this ambivalent space of unprivileged digitality that the ontology of the digital lies, and it is an ontology that has been pushed aside as being something other than cinema itself. My concern is that by allowing this tradition of VFX—and by extension their SFX precursors—to be brushed aside as mere gaudy objects, or as cinematic intrusions, an entire tradition of cinema is being cast

⁵⁵ Even though there has been a significant muting of the glossiness of contemporary VFX, I recognize that there has been a simultaneous and concomitant transformation of the film image writ large to the point that it is quite easy to look at anything now and say “this is shot digitally” (in a general sense). Because of their cost efficiency digital cameras have become the industry standard. Despite this, however, there are a number of television programs and films that intentionally exploit other cameras and storage/capture technologies for their aesthetic qualities. Because of the “gritty, dark, and hard” qualities of its world, *The Walking Dead*, for example, is shot using super 16mm to generate the literal graininess of the image. The issue, though, is that “digitality” has been given special status as an agent of disruption on the level of the image, when this isn't true at all. Disruptive elements within the cinema are constructed via the aesthetic design, rather than being an inherent element of digitality. Yet many theories suggest that it is digital that is the cause of the disruption. This is also interesting in that there are two kinds of disruption occurring here: one, on the level of the image, and the other on an economic and production level. As much as digital technology is changing the landscape of film and television production and distribution, the film industry's model is predicated on developing new technologies to advance production efficiency. Digital technology, in this sense, is very much a continuation of this tradition. Yes, digital is changing the landscape (particularly in terms of distribution at this point), but this change itself is consistent.

aside with it. Where would the study of cinema be today, for example, if we as film scholars, enthusiasts, and fans, cast aside the contributions and influence of Méliès' films—such as *A Trip to the Moon* (1902)—because Méliès' work was seen as a mere compilation of gaudy and intrusive SFX, which detracted from the *real* cinematic objects, the cinematographically homogenous and narratively motivated images? In other words, where would cinema studies be today if we privileged particular styles of images as being more “authentic” or more true to cinema's “real” identity, which is characterized as immersive cinema. Cinema is a creative art, and to treat VFX as something other than cinema itself not only does a disservice to cinematic creativity, but it also betrays a willingness to intentionally obfuscate an entire tradition of cinematic practice. Like Wikus, the cinema is going through a transformative period, and the division between the human space and the space of the digital other is being eroded, so let us grab hold of this moment and explore it for what it is: a moment of intermedial digital wonder, which is, in fact, business as usual in light of the cinema's long history of technological development. And, even though the cinema, like Wikus by the end of *District 9*, may be fully transformed into its digital other, it is nevertheless alive and well.

Chapter 2

Polynarrativity and Visual Effects:**The Informational Conveyance of Wondrous Attractions**

In this chapter I will review and examine the logics of two of the cornerstone theories that governed much of the discourse regarding the early theorization of "post-" Golden Years visual effects: the theory of wonder and the theory of cinematic attractions. I will trace the historical developments of these theories to highlight why the discourse of visual effects has been so preoccupied with discussions of narrative, and, more specifically, narrative disruptions. Ultimately, the purpose of this chapter is to understand how narrative disruption came to dominate the theorization of visual effects during the late 1990s into the early 2000s, and to highlight that not only are narrative disruptions an inherent impossibility in cinema, but that pushing beyond the binary division of narrative/non-narrative cinematic elements (or, even more reductively, of story and image) is also of significant benefit for contemporary film scholars. This would afford them more nuanced and dynamic access points to discuss how cinema creates and conveys information by way of its linguistic, audio, and visual tracks. To present this argument, I will show that there are always multiple levels of narrative within a given film. As an example, I suggest that there are at least four levels of narrative operating in *Jurassic Park* (Spielberg 1993). I suggest, moreover, that moments of narrative disruption (i.e., moments during which a film does *not* convey information) are inherently impossible because there is always information being conveyed by a film. Throughout this chapter, I intentionally use the term "informational conveyance" instead of "narrative" because it bypasses the linguistic bent of

narratology and because a significant degree of cinema's information is presented via visual registers. Thus, by using a medium-neutral term, such as informational conveyance, it becomes possible to expose how wonder can in fact be a narrative experience.⁵⁶ Ultimately, it is important to break down the theoretical positions that posit a narrative/non-narrative binary division to gain a greater understanding of the ideological implication of contemporary intermedial properties and the processes of aesthetic adaptation.

Though the theorization of visual effects is still a burgeoning field, the early stages of its development have been largely dominated by two foundational theoretical concepts: the theory of cinematic attractions (Tom Gunning, Wanda Strauven, and André Gaudreault) and the theory of cinematic wonder (Michele Pierson).⁵⁷ Now some 25 years after the Tyrannosaurus ripped through the fence in 1993's *Jurassic Park*'s climactic scene, announcing the beginning of the full-scale shift from analog to digital cinema, these two cornerstone theoretical concepts require revision. Revision is required in order to properly account for the myriad narrative experiences that visual effects and aesthetic adaptation afford in order to highlight the historical congruities

⁵⁶ While contemporary scholars tend to use the term 'narrative' in a 'medium-neutral' sense as a synonym for story, the historical development of the term narrative has imbued the term with a significant linguistic-bent, and because of its historical uses it has created a theoretical problem for theorists of wonder and spectacular images.

⁵⁷ For the cinema of attractions, see: Tom Gunning's "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde" *Wide Angle*, vol. 8, no. 3-4 (1986), pp. 63-70; Wanda Strauven's edited collection, *The Cinema of Attractions: Reloaded*. Amsterdam: Amsterdam University Press, 2006; André Gaudreault's *From Plato to Lumière: Narration and Monstration in Literature and Cinema* (1988). Trans. Timothy Barnard. Toronto, Buffalo, and London: University of Toronto Press, 2009; and Dan North's essay "The Silent Screen, 1895-1927: Special/Visual Effects" in Charlie Keil and Kristin Whissel's *Editing and Special/Visual Effects* (New Brunswick, New Jersey: Rutgers U Press, 2016). For the theory of wonder, see: Michele Pierson's "CGI Effects in Hollywood Science-Fiction Cinema 1989-95: The Wonder Years". *Screen*, vol. 40, no. 2 (1999), pp. 158-176 and *Special Effects: Still in Search of Wonder*. New York: Columbia University Press, 2002.

between blockbuster visual effects films and their historical antecedents.⁵⁸ Even though in a cursory overview each of these theories appears to reflect commonplace assumptions about visual effects, particularly in relation to the digitally spectacular objects and moments that have come to dominate contemporary digital cinema, the theoretical underpinnings of attraction have inadvertent implications for both effects theory overall and narrative theory more broadly. Oddly enough, visual effects have been championed (largely in critical and theoretical discourses) and criticized (largely in popular discourses) for the very same potentiality: to disrupt the narrative of the film in which they appear. Both attraction and wonder are predicated on the fact that wonders and attractions disrupt or halt the film's narrative, and, though this may appear initially to be a rather benign stipulation, the implication is that visual effects are positioned as objects that mediate, or mitigate, the spectator's engagement with the cinematic narrative. Visual effects are positioned, in theoretical terms, to either hinder or facilitate the spectator's access to the

⁵⁸ In short, cultural aesthetic adaptation is the mode of adapting a specific aesthetic mode in a new socio-cultural environment. This mode of adaptation, then, does not privilege specific source texts, but is more interested in broader generic movements and how the aesthetic stylings (i.e., visual styles, formal structures, generic set-pieces, etc.) influence/determine the informational conveyance of the adaptation. For example, the Italian *giallo* film genre is, in part, a cultural aesthetic adaptation of the British (Hammer) and American (American International Pictures) Gothic Horror films from the late 1950s and 1960s. As I have suggested earlier, this mode of adaptation is not meant to be a definitive 'a+b=c' kind of formulation. The *giallo* films have many influences and are not a direct adaptation of the Hammer and/or AIP films, but examining the bright and gaudy color palettes and the editing styles, for example, of such films as *The Curse of Frankenstein* (Fisher 1957), *Horror of Dracula* (Fisher 1958), *The Mummy* (Fisher 1959) there is a clear aesthetic influence on Dario Argento's films, in particular, *Suspiria* (1977), as well as other filmmakers such as Lucio Fulci, as exemplified by the style of *A Lizard in Woman's Skin* (1971), see also Mario Bava. What is particularly important here is that the films do not adapt the plots of the earlier Hammer and AIP films, but rather the aesthetic, which draws these film movements into dialogue (via aesthetic similarity), while displaying significant plot and content differences, and broader differences in cultural references. For further discussions of the influence of Hammer and AIP films on the development of the *giallo*, see Kevin Heffernan's *Ghoul, Gimmick, and Gold: Horror Films and the American Movie Business, 1953-1968* and David Church's "One on Top of the Other: Lucio Fulci, Transnational Film Industries, and the Retrospective Construction of the Italian Horror Canon."

information provided *within* and *by* the cinematic world. In popular discourse, this formulation seems to have been pushed to the limit, as visual effects are often seen as directly antithetical to narrative development, to the point that they are often treated as an object antithetical to the cinematic experience itself. In response to this theoretical formulation of visual effects' status in critical discourse, and their frequent status as scapegoat in popular discourse, this chapter seeks to clarify why, in the first place, spectacular digital objects are positioned largely in opposition to narrative. This chapter will also assess what the theoretical implications of accepting the disruptive status of visual effects are, and to argue that the definition of wonder is far too narrow. Ultimately, I will argue that to accept that the primary function of visual effects is to facilitate spectator engagement with cinematic narrative severely undermines the potential theoretical functions of visual effects (or effects more broadly). Furthermore, by focusing on the disruptive qualities of effects means that the information such objects convey to spectators is going unaccounted for, particularly the information afforded by the cinematic aesthetic.

Wonder and Narrative

In this section I will examine the theoretical underpinnings of cinematic wonder, and the conditions, set out by Michele Pierson in *Special Effects: Still in Search of Wonder*, upon which cinematic wonder is contingent. The theory of cinematic wonder is, in fact, a rather complex interweaving of numerous theoretical perspectives, and it is only by unraveling and clarifying these interdependent components that the strengths and shortcomings of the theory can be made manifest. It is important to note that the theory of cinematic wonder is the sum product of a string of adaptations and developments in the philosophy of wonder. Tracing Pierson's theorization of cinematic wonder backward through Philip Fisher, to Descartes, and ultimately

Socrates, clarifies how and why cinematic wonder is explained as it is and why the theory could be reformulated and expanded to include other intellectual possibilities. Wonder, for Pierson, is the most significant defining potential of contemporary visual effects (i.e., that inspiring wonder is a primary, if not the paramount function of visual effects), and in order to analyze the ethical potential of wonder that Pierson celebrates, it is necessary to understand the relationship wonder has with narrative, or rather the insistence that wonder be a narrative disruption. Wonder has a long philosophical history, but it largely originates in Socratic thought and then is adapted along specific lines. Pierson's wonder/narrative dichotomy, for example, is predicated largely on Philip Fisher's analysis in *Wonder, the Rainbow, and the Aesthetics of Rare Experiences*, and Fisher's wonder merges art theory and scientism to explain aesthetic phenomena via Descartes' version of scientific wonder.

To fully understand Fisher's use of wonder, it is necessary to examine Descartes' theorization of wonder, in particular his realignment of wonder with scientific processes, or, more specifically, with scientific purpose. Where Socrates mused that, "wonder is *the only* beginning of philosophy" (Plato 55), Descartes claims that "Wonder is the first of all the passions" (*Passion*, article 53), but, for Descartes, the passions largely distract from gaining true knowledge.⁵⁹ Descartes' theorization of wonder, therefore, marks a tonal shift in the examination of such confrontations with unfamiliar objects, from one of emotion and philosophy, to one of reason and science. As Descartes suggests,

The most glaring defect in the sciences we have from the ancients is what they wrote about the passions [of which wonder is one]. This topic has been strenuously explored,

⁵⁹ I have emphasized "*the only*" in the quote from Plato "wonder is *the only* beginning of philosophy" (55).

and doesn't seem to be especially hard to investigate because we all feel passions in ourselves and so don't need to look elsewhere for observations to establish their nature; and yet the teachings of the ancients about the passions are so skimpy and mostly so implausible that I can't hope to approach the truth except by leaving the paths they have followed. So I'll have to write as though I were considering a topic that no-one had dealt with before me (Descartes 1).

Nevertheless, Descartes' explanation of wonder is predicated on moments in which an individual is overcome by a sense of curiosity when confronted by a new object, leading to a "thought problem" that has an unknown answer at that moment (e.g., how is it that a rainbow exists and what processes created it?).⁶⁰

Descartes' exploration of wonder is influenced by the broader turn to scientism in the 15th and 16th centuries (i.e., the Scientific Revolution, beginning with the publication of Nicolaus Copernicus' *On the Revolutions of the Heavenly Spheres* in 1543—sparking the Copernican Revolution and debates around heliocentrism—and concluding in 1687 with the publication of Isaac Newton's *Principia*), and the shift away from classical philosophy. For Descartes, wonder is productive only in so far as it sparks an individual's curiosity and leads to quantitatively verifiable knowledge, but if wonder does not lead to such knowledge, Descartes suggests that one "can't hope to approach the truth except by leaving the paths" of wonder behind (Descartes 1). Wonder must be left behind because it is a "disease of those who are blindly inquisitive," one which, in fact, "may either absolutely take away, or pervert the use of

⁶⁰ A "thought problem" is the byproduct of being confronted by a moment of uncertainty. The uncertainty creates a problem that demands an answer. It sparks an individual's curiosity and drives them to resolve the uncertainty of the moment. The "thought problem" is that which drives an individual to seek knowledge.

reason” (Descartes 59). Descartes goes so far as to say that “although it is good to be born, with some kind of inclination to this Passion,” wonder itself is not even necessary, which directly opposes Socrates’ contention that wonder is the source of philosophical inquiry, of the pursuit of knowledge (59). Descartes argues that a lack wonder can be rectified by using the processes of the scientific method instead (59-60). Descartes thereby supplants wonder, curiosity, and the natural passions with the scientific method, which privileges objectively quantifiable and verifiable knowledge.

The important aspect of wonder for Descartes, then, is that wonder should merely stimulate the launch of scientific inquiry, and nothing more; wonder can only distract individuals from conducting such inquiries that are deemed worthy of scientific attention. For Descartes, the investigation of unusual phenomena via scientific methodologies leads to the creation of constructive knowledge; a form of scientific narrative, in other words, that explains the ontology of such phenomena, and a kind of narrative that prevents superfluous and shallow sensations of mere excess wonder and curiosity (Descartes 60). Fisher’s theorization of wonder is influenced by Cartesian logic, extending this scientifically inflected logic, applying it to aesthetic phenomena. When describing the wonder generated when confronted by an object that is aesthetically unfamiliar (i.e., a rare and visually striking object), Fisher suggests that narratives prevent the experience of wonder, because gaining scientific knowledge is the end result of wonder’s processes.⁶¹ The presence of ‘narratives’ at this moment is so problematic for Fisher

⁶¹ Throughout this chapter, I will provide several distinct definitions of narrative, as it is a rather contested term. According to Gerald Prince in "Surveying Narratology," "Some theorists and researchers believe that everything is narrative; others maintain that everything can be; and still others contend that, in a sense, nothing is (because narrativity is culture-dependent and context-bound)" (1). It is important, then, to understand how each individual scholar uses the term and why there are such contradictory distinctions that exist.

because narratives are considered to be explanations derived from the acquisition of knowledge. Understanding objects by creating or discovering a narrative, therefore, is the ‘natural’ conclusion of wondrous experiences.

Building upon Descartes’ theory of wonder, Fisher uses the primary example of the rainbow to describe the phenomenon, and in his explanation, he suggests that narrative (i.e., “a narrative” that explains something, or knowledge) is actually directly antithetical to wonder. The problem with the formulation narrative \neq wonder is that “narrative” is used as an all-encompassing term, when in fact the conditions necessary to facilitate a feeling of wonder do not require a total absence of narrative or knowledge.⁶² Instead, in order to experience a specific sense of wonder the absence of a specific type of narrative is necessary. Wonder is certainly possible when narrative is present, but what is required is a more specific analysis of what kinds of narrative preclude which kinds of wonder. It is pertinent to examine Fisher’s analysis of wonder and how it has come to inform Pierson’s stipulation that cinematic wonder also be a non-narrative experience. The rainbow is the example *par excellence* for Fisher because it only exists via the perception of an individual, it is a sudden and rare occurrence, and it is an aesthetic object that can be contemplated and appreciated in total in the moment.⁶³ Subsequently, there is the

⁶² I will suggest that the total absence of narrative in cinema is an impossibility, which may seem obvious, but nevertheless it is important to state, because wonder is theoretically predicated on the *absence* of narrative. As this is the case, the theory of wonder requires further theorization, which will benefit from analyzing the historical development of the theory in order to understand why and how narrative was positioned as the antithesis of wonder.

⁶³ Ontologically speaking, a rainbow is completely different from all the cinematic examples up to this point, but it is important to discuss the conditions and processes that underpin Fisher's theorization of wonder, which is predicated on the experience of the rainbow as a rare aesthetic object. It is important because Pierson adapts these processes and conditions of experiencing a rainbow (as an aesthetic object), to the cinema, in which spectators experience other rare aesthetic objects.

potential for discovery, whereby the perceiver ultimately understands that the rainbow exists only as an optical illusion that is produced as light rays are refracted through water droplets. This understanding constitutes the “Aha!” moment, at which point wonder climaxes, after which wonder ceases, and knowledge and narrative then takes over. The understanding of wonder’s process, and how it subsequently leads to curiosity, exploration, and experimentation, before leading, ultimately, to the dissolution of wonder via the development of explanation and narration, is clear in Fisher’s text.

There is a complication, however, as Fisher suggests that wonder cannot exist in narrative media forms, because these forms clarify and explain the objects they present, thus precluding the presence of wonder (which exists due to a lack of explanation, narration, and/or knowledge), while also undermining the potential for suddenness, as media forms unveil their objects slowly over time. According to Fisher, “[w]onder and learning are tied by three things: by suddenness, by the moment of first seeing, and by the visual presence of the whole state or object” (Fisher 21). Moreover,

The arts of time—narration, dance, and music—are never present as a whole in an instant of time. They also depend on controlled expectation followed by surprise against the background of what we have been led to think will happen next. Wonder does not depend on awakening and then surprising expectation, but on the complete absence of expectation. Memory and expectation are so fundamental to the narrative arts and, usually, to music that wonder is ruled out, or is replaced, we might say, by mere surprise, as in a twist of plot. (Fisher 21)

Fisher’s explanation of the experience of narrative arts, when applied to cinema, is an oversimplification of the possible experiences of cinematic narrative. Ambiguity, the

unexpected, as well as sudden and striking images or aesthetic objects, exist in many forms of cinema, and at many levels of the cinematic experience. The issue at hand, therefore, is that Fisher's use of the terms narrative and narration lack specificity, and encompass far too many phenomena to effectively explain the lack of wonder in the narrative arts.

Wonder and the Experience of Curiosity via Narrative Disruption

Contrary to Fisher's account, I would argue that the explanatory and temporal nature of the narrative arts (i.e., plotting or moving the story from its beginning at point A to its conclusion at point B) is not antithetical to the experience of wonder. In fact, the explanatory and temporal nature of narrative, in this sense, requires further analysis before it can be accepted that narrative, broadly speaking, undermines the potential for wonder. According to Fisher and Descartes, for example, the narrative that undermines wonder explains the existence of an experienced object/element (in what follows the narrative that explains the existence of an object will be written as Narrative, with a capital 'N').⁶⁴ Narratives, however, do not always concern themselves with an explanation of the object's inception, which is the focus of Fisher's rainbow example (i.e., by the object's inception, I mean how the object was created in technical terms, and, in the case of the cinematic object, which technologies were employed to do so?). Instead, narrative film often does not explain how aesthetically striking objects are created in extra-diegetic technical terms (i.e., within the cinematic narrative they do not explain that the image of

⁶⁴ Narrative, with a capital "N," describes how an object onscreen was created, or how an image came to exist. The Narrative of the city-destroyers in *Independence Day* is the story of their creation: that they are large models shot against painted backdrops and created by 20th Century Fox's in house designers. The Narrative is quite distinct from the diegetic narrative, as the city-destroyers are discovered to be created by a locust-like species for the purposes of extracting Earth's natural resources.

the T-Rex is created via computer modelling), even though the cinematic narrative often justifies their presence within the diegesis (i.e., scientists cloned a dinosaur). The diegetic narrative (which will take the form of narrative with a small 'n'), then, may explain the presence of an object within the film, but that does not mean that a spectator cannot wonder about how the object was created in extra-diegetic terms.⁶⁵ The origin of the T-Rex in *Jurassic Park*, for example, is due to the process of genetically-modifying amphibian DNA and splicing it with dinosaur DNA, which allows the Jurassic Park scientists to “clone” the T-Rex, but this does nothing to explain how the T-Rex was created as an on-screen image in extra-diegetic terms. The moment of wonder, however, of “how is this possible?” can still be experienced by a spectator, even when within the diegesis an object’s presence may be explained precisely because its origins (and its reasons for being) are multiple. This form of narrative (small n) is more closely associated with the term plotting (i.e., the narrative of a cinematic story, as opposed to the real life “story” or sequence of events that lead to the creation of an effect).⁶⁶ A wondrous image can

⁶⁵ When narrative is written in the form with a small "n," it is in reference to the film's story, or more specifically, how the object on screen came to exist within the world of the film. As with the example of the city-destroyers, when Bill Pullman (President Whitmore) experiences a mind-meld of sorts with the alien species, he learns that the city-destroyers have been built by an invasive species who are seeking to colonize Earth for its resources.

⁶⁶ While these terms may seem similar to the narratological terms *syuzhet/fabula* or *recit/histoire* distinction, I have borrowed the term “plotting” from Bordwell’s descriptions of narrative to differentiate the “story” narrative vs. the unplotted real life story of how the T-Rex was created. This particular instance described here is not related to the distinctions made by the terms *syuzhet/fabula* or *recit/histoire*. The difference between Narrative and narrative is that both are explanations of why the cinematic object exists, but narrative is the story told via the film, which explains why a T-Rex exists (i.e., scientists created the dinosaur), and then there is the real-life explanation, the 'N' narrative, of why the T-Rex exists (i.e., effects technicians and animators created the T-Rex). The reason why this is important is to highlight the fact that when Pierson or Fisher state that narrative precludes wonder, it does not account for the myriad forms of information present. *Which* narrative precludes which kinds of wonder? Take for example the fact that I know the Imperial army made the Death Star, so I do not wonder about that. I also know that the Death Star is a model, so I also do not wonder about that. What I am struck by, and

still exist within a cinematic (small n) narrative even after its origin within the narrative has been explained, because the significance of the image exists on multiple planes—on multiple levels of diegetic/fictional "reality"—and, thus, exists within multiple narratives (e.g., the cinematic narrative, the narrative of the visual effects industry, the narrative of the auteur as craftsman, etc.) and also beyond them.

To explain why Narrative (capital N) is so detrimental to the experience of wonder, Fisher uses the example of Noah's rainbow and of its biblical intelligibility:

In the Bible, the rainbow is explained in the style of classic mythology by its origin [i.e., the origin story is the Narrative of the rainbow's existence and its understood meaning], why it came to be there, after, presumably, a long period (antidiluvian) when it did not exist. In the Bible the rainbow is placed in the sky by God, after the flood, as a sign—that is, as a token or reminder—of his promise to never again destroy the earth with water.

(38)

The rainbow, in this case, is explained by the Narrative. The rainbow exists because God created it, and it exists to remind humankind of the flood, which was perpetrated by God to punish humankind for its sins.

This explanation turns it into a sign. It has passed from being an aesthetic object [unfamiliar/unknown] to being a meaningful object [familiar/known], a reminder. In looking at it at every later moment we are meant to think of something else (God's

what I do wonder about, however, is who created the Death Star and why they chose that form. The point being that there are multiple avenues to explore in terms of explaining the Death Star's state of being. We cannot say that narrative precludes wonder because narrative is not a singular all-encompassing thing that explains everything simultaneously.

promise and God's wrath, man's sins, the one catastrophe that has been excluded).

(Fisher 38)

The Narrative in this sense is an explanation of the aesthetic object's origins, its significance, and its meaning. The rainbow, once it is understood as having a specific meaning, is appreciated as sign, as a capital-R Rainbow, as a signifier that alludes to a set of meanings, rather than as a rainbow, an aesthetic, rare, and pleasurable object, that does not have a fixed meaning.

Narrative, in the capitalized sense, certainly undermines some potential for wonder, though I am not convinced that it does so in its entirety. Narratives and meaning are not static. The rainbow, for example, can mean many things to many people at many different times. Simply put, the meaning of "the Rainbow," as described by Fisher, can be contested, or it can be understood merely in part. Following the logic of Fisher and Pierson, however, wonder cannot come *after* intellectual understanding, and intellectual understanding is achieved when narrative (of any kind) is created. This formulation is problematic, though, considering that human understanding is rarely holistic and/or complete. As much as one may understand a particular aspect of a particular thing, there are many other aspects that the individual is likely to never come to know. The formulation according to Pierson is as follows: I know that the T-Rex is created via computer graphics, and therefore I no longer wonder about it. I disagree because, as much as I may know that the T-Rex is created via computer imaging technologies, there is still much that I do not know as a spectator, and therefore, I still wonder. I wonder which programs were used. I wonder who was responsible for the T-Rex. I wonder why they chose that particular design. I wonder a great many things while still having some intellectual understanding of an

object.⁶⁷ Understanding/knowledge is only ever partial and provisional, and theoretically describing understanding as a singular and monological process is detrimental to further intellectual pursuits. It is the difference between saying “I have *the* answer” and “I have *an* answer.” Where the current theorization of wonder suggests that once s/he has *the* answer, the spectator moves on in intellectual terms. What I am suggesting is that it is very difficult to ever achieve *the* answer, so the spectator is likely to continue to wonder even after s/he may have *an* or even *a few* answers.

What is of primary concern is the fact that Fisher’s theorization of narrative and wonder essentializes all narrative potentials (and narrative modes and forms), as Narrative. In other words, any kind of known information or meaning undermines any potential for wonder, whether it be a scientific understanding of how a rainbow is created, or a familiar generic set piece that cues a spectator’s awareness that a likely event is about to occur. The moment of revelation, for example, is a familiar element of the blockbuster genre, and its use in a film is often motivated by, and a component of, generic formulation, but it is constructed precisely to encourage spectators to marvel at and contemplate the aesthetic object.⁶⁸ Even though the moment itself can

⁶⁷ It is important to note that I have used wonder in multiple forms: as a noun “What a wonder!” and as a verb, “I wonder how this works?” I have accounted for both these forms of wonder because the theory of wonder accounts for both of these forms in a process. The experience of encountering “a wonder,” leads to the question of “I wonder” how the object came to exist. The theory of wonder is concerned with this process, of the movement from encountering “a wonder,” to the intellectual pursuit of “I wonder,” to the culmination of wonder as a process, which is “I know.” It could be argued that there may not necessarily be an answer or explanation at all when encountering certain wonders, that “I know” with certainty is not achievable, but that only means that the process of wonder is incomplete, and, thus, the process of wonder continues.

⁶⁸ The moment of revelation is described in the previous chapter as a generic convention of blockbuster, monster, science-fiction, fantasy, and horror films, whereby (typically around the mid-point of the film, but like all films, exceptions exist) a spectacular “never before seen” object is revealed to the audience, largely for the purposes of fulfilling the marketed moment of excited anticipation. For example, the moment when the ships first break through the clouds in

be anticipated by spectators due to its generic frequency, which diminishes the surprise of the moment, the aesthetic object represented on screen may in fact still be something new, rare, and aesthetically pleasing to the point that it has the potential to spark a sense of curiosity in the spectator. The generic Narrative formulation does not necessarily preclude the experience of something aesthetically novel or rare.⁶⁹ The opening sequence of *Star Wars* (1977), for example, begins with an explanation of the political state of the galaxy, justifying the presence of ships in space, aliens, and conflict between parties, which can actually function dualistically as narrative and what I would term “d-Narrative”: an explanation of the object’s existence within the diegesis, both in terms of the “how” and “why” (e.g., that the Death Star has been built by the Imperial Army and exists as a weapon of mass destruction to quell the galactic rebellion). In this sense, d-Narrative still leaves room for wonder because of the multiple levels of the image’s existence.⁷⁰ After the text fades into the stars, the camera tilts to reveal a small cargo ship being fired on by an impressive Imperial cruiser. This moment, according to Fisher’s description and

Independence Day (Emmerich 1996), when the Phantom’s face is revealed in *The Phantom of the Opera*, when the T-Rex comes through the fence in *Jurassic Park*, or when the cargo ship and the Imperial cruiser streak across the screen in the opening of *Star Wars*.

⁶⁹ In a similar structure to Fisher’s breakdown of how the Rainbow becomes known (e.g., along the lines of when, why, and who created the object), the moment of revelation is a generic set-piece and has existed in many precursor films, and is familiar as a generic sign due to its frequent reuse. For example, a Hollywood studio can adapt and utilize the moment of revelation as a familiar set piece, a set piece that tends to mark the object that is presented as something to be marveled at, and that object that is to be marveled at may also display the technological potential of Hollywood image making. In this sense, the moment of revelation may be a familiar set-piece (that in and of itself does not generate a sense of wonder) but the aesthetic object presented within the set piece may be unfamiliar and unknown, and, therefore, at least one element within this moment is capable of sparking spectator curiosity.

⁷⁰ Take, for example, an image of the Deathstar in *Star Wars*: it is accounted for and explained by the film’s plotted narrative, it is a diegetic object and yet it is also an image composed of multiple layers of photographic elements, and it is a fabricated physical object. It exists on at least four distinct levels, and each distinct iteration of the Deathstar has its own narrative/Narrative that can be accounted for.

categorization of the experience of wonder, precludes the experience of wonder, because: (1) any Narrative excludes the experience of wonder; (2) the ships revealed in this moment are not presented with enough suddenness; and (3) *Star Wars*, as the film is an aesthetic object unto itself, cannot be contemplated as a wondrous aesthetic object because it has not been revealed in its entirety at any one moment; *Star Wars* is only ever revealed slowly over time in a series of moments. Clearly, however, as Pierson has pointed out in her exploration of wondrous science-fiction imagery, the temporal presentation of the image is not an issue of primary contention, because the simple fact that Pierson describes cinematic shots—images presented over time—as wondrous is evidence of their wondrous potential.

The opening display of the ships in *Star Wars* is a potential moment of wonder, and also revelation, whereby a striking, sudden and novel aesthetic object is presented to the spectator. Prior to 1977, perceptually realistic moving space ships were indeed rare, because the technology to display said spaceships was underdeveloped, and the other processes of rotoscoping, contact printing, moving backgrounds against stationary models, visible strings, and so on, did not achieve the same level of novel or rarified perceptual realism.⁷¹ Clearly, *Star Wars*' opening sequence is a moment of wonder, as it spawned an entire generation of special effects artists who were stricken by the power of the aesthetic object and devoted their lives to discovering and understanding how the existence of such images were possible, and subsequently recreating them.⁷²

⁷¹ There were examples prior to *Star Wars*, but they were far rarer. *First Men in the Moon* (Juran 1964), for example, achieved a degree of perceptual realism via stop-motion, *2001: A Space Odyssey* (Kubrick 1968) wherein meticulous rotoscoping was employed to achieve a high degree of perceptual realism in the scenes which displayed exterior shots of shuttles moving through space, and *Silent Running* (Trumbull 1972), which utilized detailed miniatures and motion control cameras to produce smooth tracking shots of the ships.

What Fisher's exploration of wonder exposes is that wonder, in relation to narrative arts and cinema more specifically, requires a much more dynamic sense of wondrous potential, and that the conditions by which wonder can be achieved need to be clarified in much more subtle and nuanced terms. In addition, and more importantly, Fisher's blanket definition of Narrative, whereby "the goal of the story (God-Noah-the flood-the [R]ainbow-the promise) is to force the mind to pass as rapidly as possible from the aesthetic state to the state of memory (of this story, of human sinfulness)" (39), exposes the ways in which the term "narrative" requires further analysis, as not all narratives operate to explain the existence of things. As a result, the notion that the narrative arts cannot produce wonder must also be opposed on these grounds, because if the narrative does not explain the existence of the object depicted on screen, then it can still be possible that wonder can exist within the plotted point A to point B narrative, as independent shots can suddenly confront the spectator with an aesthetically whole and rare object within the narrative itself. Furthermore, the fact that images exist on multiple narrative planes has significant consequences for narrative theory itself, which I will explore in greater detail in the next chapter.

For the purposes of this study, and the exploration of wonder, narratology, and visual effects/spectacular images, it is important to note that Pierson retains the division between narrative and wondrous moments (as discussed in the previous chapter). This is likely due to the fact that philosophical wonder and narrative have been described as mutually exclusive. The exploration of the moment of revelation at the beginning of *Star Wars*, suggests that the mere

⁷² See: Michele Pierson, *Special Effects: Still in Search of Wonder* (New York: Columbia University Press, 2002); Stephen Prince, *Digital Visual Effects in Cinema: The Seduction of Reality* (New Brunswick, New Jersey, and London: Rutgers University Press, 2012); Julie Turnock, *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetic* (New York: Columbia University Press, 2015).

existence of narrative does not preclude the experience of wonder. I would argue that it is the ambiguous/all-encompassing use of the term “narrative” that is causing confusion regarding the theorization of wonder. In order to assess the narrative function of the spectacular wondrous image it is necessary, therefore, to understand precisely what is meant by narrative, and how cinematic narratives work. Cinematic narratology has adopted various ways of understanding narrative from other preexisting media (e.g., the novel and other text-based modes). Even though cinematic narration is very different from text-based modes of narration, cinematic narratology still struggles to clearly define how cinema conveys meaning, in part due to the preexisting meaning that cinema has adopted from the language of these other media. Narrative is perhaps one of the most difficult elements to define in relation to cinema, because, as indicated above, there are at least four levels of narration apparent in the opening minutes of *Star Wars*: (1) n: the plotted narrative which moves the story from point A to point B; (2) d-N: the d-Narrative (diegetic Narrative) which explains the existence of such things as aliens and space ships within the diegesis itself; (3) g-N: the g-Narrative (generic narrative) which utilizes generic structures and elements to efficiently convey plotted information to progress the story; and (4) N: the Narrative of the image itself (the explanation of how the image and the effects were made), which is actually completely absent from *Star Wars* altogether.⁷³ It is on the level of (N) that

⁷³ The different layers of N/narrative may appear to be closely related, or may appear to be separable into two large overarching categories of narrative (which is largely diegetic information) and Narrative (which largely comes from non-diegetic sources). The layering and interrelations of different N/narrative elements, however, is more complex. Take for example, *Independence Day* and the moment the city-destroyers break through the clouds: the narrative (this is the first turning point of the film that encourages the action of the story to progress); the d-Narrative is unexplained at this point, as neither the audience nor the characters know where these ships came from or how they came to exist (this information is revealed later in the film); the g-Narrative is delivering the moment of revelation as the ships break through, providing a different kind of explanation as to why the ships exist in this moment (which is to fulfill the marketable “thrills” of the blockbuster); and the Narrative comes to fruition depending on the

Pierson locates cinematic wonder: on the level of the ontological explanation of how effects were achieved technically, following the scientism of Fisher's model of wonder. Clearly, narrative is not singular, nor is it easy to apply as a structured set of rules, because there are interdependent and often even competing narrative/Narrative levels, each of which, I will argue in greater depth later in this chapter, has its own agent of informational conveyance (AIC).

Narrative, Narration, Narrator, Narrativity: An Exposition of Terms and Their Uses

Perhaps the most complicated aspect of narratology is that several of its core terms have interrelated and overlapping uses, such as what is meant by "narrative" and "narration" in different contexts. Take for example, Fisher's and Bordwell's use of the term narrative: Fisher uses narrative to mean any explanatory information that an individual may possess, whereas Bordwell uses narrative in a much more typical sense to mean a story, and more specifically, a film's story. Both definitions are based on understanding narrative as a kind of "story," but that is where the similarities end. I will explain the complications of narrative terminology in greater detail below, but in the meantime, it is best to keep in mind Gerard Prince's observation that "[s]ome theorists and researchers believe that everything is narrative; others maintain that everything can be; and still others contend that, in a sense, nothing is (because narrativity is culture-dependent and context-bound)" (1). Before I further explore the narrative and other functions of spectacular imagery in the cinema, it is necessary to clearly define how I am using narratological terms in this study.⁷⁴ It is necessary because many of film theory's preoccupations

level of effects knowledge a spectator may have, as the ships display the final product of the technical design process. These different layers of N/narrative are interrelated and interdependent, but nevertheless, these elements are all offering different kinds of information about different aspects of the film, in both diegetic and non-diegetic terms.

and concerns are predicated upon, or related to, narratological concerns, and yet the inconsistency in the understanding of narratological language produces rather difficult conditions in which to launch a meaningful investigation of narrative disruption in the cinema.

Edward Brannigan traces the development of narratology in *Narrative Comprehension and Film* while providing a loose definition:

The current situation is the result of two trends. In the mid-1960s film theory began to stress epistemological and psychological questions, developing, first, an object-centered epistemology (where the goal was to present numerous methods by which to segment and analyze the parts of a film) followed by a shift toward a subject-centered epistemology (where the goal was to investigate the actual methods employed by a human perceiver to watch, understand, and remember a film). Feminist theory, for example, shifted from identifying cultural stereotypes in film to concentrating on the role of sexuality and gender in a perceiver's ongoing encounter with film. At about the same time, a second trend appeared in which narrative began to be explored as a discourse in its own right, apart from its manifestation in any particular medium. This study came to be called "narratology." Its goal was also epistemological: at first descriptive and objective, but more recently focused on a perceiver's "competence" - on the conditions that govern and make possible both the comprehension and creation of narrative texts. (xi)

Brannigan moves on to highlight that the study of narratology is a multi-medium discipline, yet he also highlights that while "These [new] approaches to narrative will cast light on the general epistemological issues addressed by specific theories of film and, to some extent, theories of

⁷⁴ The function of spectacular imagery in the cinema, refers to the preoccupation that film theorists have with narrative breaks, the potential of aesthetic wonder, and the legacy of the cinema of attractions.

literature . . . both film theory and narratology often rely on literary studies," which I argue has caused significant problems for theorists of film narratology (x). As Peter Verstraten suggests, linguistic and text-based narratological perspectives persist: "Most modern studies of narrative tend to focus predominantly on literature with only some reference to film" and that for scholars of film narratology it is "essential to realize that the filmic narrator has a different 'identity' from a literary narrator," because cinematic and linguistic structures are radically different semiotic systems (n. p.; 7). Furthermore, as Jan Christoph Meister suggests in *The Living Handbook of Narratology*, narratology is also a study of the "logic, principles, and practices of narrative representation" (1). Thus, it is important to note that narratology is always-already a multi-layered study of interrelated workings and these layers are comprised of: (1) the narrative as product (of its production, delivery, and subsequent impact as a self-contained object); (2) the way in which the narrative is told (the internal workings of the narrative itself); and (3) the means by which that narrative is told (what agent or agencies is/are responsible for the conveyance of the narrative, and through which mode of communication is the story told). Considering that even narratologists cannot agree upon what constitutes (a) narrative, it is worthwhile considering Brannigan's definition of "narrative":

I will argue that it is more than a way of classifying texts: narrative is a perceptual activity that organizes data into a special pattern which represents and explains experience. More specifically, narrative is a way of organizing spatial and temporal data into a cause-effect chain of events with a beginning, middle, and end that embodies a judgment about the nature of the events as well as demonstrates how it is possible to know, and hence to narrate, the events. Although it will often be convenient to use the word "narrative" to refer to an end result, or goal, one should not forget that this final

product ("there is a narrative") arises from a particular and ongoing (narrative) method of organizing data. Thus, the word "narrative" may refer to either the product of storytelling/comprehending or to its process of construction. (3)

Of particular interest, here, is that the term narrative includes both the internal details of the text (i.e., the plot), and the material for narration (i.e., that which is conveyed via the plotted narrative within the text), but this may also include material that also exists beyond the boundaries of the text, a concept which I will expand on below.

It is in this nexus of multiple influences that David Bordwell locates his film-specific analysis of narration as the "study of narrative as a *process*, the activity of selecting, arranging, and rendering story material in order to achieve specific time-bound effects on a perceiver" (xi). It is a typical assertion of film theorists that cinematic narration is a product of editing, suggesting that editing is cinema's *raison d'être*. Narration appears to be straightforward, as "the action or an act of narrating or recounting something; the fact of being narrated" ("Narration, n.1.b."). It is complicated, however, by the fact that this "narrating" depends upon someone or something who/that must be "telling" the story: "the action of telling a story; (also) a thing that is narrated; a narrative, a commentary" ("Narrating, n."). Oftentimes this "teller" of the cinema's narrative is done by a non-anthropomorphized editor. In the most basic sense, at least some of the film's information is created and conveyed by way of juxtaposed images, rather than being delivered by someone (i.e., information conveyed by way of editing as creative agency, rather than by a specific person as editor). The telling of a narrative, however, is where the problem for cinematic narration lies, as "telling" is defined as, "The action or fact of relating, imparting, or saying something; narration, relation; conversation, talk" ("Telling, n.1.a."). Narration becomes problematic for cinema because it is in part a visual medium, and the act of narration is defined

as a verbal or textual activity (i.e., speaking/writing/reading the narrative). The problem, moreover, is that cinema, as a visual and aural medium, presents its narrative both within and beyond semiotic systems governed by written or spoken language, and even beyond the system of montage, whereby the shots gain meaning largely via their order of presentation within the film text.

To suggest that the cinema does not speak or that it does not use language to convey its meaning would be completely false: characters speak, voice-over narration is consistently used as an expository device, intertitles are frequently used, etc. The problem, however, is that in terms of the definitions relating to narrativity there is either a considerable anthropomorphic and linguistic bent (a story told by someone), or, at the other extreme, the film is thought of as its own creative agency (a film that presents itself).⁷⁵ Daniel Frampton's model of the "filmind," for example, suggests that a film operates via "film-thinking," whereby "there is no 'external' force, no mystical being or invisible other. It is the film that is steering its own (dis)course" (73). Both models (film must be spoken by an anthropomorphic agent, or it "thinks" itself) are highly problematic for an intermedial art form such as the cinema, as cinema is a compound medium that has considerable polyaesthetic capabilities.⁷⁶ Film also consistently functions with a

⁷⁵ See page 25 and the discussion of André Gaudreault's analysis of narrative categories for further evidence of this phenomena.

⁷⁶ By polyaesthetic, I mean to suggest that different aesthetic registers will carry their own informational conveyances (which is not a novel claim in terms of formalist film studies, yet the informational networks that these aesthetic stylings create are often overlooked in contemporary cinema), and contemporary films self-reflexively invoke numerous aesthetic stylings as informational shorthand. For example, in *Kong: Skull Island* (Vogt-Roberts 2017), there are several moments of the digitally remastered aesthetic stylings of 1970s monster films, as well as general "retro" aesthetic signifiers, blended together to highlight the historical antecedents of *Kong* and the monster movie more broadly. For example, as the helicopters break through the storm surrounding Skull Island there is a change in the film style: to this point the film image is captured using a Panavision Primo lenses, but with little to no edge distortion. Upon breaking

polynarrative logic, conveying meaning via a network of creative agents and agencies.⁷⁷ By polynarrative I mean to highlight the multiplicity of narratives with which cinematic objects operate: that is, the plotted point A to point B narrative, the ontological Narrative which is largely explained via paratextual materials such as the making-of featurettes, the t-Narrative (technological Narrative), which is the narrative that contemporary blockbusters are largely concerned with, etc. The purpose of using the term t-Narrative is to highlight that cinematic texts do not operate with self-contained narratives, but rather operate via narrative networks. Thus, to come full circle and to return to the discussion of narrative disruptions, *the* narrative of a film can never truly be disrupted (as there really is not a singular narrative that can be disrupted, but there

through the clouds, however, a switch to a fish-eye lens is used for the aerial establishing shots of the island from the point-of-view of the helicopter, harkening back to the warping of the image at the left and right edges of the screen in much of Hong Kong kung fu action centric-cinema. Many of the kung fu films are shot using anamorphic Panavision lenses for the purpose of widescreen projection, but, captured on 35mm film, the distortion at the edges is far more pronounced, with fish-eye lens qualities, as seen in such films as *Drunken Master* (Yuen 1978), *The 36th Chamber of Shaolin* (Liu 1978), and *Once Upon a Time in China* (Tsui 1991). The other purpose of shooting with these rounded edges is to invoke a Go-Pro style camera, often seen in drone-captured footage. Either way, the image signifies in similar ways, with the connotations relating to action-centric images that are reminiscent of either (or both simultaneously, based upon spectator experience) nostalgic kung-fu action cinema, or contemporary live-active footage. Furthermore, in *Kong*, the film's color palette is largely sepia toned, with the yellows, oranges, browns, and greens privileged over reds, blues, or purples, in this case, very specifically invoking the nostalgically photographic qualities of the image (which are only enhanced by the film's prevalent photographic camera/photograph motifs). Thus, *Kong*, utilizes a polyaesthetic logic (i.e., a particular mode of remediation) in order to qualify its cinematic images as both a product of its historical antecedents, and a manifestation of the most up-to-date digital technologies. The implications for narrative theory, by extension, are significant: if the image itself is trading on these earlier modes of cinematic/photographic expression, the narrative itself, by its very nature, extends well beyond the boundaries of *Kong* as a self-contained narrative.

⁷⁷ By the term "film" I am describing "plotted film", a film that moves from plot-point A to plot-point B, that is what would traditionally be termed "narrative film" by theorists and historians such as David Bordwell, Tom Gunning, Miriam Hansen, etc. I am resisting the term "narrative cinema" because of the complexities that "narrative" as a term implies.

are always-already a multitude of narratives); instead, moments of “disruption” are in fact oscillations, wherein one narrative type is privileged over the other. For example, when the ship breaks through the clouds in *Independence Day*, the privileged narrative may shift to a narrative with a much stronger effects-centric/technological bent from the plotted narrative, but there is still significant transmedial information that audience members can glean from this moment (e.g., what kinds of generic expectations can be asserted in this moment? What kind of character interactions can be anticipated based on the ship design? Or even, how does this ship design extend and draw upon the film’s historical antecedents?). It is necessary, therefore, to challenge the definitions of narrative, narration, and narrator in the cinema, especially as cinema in the digital age is becoming increasingly polyaesthetic (more so than it already has been), one of many interdependent narrative texts that form contemporary transmedia storytelling networks.⁷⁸

In order to confront the linguistic and textual connotations of the term narration, André Gaudreault proposed the term “monstration” to describe the visual system of informational conveyance in cinema, recognizing that cinematic informational conveyance is necessarily syncretic, which in this case can be defined as the attempted reconciliation or union of different or opposing systems of signification (77). Gaudreault proposes the term monstration to account for the visual significance of the cinematic mode, and to oppose the specifically linguistic sense of cinematic narratological study as proposed by figures such as Algirdas Julien Greimas and Joseph Courtés, who suggest that cinema is “several manifestations of language” (326).⁷⁹

⁷⁸ This is likely due to the fact that digital image capture and digital editing systems have made it far easier to integrate distinct media into a single film text. Digital archives also allow filmmakers and creative agents to have more access to existing media (and media forms) than ever before.

⁷⁹ Cf. Christian Metz's *Film Language: A Semiotics of the Cinema* (Trans. Michael Taylor. Chicago: U of Chicago Press, 1974).

Cinema is syncretic, a reconciliation of unique, distinct, and yet interdependent systems of signification, extending well beyond the binary opposition of image and text. Cinema's mode of informational conveyance cannot be solely understood via this anthropomorphized agent, nor can it be understood as a univocal construct of an extra-diegetic narrative agent, such as the author of a novel, or even the director, what Albert Laffay calls the "great-image maker," because there are clearly non-human, non-verbal, and non-textual agents in cinema that nevertheless convey information (81).⁸⁰

In an early scene in *Green Room* (Saulnier 2015), for example, after the band plays a cover of the Dead Kennedy's "Nazi Punks Fuck Off" (1981) in a successful effort to antagonize the crowd, there is a moment when the film's style shifts from that of conventional classical Hollywood cinema as described by Bordwell (e.g., invisible editing, chronological and well explicated plotting, etc.).⁸¹ The scene shifts to a much more overtly stylized moment that juxtaposes conventional techniques with a momentary intrusion of a kind of art film aesthetic, or a momentary shift in style to a surreal music video. The shift in aesthetic expression seems to be imbued with meaning that exceeds the more conventional narrative style that precedes and follows this moment. At the beginning of this scene, the style is much more subdued and conventional, as the film's central characters (the bandmates of the punk band, "Ain't Rights")

⁸⁰ With reference to the "anthropomorphized agent," see also Baudry's essay "Ideological Effects of the Basic Cinematographic Apparatus" (*Film Quarterly*, vol. 28, no. 2, 1974, pp. 39-47) regarding the "Transcendental Subject" of the cinematic apparatus. Regarding the "grand image maker", Gaudreault draws this term from Albert Laffay's *Logique du Cinéma* (Paris: Masson, 1964), wherein Laffay suggests that "*le grand imagier*" (81) is the anthropomorphic agent responsible for the creation of the cinematic text.

⁸¹ A film about a group of young punk musicians who reluctantly agree to play one last show at a neo-Nazi bar somewhere in the Pacific Northwest where they accidentally witness a murder and must attempt to escape with their lives.

take the stage for a sound check. The scene operates with a largely conventional portrayal of the plotted narrative: shots are presented in standard playback speed, the point-of-view is largely motivated by either the band members as a group or specifically by the point-of-view of the protagonist Pat (Anton Yelchin), while the music has largely been mimetic and diegetic to this point. After the band's antagonistic performance, however, the style breaks from standard Hollywood conventions to an oscillating point-of-view that shifts between obstructed close-ups of the band, close-ups of their equipment, and medium to medium-long shots of the crowd of neo-Nazis dancing, which are all depicted in slow-motion, the shots seemingly unmotivated by the perspective of the characters.

The music in this moment also shifts from the band's diegetic thrash-punk to five slow lulling non-diegetic synthesized notes. The style in this moment feels reminiscent of the music from the opening section of "The Blue Danube Waltz" that plays in *2001: A Space Odyssey* when the earth is shown for the first time. The tone of this moment juxtaposes the divisive ideology of the neo-Nazis with the harmonious movements of the crowd's dance, the discordant nature of the punk music played diegetically (which is muted here) with the concordant nature of the non-diegetic synthesized overlaid sound. What motivated the tonal shift? What are the narrative consequences? Who or what "speaks," or rather, who or what is responsible for the informational conveyance? According to Gaudreault, this is likely a scene best described by monstration (i.e., informational conveyance via the visual register). To fully explain the scene and the tonal shift, however, shifting the agent of informational conveyance to another univocal source (from narrator to monstrator) still does not account for the full effect. On a very basic level, narrators and monstrators account for linguistic and visual informational conveyance, but they miss the acoustic and structural conveyance, not to mention the difficulty of suggesting in

this moment that there is a shift from an intra-diegetic narrator/monstrator (a shift from shots motivated by the group's and Pat's point-of-view) to an extra-diegetic narrator/monstrator (to an auteurist analysis of stylistic similarities amongst director Saulnier's or cinematographer Sean Porter's body of films), or even to an extra/inter-aesthetic conveyor of meaning (the music video). It is necessary therefore to develop a model that can account for such shifts in point-of-view, style, narration, monstration, aesthetics, sound type and style, etc. This also means that such a system must account for multiple narratives (and communicative agents/agencies) to be present simultaneously, for if the agent of informational conveyance shifts, then so too does the information conveyed (i.e., in this case, the narrative). At this point, it is apt to return to Gaudreault's work on narratology.

Classic Narratology and Its Contemporary Implications

As André Gaudreault points out, narratological "rules" are difficult to apply, largely because of the misunderstanding that accompanies narratological terminology, which he suggests actually derives from a misinterpretation of its source terminology (which is part of what motivated my own exploration of the broader historiography of the theorization of wonder and narrative). Gaudreault returns to the works of Plato and Aristotle, while confronting the interpretations of these works by Gerard Genette, in order to rectify the misinterpretations and misunderstandings that Gaudreault identifies in Genette's work. Much of the confusion stems from the misinterpretation of two progenitive source terms: mimesis and diegesis. Mimesis and diegesis are often interpreted as being diametrically opposed, which is largely due to the conflation of Plato's and Aristotle's distinct use of these terms. Even though both Plato and Aristotle use the terms mimesis and diegesis, they do not use them in the same manner, as for

Plato diegesis and mimesis are not opposed. In *Republic*, Plato, via Socrates, concludes that “a poet, in his lexis [his manner of speaking] and his diegesis [the recounting of events] may or may not resort to imitation, to mimesis [to representing the events]. Poets recount events—*narrate*—either by simple narrative—*haplē diēgēsis*—or by narrative expressed through imitation—[*diēgēsis*] *dia memēsōs*—or by a combination of the two—*di’amphoterōn*” (Qtd. in Gaudreault 41). To clarify these conclusions, Socrates reminds us that Homer, in his writings, will oscillate between simple recounting and imitation. But, nevertheless, in both accounts, there is still a narrator, an enunciating agent.

Part of the terminological difficulty stems from the fact that diegesis for Plato designates a “family of genres,” whereas Aristotle uses it to describe a lone genre: when the poet acts as a narrator (Qtd. in Gaudreault 43). Diegesis for Aristotle is much more closely associated with discourse, or the mode of address whereby the narrator is clearly narrating a tale. There is, therefore, a confusion or conflation of terms, and it is from here that scholars have begun to use the term *mimesis* to reflect the storyworld and the process of representing the storyworld mimetically (i.e., non-self-reflexively, in the sense that the characters within the storyworld tell their own tale), and the term *diegesis* to reflect the style of address and the process of presenting the storyworld via undisguised non-mimetic narration (i.e., self-reflexively, in the sense that “I,” as narrator, tell the story). Even beyond this conflation of terms and the over simplification of *mimesis* and *diegesis* (or any other binary pairing of terms, such as story and discourse according to Genette), is that pure forms of either mode of enunciation rarely exist, and are perhaps even categorical impossibilities (because one clearly cannot exist without the other: a story must always be represented via some kind of communicative agent or agency). Gaudreault highlights Genette’s own concession on this subject: “Genette was thus able to conclude that ‘the essence

of [story] and of discourse... are almost never found in a pure state in any text... There is almost always a certain proportion of story in the discourse and an element of discourse in the story” (57). Discourse, in Genette’s account, is the telling of the story (i.e., the style of presentation, the idiosyncrasies of the narrator, the context in which the story is delivered—akin to Plato’s *discourse*), while the story is that which exists beyond the narrator. This is similar to the film language proposed by the Russian formalists Vladimir Propp and Viktor Shklovsky: *fabula* and *syuzhet*. The film’s *fabula* is the story world that exists apart from the *syuzhet*, the style in which it is presented. Like cinema, the *fabula* cannot be understood by the spectator apart from the *syuzhet*, thus, in order to understand the cinematic narrative, to paraphrase Genette in these terms, “there is always a certain proportion of the *fabula* in the *syuzhet* and an element of *syuzhet* in the *fabula*” (161). When spectacular wondrous digital objects are present on screen, the suggestion is that it is possible to separate the *syuzhet* (the aesthetic object) from the *fabula* (the story). In fact, the suggestion is that the *syuzhet* becomes all-encompassing to the point that it eclipses and hinders the spectator’s ability to comprehend the *fabula*.

Furthermore, as Gaudreault also points out, the pairing of *mimesis* and *diegesis* is already an oversimplification of terms, and oftentimes a false pairing. According to the chart in *From Plato to Lumière: Narration and Monstration in Literature and Cinema* (51), Gaudreault makes clear that *mimēsis* is the poetic representation in which the *enunciator* presents the *diēgēsis*, which is the narrative.

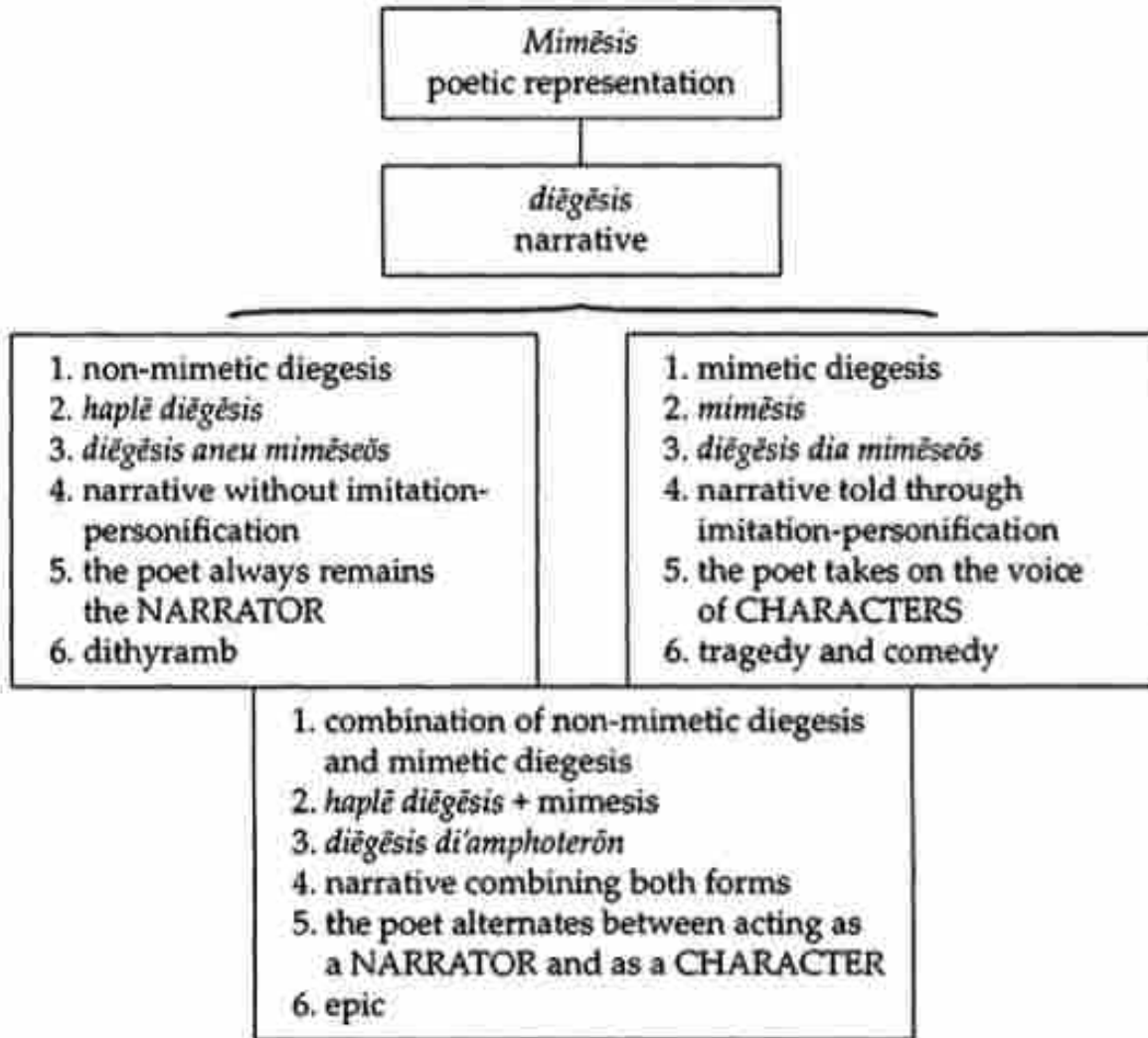


Figure 1

This chart details three types of narrative conveyance: (1) non-mimetic diegesis, in which the enunciator is always the narrator (i.e., the enunciator never makes an effort to mask their position as external narrator of a story/story world); (2) mimetic diegesis, in which the enunciator takes on the roles of characters (i.e., the enunciator places her/himself in the middle of the storyworld while telling the story by masking their status as storyteller by acting out the story); and (3) a combination of both styles, which is what most contemporary narratives are. Gaudreault's model

and clarification of diegesis and mimesis are useful, but there is still much work to be done here, and much thought to be given to the subject, as there is still the problem that “narration” is largely accepted to be a verbal, textual, linguistic telling of a story. If this is the case, there is a significant lack of clarity around who or what can be considered the enunciator of the narrative. There is also a lack of clarity around what exactly the narrative entails. Plus, there are issues of medium specificity that require addressing when applying such categories to cinema.

In order to shift this thinking to the cinema, Gaudreault proposes the term monstration, which, as described above, is a mode of informational conveyance that operates via visual means. Monstration is the visual act of informational conveyance that is equivalent to narration’s verbal, textual, linguistic act of informational conveyance. The monstrator, then, is the visual counterpart to cinema’s narrator, the verbal, textual, linguistic agency.⁸² Gaudreault suggests that the monstrator is responsible for the *mise-en-scène* and the cinematography: manipulating the profilmic elements of the recorded scene and the camera work (e.g., the director of photography, the director of the action, the actors, staging, camera movement, etc.). On the other hand, any linguistic activities are the responsibilities of the narrator (e.g., editing, dialogue, intertitles, voice-over narration, soundtrack, etc.). By separating these agencies, Gaudreault devises a system to define the multiple levels of a film’s linguistic and visual systems: “This collusion between the *film narrator* [the editor] and the *film-mega monstrator* (the latter being the result of a collusion between the *profilmic monstrator* [the director, actors, set designers, costume designers, etc.] and the *film monstrator* [the director of photography and the camera crew, etc.]) gave birth to the agent I have named the *film mega-narrator*, the agent ultimately responsible for

⁸² The narrator in this case, should not be thought of as an anthropomorphic agent, as the “narrator” is the agency that is responsible for screen titles, character dialogue, and other verbal/textual processes.

communicating a film's mega narrative" (Gaudreault 133). See figure 2:

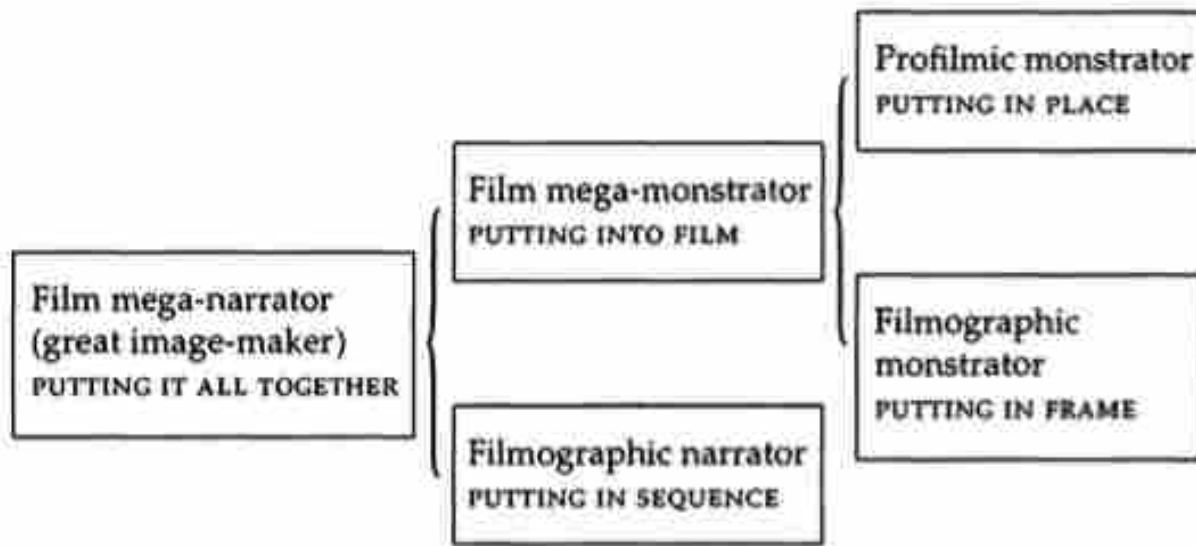


Figure 2

Gaudreault's categorization of narrative agents/agencies aligns with the narratological description of a textual narrative, as in Plato's and Aristotle's narrative categories. The film-mega narrator, for example, is the agent responsible for creating the *mimēsis* (the poetic representation of a story); the *diēgēsis* (the story itself) is the equivalent of the mega narrative, which is comprised of monstration (which can be thought of as mimetic diegesis/*mimēsis*) and narration (which can be thought of as non-mimetic diegesis/*haplē diēgēsis*). The latter, when combined, create the most common contemporary filmic mega narratives. The correlation between these categories is ultimately (and constructively) imperfect, but the consistent logic is that non-mimetic diegesis in this category is the content that is delivered by a narrator, which aligns with textual and verbal narration.

Gaudreault also aligns non-mimetic diegesis with editing in terms of the shot order, as these are the most common and familiar of the non-visual agencies (i.e., the discourse of the

storyteller or narration), whereas mimetic diegesis is the information that is presented via monstration, the information conveyed by images. The categories are imperfect, however, as a mimetic representation of the diegetic world can include character dialogue (which, rather imprecisely and arbitrarily, depends on the overtness of the narration, and the spectatorial awareness of said narration *as* narration). This imprecision is productive, however, as each instance must therefore be studied because each independent text will display idiosyncrasies and individual narrative strategies. Even beyond this inconsistency among texts the lack of clear narrative rules and categories more accurately reflects the polyvalent strategies of informational conveyance in polyaesthetic media. Film, for example, is the product of many converging creative agencies, and, by extension, many narratives. Imposing clear-cut and ubiquitous categories that are applicable in each and every circumstance would essentialize the theorization of filmmaking practices, which would be detrimental to understanding the dynamic and nuanced differences among film texts. Furthermore, the categories at hand, though useful, are fundamentally flawed, as they presuppose *a* mega narrative: a single unified thread that governs the interpretation of (if not outright effaces) the other narrative threads that exist both within and beyond a particular film.

Moving Beyond *a* Narrative

What is *the* mega narrative of *Jurassic Park*, for example? Even if one wishes to dispute the language (i.e., whether it is termed a mega narrative, a story, a narrative, etc.), it is difficult to dispute that there is an implicit assumption on behalf of film critics, film audiences, and even film scholars, that within a cinematic text there is *a* story. Although this may seem to be common sense, *Jurassic Park* is not *a* single unitary story; it is a porous text and a nexus of information. It

is a culmination of many stories that exist both within and beyond the boundaries of the text. It is an intermedial storytelling network. Essentially, what must be understood is that the hermetic boundaries of the text do not exist in actuality. There are many creative agents, for example, that are responsible for enunciating *Jurassic Park*: there is Universal (i.e., the production company) with its rich history of monster films that *Jurassic Park* extends and to which it responds; there is Steven Spielberg, as commercial auteur and stylistic agent; there are the intra-diegetic narrators who present their own stories (e.g., John Hammond's story of the park); there is Industrial Light and Magic as aesthetic agency that perpetuates the narrative of perceptually realistic FX; there are the generic conventions of the monster film that demand moments of revelation occur; and several others beyond these specific examples).

Each of these independent agents of information puts forth its own distinct yet interdependent narrative threads in *Jurassic Park*. It is helpful to think of a narrative as polyphony, which is the "style of simultaneously combining a number of parts, each forming an individual melody and harmonizing with each other" ("Polyphony, n.1."). In this case, the overall harmony is the information conveyed via film's mega narrative, but the harmony, like the mega narrative, is conveyed by many individual melodies, and each melody has its own communicative agent. A story, a narrative, a mega narrative, are all complex, as each agent's melody will be informed by the previous melodies of other agents, thus every narrative/melody is always already a composition of pre-existing narratives, an extension of those narratives, and a self-contained narrative itself, as in Bakhtin's discussion of the dialogic nature of novelistic language. A narrative is a plurality presented as a singularity, but, in fact, each melody has its own narrative agency, a unique agent or conveyor of information, each with its own purpose and agenda. It is from this position that narrative theory must operate, rejecting the univocality of *the*

textual narrator, and accepting the polyphony of the multiple creative agents that engage with the polynarrativity of contemporary cinema. Narratologists of contemporary cinema cannot work with the assumption that contemporary “film narratology is itself modelled, inevitably, on textual narratology” like the narratology of turn of the twentieth century cinema (Gaudreault 134).

Contemporary films are not the work of a sole author, nor are they univocal works, nor works of a single aesthetic, and therefore it is also necessary to explore the implications of the polyvocality of the multiple creative agencies, and, subsequently, the polynarrativity of the film text itself. As a result, this polyvalent narrative, is also a polyaesthetic narrative, and, thus, ultimately a syncretic one. It is a syncretic narrative composed of monstration and narration, which are two modes of informational conveyance, one a visual mode, and the other verbal/textual.

The point of highlighting all of these interrelated narratological terms and their complexly interwoven taxonomy is to illustrate the fact that, while theorists should continue to clarify and to delve deeply into the inner workings of cinematic narratives (and all forms of narrative for that matter), which function on a micro-level, a broader assumption remains underexplored, that of *the* narrative. Even in Gaudreault’s deep exploration of narratology, there is still one thread that weaves between his own work, Genette’s work (that Gaudreault does much work to clarify), as well as Plato’s and Aristotle’s, and that is that in all of the proposed models there is *a* narrative being presented, which can be accepted as the text, the film, the play, etc., itself. But, of more pressing concern is the more fundamental question, what do we mean by narrative, and, if narratology is to move forward, the next question that must be addressed is “why assume that texts include a single narrative?” If this is not the case (and I do not believe it

is) then "why do our models not incorporate polynarrativity?" And, subsequently, "how are we going to incorporate polynarrativity into our understanding of cinematic narratives?"

Certainly, there is a primary narrative that contemporary Hollywood blockbusters are designed to convey, but then there are sub-narratives, parallel narratives, political narratives, technological narratives, etc., regardless of whether or not there was ever any intention of engaging such narratives. Nevertheless, there are very clearly narrative agents that privilege certain narratives at certain moments in cinematic texts.⁸³ This is not to say, however, that narration is a stable and consistent force within a film. It is not. Instead, this is to say that there are competing narratives and narrative agents within a single text, and at certain points, certain narratives and narrative agents are privileged over others, who/which are most often identified within the text itself via stylistic emphases of one aspect of the on-screen elements over the others. Even beyond that which is depicted (via the image) or presented (via any other mode of communication), however, there are narratives that exist within cinematic texts that are not explicitly emphasized within the text itself, but are often primed via paratextual materials. Cinema, like all contemporary media forms evolving in the increasingly networked and interconnected digital world, is becoming recognized less by its uniquely definable and limiting qualities, but instead by its polysemy, its polyaestheticality, and polynarrativity, by its multitudes and interrelations rather its individualistic and independent qualities.

⁸³ Ultimately, though, it is important not to attribute a film's meaning-making to any one source (or even to privilege one source over another), the important thing is to perceive 'meaning-making' as a collaborative, interconnected network of processes, influences, and creative agencies that all contribute toward the meaning of the text.

The Legacy of Narrative Disruption: Wonder, Attractions, and Soviet Constructivism

If narratives are always already a collection of interwoven and interworking narrative threads represented by a compilation of “voices,” in the sense that cinematic narratives are a collection of many interdependent threads that exist both within and beyond the scope of the cinematic text, why, then, is there a consistent push by theorists to endorse the position that the value of spectacular imagery is in its ability to disrupt *the* narrative? In her analysis of VFX in the late 1980s and early 1990s, Pierson locates the potential of VFX in its ability to generate narrative disruptions that provide the cinematographic space and time to contemplate the aesthetic object in its entirety in order to generate a sense of technical wonder. FX, in relation to this formulation of techno-scientific-aesthetic wonder, are only intellectually meaningful when they have a privileged position over narrative in the first place. Pierson points out that FX theorists, such as Brooks Landon, have championed “the possibility that science fiction actually has its roots in a ‘non-narrative, spectacle-centered’ filmmaking that dates back to the earliest days of cinema” and that this “always potentially ‘interruptive spectacle of special effects’ begins to (super)impose ‘a kind of counter-narrative’ over the narrative being presented at the level of plot and story” (“CGI” 164-165). “The depiction of science-fiction narratives in these films [the FX laden science fiction films of the 1980s and early 1990s, such as *Tron*, *The Last Star Fighter*, and *Terminator 2: Judgement Day*, etc.] has in effect been displaced by ‘science-fictional modes of depiction’” (ibid. 166). Pierson suggests that the visual/presentational elements of science fiction films have the potential to either overwrite or arrest the cinematic narrative. I would argue that visual effects do not generate narrative disruptions. Instead, they highlight moments when there are confrontations between different narratives, which in this case

is that between the diegetic/cinematic plotted narrative (narrative) and the extra-diegetic/technological narrative (t-Narrative).

The technical/technological narrative of FX development and the display of the most recent manifestation of FX technologies has its own narrative, and its own communicative agency. Pierson points out that the t-Narrative has an important influence on spectators, and that it is a transmedia narrative developed between and amongst the FX trades magazines, fan cultures, and even the “publicity for the film” (i.e., the marketing campaigns that establish audience expectations) (ibid. 167). The communicative agency, then, is made manifest in the FX display itself, which in *Jurassic Park*, for example, are the dinosaurs. FX as communicative agents, thus, are polynarrative agents, and, rather than being sites or agents of narrative disruption, these are in fact moments of narrative surplus. FX convey multiple levels of information simultaneously. They are polynarrative agents, as they progress the plotted, technological, and other narratives simultaneously.⁸⁴ So, the question remains, why is there the suggestion that FX sequences are in fact narrative disruptions, whereby the “visual significance [of ‘80s and early ‘90s effects] was augmented by a style of arts-and-effects direction that, by bracketing the computer-generated object off from the temporal and narrative flow of the action, offered it up to the contemplative gaze of cinema audiences” (“CGI” 173)? The answer is two-fold: (1) to argue that FX are anti-narrative elements that can be bracketed-off from the rest of the narrative flow for the purposes of total contemplation allows FX to be redeemed from being merely “empty spectacles” because they are able to generate a specific brand of wonder logic; and (2) to engage with a broader tradition of resistance that links the early Soviet Constructivists with the ethics and ideals of the Cinema of Attractions, which positions the ethical potential of

⁸⁴ The "c-" narrative, in this case, is used for clarification purposes and it merely denotes the "cinematic" or plotted narrative.

the spectacular image precisely in its ability to arrest the narrative via attraction (which is itself a mode of self-reflexive spectatorial address that encourages a contemplative reaction), in order to elicit spectatorial curiosity and social awareness beyond the cinematic text itself. According to Pierson, “If there is still something progressive about techno-futurism [in the post-wonder years], it lies as much in the impulse to imagine these futures in the first place, as it does in enabling the imaging of amazing artefacts to again become the central focus of science-fiction” in order to allow the image to become wondrous once more (ibid. 175). The disruptive and self-reflexive focus of the ‘80s and early ‘90s FX as objects of contemplation, for Pierson, is the value that FX offer for spectators, rather than merely being empty spectacles. The narrative/spectacle divide, however, takes a very different turn when analyzed beyond the logic of wonder. Oftentimes, the same kind of disruptive/contemplative images that Pierson champions are maligned by film critics and audiences precisely for their anti-immersive qualities, and, unfortunately in popular discourse, the engagement with these non-immersive images does not generate the kind of positive/valuable contemplative reaction that Pierson suggests is possible. And yet, Pierson’s appreciation and championing of the novel computer generated image’s ability to disrupt narrative in order to generate wonder is not the only model that privileges the spectacle/narrative divide as being intellectually superior to non-disruptive formats. One that is also far more ubiquitous in the analysis of contemporary spectacular imagery is the cinema of attractions model.

The Cinema of Attractions and Its Consequences

One of the key theoretical paradigms when studying contemporary spectacular imagery in the cinema is the theory of cinematic attractions, and one of the principle guiding forces that

underpins the theory of cinematic attractions is the tension between spectacle and narrative. As Stephen Prince points out, this divide is essentially a two-part problem:

Critical discussion and popular culture often identify visual effects [i.e., spectacular imagery] with genres like science fiction, fantasy, and action-adventure rather than taking effects as a broader category of images that are coextensive with many forms of narrative cinema. And with science fiction, action-adventure or fantasy, effects are said to be ostentatious, attention-getting, and spectacular in ways that overwhelm narrative or halt it altogether. (Prince 37)

The first aspect, that effects are most often associated with science fiction, fantasy, and action adventure is motivated largely by way of the generic conventions of these films. As Aylish Wood notes, “the generic conventions of action and science fiction film, such as massive explosions, fantastical worlds and events, allow for and often demand that all of the available special-effects technology be put to use” (Wood 370). Contemporary marketing of science-fiction, fantasy, and action films privilege the “latest and greatest never-before-seen” visual effects more so than original story concepts, and evidence of such marketing strategies can be seen in the historical antecedents of these contemporary films. Spectacular imagery, and the novel technologies that produce such spectacular imagery, have been the primary drivers of cinematic attractions on a broader scale for quite some time.

It is pertinent to address some of the underlying assumptions that have contributed to the academic paradigm that accepts narrative and spectacle as being at odds with one another. Certainly, this kind of separation is nothing particularly new. For example, studies of the musical follow this logic. As Pamela Robertson points out in a discussion of *Gold Diggers of 1933* (LeRoy 1933), certain spectacles “temporarily halt narrative progress” as they conform to the

Mulveyian model of male spectatorial gazing (133). Wood aligns narrative with time and spectacle with space. In other words, narrative events occur over time, whereas spectacles exist in the *mise-en-scène* or cinematic space. The description of spectacular FX reflect this logic as they are typically described in spatial dimensions “an excess of surface,” etc., and can therefore be considered intrusions of space into narrative time (“CGI” 167). Gaudreault, Bordwell, Genette, and many others identify this division as originating in the poetics of Aristotle and Plato, emerging from the supposition that diegesis is antithetical to mimesis.⁸⁵ In terms of FX spectacle, however, the most influential source of disruptive spectacle logic comes from Tom Gunning’s landmark essay, “The Cinema of Attraction: Early Cinema, Its Spectator and the Avant-Garde.”

In this section I will provide an overview of the theoretical concepts, foundations, and the consequences of aligning the Cinema of Attractions with contemporary FX cinema (i.e., contemporary spectacular imagery on a broader scale), as understanding the Cinema of Attractions is fundamental to understanding the contemporary analysis of FX and, in particular, why they are often treated as a distraction from, or even antithetical to, narrative cinema. Furthermore, I will demonstrate that the narrative/spectacle divide that the Cinema of Attractions derives from is actually an extension of the formalist theorizations of the Soviet Constructivist filmmakers and the ethical ideals that disruptive cinema sought to achieve. It is necessary to address a number of areas and concerns, as there are a number of theoretical assumptions that underpin both the cinema of attractions and the contemporary application of Gunning’s theory to

⁸⁵ See: André Gaudreault’s “Early Narratology: Mimesis and Diegesis” in *From Plato to Lumière: Monstration to Narration in Literature in Cinema* (1988. trans. Timothy Barnard, Toronto, Buffalo, and London: University of Toronto Press, 2009); David Bordwell’s *Narration in the Fiction Film* (Madison, WI: The University of Wisconsin Press, 1985); Gerard Genette’s “Frontiers of Narrative” in *Figures of Literary Discourse* (trans. Alan Sheridan, New York: Columbia University Press, 1982).

blockbuster films and their FX.⁸⁶ These issues range from, but are not limited to: (1) a lack of terminological specificity; (2) a false dichotomization of visual novelty and narrative; (3) the maintenance and championing of Constructivist ideals (i.e., the championing of disruptive strategies as the means to creating politically engaged cinema); (4) the misinterpretation of the Cinema of Attractions as a generic form, and, most importantly; and (5) the homogenization of the many functions and modes of attraction. The difficult aspect of tackling the theoretical formulation of “attractions” is that, like wonder, it is a complex grouping of interdependent assumptions and concepts that require tracing, clarifying, and revision. In this section, it is my aim to highlight the interrelations between wonder, the Cinema of Attractions, and early debates of formal reflexivity to illustrate that the ethical ideals of all of these theories and theoretical models share a similar preoccupation with narrative disruption as the ideal mode of ethical spectatorial engagement, with the explicit reasoning that disruptions, confrontations, and reflexivity will provoke the spectator into a pattern of intellectual thought and engagement, via (at least momentary) distancing.⁸⁷

⁸⁶ In the next chapter I will show that the majority of the highest grossing films of the past forty years have been effects-centric, largely belonging to the science fiction, fantasy, and action-adventure genres. Furthermore, the FX in more than 50% of the highest grossing blockbuster films were generated by Industrial Light and Magic. (I use “blockbuster” here to refer to a loose nexus of films that privilege VFX, are typically of the science fiction, fantasy, and action adventure genres, and have effects created by Industrial Light and Magic.)

⁸⁷ As a point of clarification, self-reflexivity and distancing are suggested to generate a more politically engaged spectator via the theatrical theorization of Bertolt Brecht, as he suggests that “Such [distancing] images certainly demand a way of acting which will leave the spectator’s intellect free and highly mobile.” The purpose of which is “designed to free socially-conditioned phenomena from that stamp of familiarity which protects them against our grasp today” in order to ensure that the spectator is not lulled in being a “cowed, credulous, hypnotized mass (37; 43; 29). Alienation and distancing for Brecht created the conditions by which spectators could

Attraction and the Lack of Terminological Specificity

Even though Tom Gunning's theory of a "Cinema of Attraction(s)" was developed in relation to early cinema, it has become the ubiquitous framework through which to analyze the contemporary blockbuster, as evidenced by the writings in Wanda Strauven's edited collection of essays from 2006, *Cinema of Attractions: Reloaded*. The application of the theory to contemporary blockbusters, however, has a number of problematic implications. More specifically, contemporary blockbusters are seen to function with greater monstration than narration. Beyond the explication provided above regarding Gaudreault's monstration, Wanda Strauven extends the term's reach to apply specifically to the Cinema of Attractions: "Monstration (showing) is to narration (telling) what presentation is to representation or, in Gunning's terms, 'exhibitionism' to voyeurism. It is all about the cinema's ability to show something, to 'make images seen,' to directly address the spectator" (15). In the case of this particular term, Gaudreault and Gunning suggest that cinema was first "the 'system of monstrative attractions' and the[n] second [became] the 'system of narrative integration'" both of which are distinct modes of cinema (373). The consequence of such a formulation is that by establishing monstrative attractions in opposition to narrative integration is the dichotomization of the two modes of cinematic address, one that displays attractions for the spectator, the other inviting the

reflect upon the "constructedness" of the theatre, so that a type of theatre could be created "which not only releases the feelings, insights and impulses possible within the particular historical field of human relations in which the action takes place, but employs and encourages those thoughts and feelings which help transform the field itself" (35). It is through alienation, distanciation, awareness of the form, and reflection upon the information presented to the spectator that averts the crisis of uncritical, passive viewership of looking but not seeing. As Brecht states: "So let us march ahead! Away with all obstacles! Since we seem to have landed in a battle, let us fight! Have we not seen how disbelief can move mountains? Is it not enough that we should have found that something is being kept from us? Before one thing and another there hangs a curtain: let us draw it up!" (32). By creating moments of distanciation, alienation, and disruption, the spectator is given the opportunity to draw up the curtain and fight.

spectator to engage with a narrative.⁸⁸ To dichotomize these two modes essentializes the possibilities of cinematic engagement, however, because it suggests that there are two systems of cinema: one that shows, and one that tells. Of particular significance here, is that Gunning and Gaudreault align narration with immersion (spectatorial engagement with the diegetic world) and monstration with distanciation (spectators are directly addressed by the visual image). Attractions and narrative become antithetical on multiple levels in this formulation, and they also become ethically charged.

There are many problems with accepting this formulation when applying it to contemporary blockbuster cinema, and Gaudreault himself implicitly makes a similar suggestion in his explication of the terms diegesis and mimesis. Gaudreault traces a misrepresentation of Plato's terms *mimesis* as "imitation proper" and *diēgēsis* as "simple narrative" in the work of Gerard Genette, as simple narrative should be represented as *haplē diēgēsis*, and the omission of the word *haplē* allows for Plato's narratological categories to be represented as two contrasting categories: mimesis and diegesis (Gaudreault 42). But, as Gaudreault suggests, *diēgēsis* as "the term narrative on its own is reserved for the 'family of genres,'" whereas *haplē diēgēsis* is the mode of overt narration within the text itself (43). This is all to say that Gaudreault is very careful to state that imitation (the acting out of the narrative) is distinct from narration (the telling of the narrative by a narrator), and that neither of these actions is antithetical to N/narrative itself.

⁸⁸ Even though Gunning suggests that these modes of cinema appear in chronological sequence, rather than being oppositional, the distinction between the modes has produced opposing camps. Furthermore, in order to differentiate the modes of filmmaking (even in chronological terms), they are opposed. Essentially, the example appears as: first there was A and then there was B, and the supposition is that A is fundamentally distinct (opposed) to B. They must necessarily be opposed in order to differentiate them chronologically. If they are the same thing, then they cannot be differentiated in chronological terms. Thus, these filmmaking modes appear in chronological sequence, and are positioned as being oppositional in their style.

And yet, Gaudreault's work has been interpreted to suggest that there is a division between narrative/non-narrative modes, and monstration is interpreted as being anti-narrative. It is not: monstration is a visual conveyance of information (showing) that is distinct from the process of narration (telling). This does not suggest that monstration, by extension attractions or spectacular images, arrests the cinematic narrative (or that showing prevents telling or any such similar formulation). In fact, to suggest that an attraction is presented to the spectator as somehow apart from the narrative of the film is not only impossible, because the film as communicative medium is always conveying some kind of meaning or information, but it also undermines the role and function that FX and spectacular images have in contemporary cinema as monstrators, and agents of informational conveyance. The most difficult aspect to grasp in the argument presented by Gunning and Gaudreault is: what precisely is meant by "narrative" and what comprises a narrative in contemporary cinema, and what precisely constitutes an attraction?

The question regarding the lack of specificity around the meaning of narrative (and how both monstration and narration affect narrative) can be answered by examining the intended function of the cinema of attractions. Gunning, in his seminal essay, attempts to create space for a cinema that is not *narrational* in its focus, or rather a cinema that exists with greater autonomy than just merely "the cinema before narrative cinema" or "proto-narrative cinema," as these formulations posit "narrative" as the primary and quintessential achievement of cinema (i.e., narrative determinism) (Buckland 48). According to Gunning, "[t]he history of early cinema, like the history of cinema generally, has been written and theorized under the hegemony of narrative films" (64). According to Warren Buckland, "[t]he problematic Gunning addresses here is therefore the hegemony of film history, which relates all films positively or negatively to the monolith of narrative, as opposed to the heterogeneity of the actual relation between the films"

(45). Gunning's maneuver to dislodge early cinema, or the Cinema of Attractions, from the narrative hegemony of contemporary film history is incredibly fruitful and productive when it comes to analyzing early cinema as a heterogenous cinema that is distinct from classical narrative cinema.

The difficulty with this formulation, however, is not with the notion that early cinema should be analyzed as a cinema unto itself, but with the dichotomization of image and narrative. While splitting image and narrative (akin to the *syuzhet/fabula* divide) may be a positive heuristic approach for early cinema, the theoretical ramifications are more problematic. When scholars notice certain thematic consistencies between the Cinema of Attractions and the contemporary blockbuster, the separation of image and narrative encourages a theoretical model that aligns the novel image as attraction, *under* or *behind* (choose your spatialized metaphor whereby the novel image obstructs spectator engagement with the narrative) which the blockbuster narrative operates. In other words, the narrative operates independently from the novel image.⁸⁹ The result is that the images that have come to define contemporary blockbuster cinema are seen as distinct from, and yet measured against, the film's narrative. Although it provides a space for the Cinema of Attractions to exist as a cinema distinct from narrative cinema, this unintentional consequence of the separation creates a model whereby the novel image in contemporary cinema is antithetical to the narrative, even though the novel image and the narrative exist in the same space, simultaneously. The result of this is that there is a constant measuring and valuation of the novel image against the value of classical narration. Attractions, therefore, are scrutinized in light of narrative, which is still a dominant guiding or central

⁸⁹ I propose this spatialization as a useful structure through which to understand the problematic treatment of VFX: if the visual effect is that which hinders or facilitates spectatorial focus upon the narrative, then, visually speaking, the effect is privileged as that which comes first. The visual effect must precede, spatially and visually, that which flows after/behind it.

experience. Anything that deviates from narrative is, thus, a disruption, a distraction, etc., from the narrative: a cinema of distractions if you will. This negatively posits “attractions” or “distractions” (in this case anything that is visually novel) as being that which hinders the spectator’s relationship with the narrative. This formulation, therefore, situates the narrative as the primary mode of cinematic expression and experience, to the point that narrative is cinema, and anything else is a kind of counter-cinema.⁹⁰

And yet, there is a conflation of terms that has caused some complications for the theorization of spectacular imagery in contemporary cinema, which theorists such as Kristen Whissel are attempting to address. The complication is that narrative (i.e., story) and narration (i.e., the process of telling a story) are conflated. Subsequently attractions (i.e., novel images) are contrasted with narrative, when really what is at odds here is not narrative and attractions, but *narration* and *monstration*. Analyzing the cinema of attractions as a generally monstrational cinema, one that displays information via the visual mode, versus a narrational cinema that conveys information via the linguistic mode, is a very different beast than analyzing two forms of cinematic expression as being diametrically opposed, the visual and the story. Furthermore, diametrically opposing an attraction and narrative is a hangover from, and misperception of, Eisensteinian logic.⁹¹ Sergei Eisenstein suggests that an attraction “is any aggressive aspect of

⁹⁰ This kind of distanciative disruption is also identified as characteristic of a so-called “Brechtian” cinema, which, again, is perceived as an ethically positive cinema, whereas these disruptions in blockbusters are valued (at least by popular viewers and critics) as a hindrance and annoyance. For analyses of applications of Brechtian theory to cinema, see: Peter Wollen’s “Godard and Counter Cinema: *Vent D’Est*”. *Film Theory and Criticism: Introductory Readings*. 7th ed., eds. Leo Braudy and Marshall Cohen. New York: Oxford U Press, 2009: 418-426; Brian Henderson’s “Towards a Non-Bourgeois Camera Style,” *Film Theory and Criticism: Introductory Readings*. 7th ed., eds. Leo Braudy and Marshall Cohen, New York: Oxford U Press, 2009: 54-64. Brecht’s influence on cinema, or Brechtian conceptions of cinema, will be discussed further later in this chapter.

the theatre; that is, any element of the theatre that subjects the spectator to a sensual psychological impact, experimentally regulated and mathematically calculated to produce in him certain emotional shocks . . . when placed *in their proper sequence in the totality of the production*" (78; my emphasis).⁹² The attraction, according to Eisenstein, was never at odds with narrative; likewise, according to Jacques Aumont, "[t]he attraction is an 'aggressive' and sufficiently autonomous peak moment *in the performance*" (Aumont 42; my emphasis). Much in line with Pierson's retention of narrative disruption to meet the requirements of philosophical wonder, Gunning makes a similar maneuver it seems, whereby the attraction is thought to be autonomous *in relation to the performance/narrative*, but in fact it is a moment of shock, a moment of self-reflexive spectatorial awareness, designed with the intention of agitating the spectator into reflecting on their psycho-sociological reality, which is what I am using to mean "ethical cinema."

Bertolt Brecht puts forward a similar position to Eisenstein in *A Short Organum on theatre*, in which he suggests that alienating and distancing the spectator by exposing the means of production is the key to ethical theatre performances, as it exposes the ideological formations that underpin immersive narratives (8-10). Furthermore, Eisenstein directly opposes attractions to tricks and stunts, which is problematic for the theorization of a contemporary blockbuster Cinema of Attractions, because many of its critics align the contemporary blockbuster Cinema of Attractions with what could be considered shallow tricks and gimmicks. Since the stunt, for example, "signifies something absolute and complete *in itself*, it is the

⁹¹ While it is problematic to challenge a concept that is accepted as commonplace, my hope is that by highlighting the history of Eisenstein's concept, scholars can re-evaluate how it is commonly accepted.

⁹² This excerpt is taken from Daniel Gerould's 1974 translation of Eisenstein's treatise, *Montage*, which is written in 1937, and first published in 1964.

opposite of an attraction, which is based exclusively on interrelation—on the reaction of the audience” (Eisenstein 79). Thus, the attraction has never been an *independent* or segregated element at odds with narrative modes of representation, but instead, the attraction becomes part of the “principles of building ‘a construction that has impact’ (the performance as a whole), instead of a static ‘reflection’ of a given event necessary for the theme” (Eisenstein 79).

Furthermore, it is important to note that, according to Eisenstein’s theorization, attractions are merely one element of a larger montage sequence “with a view to establishing a certain final thematic event” (79). In other words, according to Eisenstein, the attraction is in fact a central component of a broader narrative, and only in the moment is the attraction seen as something different than a standard mode of narration and representation. Furthermore, in functioning as a kind of Brechtian element of distancing, the attraction generates a *stronger, more aggressive, more influential* narrative.

Attraction: A Cinema Apart

Despite the problematic division between narrative and attractions in film theory, novel and spectacular visual displays of “attractions” have garnered a reputation in popular criticism as creating a cinema apart. While this formulation may sound heavy-handed, it is nevertheless ubiquitous in popular criticism. Positive or negative, the most typical way of reading a contemporary blockbuster film is dualistic: there is the narrative, and then there is the visual display of novel spectacular imagery. Take for example these critical responses to *Tron Legacy* (Kosinski 2010): “The effects are above average while the plot is a mess. If glitter is enough for you, well have at it!” (Cooper); “Stars Jeff Bridges and Garrett Hedlund play second or third fiddle to the glitz, so place your movie ticket bet on vibrant reds and blues that reach out of the

screen to be the main attraction here. It's all in the eye candy" (Crum); "It's all such a rapturous, body-encompassing sensory experience that the sheer pointlessness of the story... is rather easy to ignore" (Brayton); and "In the end, this is a travesty of a story and a failure of a sequel, but an absolute triumph for CGI... it is to the original *TRON* what *Avatar* is to *Ferngully*" (Deigman). More often than not, contemporary visual effects (as attractions/novel visual displays) are derided for being distracting, for disrupting narrative immersion, and subsequently for being the reason why narratives fail. This dualism (visual display/narrative immersion) is largely dependent on how the visual display is understood as an attraction (i.e., that spectators engage with cinema either for the narrative or the attraction), but this dualistic formulation is oversimplified. What I propose, then, is a reconsideration of how we understand contemporary attractions, and that we reject the attraction/narrative divide, while refocusing the theory on how these attractions are formulated for the spectator. I will argue that the term "attractions" actually alludes to a multiplicity of distinct elements in contemporary cinema, and what is required is a revisiting of the term with a focus on the specificity of each of its distinct elements. As it has been discussed above, in relation to the terms narrative and narration, and diegesis and *haplē diēgēsis*, a lack of terminological specificity has led to a conflation of many different influential factors being viewed as one and the same, which complicates the potential theorization of attractions. Attractions, when employed to describe aesthetic objects of contemporary cinema (most often in relation to contemporary Hollywood blockbusters that employ ever evolving visual effects, and that produce often digitally rendered, large-scale characters—in the literal sense of on screen scale), actually refer to at least three different influential elements: (1) the marketing of visually novel objects to spectators; (2) moments of revelation and the moment of peak excitement within the cinematic object; and (3) the visually novel display within the

cinematic object itself. For the purposes of this study, I will call the first mode “marketed attractions,” the second mode “moments of revelation” or “peak thrills,” and the third mode “visual novelty.”

Warren Buckland highlights the moment in Gunning’s argument, where Gunning addresses the fact that even though Méliès and Lumière occupy opposing positions on the narrative and non-narrative poles, respectively, scholars may in fact “unite them [Méliès and Lumière] in a conception that sees cinema less as a way of telling stories than a way of presenting a series of views to an audience” (Qtd. in Buckland 48). It is striking how this works as a rather fanciful construction, however, as it does nothing to delineate the one mode (presenting a series of views) from the other (telling stories). How is presenting a series of views antithetical to narrative, and how does narrative prevent the display of a series of views? Gunning’s point is clear: that cinema itself does not need to be narrative in mode, and that the cinema typically is an image based technology (arguably even a black/blank screen with a soundtrack is an image of emptiness: the presence [present-ness] of sound juxtaposed with the absence of the image). Therefore, Gunning privileges the visual element of the cinema as its primary function, over that of telling stories, which is in fact merely the inversion of many critics’ complaints that the image distracts from the narrative. Furthermore, to privilege the image over all other aspects of the cinema is to reject the notion of the cinema as a total system, which does a disservice to sound, to narrative, to the establishment of expectation established by extra-cinematic (paratextual) materials, such as trailers, etc. It is not in this divide that we find the identity of cinema; cinema’s identity is amorphous, born of a system that unevenly privileges certain elements at different moments in the same film, and at different times in film’s history.

Certainly, I agree with Gaudreault that turn of the twentieth century cinema is a cinema of monstration; however, to suggest, as Gunning does, that cinema is a cinema of monstration simply because it is a medium that presents a series of views, is overly simplistic. Just because the cinema as a medium is capable of presenting attractions, it does not follow that its identity should be predicated on this one capability over others. Instead, what is of much greater interest is the question, "why are attractions and visual displays privileged elements of cinema during different periods in film history?" which in this case is during the formative years of cinema, and now in contemporary cinema. In addition, what must also be clarified is: "what constitutes an attraction during these two periods?" Understanding what constitutes an attraction, and how attractions have changed over time, will provide a unique lens to study a rather homogenized, if not overtly overlooked territory for cinema studies. If the cinema of attractions was absorbed by narrational cinema, as Gunning suggests, why did the mode of informational conveyance shift from the visual to the textual? Are the attractions actually the same if they were in fact subsequently integrated into narrational cinema, as Gunning suggests? And what, moreover, does this say of cinema's potential? One way of answering that question is to suggest that it is not going to be a cinema of views or stories at all, but one of informational conveyance within a larger ecosystem of competing interdependent media forms (which it always has been, but now in the digital age of prominent and prolific intermedial networked narratives, the reality of this situation is much more explicit). Cinema is always offering information to spectators, but, as film history has shown, the form and mode of informational conveyance will always be in flux; plus, the delivery of that information will always be a multifaceted process with the intention of generating a multitude of experiences via the plentitude of possible visual and auditory informational conveyances.

As Buckland reminds us, moreover, “Gunning argues that ‘recent spectacle cinema has reaffirmed its roots in stimulus and carnival rides, in what might be called the Spielberg-Lucas-Coppola cinema of [special] effects’—or ‘tamed attractions’” (52). The attractions in contemporary cinema are tamed, according to Gunning, because they have lost their political shock value (along the lines of Constructivist ideals), leaving only aesthetic novelty. If the attraction loses its political shock value, can it still be considered an attraction?⁹³ Ultimately, I

⁹³ This is not to suggest that ‘shock value’ is *necessarily* political in its effects. In fact, quite the opposite. Shock, distanciation, alienation, medial awareness, etc., can no longer be considered the ‘gold standard’ of political cinematic techniques. Rather, determining what qualifies as political cinema is largely dependent on the social reactions to film texts. *Get Out* (Peele 2017) and *Wonder Woman* (Jenkins 2017), for example, both appear to be ‘political cinema’ in the sense that they both act as cultural loci to facilitate discussions of race and gender disparity in contemporary North America. Perhaps, a statement such as this would draw the ire of one of cinema politica’s greatest champions, Jean-Luc Godard (whose multi-part series for television *Histoire(s) du Cinema* is so beyond the realm of conventional cinema, that the ten-year project cannot even be found on the popular review site *RottenTomatoes*), and perhaps this is the moment that marks the death of ‘political’ cinema. With that being said, even some of Godard’s prominent advocates, such as Richard Brody (the American film critic who penned a biography of Godard in 2010, entitled *Jean-Luc Godard, Tout est Cinéma: Biographie*), have recognized the ‘political’ significance of Patty Jenkins’ *Wonder Woman*, even beyond the commercial success of a film directed by a woman (success, which ultimately, should not be surprising in the first place), as Brody succinctly states:

It’s a visual tale of oral history, an allegory that cuts both ways: even as the segregation of women on Themyscira sends Diana into the world with a narrowed view of humankind, male-dominated human society at large, which keeps women largely out of power and cultural authority, keeps itself stultified, blinded, ignorant, oppressive, violent, warmongering. This, too, is part of the film’s exemplary present-day framework, both dramatic and ideological. Diana isn’t a warrior to end all wars, she’s a warrior to warn against wars—and against the parochial, self-enclosed island doctrines which are employed to justify them. (n. p.)

The fact that blockbusters and art films both operate as ‘political cinema’ is a testament to its multiplicities and complex networks, which in and of itself, suggests that searching for ‘shock value’ to prove the presence of the political is grossly inadequate. Furthermore, regarding the term “political cinema” itself. It can be argued that the term should be kept for radical films that place an emphasis on formal experimentation, innovative modes of narration, monstration, etc. In comparing *Wonder Woman* to *Week End*, which is like comparing apples to oranges, my aim is to encourage debate regarding the question of political efficacy regarding both types of films’ modes of political or cultural engagement. Regarding *Wonder Woman*, the question could be posed, “what difference will it make?” To which I would respond, “what kind of a difference do

would argue that an attraction may no longer be an attraction if it loses its novelty, or its shock value, but only in the sense that the attraction may no longer “attract” a spectator’s attention based on novelty. I would also argue, though, that the political value of attractions is no longer based on their ability to distance or even “shock” spectators, as Eisenstein and Brecht argued, because spectators are arguably more aware than ever that they are perceiving information via media apparatuses.

If the commercial success of *Deadpool* (Miller 2016) has proven anything, it is that self-reflexivity, in the theoretical sense, no longer shocks, which is also why revisiting these terms (narrative, wonder, attraction) and their theoretical underpinnings, is so important. Furthermore, the link between attraction and political shock value remains indeterminate in Gunning’s essay. While Gunning’s essay does not clarify if the political shock value is a necessary condition of an attraction, in looking at Eisenstein’s writings on the attraction, this is precisely where he locates its power: it is a “molecular (that is, component) unit of effectiveness” (78). This passage could in fact be read more accurately as *affectiveness*, due to Eisenstein’s interest in engaging the spectators’ thoughts via “the living play of passions” (78). Moreover, even if we accept, as Gunning has suggested, that contemporary attractions (i.e., visual effects and spectacular images) have lost their political shock and their visual novelty, does that mean that we can really claim that visual effects/spectacular images in contemporary cinema are “non-illusionistic, that they are

we mean?” I would argue that *Wonder Woman* has the potential to influence certain kinds of acceptance and encourage conversation about gender equality, even though I recognize that it is a highly problematic mode of film due to its position within late-capitalist culture (i.e., that it is a highly efficient vehicle designed to maximize profit). Nevertheless, when discussing a kind of influential cultural politics, however, I would argue that the significant viewership that blockbusters have provide them with an opportunity to have a significant influence on contemporary popular cultural discourse, and therefore have some kind of political agency. The issue, then, may be a terminological one, in which perhaps I should clarify that “political cinema” in the Godardian sense means films that are challenging in a radical formal sense, whereas cultural political cinema engages in the effort to promote positive cultural discourse.

not coopted into the ideology of realism and credibility?” (Gunning 52). No, we cannot, and should not, because this kind of theoretical formulation—that if spectacular imagery does not create a cognitive shock it lacks intellectual value—promotes a kind of homogenization of spectacular imagery appreciation. Certainly, spectacular images have more to offer than their potential to deliver shock value, and certainly cinema has more to offer than the disruption of conventional narrational processes.

Cinema’s Modes of Informational Conveyance

According to Noël Burch, studying early cinema is less about doing historical research, and more about challenging the idea that early cinema naturally conforms to classical Hollywood’s cinematic language and its sets of codes and conventions. “Burch demonstrated that this language was not inherent to the medium and that the first filmmakers and camera operators went about things differently (they used other ‘codes’ and had recourse to a different ‘language’ in order to filmically ‘address’ their contemporaries)” (Gaudreault 12). Yet, before we draw comparisons between early cinematic and contemporary modes of informational conveyance, we must understand the nuances of how that informational conveyance works (just as Gaudreault does by parsing out the nuances of mimetic and diegetic modes of informational conveyance). Privileging an object on screen (i.e., cinematographically centering and intensifying the focus of the spectator's eye onto the object) is not necessarily the same as self-reflexivity, for example. Such moments of self-reflexivity as the combustion of the film in *Persona* (Bergman 1966) or when the film can be seen coming off the sprockets in *Fight Club* (Fincher 1999) draw attention directly to the medium itself in an attempt to encourage viewers to

think about how the medium operates.⁹⁴ The medium-centric self-reflexivity differs significantly from the privileging of an onscreen object, such as the revelation of Godzilla in the 2014 version of the eponymous film, in an attempt to fulfill viewer expectation and simultaneously draw spectators into the story world. Nevertheless, even though self-reflexivity and privileging and onscreen object differ significantly in terms of style, they both in fact, mark a moment in which the information conveyed by the cinematic image is intensified. As another example, in *Jurassic Park*, when the Tyrannosaurus breaks through the fence, it does not create a radical rupture with conventional narrational processes. Instead, the Tyrannosaurus, as both image and as monstrator, to borrow Gaudreault's term, in fact facilitates the process of informational conveyance, while functioning as a narrative nexus.

Further to the fact that the moment of the Tyrannosaurus' escape does not constitute a narrative break (which I will explain in greater detail in the next chapter), it is a moment with a significantly different sensibility than the films Gunning explores and uses to define the attractions that comprise the Cinema of Attractions. The appearance and privileging of the dinosaur within the narrative and cinematographic space, for example, is a radically different moment of informational conveyance (or even monstration if one were inclined to limit the informational conveyance to the generally visual mode of presentation) than the kind of direct address that is performed by the voyeuristic character in *Five Ladies* (Pathé 1900) as he beckons the spectator to literally look with him. Further to this, however, is the fact that the visual direct

⁹⁴ In both the examples, from *Persona* and *Fight Club* respectively, there are also meaningful connections between these moments of radical formal reflexivity and character, theme, story, etc., which further supports my suggestions that narrative disruption is an inadequate description when referring to moments of wonder. Even in the moments when the medium is laid bare, and intense distancing techniques are employed, there is still an intense interplay of information being presented on screen. Moments of intense self-reflexivity, distancing, alienation, are not moments of narrative disruption at all, but of narrative intensification.

address in *Five Ladies* is not the same kind of visual gag or display of a novel technology that is central to even *The Gay Shoe Clerk* (Porter 1903), whereby the close-up provides a “tantalizing” view of a woman’s ankle. Even though all three of these examples can be defined as monstrational moments (as they all convey significant information via visual means), the voyeur in *Five Ladies* literally beckons the audience to look upon the five ladies with him, whereas the other two moments are presentations of novel technologies. And yet, even though the Tyrannosaurus is a presentation of a novel technology, the mode of informational conveyance is significantly different than the close-up in the *Gay Shoe Clerk*. Essentially, the *Gay Shoe Clerk* and *Five Ladies* are gag films.

The Gay Shoe Clerk puts on display the technical potentialities of the cinematic medium, and provides an unexpected, visually humorous twist. In this formulation, to define the film as an attraction (in the popular sense, rather than the Eisensteinian sense that privileges political shock over novel experiences) makes sense because it provides the spectator with something visually novel generating a peak thrill in a moment of revelation. *The Gay Shoe Clerk* pivots on the moment when the clerk is overwhelmed by desire, after which the point of view is motivated by the desire of the shoe clerk. It could be argued, however, that the clerk’s desire was designed specifically to display a novel technological aesthetic: the close-up. Because of the suggestion that the narrative is designed to display a novel technology stylistically, it highlights how and why contemporary blockbuster FX cinema is compared to the cinema of attractions. Critics and theorists of postclassical cinema argue that contemporary blockbuster narratives are written, in part, merely to display novel technologies, which I ultimately dispute. Merely displaying new technologies is a poor business strategy that does not ensure strong economic returns, and thus it is antithetical to the business-centric/corporate logic of postclassical blockbuster films.

Nevertheless, the pivot point of the visual gag of *The Gay Shoe Clerk* is predicated on the visual novelty of the medium. There is a sense of whimsy, fun, and play present in a many of the Cinema of Attraction gags, a sense that is markedly missing in the majority of contemporary FX films.⁹⁵ In *The Gay Shoe Clerk*, the clerk succumbs to the stereotypical power of a woman's ankle, but the overwhelming "power" of the ankle is manifested on screen in the close-up, presented as an all-encompassing force by way of a technical novelty. Both technical novelty and visual gag are presented in this case as a good "fit" as an attraction. Problematically, though, because the gag itself is realized via novel technology, and functions as an attraction, all three become synonymous: gag = display of novel technology = attraction. As a result, there is a natural correlation between the cinema of attractions and contemporary FX cinema. A number of elements are missing in contemporary cinema, however, and this formulation betrays some leaps in logic considering that the *Jurassic Park* scene is vastly different from that of the *Gay Shoe Clerk*. If a technical marvel, or a visual object, or a shot that is made possible because of a novel technology (that is, a cinematic technology that has been recently developed) equals an attraction, then each and every new technological advancement in the cinema should be considered an attraction, which of course is not true.

Many technological advancements go unnoticed in the cinema; for example, the digital deletion of setting elements in *Jarhead* (Mendes 2005) or the color timing in *O Brother, Where Art Thou?* (Coen Bros. 2000). On the other hand, there are shots and visual objects that have all of the trappings of an attraction, and are presented as attractions, and yet are not based on a novel

⁹⁵ Comedy is, of course, a key element of contemporary blockbuster appeal (as evidenced by the success of the Marvel film franchises, such as *Guardians of the Galaxy* and *Thor*, and even the most recent *Star Wars: The Last Jedi* (Johnson 2017), all of whose stories emphasize comedic gag moments. These moments, however, are generally constructed beyond visual novelty, or in other words, visually novel technologies are distinct from the moments of comedy.

technology. For example, the most stunning shots of space ships in *2001: A Space Odyssey* are actually based on some of the oldest techniques and technologies of optical printing and rotoscoping, thus, technical novelty is not necessarily a prerequisite of an attraction.⁹⁶ Similarly, the stop-motion work of Ray Harryhausen is clearly representative of the same kind of shot scale and style as contemporary blockbusters (e.g., the fight in *Jason and the Argonauts* (Chaffey 1963) between the Argonauts and the giant bronze statue, Talos), and yet is dependent on stop-motion animation practices, which were introduced in 1912 in the short film *Modeling Extraordinary* (Booth) as far as film historians currently know.

The formulation of an attraction as a visual object presented via novel technology cannot be the fundamental qualifier of an attraction, particularly when looking at the Cinema of Attractions, because, according to its theorization, the Cinema of Attractions is also largely related to visual gags. In contemporary cinema something different is happening, and to use novel technology as the litmus test for attractions is not particularly helpful. Because cinema is a technological medium founded on novel technological developments, there has not been a decade in film history that was not rich with technological developments. Technological novelty, as a category of cinematic analysis, therefore, suffers from the same logical flaw as the theory that explains everything. Novel technological advancements are so ubiquitous throughout film history that they can be the argumentative basis for nearly every change in the course of that history, and thus represent a poor candidate to explain nuanced differences between historical periods. Displaying novel technologies is, perhaps, *the* defining characteristic of the cinema, and yet, the display of new visual technologies does not explain why certain images and certain kinds

⁹⁶ Ironically, front screen projection (used in the origin of man sequence) was actually developed for *2001: A Space Odyssey*, and was a novel technology. The front screen projection, however, is largely visually downplayed as technology and is less “attractive” than the space scenes, which are achieved via rotoscoping painted ships.

of genres occupy the socio-cultural consciousness of spectators at different times. Furthermore, during moments of its display, technological innovation often goes unnoticed to those viewing a film, unless spectators are otherwise informed about the innovation prior to viewing. Most technical innovations are not publicized or overtly apparent on the screen, such as advances in film stock, camera models, lens developments, Steadicam rigs, color grading, etc.. Therefore, highlighting technological innovation as the key to an attraction actually misses the value of studying attractions. It is not the technology itself that is interesting, but what that technology presents that is interesting.⁹⁷ Nevertheless, technological innovation is typically one of the main elements that is highlighted in the marketing of attractions; I would argue, however, that it is in fact how the aesthetic object is treated and foregrounded (both in the marketing and paratextual materials, and cinematographically in the film itself) that determines its status as a contemporary attraction. Beyond that, I would argue that there is much more at stake when defining an attraction, and that there is something much more interesting occurring during these moments than merely the display of novel technology.

In order to understand what is happening in these moments it is important to know how informational conveyance has been thought of traditionally, which is largely as narrational in its form. Ultimately, narration and monstration, as terms, assert an image/language dichotomy, and narrative is an extension of this language that maintains the division. Narrative is inadequate in this sense because cinema presents and conveys “information,” which does not respect clear

⁹⁷ I say this with the caveat that the technology itself is interesting, as the fact that this study is being written is a testament to the value of such technologies. In terms of Hollywood’s marketing strategies, however, rarely is new technology the focus of a marketing campaign. Instead, it is usually the byproduct of the technology that is privileged: it is the immersive experience of “being in” Pandora that is offered by the 3D technology developed for *Avatar* that is of interest for the marketing campaign, not the dual camera rig, nor the circularly non-colored polarized glasses that are actually responsible for the achievement of the 3D effect itself.

divisions of language and image.⁹⁸ Complicating this is that a number of theorists refer to “narrative” as shorthand for “story” (and the telling of character-driven stories appears to be conflated with the primary objective of cinema), but narrative is such an inadequate term in this sense, because it assumes that the prerogative of cinema is to follow the character-centric narrative/story driven model as outlined by the likes of Robert McKee in *Story*, Syd Field in *Screenplay*, or any other author of screenwriting manuals. The agenda of that informational conveyance—even though there are certainly longstanding traditions and trends of its use—should not *have* to adhere to said traditions or popular concerns (i.e., narrational character-centric storytelling). To encourage this kind of adherence to such conventions is to adhere to the capitalistic agendas of Hollywood film studios. Hollywood knows that in terms of narrative structure and content, “repetition with variation” sells (Hutcheon 4). This formulation has been highlighted by McKee, and noted by Bordwell in *The Way Hollywood Tells It*, and is much discussed by adaptation theorists. Even though this is an economic and commercial reality, theorists are not obliged to reinforce such a model.

What digital cinema has highlighted is the fact that theorists need to reevaluate, or at least clarify, our thinking as theorists and to ask why we assume that Hollywood’s character-driven linear narrative model is the most popular, and therefore that it is the correct one, or even assume that narratives need to follow this model. What is clear though, is that if the cinematic unit is a combination of interdependent elements (image/sound/creative agency), then a film is a string of

⁹⁸ Information, as a term, is more inclusive than either narrative or story, as both narrative and story are associated with a character-driven, action-centric progression, typically told *by* an anthropomorphic agent, whereas information can come from any source, and it does not have to contribute to a particular action- or character-centric agenda. Information is merely that which is conveyed by a film, regardless of whether that information is delivered linguistically, via an image, or any other source.

elements and each element is necessarily porous, because each element will be comprised of the labour (creativity, work, etc.) of numerous creative agents. By this I mean that a filmic element has many entrance points through which a spectator may engage with any number of creative aspects of individual shots and appreciate them on many distinct yet interdependent levels. Even though I would argue that this has always been the case, it has only been because of the recent confrontations with digital technologies that theorists have really had to reevaluate the hermetic nature of the shot. Nevertheless, what continues to be interesting is why are spectators consuming the images that they are, and how is information being conveyed to spectators? These are both narratological and aesthetic concerns. And, as a result, the informational conveyance of the spectacular image cannot be thought of as a separate from the rest of the film, or as an entity unto itself. The image is an interrelated component of a film, even though at times during a film some aspects of certain shots will be privileged formally or otherwise over other elements (some elements are foregrounded by way of center framing, complementary coloring, focusing, marketing, etc.). Thus, some elements may convey information with a greater degree of monstration (i.e., via visual informational conveyance) or narration (i.e., via textual informational conveyance), or some other system that has yet to be accounted for, but this is not to suggest that they can exist apart from each other in the cinema's total formal system. This also may mean that character-driven story-based narratives may not be the primary mode of informational conveyance. Instead, cinematic information may be conveyed via the scope/scale of the image, display/non-display, privileging of certain kinds of images, by which elements are afforded the most labour, duration on screen, sound accompaniment, etc.

Even within more traditional character-based narratives, there are a number of elements that convey information, and the difficulty with cinema is that it does not have a singular creative

agent. The creative and authoritative agency of the cinema is much more diffuse than other mediums, and it is becoming increasingly diffuse in the digital age, if only because the number of creative agents is increasing on any given film property. Beyond that, though, the privileged subject of the film property is also in question (i.e., what is a narrative *about* and what does it *mean*?), which is perhaps why there is a lot of anxiety about the status of film and where it comes from (i.e., is it an indexical medium? Is it an iconic medium? Is it *a* medium?). If the privileged mode of expression/narrative form is no longer character-driven stories, then what is it? And, was it ever such a thing? Certainly, character-driven stories have been a part of popular cinema for a long time, and it certainly does not appear to be under threat in any significant sense considering the types of films that are receiving the most attention currently (in terms of economic investment, critical consideration, and viewership, and economic return at least). Nevertheless, there does seem to be an extra layer of signification, and perhaps it has always been there, but theorists are just starting to closely look at it because digital technologies have exposed just how malleable cinema is as a medium in terms of its creative potential (and subsequently its many potential layers of signification).

In turn, this increases the importance of understanding and appreciating creative agency, creative labour, and film technology. Film technology, though it may not explain why spectators are drawn to spectacular images, and the influence that certain technologies have on the development of the medium's capabilities, appears to be one of the keys to unwrapping this extra layer of signification. Thus, in terms of film technology, it helps to explain more about the communicative potential of polyaesthetic modes of informational conveyance, rather than as an explanation as to why spectators are drawn to the cinema, because it appears spectators have always been drawn to the cinema to witness technological developments. In terms of the

narrative/spectacle divide, though, it simply cannot be articulated as an either/or situation, because the shot, as cinematic unit of informational conveyance, is far too complex to make such a simple diametric opposition. Suggesting that it is a case of a film being either a “character-driven story” or a “process of aesthetic signification” may have been a functional and necessary heuristic strategy for film theorists at one point. At this juncture, however, we must accept that the shot is predicated on a both/and situation, even if the privileged status of one element or another oscillates within the film. By embracing the rather messy and complicated multiplicities of informational conveyance it will allow film theory to move past dated notions of narrational disruption. In fact, moving past these binary oppositions is much more interesting, because in doing so a model can be developed to analyze which elements are being privileged, on a shot-by-shot basis, meaning that the primary communicative agent can shift within the film, and understanding these shifts will help to highlight the underlying ideological/ethical components of any film text.

Finally, to bring this chapter full circle, to appreciate the multivalent potential of cinematic informational conveyance as a culmination of multiple modes of information conveyance, allows for the possibility that multiple narratives exist and are advanced at any one time. Thus, cinematic wonder need not be contingent upon narrative disruption (as this is an impossibility), and its potential implications can be expanded to incorporate new possibilities. Specifically, appreciating cinema’s multivalent conveyance of information allows cinematic wonder to also be unburdened of the scientism that it has inherited from Descartes. But why limit it to this when the cinematic event provides so many elements of informational conveyance that can be explored and wondered about? For the purposes of this study, the most interesting potential for wonder are its aesthetic implications, as in: I wonder why and how the aesthetic

objects that occupy our imaginations have come to be? The answer lies in part in aesthetic adaptation and our preoccupation with that tried and true formulation of media: repetition with variation.

In this vein of dualism, of pre- and post-, of historical antecedent and contemporary adaptation, it is also of significance to reconsider Pierson's theory of wonder. After challenging the non-narrative aspect, there is much depth and richness to the theory, as there are certainly those moments in cinema that are affectively imposing with the sense of awe and wonder. I am also interested in exploring how aspects of Pierson's theory can be reevaluated in light of new contemporary digital films and how these films are providing new opportunities to understand what does drive the sense of wonder.

Chapter 3

Cinema as Entangled Bank:**Environmental Adaptation, Generic Engineering, and the Polyaesthetic Narrativity of Spectacular Imagery****Moving Beyond the Monological: Darwinian Environmental Adaptation**

One of the most significant challenges in studying VFX and digital cinema more broadly is being able to systematically explore the heterogeneity of the medium, and the inconsistent evolution of numerous elements of the cinema (e.g., the privileging of particular types of novel images, the blockbuster format, differing aesthetic modes, etc.), with analytical rigor and a robust framework. The initial steps of digital cinema research focused mainly on the differences between analog and digital media, but this dichotomization, while a valid research approach in some respects, is equally problematic in others. The most difficult aspect of studying VFX and digital cinema is that neither is a static or homogenous object. Thus, what is required is the implementation of an analytical framework that provides a structure within which to study the myriad forms and functions of VFX, digital cinema, and, as a result, cinema writ large. In order to provide such a framework, the purpose of this chapter is to bring two theoretical concepts that have been heretofore largely unconnected into dialogue. The result will fruitfully expand the concepts generated by film theorists, by providing a flexible, adaptable, and yet still analytically rigorous framework, able to include paradoxical and conflicting concepts within the same aesthetic understanding of disparate cinemas, and to explain and understand how these paradoxical and conflicting standpoints are healthy for the development of cinematic texts. The

two theoretical models are the theory of Darwinian evolution and cinematic effects theory (i.e., the cinema of attractions, the theory of wonder, and cinematic emblems).

Even though the first half of this theoretical approach is based on Darwinian evolutionary theory (i.e., the concepts of evolution developed by Charles Darwin in the first edition of *On the Origin of Species by Means of Natural Selection* in 1859), I am particularly interested in drawing upon the logic of Darwinian biological adaptation, and developing a theory of what I call aesthetic adaptation, which is the study of how cinematic visual designs accrue meaning and adapt over time in order to conform to environmental demands.⁹⁹ This theory incorporates the notions of (1) environmental adaptation or “survival of the fittest,” which explores a film’s ability to “fit” within its given environment, and (2) (un)natural selection and generic engineering, which is concerned with the human rationale for cinematic adaptation, as it is a matter of an artificial tinkering in the “organic” production of meaning in cultural texts.¹⁰⁰

⁹⁹ It is important to note that the first edition of *On the Origin of Species* is significantly different than its subsequent editions, and as Joseph Carroll comments in “A Note on the Text” that is appended to the second edition, “In the course of these [*Origin*’s] revisions, its length increased by one third, and its argument became more equivocal and diffuse” (76). More importantly, perhaps, Darwin afforded greater leeway in the second version to the thinking of Herbert Spencer, who coined the term “Survival of the Fittest”.

¹⁰⁰ Darwinian aesthetic adaptation, though, is not to be confused with evolutionary aesthetics, which is a sub-category of evolutionary psychology that posits that basic human aesthetic appreciation is guided or formed by the desire for survival and reproductive success (Dutton 695). The guiding force of evolutionary aesthetics is largely a subconscious, natural appreciation of certain aesthetic types. For example, Denis Dutton explains that human beings tend to find certain landscapes aesthetically appealing because they remind people of their ancestral homes, which usually consist of abundant food sources, water, shelter, and other attributes which allow for the proliferation of our species (rich environments allow for more human beings and other animals and vegetation to be present, which increases the amount of food and water available, and thus, the number of people, which increases the odds of diverse mate selection and successful reproduction) (Dutton 697). For the purposes of this study, however, I am less interested in explaining or defining why audiences appreciate certain forms, and more interested in determining how creative agents respond to creating new material based on texts and generic elements that have been deemed to be successful. Thus, both evolutionary aesthetics and, by and

Between these two positions of environmental demand and generic engineering, the inhuman operation of intertextuality/intermediality, the broader influences of networked informational flows, and the macro-level influences of the contemporary film industry can all be accounted for.¹⁰¹ Cinematic polyphonic narratives are always-already both products of human creative agency, non-anthropomorphic agencies, and the dialogical relations between and among a film's networks of information.

While Elsaesser's media archeology is a highly productive historical methodology, there is also a need in film theory to be able to account for the same consistent, dynamic change within the system of cinema, and how to anticipate those changes, and to explain why the changes occur as they do. In the case of this study, I am particularly interested in exploring the resonant similarities that exist between the system of Darwinian adaptation and aesthetic adaptation, as described by Linda Hutcheon and Gary R. Bortolotti in "On the Origin of Adaptations: Rethinking Fidelity Discourse and 'Success'—Biologically." Aesthetic design is consistently adapting and changing, while also actively engaging its historical antecedents, and actively working to "fit" within its given environment. While Hutcheon and Bortolotti are interested in narrative adaptation, I am interested in the adaptation of aesthetic design over time, to explore "lineages of descent" of the image and how aesthetic designs are generically engineered to

large, evolutionary psychology fall beyond the purview of this study. In fact, in this study I take those aesthetics, narratives, and narrative forms that continue to proliferate as my subjects of interest. I am interested in these subjects because I explore the complex interaction between a film's influential elements that shape its aesthetic and the composition of film narrative.

¹⁰¹ The macro-level analysis that I refer to here is a term akin to the economic macro-analyses that explore the broader environmental conditions that influence the development of a film (from generic influences, to 'peer' rivals, to broader interests in technological development, such as the post-*Avatar* [Cameron 2009] return of the 3D-craze). The counterpart to the macro-, then, is the micro-level analysis, which explores the individual film itself.

ensure that a film fits within a particular environment by adapting film styles that are similar both to its contemporary counterparts and its historical antecedents.

Aesthetic adaptation theory, to this point, is largely undeveloped in terms of its application to cinema, and this study therefore seeks to extend the work done by Barbara Creed in *Darwin's Screens* and Gillian Beer's *Darwin's Plots*.¹⁰² I am more interested, however, in the macro-level adaptive analysis, rather than Creed's micro-level narrative analyses, by micro-level I mean that the plots and narratives of specific texts are analyzed in terms of how they reflect Darwinian logic, which is a strategy based on the model of close literary narratives studies performed by Beer.¹⁰³ My theoretical positioning of aesthetic adaptation, in relation to cinema, for example, mirrors the metaphorical concept of Darwin's "entangled bank," and works from the position that the cinema is a dynamic network and is the byproduct of a set of complex interactions that lead to the successful production and reproduction of its component parts, which are filmic texts (397). Take, for example, the moment of revelation, which is a staple trope of the science-fiction and horror genres because audiences respond positively to these moments (as evidenced by their consistent presence in films and their marketing materials). The moment of revelation is a generic set piece that is adapted to fit within a new environment, to "survive" and/or be successfully reproduced. The process of selection, of identifying and adapting

¹⁰² Cf. Torben Grodal's *Embodied Visions* (Cambridge: Oxford U Press, 2009), which examines film audiences from the perspective of evolutionary biology.

¹⁰³ The significance of this distinction is explored in greater detail later in this section. In brief, Creed and Beer aim to show how Darwin's theories are reflected in the actual narratives of individual films (e.g., mate-attraction strategies are reflected in the excess of Busby Berkeley's dance numbers), whereas I am more interested in exploring how the macro-level influences of the creative environment operate in a manner analogous to Darwin's notion of an entangled bank, whereby a complex interaction of influences allow for the development and maintenance of a 'healthy' filmmaking environment, and therefore, by extension, "healthy" films. I will discuss what I mean by "health" in greater detail in the main body of the chapter.

successful tropes for instance, is what I call generic engineering. Generic engineering, and aesthetic adaptation, however, is not limited to adapting tropes, but includes particular shot styles, color palettes, etc., and I will elaborate on these further in what follows. It is important to note, however, that as intentional as some of these processes are (e.g., the writing of a screenplay to adhere to the three- or four-act structure, with a moment of revelation inserted at its mid-point, and other generically familiar tropes), the success and “survival” of a film can be no more guaranteed than that of a biological organism, and is largely dependent on audience reception (i.e., whether or not audiences will provide monetary support).¹⁰⁴

Aesthetic adaptation is the process of generic engineering, whereby teams of creative people attempt to vary certain familiar tropes, set pieces, and aesthetic designs to achieve environmental fit, which is beyond the control of these agents. It is a question of certain traits or tendencies “surviving” and being perpetuated, based on audience demand (as evidenced largely by economic viability) and other weaker ones gradually dying out. It is this interaction between creative intentionality and audience reception that distinguishes this kind of adaptation from the biological variety. I also do not wish to privilege the creative agents (e.g., the grand image maker, the director, the author, etc.) as the final authority on meaning-making in cinematic texts, as this would be antithetical to the theorization of a Darwinian aesthetic. Active audiences and fans are responsible for the development of ancillary narratives via blogs, fan fiction, etc., which informs the broader worldbuilding of media properties. Nevertheless, creative agency and

¹⁰⁴ While there are many indicators of a film's success and its survival (i.e., longevity), in this study I primarily focus on both a film's audience reception and its domestic box office performance because these are the primary concerns of the contemporary mass market blockbuster film, which is the focus of this study. Furthermore, I will elaborate on how positive audience reception and strong financial returns drive the reproduction of certain generic set pieces in future blockbusters.

creative agents are an important component of the process, as the effort to replicate prior successes in new contexts is one of the important elements of aesthetic adaptation. Furthermore, it is also important to examine why audiences appreciate certain stylistic elements of a filmic text, while pushing beyond the conclusion that aesthetic appreciation is unconscious, as Creed suggests in *Darwin's Screens*, which of course it may be, but there is work to be done to decipher which commonalities exist, and how and why these commonalities proliferate. Even though, as Creed suggests, Busby Berkeley's aesthetic style may be appreciated by audiences due to a subconscious association with Darwinian sexual mate-selection strategies, I am more interested in how certain aesthetic styles and modes are adapted once certain stylistic traits and/or set-pieces are accepted and established as an economically viable contributor to the film's success. Creative agents subsequently attempt to adapt these styles and set-pieces in future works as an attempt to bolster the film's "health," even though such styles and set-pieces fade-in and out of favour, based on broader environmental conditions and audience expectations.

The theory of aesthetic adaptation is a new phase in the broader development of Neo-Darwinism (wherein the theories of Charles Darwin are gaining new life as they are re-examined and applied beyond their original context), yet in recognizing this, it is important to note that this mode of adaptation theory is distinct from other modes of Neo-Darwinian analysis, such as literary Darwinism. Literary Darwinism is itself multi-modal and has at least three distinct senses: (1) the exploration of Darwinian narratives (i.e., how Darwinian theory is reflected in the narratives of texts, such as John Fowles' 1969 novel *The French Lieutenant's Woman*);¹⁰⁵ (2) the study of why audiences appreciate aesthetic designs that reflect a Darwinian logic of natural

¹⁰⁵ Cf. Gillian Beer's *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction* (2nd ed., Cambridge and New York: Cambridge University Press, 2000).

selection;¹⁰⁶ and (3) the study of literature using quantitative analyses to explain the evolutionary psychological engagement audiences have with texts.¹⁰⁷ Film scholars are just broaching the broader territory of Neo-Darwinism and it is pertinent to shift the language describing this approach from medium-specific Literary Darwinism to Narratological Darwinism in order to reflect the intermedial potential of this research. Aesthetic adaptation stands apart from these established territories, even though it does to a certain extent perform parallel narratological studies. I am more interested, however, in how cinematic narratives are formed and subsequently function in ways via evolutionary processes, as described by Darwin as a kind of entangled bank of mutually influential “organisms,” each of which is dependent on the other for its success, and how, as film theorists, we can observe the analogical-metaphorical relations between the laws that govern the cinematic process and the evolutionary laws governing biological adaptation. I am more interested, therefore, in how the process of creating films, a process that always involves some degree of cultural and aesthetic adaptation, is equivalent or analogous to Darwinian-biological adaptation on a broader scale, rather than highlighting which narratives have been influenced by, or literally reflect, the writings of Darwin. Somewhat complicating matters, however, is the fact that many of the films that contain and contemplate Darwinian theories tend to also reflect these broader macro-level maneuvers of aesthetic adaptation.

¹⁰⁶ Cf. Barbara Creed’s chapter, “Evolutionary Aesthetics: The Hollywood Musical as Darwinian Mating Game”, in *Darwin’s Screens: Evolutionary Aesthetics, Time and Sexual Display in the Cinema* (Carlton, VI: Melbourne U Press, 2009: 73-101).

¹⁰⁷ Cf. Eric S. Rabkin and Carl P. Simon’s “Age, Sex, and Evolution in the Science Fiction Marketplace” in the journal of *Interdisciplinary Literary Studies* (vol. 2, no. 2. 2001: 45-58).

Spectacular Imagery in Light of Aesthetic Adaptation: From *Adaptation* to *Jurassic Park*

In placing theories of effects—from attractions to wonder to the emblem—in dialogue with the theory of evolution's dynamic network model, it is clear that these differing theoretical accounts can provide a rich basis from which to analyze the networked informational conveyances of cinematic effects. It is not the case that a film's effects act simply as either an attraction, an emblem, or an object of wonder; rather, they can be all of these things, simultaneously, or none of them. Putting these two theoretical systems into dialogue provides a framework from which to understand the myriad aesthetic forms of effects, and that each of these forms contributes to the informational conveyance, which is often glossed over or not analyzed as influential in terms of narration (or even monstration). Furthermore, a second consequence of interweaving these theoretical systems is that, due to the complex interplay of narratives, effects cannot be seen as inherently disruptive objects, because informational conveyances continue to persist even while effects are present on screen, and, based on the network model, these simultaneous influences can be analyzed. What does tend to occur in the moment of wonder, for example, is that effects are privileged as a primary communicative agent, the spectacular image conveys information, and that information is largely conveyed via the monstrational system. It is important, then, to assess the implications of the simultaneity of informational conveyance, and, subsequently, it is equally important to have a framework in place that is conducive to this mode of assessment. Therefore, in order to address this interweaving of multiple logics within contemporary cinematic aesthetic designs, a system of Darwinian inflected aesthetic adaptation could address this multiplicity of influences, and it is the aim of this chapter to explore the potentialities and to define the component parts of such a system.

Discovering a framework through which the myriad and complex forms of effects can be analyzed is more complicated than it may initially appear, but there are other theories from which inspiration can be drawn in order to navigate such heterogeneous influential factors. Adaptation theory, for instance, has taken a more recent turn towards intertextuality and intermediality, while embracing a model that can manage the analysis of heterogeneous narrative influences. For example, in analyzing the meta-filmic adaptive strategies of *Adaptation* (Jonze 2002)—a process subsequently termed “metadaptation” by Eckart Voigts-Virchow (146)—it becomes increasingly apparent that a “homological” model of adaptation (a transference of the novel’s raw material onto film) is an inadequate model of analysis for such a film (Meikle 174). Yet, the film itself holds its own key to unlocking its network of influences. As John Laroche (Chris Cooper) is driving to the Fakahatchee Strand State Preserve to “collect” the elusive ghost orchid, he listens to a recording of “The Writings of Charles Darwin,” as read by the fictitious Brian O’Kelley, who states in diegetically motivated voice-over narration that “It is interesting to contemplate an entangled bank...”, one of Darwin’s more famous quotes from the first edition of *On the Origin of Species* (Darwin 397).¹⁰⁸ This sequence provides a fairly complicated and nuanced layering of meanings: the reading beginning as diegetic voiceover (Laroche listening to the tape in his van) and functioning as a sound bridge from the van’s interior to the long shot of Laroche and three Seminole men in the swamp (with the cut, O’Kelley’s reading shifts from diegetic car audio to non-diegetic voice-over). The implication then is that the Darwin reading is both an element of the film world and also imposed overtop of the visual elements of the film

¹⁰⁸ In rather appropriate fashion, and in keeping with the doubling of fictional representations of real people in *Adaptation* (e.g., Susan Orlean, John Laroche, Charlie Kaufman, etc.), Brian O’Kelley is the assistant director of *Adaptation*, but the narration is provided by Bob Yerkes who plays Charles Darwin.

(i.e., that it is an inter-dependent element, that is both tied to the actions of the characters, and simultaneously distinct).

The reading functions rhizomatically, as one signifying thread, or as one of the many inter-dependent communicative agents that contribute to the narrative of *Adaptation*. Although this passage from Darwin is not present in either of Orlean's source texts, the entangled bank quote is motivated by the diegetic actions of the film's characters and its reading is imposed upon the diegetic world.¹⁰⁹ When the reading is paired with the shots of the swamp, it suggests that the film *Adaptation* is itself a kind of network or "entangled bank" of multiple rhizomatic influences and complex interactions. As a result, this sequence offers one of the keys to decrypting the film, as *Adaptation* is not a homological transference of a source material to film, but is rather itself an entangled bank of layered and inter-dependent sources and influences that shape the final film. There is not a single communicative agent that motivates the narrative of *Adaptation* as an adaptation of Susan Orlean's *The Orchid Thief* (as is indicated by the titular shift in the first place), but a polyphony of voices that develop many interdependent narratives. Furthermore, in mapping out the collection of relations and communicative agents in and of *Adaptation* (as depicted in figure 3), it seems fairly clear that this kind of network of influences (of sources and communicative creative agents) is not limited to *Adaptation*, or adaptations more

¹⁰⁹ *Adaptation* is adapted from both Susan Orlean's original article published in *The New Yorker* (23 Jan 1995) and *The Orchid Thief: A True Story of Beauty and Obsession* (New York: Random House, 1998), which is an extended version of the article. The film's creative team, however, drew from many other sources, ranging from Charles Darwin's writings, to the screenplay writing manuals of Robert McKee.

generally, but it is characteristic of all cinematic texts.

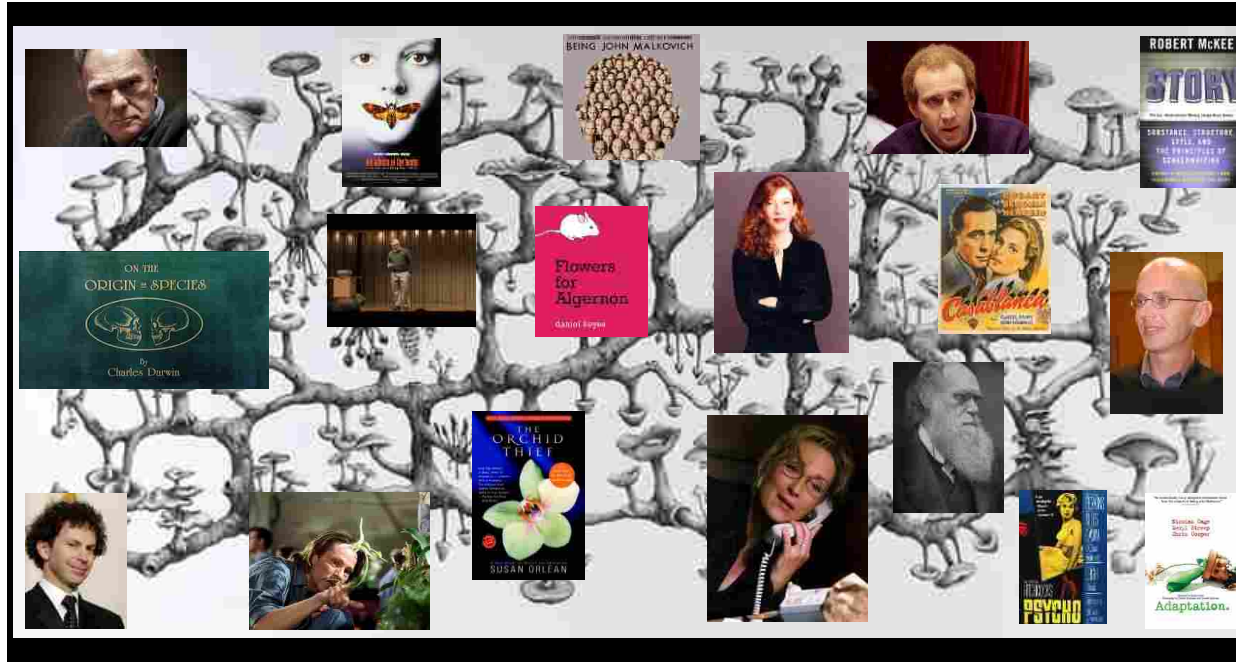


Figure 3 ¹¹⁰

Adaptation remains a fairly anomalous product in Hollywood, as it reveals its numerous influences while denying Hollywood's more typical brand of entertainment that encourages spectatorial immersion, while also manipulating the viewer's awareness of the cinematic apparatus. *Adaptation* appears to refute what Robert McKee, the screen-writing guru, suggests is

¹¹⁰ Each of these images represents one collection of influences that functions as one of the communicative agents that contributes to the braided narrative of *Adaptation*. Take for example the image of Robert McKee in the top left, McKee provides the impetus for the larger than life depiction of himself, as provided by Brian Cox (pictured down and to the right), as he chose the actor who would play him, but also his reputation as a foul-mouthed, rather insolent and intolerant individual contributes to the generation of meaning within *Adaptation*. McKee's screenwriting guide, *Story*, pictured in the top-right corner acts as both extra-diegetic guide to popular Hollywood story structuring, and also provides the answer to Charlie Kaufman's trouble in realizing that Orlean's *The Orchid Thief* lacks conflict and structure. Thus, even in this small cluster, there is an acknowledgement of numerous influences, and information sources that contribute to the production of *Adaptation*'s narrative, and thus, numerous "narrators" that contribute to the narration of the braided narrative.

the prime-driver of audience desire, which is “to be immersed in the ceremony of story” by largely having the apparatus of production effaced, as “a mature artist never calls attention to himself [sic], and a wise artist never does anything merely because it breaks convention” (12; 9). Yet, *Adaptation*, even in its most salient moments of idiosyncratic anti-Hollywood-ism, is still by and large held accountable to the conventions of classical Hollywood cinema, and the generic formulations that Charlie Kaufman (Nicolas Cage) so desperately attempts to avoid in the film itself. The question for *Adaptation* therefore becomes, of what is *Adaptation* an adaptation? And, who/what are the communicative agents that breathe life into its narrative?

Adaptation, and its metafilmic adaptive process, certainly illuminates a number of potential theoretical consequences for adaptation scholars. For theorists of film aesthetics and special/visual effects, however, *Adaptation*'s narrative structure illuminates how complex (and largely impossible) narrative disruptions are. Thus, by making its entangled narrative apparent, it provides a significant challenge to the current monological theorization of spectacular images by providing a counterpoint to the aesthetic design of the blockbuster. Moreover, the significance of *Adaptation*'s title cannot be understated. The film not only foregrounds its preoccupation with the process of adaptation—as opposed to being an official reproduction of *The Orchid Thief*—but, titled as it is, the film also “allows” for the inclusion and adaptation of other source texts, such as the passages from Darwin's *On the Origin of Species*, as described above, as well as passages from McKee's *Story* that are also literally included in the film. To further complicate the *mise-en-abyme* style layering of factual/fictional sources and influences, Robert McKee (Brian Cox) as a character in *Adaptation*, even compares Charlie and his twin brother Donald (also played by Nicholas Cage) to the Epstein twins, who co-wrote the screenplay for *Casablanca* (Curtiz 1942). The fact that *Adaptation* so openly adapts and includes more sources

than Orlean's also suggests that the process of adaptation is far more diversified and dialogically intertextual than traditional studies of a single "source text" and subsequent adaptation have allowed for (Stam 64).

In order to explore the function of *Adaptation*'s other source texts, it is useful to keep the significance of some of the film's entangled bank and ecological motifs in mind, as the film's two brief passages from *On the Origin of Species* draw together the image of the entangled bank with the process of adaptation. Prior to the "entangled bank" passage noted above, "O'Kelley" also reads the following text: "as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection" (*Adaptation*). This illuminates the film's internal adaptive logic. The first half of this passage from Darwin suggests that the fictional inclusions are themselves adaptations: for example, the fictional Charlie character, who, by attempting to write the adapted screenplay, motivates the narrative complications and rising action in a cause-and-effect chain, allowing the film to adapt to, or to be a "fit" with, Hollywood narrative structures in order to survive. To use Darwinian rhetoric, the film's adaptations work by and for the good of the adaptation itself. Adaptations are not simple "deviations" from a single source text, but rather these "evolutionary" additions help the narrative to adapt to its new environment. In the case of *Adaptation*, the Hollywood environment demands the use of classical narrative structures, as outlined by *Story* and *Screenplay*. Thus, the film, both diegetically and non-diegetically, ceases to be a singular adaptation of Orlean's 'source' text, but rather becomes a confluence of evolutionary adaptive maneuvers, which allow the film to "evolve" into, and within, this particular filmic environment.

The purpose of discussing this process of adaptation, however, is to highlight the confluence of heterogeneous influences and sources that are drawn upon, thought about, and

synthesized in order to generate a Hollywood screenplay, to highlight the numerous agents responsible for influencing and contributing to the narrative (and narration) of the text itself. As McKee notes, “[n]o film can be made to work without an understanding of the reactions and anticipations of the audience. You must *shape* your story in a way that both expresses your vision and satisfies the audience’s desires” (8; my emphasis). The point being that there can be neither a single communicative agent nor a single communicative agency that controls and determines a film’s narrative. By extension, a film’s narrative can only ever be a rhizome of influences developed for an anticipated environment. The production of a given film is always already a process of environmental adaptation.

Adaptation, Adaptation, adaptation

Environmental adaptation, then, is a Neo-Darwinian model of (un)natural selection, whereby those elements that have proven to be beneficial to the (largely economic) health/sustainability of media texts are maintained and, subsequently, proliferate in future texts (e.g., the moment of revelation as a convention of the creature-feature, which can be traced back to films such as *Metropolis* [Lang 1927], *The Phantom of the Opera* [Julian 1925], and *Nosferatu* [Murnau 1922]).¹¹¹ The process of (un)natural selection in this case is really one that relies on

¹¹¹ I use the term “(un)natural selection” here in contrast to the more “natural” process of selection, whereby films that have specific attributes that audiences desire continue to be significant influences on future films (these successful films proliferate due to these influences). Filmmaking, however, is a process that is controlled by creative agents and agencies, and therefore these agents must decipher and decide which elements from preceding films have been successful in order to adapt these elements to a contemporary context. This is unlike the natural processes of sexual reproduction, where, even though mate-selection may be an intentional process, the offspring cannot be an intentionally created product. Thus, in terms of filmmaking, the process is both natural (in a sense) whereby audiences select films that have elements they deem to be successful, but also artificial, as creative agents in turn have to intentionally select

the understanding of generic structures and narrative formulae, which means that the environment of a film text is at least three-fold: (1) the production environment, which has to do with the brass tacks of production limitations (i.e., what can be made within the given technological, temporal, and financial constraints); (2) the media environment (i.e., what other kinds of media texts are currently being produced with which this text will have to compete); and (3) the perceived/imagined environment, or in other words the target demographic for which the film text is being made (i.e., who the film is made for), and the understanding of how this perceived audience will react. Once the film has been released, then, its success can be gauged in real terms. In terms of the process of adapting to an environment, however, that environment is always an anticipated environment, which allows for there to be failures in the theoretical model. Even though a film may have all the trappings of a successful formula film, for example, failures such as the 2012 film, *John Carter*, directed by Andrew Stanton, and the 2017 film, *Valerian and the City of a Thousand Planets*, directed by Luc Besson are, of course, still common. Essentially, I would argue, the perceived and real environments are out of sync when this happens. The most recent *Ben-Hur* adaptation (Bekmambetov 2016), for example, failed miserably both commercially and critically. There may be a reigning belief that audiences are attending the cinema for the purposes of enjoying pure spectacle and familiar narratives, which means that on paper *Ben-Hur* makes sense, but in reality this does not seem to be the case.¹¹² The type of

those elements to adapt, and they must choose to conform to certain narrative structures and strategies. Hence, (un)natural allows for both of these processes to be included.

¹¹² The contemporary *Ben-Hur* is a new adaptation of Lew Wallace's 1880 novel, rather than a remake of William Wyler's 1959 version of *Ben-Hur*, according to the writing credits of the film, which is likely because the novel is now in the public domain. The film elements that have contributed to the success of other spectacular adaptation films are misidentified in this case, and the film is designed poorly. The most recent *Ben-Hur* shifts the relationship of Judah Ben-Hur

spectacle that contemporary North American audiences are seeking, if the top-grossing films since 2000 are any indicator, is much more specific than “pure spectacle.” The most successful “spectacle” films are centered around images of a sci-fi/fantasy/magic bent, rather than images based overtly on biblical myth (e.g., *Star Wars: The Force Awakens* [Abrams 2015], *The Hunger Games: Catching Fire* [Lawrence 2013], *The Avengers* [Whedon 2012], *Harry Potter and the Deathly Hallows, Part 2* [Yates 2011], *Avatar* [Cameron 2009], etc.). And, beyond such aesthetic choices, the domestic box office’s most recent commercially successful revenge narratives appear to be attracting a particular type of action-centric spectator who is looking for fast-paced action, “gun-fu,” and the like (e.g., *Furious 7* [Wan 2015], *Fast Five* [Lin 2011], *Taken* [Morel 2008], and other Liam Neeson/Jason Statham/Dwayne Johnson/Vin Diesel vehicles).¹¹³ The “epic” scope of *Ben-Hur* is in conflict with the short duration/minimalist narratives of the other contemporary revenge films. This leads to the fourth category of a film text’s environment which is our contemporary culture (a broad and critically difficult category to manage). After the release of a film, the environmental response to the given film text can be gauged and analyzed, and the specific niche in which the film text fits can be determined. For example, *Melancholia* (von Trier 2011) has survived well in academic environments due to its unique resistance to monological explication and its particular depth and richness. Yet, the film largely failed in popular environments for the same reasons. *Star Wars: The Force Awakens*

(Jack Huston) and Messala Severus (Toby Kebbell) from childhood friends to foster-brothers, and the trailer focuses largely on the revenge-centric conflict between the “brothers.”

¹¹³ The contemporary North-American gun-fu aesthetic is displayed in the brand of action/gun-centric action film exemplified by Keanu Reeves’ most popular films, such as *John Wick* (Stahelski 2014), *John Wick: Chapter 2* (Stahelski 2017), and *The Matrix* (the Wachowskis 1999). The gun-fu style originated in Hong Kong and is developed by John Woo, who combined Western gun-centric action films with Hong-Kong kung-fu films, best exemplified by *Hard Boiled* (1992) and *The Killer* (1989).

(Abrams 2015) has done very well because it largely replicates the story points and structure of the original *Star Wars: A New Hope* (Lucas 1977), but with added new flourishes (i.e., repetition with variation, following the Linda Hutcheon model of adaptation).

Each film, then, responds to its own niche environment, as an art film responds to a very different set of concerns and influences than a major Hollywood blockbuster, but in terms of production the approach to analyzing a given environment to ensure fitness, and the need to respond to a given environment is the same. In an environment where textual producers are competing for viewership, a film must adapt and “fit” to compete in a given environment, regardless of what that environment is. Thus, the environment into which a film text is adapted to fit becomes a kind of creative agent that coerces and influences the “telling” of the narrative in a particular way. It also means that there are a great many creative agents that influence films via the broader media environment in which all texts must compete for viewership. Also, certain creative agencies, such as Industrial Light and Magic (ILM), become behemoths in certain environments, and may, subsequently, control a large portion of the environmental flow. This control is only ever provisional, however, as competing forces eventually develop: there are many FX agencies today, for instance, that are challenging ILM’s emphatic suggestion that FX should be perceptually realistic (e.g., Laika, Double Negative, Weta Digital, Onyx Films, etc.).¹¹⁴

There is a contemporary trend, wherein numerous films embrace perceptually non-realistic

¹¹⁴ ILM has invested heavily in achieving photo-realistic imagery. According to Julie Turnock, “[a]n extrapolated characterization of the ILM aesthetic is defined minimally as perfectly executed, seamless photorealism (in industry parlance, if x existed in our world, and then x was photographed, how would it look and move?)” (135). And, John Dykstra, the lead effects technician for *Star Wars: A New Hope*, established the photo-realistic motion control aesthetic, which replicated the documentary style, anthropomorphic camera movements (i.e., if a human cameraperson were shooting the film, what would it look like? Often, in shooting fast-moving objects, they’re appear off-centre and can be slightly out of focus) (“Motion Control”). This aesthetic is an integral component of ILM’s brand identity and has been since its inception.

aesthetic modes (e.g., stop-motion animation, or modes of animation that foreground the materiality of their respective medium), such as *Kubo and the Two-Strings* (Knight 2016), *The Little Prince* (Osbourne 2015), *Anomalisa* (Kaufman and Johnson 2015), and even Radiohead's "Burn the Witch" (Hopewell 2016) music video. Niche environments celebrate the polyaesthetic potential of intermediality and as a result there are more creative agents that are able to participate in developing FX that run counter to the perceptually realistic demands of a company like ILM.

In terms of utilizing a Darwinian inflected model of adaptation it is important to recognize that it is thinking about the model of aesthetic adaptation as a "homology" as Bortolotti and Linda Hutcheon highlight in their article, "On the Origin of Adaptations: Rethinking Fidelity Discourse and 'Success'—Biologically" (444). As a point of clarification, Bortolotti and Hutcheon clarify that "By homology, we mean a similarity in structure that is indicative of a common origin: that is, both kinds of adaptation are understandable as processes of replication. Stories, in a manner parallel to genes, replicate; the adaptations of both evolve with changing environments" (444). What becomes more complex, however, is the difficulties that arise in the Darwinian model if it is pushed to be anything more than a homology, and it is an issue that Bortolotti and Hutcheon recognize and highlight: "As L. L. Cavalli-Sforza and M. W. Feldman point out, in culture, unlike biology, changes 'are not truly random, but are designed to solve specific problems' and so are 'purposive and intelligent.' In other words, it is people who change stories and do so with particular intentions. Biology cannot help us here" (453).

Essentially, like Hutcheon and Bortolotti, I am interested and concerned with "patterns of descent," but unlike Hutcheon and Bortolotti, I would argue that these patterns exist in other areas beyond what we traditionally would consider to be "narratives." Hutcheon and Bortolotti

consistently use the example of *Romeo and Juliet* as a “relevant replicator” (i.e., a narrative that is adapted between and among many media and cultures, and yet the original source remains recognizable as the source), but I am highlighting other aesthetic elements that are themselves “relevant replicators,” and that such relevant replicators exist interdependently within narrative (i.e., story) (447). Nevertheless, it is difficult to find appropriate terminology that acknowledges the complexity of the adaptive interaction because it is both a process of cultural and intentional adaptation, because it is in fact people who make choices to identify what they deem to be “relevant replicators” and adapt them, but it is the environment beyond their control that then determines whether it will have the longevity, or the viewership, to be successful and survive.

In utilizing the Darwinian model as homology relative to the socio-cultural model, it means that as theorists it is necessary to grapple with the distinctions between automatic biological processes and structured cultural choices. While the means of biological reproduction is a joining of parent organisms that then pass on their DNA to the offspring (biological reproduction means that the offspring is a literal byproduct of the parent organisms), whereas socio-cultural reproduction is achieved via influence (reproduction via (un)natural selection means that creative agents select and adapt successful forms of existing media to produce the next generation of media). I am working with the formulation (un)natural selection, with an awareness of its imperfection, because it is a term that I feel privileges both the creative agency that goes into the creation of any particular text, and the processes of cultural selection that dictate the success of any particular film. I do not want to suggest that films evolve purely along “natural” lines (i.e., without the intervention of human agents), but nor do I want to suggest that human agents should be privileged as being solely responsible for the success of a film. The difficulty in the terminology is that human agents are responsible for selecting the elements that

they believe will allow a film to be successful for very specific reasons depending on the film environment it is being developed for, but then the environment determines whether those choices are accurate or not. Human agents are active in the production, but once the film is released, human agency is no longer a significant part of the equation in terms of success. The success of the film is determined by the cultural environment, at which point those successful aspects of the film tend to become more prominent over time, particularly once those elements can be isolated and identified, such as the moment of revelation, for example. In contemplating whether culture functions by virtue of the decisions of such inevitably anthropomorphic agents, or via the trans-human processes of intermediality, I suggest that cultural production is determined by the decisions of anthropomorphic agents, but its success and longevity, its components that are discovered to be successful, function via the trans-human processes of intermediality and transmediation.

In terms of aesthetic evolution, the process is guided by the dualistic process of (un)natural selection, and thus a film's influence achieved by way of adaptive transference, or transmediation, which means that films (and subsequently many other media forms) can continue to be an influence over many generations of future film texts. As the sample pool grows (i.e., the genre or a particular style of action film, etc.), selecting those repeated staple tropes becomes more prominent, and these elements are subsequently repeated more often. What Beers points out as an organism's secondary function, that "the individual also carries the freight of evolutionary change through the slight variations encoded in each organism or person" (xx), is the film's primary means of transference, that is by way of adaptive influence, as exemplary objects of evolutionary change. Media texts "carry the freight" of adaptive potential, and it is by means of (un)natural selection, of generic engineering, so to speak, that creative agents analyze

the media text and “select” which specific attributes to reproduce in the next variation(s) of the text.

The female action star, for instance, is becoming a more prominent feature of contemporary blockbuster films due to her/its presence in films that are economically successful, and due to the ancillary “marketing” on blogs and social media platforms that such casting garners. Certainly there are several female action stars—or films that feature a female action hero—prior to the post-2010 proliferation of the female action star, such as Pam Grier’s characters Coffy (*Coffy* [Hill 1973]) and Foxy Brown (*Foxy Brown* [Hill 1974]), Carrie Fisher’s Princess Leia (*The Star Wars Saga* [1977-1983]), Sigourney Weaver’s Ellen Ripley (*Alien* [Scott 1979] to *Alien: Resurrection* [Jeunet 1997]), Linda Hamilton’s Sarah Connor (*The Terminator*: [Cameron 1984] and *Terminator 2: Judgement Day* [Cameron 1991]), Geena Davis’ Charly Baltimore (*The Long Kiss Goodnight*: Harlin 1996), and many more. The only films that held the top spot in the domestic box office with a female action star prior to 2013, however, are *Star Wars* with Carrie Fisher and *Terminator 2: Judgement Day* with Linda Hamilton. Whereas the female action star is becoming much more of a mainstay of the blockbuster post-2010, as films starring female action leads are achieving considerable economic success, as evidenced by the female-lead films that have held one of the top three spots in the domestic box office. The table below highlights female-leads films and the domestic box office position for that year:

Year	Title	Star	Director	Domestic Box-Office Ranking
2017	<i>Wonder Woman</i>	Gal Gadot	Patty Jenkins	#2
2016	<i>Rogue One: A Star Wars Story</i>	Felicity Jones	Gareth Edwards	#1
2015	<i>Star Wars: The Force Awakens</i>	Daisy Ridley	J.J. Abrams	#1
2014	<i>The Hunger Games: Mockingjay - Part 1</i>	Jennifer Lawrence	Francis Lawrence	#2

2013	<i>The Hunger Games: Catching Fire</i>	Jennifer Lawrence	Francis Lawrence	#1
2012	<i>The Hunger Games</i>	Jennifer Lawrence	Gary Ross	#3
2011	<i>The Twilight Saga: Breaking Dawn Part 1</i>	Kristen Stewart	Bill Condon	#3
2010	<i>Alice in Wonderland</i>	Mia Wasikowska	Tim Burton	#2

Prior to 2010, however, the success of the female action star is less prevalent. In 2009, a film with a female lead dropped to the fourth highest grossing film (*The Twilight Saga: New Moon* [Weitz]), the seventh highest in 2008 (*Twilight* [Harwicke]), and in 2007 a female lead film does not break the top-ten.

The significance of this trend is that, as such films gain greater economic success, they influence other films in development to mirror such successes and encourage creative agents to create films that have female action leads in order to capitalize on the current environmental demands. There are a number of in-development or recently released tent-pole action-centric blockbuster films that are garnering much larger budgets and greater investment by the studios. *Justice League*, starring Gal Gadot and Robin Wright, directed by Zack Snyder and Joss Whedon, was produced on an estimated budget of \$220 million, and earned a global total of \$657 million. *Alita: Battle Angel*, starring Rosa Salazar, directed by Robert Rodriguez, and produced by James Cameron, is set for release in 2019 and has a budget of \$200 million. *X-Men: Dark Phoenix*, starring Sophie Turner and directed by Simon Kinberg, is set to be released in 2019. A *Wonder Woman* sequel, starring Gal Gadot and directed by Patty Jenkins, is set to be released in 2019. *Captain Marvel*, starring Brie Larson, directed by Anna Boden and Ryan Fleck, is set to be released in 2019. Lastly, the *John Wick* (Stahelski 2014) spinoff, *Ballerina*, has been purchased by Lionsgate studios. This film “centers on a young woman raised as an assassin” and is “said to be similar to Luc Besson’s 1990 action film *La Femme Nikita*” (McNary n.p.). The

point here is that the economic successes of certain elements of contemporary films influence the development of future films, and creative agents anticipate the demands of future audiences and future environments, based on the successes of the present. Thus, the current box office successes, in terms of economic returns and domestic box-office grosses, influence the development of future narratives, but these films still have to “fit” within the broader environment and are informed by contemporary socio-cultural concerns.

Upon the release of *Mad Max: Fury Road* (Miller 2015), for example, an alt-right masculinist (read: misogynist) blog, *The Return of the Kings*, launched an anti-feminist campaign prior to seeing the film, because Furiosa (Charlize Theron) was reportedly the primary protagonist rather than Max Rockatansky (Tom Hardy). In the words of *The Guardian*'s Jason Wilson, “The latest kerfuffle started when Aaron Clarey, ‘the resident economist of the man/androsphere’ took to the pages of *Return of the Kings*, ‘a blog for heterosexual, masculine men,’ to proclaim that *Mad Max: Fury Road* was an affront” that is, according to Clarey, nothing more than “feminist propaganda” that could have men “tricked into viewing a piece of American culture ruined and rewritten right in front of their very eyes” (n. p.). In terms of aesthetic adaptation, though, there are a number of issues here that are pertinent to the theorization of spectacular imagery and environmental adaptation. *Mad Max: Fury Road*, *Wonder Woman*, *Rogue One*, and *The Hunger Games*, for example, narratively engage such politically-charged popular rhetoric, and each of these films construct spectacular images of resistance as one component of the film's overall informational conveyance.

One of the privileged images from the trailers of *Mad Max: Fury Road* is an example of this kind of visual display of resistance to misogynist popular rhetoric. The image is a long-shot of Furiosa kneeling on the top of a sand dune in the desert, her image silhouetted against a

shadowy background sand dune and the purple-blue sky as the sun starts to set, yelling into the sky in frustration as her childhood home (described to be an oasis-like place populated by women) has been totally destroyed due to “poison water” and as a result “nothing would grow” in the soil (*Mad Max: Fury Road*). The sand dune image is interesting and notable on multiple levels, because it is treated as a spectacular image, an attraction, and a wondrous object, but the image is rich with meaning and it engages a multiplicity of narratives intersecting in this moment. In terms of its status as a spectacular image, it has numerous elements that highlight its status as a visually privileged moment in the film. The shot communicates its information largely by way of monstration, as Furiosa falls to her knees and cranes her head to the sky, and the soundtrack music builds to a somber crescendo, suggesting aurally that the image is the scene’s climax. This style of pairing a highly affective spectacular image with a crescendo via the soundtrack is a standard design trope of the blockbuster (e.g., the initial revelatory scene in *Jurassic Park*, for instance, where Dr. Grant (Sam Neill) and Dr. Sattler (Laura Dern) see the brontosaurus and the herds of other herbivores for the first time).

The sand dune shot is used in the marketing materials for *Mad Max: Fury Road*, such as in the “Comic-Con First Look” trailer, which was the first footage shown to fans publically, and then in all but one of the other trailers released for the film.¹¹⁵ The marketing team for the film places significant weight on that particular shot’s ability to draw audience interest due to its monstrational power. Consequently, the shot is placed in dialogue with other similarly marketed

¹¹⁵ The San Diego Comic-Con trailer release is one of the most significant marketing opportunities for science-fiction, fantasy, action, and other related blockbusters, as it is an opportunity to target some of the most significant fans and online influencers, and, subsequently, the most significant “teaser” material is released in these trailers. The significance of the selection of Furiosa’s desert breakdown by the marketing team, responsible for focusing audience expectations, is that this image is thought to be a driver of audience interest due to its visual power.

shots of spectacular imagery, as an attraction. In terms of its emblematic power, though, the shot is imbued with meaning, as the weight of Furiosa's frustrations is quite apparent. Even more meaning resonates within this moment, however, because Furiosa is a feminist figurehead, due to both her prowess within the diegesis, and to the power she has to generate extra-diegetic narratives such as the response initiated by the publication of the *Return of the Kings* article. Thus, in this moment of spectacular display there is the potentiality that audiences are aware of the broader implications of Furiosa's character, her frustration at escaping the abuse and control of a misogynist patriarch, only to find that the utopia she seeks does not exist, and must inevitably return to the kingdom. Such a message certainly resonates well beyond the boundaries of the text itself. Furiosa's scream is representative of the current (and impending) outcry of frustration against socio-cultural systems of control and inequity. In this moment, the spectacular image is not narratively disruptive at all; it is rather narratively rich in its monstrational power, engaging the broader socio-cultural narratives of the contemporary North-American environment, and therefore, the film and this moment "fit" within the environment and find success.¹¹⁶ Ultimately, what the example of the rise of the female action star highlight, and the scene of Furiosa on the sand dune in *Mad Max: Fury Road*, is that non-diegetic cultural information exists within a film's images, and that by engaging and adapting these cultural narratives, a film has the potential to "fit" within its current environment. What is of significant interest, regarding the processes of aesthetic cultural adaptation is that, currently, a blockbuster will increase its chances of survival by engaging and participating in narratives of cultural

¹¹⁶ To be consistent with the measurement of the other blockbusters highlighted in this study, it is necessary to provide the box office figures for *Mad Max: Fury Road*, and it is successful (albeit moderately) as it earned \$153.6 at the domestic box office and earned \$378 million globally on a production budget of \$150 million.

resistance, while celebrating and empowering characters that have traditionally been relegated to a minority role.

Aesthetic Adaptive Misfires and Evolutionary Failures

Even though there are rich, well-constructed, successful environmentally fit films, the process of aesthetic adaptation is fraught with failure, as failure is as essential to the broader health of the “eco-system” as is success. The process of (un)natural selection is designed to generically engineer film texts to “fit” within their respective anticipated environments, but oftentimes the selected element(s) may be lost in translation, or specific elements may be mis-selected as the reason why a media product was successful. For example, Disney’s *John Carter*, has come to represent the modern box-office bomb, but how did this come to pass? In terms of aesthetic and environmental adaptation, *John Carter* should have been successful, as it contains all of the elements of other successful science-fiction films. Stanton’s film, however, is corporately calculated and as poorly composited as Frankenstein’s monster. Released only three years after *Avatar* (Cameron 2009), *John Carter* provides a similar narrative experience with similar generic tropes and conventions, drawn from the same pool of influences: both films can be described as western-style space operas, driven by the white savior narrative, while also providing massive spectacular digital effects that display exotic otherworldly environments and locales. These locales provide the backdrop for the more conventional generic norms, such as the male protagonist, the female warrior as the object of desire, a slew of monstrous creatures to fight and/or tame, a deep and mystical alien religion, even a colonial enterprise consuming the planet’s resources that must be stopped, all of which are presented with elements of voice-over narration aligning the film with the point-of-view of the male protagonist. In theory, *John Carter*

should have been a box office success, considering that it mirrors *Avatar* in so many ways, while also delving more deeply into its generic reproduction.

Carter specifically mines elements of *Gladiator* (Scott 2000) (e.g., the white savior is collected/rescued by “foreign/exotic” slavers, before he ultimately befriends the latter in order to reinvigorate their lost sense of humanity), while also trading on the broader correlation between Roman narratives and the “Epic” generic style (e.g., films such as Wyler’s 1959 *Ben-Hur* and Stanley Kubrick’s 1960 *Spartacus*).¹¹⁷ *Carter* blends these elements and reflects them in its costume design, the cultural design of Helium and Zodanga (the film’s two human cities), and its deployment of the gladiatorial bout set piece, while also trading on the more recent popularity of Roman narrative on STARZ and HBO (*Spartacus: Blood and Sand* [DeKnight 2010-2013] and *Rome* [William, McDonald, Heller 2005-2007]). As *Carter* trades on the recent successes of the popular neo-Roman Epic narrative, it is logical that one of the film’s main set pieces is the gladiatorial bout, wherein John Carter (Taylor Kitsch) and Tars Tarkas (Willem Dafoe) are pitted against two four-armed Great White Apes (giant aggressive ape-like creatures). Even though *Gladiator* certainly proved that male protagonists confronting unfavorable odds and exotic creatures in a Roman arena is still economically viable story content, the staple-trope of the gladiatorial bout has a broader history that also belongs to several other genres from which *John Carter* draws inspiration and with which it attempts to engineer a synergistic fit. For example, the gladiatorial sequence is also a science-fiction staple, ranging from the confrontation between Luke Skywalker and the Rancor in *Star Wars: Return of the Jedi* (Marquand 1983), to Worf’s numerous holodeck simulations in *Star Trek: The Next Generation* (Roddenberry 1987-1994), to

¹¹⁷ Regarding the white savior film, cf. Matthew Hughey's *The White Savior Film: Content, Critics, and Consumption* (Philadelphia: Temple U press, 2014).

the more recent arena bout in *Star Wars: Episode II - Attack of the Clones* (Lucas 2002), among many others. The point here is that *John Carter* very clearly pillages the more successful elements of numerous film properties, which should in theory have contributed to its success, (not to mention that the film is an adaptation of Edgar Rice Burroughs' successful *Barroom* series, and, more specifically, *A Princess of Mars* from 1912), but nevertheless the film failed miserably in commercial terms (a \$200-million loss for Disney) (Chmielewski).

There is an interesting lesson in *John Carter*, just as there is in McKee's screenwriting manual: "No one can teach what will sell, what won't, what will be a smash or a fiasco, because *no one knows*. Hollywood's bombs are made with the same calculation as its hits," and this lack of clarity is certainly not going to prevent Hollywood and its creative agents from trying to create hits, nor is it going to prevent McKee from selling a guide to writing hit films (6). More productively for theorists, the motivation that drives such decisions is made salient in its products, and the attempt to adapt to the environment is as strong in the bombs as it is in the hits. Creative agents respond to both real and imagined environmental demands, which as a result influence the design and production of the resulting narrative. Thus, for theorists, this example and the exploration of anticipated/imagined environments, and the plethora of textual influences that inform cinematic texts, is a rich opportunity to explore the implications of these creative influences on narrative theory. Even though *John Carter*'s development reflects a Darwinian logic, whereby the text's elements are selected by and for the good of its health (i.e., its economic health), this happens through (un)natural selection. The pertinent aspect of this theory, however, is to highlight the manner in which numerous elements are brought together, extending and continuing numerous narratives simultaneously.

This is an important observation in terms of effects theory, then, as it challenges the notion that narratives can be fully disrupted, due to the sheer volume of narrative threads that are required to create a contemporary cinematic narrative. Instead, there are narrative threads that are momentarily enhanced and others that are momentarily diminished. It would be productive therefore to dismantle the concept of “the” filmic narrative, as a filmic narrative is never a single thread communicated by a single agent, but is instead a rhizomatic assemblage of multiple sources, and with multiple communicative agents. A rhizome is a subterranean collection of intersections and growths, and yet each growth and each intersection is of equal importance to the development of the whole. According to Gilles Deleuze and Félix Guatarri, “a rhizome has no beginning or end; it is always in the middle, between things” (Deleuze 25), and so, too, is a film's narrative.¹¹⁸ Film narratives comprise a myriad of narrative threads brought together by the polyphony of creative voices that begin prior to the initiation of the film text, and continue thereafter. Such a statement certainly requires further explanation, however, and I will examine Steven Spielberg's *Jurassic Park* (1993) to highlight how the numerous narrative threads are braided together, and in particular, how visual effects and film aesthetics more generally affect the narrative and function as communicative agents.

Cloning and genetic engineering are core themes of *Jurassic Park*, but as much as the film deliberates the ethics of unleashing manifestations of unbridled science onto the world,

¹¹⁸ I would argue that filmic narratives have origins that extend well beyond the beginning of the film. Filmic narratives extend existing narratives, and they influence the formulation of future narratives, and are therefore always middle points in a larger network, which is in agreement with the theory of intertextuality. For example, Ray Harryhausen's films do not begin with the opening credits, they “begin” with the work done by Willis O'Brien in *King Kong* (Cooper and Schoedsack 1933). Harryhausen's films extend O'Brien's existing narratives (the stop-motion style, the monster film, the new monsters that must respond to the existing pantheon of monster “greats”, etc.). A filmic narrative, in this sense, is always a middle point in a broader network of polynarrativity.

Spielberg's film is also a self-reflexive demonstration of cinema itself. But how are these two discourses interrelated? As Nigel Morris suggests, "creating dinosaurs through advanced biotechnology, as—like movies—larger-than-life spectacles, parallels their rendition through advanced special effects: each utilises complex codes and virtual reality imaging" (192). Yet, the parallels extend beyond the self-reflexivity of virtual reality imaging technologies in the diegesis and the subsequent imaging of the CGI dinosaurs. *Jurassic Park* mirrors the logic of aesthetic adaptation on a broader scale, whereby elements are selected for display in order to appease audience desire, disregarding the scientific rules and the restrictions of historical time. The dinosaurs were selected to be put on display for the park goers, just as they are for audiences who watch *Jurassic Park*, and dinosaurs were selected precisely for their ability to capture audience attention via a process of genetic engineering (diegetically) and generic engineering (non-diegetically), and yet both the diegetic dinosaurs (real dinosaurs in *Jurassic Park*), and the CGI dinosaurs (digitally rendered images) will "survive" and reproduce further based on their "fitness" within a given environment.¹¹⁹

The significance of the dinosaurs' dual lives (as diegetic park attractions and living reptiles in "Jurassic Park" and as non-diegetic cinematic attractions in *Jurassic Park*) is that two narrative threads/two narrative lines emerge, one diegetic, and one non-diegetic. Spielberg, however, exploits each narrative thread to reinforce and give credence to the other. For example, the full-length cinematic *Jurassic Park* trailer works to conflate these two narratives, or rather, to

¹¹⁹ I highlight the difference between these two forms of dinosaurs, as the diegetic dinosaurs are shown to have found a way to procreate and reproduce, which extends the life of these creatures within the *Jurassic Park* universe. In terms of the CGI dinosaurs, they will also be reproduced in other film texts and media properties (e.g., *Dinosaur* (Zondag and Leighton 2000), *King King* (Jackson 2005), *Primevil* (Haines and Hodges 2007-2011), *Terra Nova* (Marcel and Silverstein 2011), etc.). Each of these "dinosaurs" is a different being, as the one relates to the world-building potential of the *Jurassic Park* series, while the other reflects the cultural and economic demands and strategies to generate revenue from existing successful sources.

synchronize them in order to manage audience expectations and desires. The trailer utilizes some of the key terminology of effects: a montage sequence shows glimpses of the digital dinosaurs, as well as Ian Malcolm (Jeff Goldblum) sitting in the auditorium looking critically at the inferred screen, while John Hammond (Richard Attenborough) states “we have made living biological attractions so astounding that they’ll capture the imaginations of the entire planet” (*Jurassic Park*). The dialogue doubles as an exposé of both the in-park diegetic attractions and the non-diegetic potentialities of digital imaging technologies, while encouraging a particular kind of spectatorial attitude, which is to be “astounded” by the engineered attractions. The diegetic and non-diegetic narrative lines are woven together in this moment, as the audience is encouraged to take a double position, to participate in the theme park ride and enjoy the diegetic “living biological attractions,” while also assuming a curious and critical viewing position *vis-a-vis* the non-diegetic digitally rendered on-screen objects. Hammond’s exclamation is followed immediately by the bemused reaction shots of Grant, Sattler, and Malcolm during the brachiosaurus revelation scene, providing a kind of ideal model of the emotional feedback loop that audience members in which encouraged to participate: come for the attractions, indulge your critical perspectives on the film’s promise to provide perceptually realistic “living biological attractions,” and, when the dinosaurs are displayed in all their glory, fall into a state of wonder and disbelief.

Immediately after the reaction shots, in which Grant, Sattler, and Malcolm display their own expression of wonder, Grant’s rather infamous warning begins: “Dinosaurs and man, two species separated by 65 million years of evolution, have just been suddenly thrown back into the mix together. How can we possibly have the slightest idea...” Grant’s voiceover warning momentarily pauses and the tone of the trailer shifts from wonder to suspenseful thrills, marked

by a shift in the soundtrack's tone, and by a shift from daylight shots to those of the stormy night shots when the park's safety mechanisms have broken down. Grant's warning then continues: "... what to expect?" Again, the dialogue operates dualistically, as the question posed diegetically functions as a warning against hubris, suggesting that biological/evolutionary time be respected. In non-diegetic terms, by contrast, "what to expect?" is a rhetorical question that is already answered by the shift to suspenseful and chaotic imagery as well as the shift in the soundtrack's tone. The generic conventions of *Jurassic Park* become overt in the trailer, and multiple narrative lines are also highlighted in the process: the diegetic narrative of characters in conflict with a previously extinct species, the non-diegetic meta-narrative of the science-fiction/monster film, and, also, the non-diegetic aesthetic narrative of effects. The film openly engages multiple levels of discourse via its trailers and marketing, as it encourages spectators to compare their experience of seeing the dinosaurs in *Jurassic Park* to their previous experiences of cinematically imaged monsters, by encouraging an awareness of generic conventions, and other familiar narratives, while foregrounding those elements that are new (i.e., the actual diegetic encounter between characters and dinosaurs). Thus, the film encourages spectators to engage with multiple levels of narrative simultaneously, the implication of which is that there is the potential to account for numerous communicative agents and agencies that aid in conveying narrative information for each of these narrative threads.

One of the more prominent examples of how these narrative threads and communicative agents interact is in the film's most spectacular moment when the Tyrannosaurus breaks through the fence. The scene utilizes a series of immersive techniques to draw viewers into the film's diegetic narrative (i.e., the conflict between characters and dinosaurs). The impact tremors displayed in the water cup provide a haptic connection between viewer and cinematic image, and

then the suspense is elevated as the goat that initially failed to draw the Tyrannosaurus to the fence rather ironically finally succeeds in doing so and is swiftly gored by the Tyrannosaurus, which is still hidden from sight. On top of this, John Williams' score and other non-diegetic sound effects are noticeably absent, promoting a sense of isolation as the comforts of the cinematic apparatus are withdrawn. This is a moment of terrifying revelation, as the greatest danger is posed to the characters on screen. This is also the moment, however, of the most significant spectacle and, in the case of *Jurassic Park*, the scene of the greatest digital spectacularity. The viewer is drawn in two directions at once: the diegetic narrative draws the viewer into a space of immanent and immediate "danger" as the Tyrannosaurus breaks through the fence (i.e., this is a moment of intense immersion as the sensation of suspense is dependent on psychological/emotional engagement with the on-screen objects), while, simultaneously, according to the logic of cinematic reflexivity, this is also the most hypermediated and therefore distancing moment of *Jurassic Park*. The conventions of the Hollywood blockbuster are at their most prevalent as the Tyrannosaurus is put on full display in the generically conventional moment of revelation. The promised thrills of the marketing campaign are also delivered and satisfied as the Tyrannosaurus appears, announcing its presence with a roar, satisfying the expectations established by both diegetic and non-diegetic narrative threads.

When the Tyrannosaurus is revealed, it acts as communicative agent of multiple narrational informational conveyances (or at least it acts as an organizational nexus or conduit through which the narratives of multiple communicative agencies are filtered). As the T-Rex satisfies the trailer's promise of a peak thrill, it also extends and adapts the historical aesthetic design of cinematic dinosaurs, it displays the potential of VFX, it delivers the power and majesty of the park's potential as promised by Hammond, and it provides the necessary narrative

complication demanded by the four-act structure. The poly-functionality of the Tyrannosaurus is significant for effects theory insofar as the value of visual effects has been largely predicated on total narrative disruption, which in this moment does not actually occur. What does in fact occur is a simultaneous presentation of numerous narrative threads, each of which is advanced by the display of the dinosaur, the implications of which are multiple, as it suggests that: (1) the wondrous moment of distanciation has less to do with the digitality of the dinosaur and more to do with the establishment and fulfillment of viewer expectations generated by way of the Hollywood blockbuster aesthetic and marketing campaign (considering that such revelatory moments exist in both digital and analogue films); (2) distanciation is a largely overstated condition in these moments, due to the existing theories of cinema's ethical potential that are predicated on narrative disruption, as the most significant moments of digitality also tend to be presented in tandem with techniques and strategies of cinematic immersion; (3) narrative disruption is not a necessary condition for cinematic wonder (even though one thread may be momentarily deemphasized, there are numerous other narrative threads that are emphasized in equal force); (4) the digitally rendered dinosaur functions as a communicative agent which conveys information; and (5) the mode of presentation and the aesthetic composition of the digital object can also carry information and convey significance, particularly in light of the broader narrative of digital imaging developments, and the broader historical aesthetic trends in cinema.

Thus, Darwin's laws of biological adaptation function in homological terms when applied to the adaptive process of narrative cinema.¹²⁰ When it comes to the development of film texts in

Hollywood's production industry, the adaptive strategies must navigate the broader environment in which the film texts are produced. According to Darwin, these laws are: "Growth with Reproduction; Inheritance which is almost implied by reproduction; Variability from the indirect and direct action of the external conditions of life, and from use and disuse; a Ratio of Increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character and the Extinction of less improved forms" (215). In translating these laws to a creative environment it is possible to evaluate Hollywood products in light of the following heuristic categories: (1) growth (innovation); (2) inheritance (generic schemata, and the justification of film production based on what has been previously successful); (3) variability from indirect and direct environmental conditions (the material conditions and constraints of cinematic production); (4) use and disuse (broader trends in generic schemata, such as which styles are popular or have fallen out of favour); (5) a ratio of increase so high as to lead to a struggle for life (as films vie for spectator attention, they must address the demands of the spectator to gain interest and be seen, thereby forcing cinematic style and expression to attempt to adapt to contemporary conditions); all of which leads to (6) (un)natural selection, which entails divergence of character (repetition with variation) and the extinction of less improved forms (film styles that cease to be popular or profitable in the contemporary environment).

Take for example, the contemporary superhero film (e.g., *The Amazing Spiderman* [Webb 2012], *The Avengers* [2012], *Batman Begins* [Nolan 2005], *Thor* [Branagh 2011], *Man of Steel* [Snyder 2013], *Guardians of the Galaxy* [Gunn 2014], or the many sequels of these properties), where in each case, "every slight modification, which in the course of ages chanced

¹²⁰ Cf. Gary R. Bortolotti and Linda Hutcheon's "On the Origin of Adaptations: Rethinking Fidelity Discourse and 'Success'—Biologically" (*New Literary History*. Vol. 38. No. 3 (2007): 443-458).

to arise, and which in any way favoured the individuals of any of the species, by better adapting them to their altered conditions, would tend to be preserved; and natural selection would thus have free scope for the work of improvement” (161). In other words, the superhero film has proven to be well adapted to cater to the contemporary environment and has been massively successful in commercial terms, and even in critical terms, as evidenced by positive reception of each of the eighteen-plus Marvel films, but these films are not merely adaptations of source comics. Instead, these films recognize that the source material has provided stories, characters, and themes that are of interest to contemporary audiences, and that the source material provides a rich context in which to develop and display mass-scale aestheticized violence that provides the “good and evil” Manichean moral split typical of contemporary mass cultural narratives. These comic book films, however, do not adapt a single source text, and generally engage a multiplicity of sources (e.g., storylines from the comic book narrative arcs, contemporary generic trends, broader environmental influences, etc.); as a result, these films provide a useful territory in which to explore the braiding of these numerous narrative threads and influences. As Robert Stam puts it,

every text forms an intersection of textual surfaces. All texts are tissues of anonymous formulae, variations on those formulae, conscious and unconscious quotations, and confluences and inversions of other texts. In the broadest sense, intertextual dialogism refers to the infinite and open-ended possibilities generated by [...] the entire matrix of communicative utterances within which the artistic text is situated. (64)

These textual surfaces are not just surfaces, however, they are in fact interdependent narratives that exist both within and beyond these individual texts, and are inherited from each film’s textual precursor.

By adapting the existing properties (building upon that which comes before), these contemporary superhero films display a logic of cultural aesthetic adaptation *par excellence*, as they maximize their potential to simultaneously provide that which is familiar and that which is wholly new. These films reflect the Darwinian logic of environmental “fitness,” as they fit and, are “fit,” because they adapt the narrative structures of the precursory films and their paratextual materials with enough repetition to generate a sense of familiarity and enough variation to provide a sense of novelty for the audience. Thus, this mode of adaptation functions with an intertextual logic, reflecting a cultural hybridity, in a sense, that functions like the concept of Darwinian “intercrossing.” Darwin’s research showed “that with animals and plants a cross between different varieties, or between individuals of the same variety but of another strain, gives vigour and fertility to the offspring,” and the same logic holds true for cinematic texts (170). A film then is always already a response, a reaction, and a continuation of a collection of texts and environmental influences, which intersect and constantly shift in significance within the changing environment as new texts and influences come into contact with the rhizome, the entangled bank, the adaptation. The ultimate point here is that even though there is an overarching narrative that runs from the beginning of a film, through its middle, to its end, there are many other narratives, and many other influences with which a film engages in order to develop and maintain its “fitness.” It is on the basis of aesthetic adaptation that films seek to be “successful” and “survive” in order to provide schemata for the next generation of film texts. As David L. Smith so eloquently suggests, “Evolution, after all, is more than just an artifice; it is a fundamental truth about how the world works [. . .] Nature itself seems to be of two minds on the matter, operating at once as a creator of unique individuals and as a repeater of tried-and-true formulas, pure poet and shameless hack” (341). To return, then, to our primary examples of

Jurassic Park and *Adaptation*, it is clear that *Jurassic Park* is not only an adaptation of a source novel, but also an adaptive text responding to its environment. *Jurassic Park* is no different from *Adaptation* in its being governed by the logic of adaptation. In *Adaptation*, Mckee's *Story* is as important as Orlean's *The Orchid Thief*, just as in *Jurassic Park*, Michael Crichton's *Jurassic Park* is as influential as Harry O'Hoyt's *The Lost World* (1925). In both films, generic structures and schemata are as important as their respective sources. Thus, each included element exists by and for the good of the adaptation (whether that element is successful in aiding in the texts "fit" to the environment is a separate issue), and no single element is more important than another. Each film is "a rhizome [that] has no beginning or end; it is always in the middle, between things" (Deleuze 25). From this position, the myriad of narratives can be analyzed to understand the text's aesthetic function, and the interweaving of multiple pre-existing and newly fabricated narratives that are present in contemporary blockbuster films.

Conforming to Generic Design and Resisting Aesthetic Adaptation

One of many differences between *Adaptation* and *Jurassic Park*, however, is that *Adaptation* is much more overt about its processes, whereas *Jurassic Park* functions precisely with a logic that minimizes such self-reflexive narratological contemplative strategies. Nevertheless, *Jurassic Park* and *Adaptation* are both like entangled banks that function with the logic of generic engineering and the processes of (un)natural selection, while utilizing their aesthetic design to convey information, and yet these films operate at opposite ends of the aesthetic spectrum: *Jurassic Park* conforms to the generic and aesthetic design structures of its historical antecedents, while *Adaptation* attempts to resist such generic and aesthetic conformity both diegetically and extra-diegetically, but only to display overtly how such resistance is futile.

These films share a thematic concern with adaptation, both overtly contemplate how to satisfy their respective audiences, and both operate by engaging more familiar Hollywood generic tropes, but one does so to conform to such generic conventions, while the other fails to resist such conventions.

In *Adaptation*, for example, what is made clear is that the film engages with a multiplicity of intertextual traces, and not necessarily in an effort to support the more traditional development of a "good" or "successful" film. Rather, in the context of *Adaptation*, and by extension films in general, the adapted text is always already engaging with a multitude of intertextual relations. When a text is adapted, it must necessarily enter a new cultural environment with a new set of generic, commercial, and intramedial conventions and expectations. This is because an adaptation is always (re)presented in (i.e., it evolves into) a different cultural environment than its source-text: whether it be due to a change in temporal, geographic, political or medial environment. In order to "adapt" to this new environment, an adaptation must "evolve," or, as Susan (Meryl Streep), in *Adaptation*, states: "What I came to understand is that change is not a choice. Not for a species of plant, not for me. It happens and you are different . . . I pretended . . . everything was the same, but something happened in the swamp that day." The significance of the "swamp" as a location in the film is also highlighted during the Darwin voiceover scene, as discussed above: in the first scene set in the Fakahatchee, the voice-over narration suggests that the viewer should "contemplate the entangled bank." The swamp, then, like the entangled bank, is a location associated with change, with the necessity of evolution, a metaphorical representation of adaptation in general. The process of adaptation is necessarily an "evolutionary" one, as the adaptation is always an evolution of a "source text" (of many sources) within a new environment. In order for an adaptation to successfully integrate into a new

environment—to utilize Darwinian rhetoric and to extend beyond the “entangled bank” passage of the film—an adaptation must survive while competing with these other “elaborately constructed forms, so different from each other, and dependent on each other in so complex a manner, [forms which] have all been produced by laws acting around [them]” (Darwin 215). The question, then, becomes: how do adaptations vary from non-adaptations when the governing filmmaking environment of Hollywood makes the same demands of all texts?

Certainly, *Adaptation* is an intellectually challenging film that invites its spectators to engage with a plethora of foregrounded adaptive processes and to be curious about its design. In exploring the swamps as rhizomes in order to disentangle the film’s possible meanings, it is necessary to account for the other text that garners almost equal screen time to Orlean’s *The Orchid Thief*: McKee’s “how to” screenwriting guide, *Story*. *Story* is not only literally included in *Adaptation*’s diegesis, but the significance of McKee’s screenwriting principles are also debated by Charlie and Donald within the diegesis, with Charlie lambasting Donald’s screen-writing ignorance. After Marty Bowen (Ron Livingston), Charlie’s agent, praises Donald’s formulaic thriller screenplay, *The Three*, Charlie finally gives in to his own self-doubt and attends McKee’s “Story” seminar.¹²¹ After Charlie speaks with McKee in *Adaptation*’s diegesis, he accepts that he must abandon a film only about flowers, and subsequently *Adaptation*’s generic resistance to conventional narrative structures is “destabilized,” as more familiar generic tropes are ironically employed. For example, in his early meeting with Valerie Thomas (Tilda Swinton), Charlie argues that drug running, sex, guns and car chases are all trite Hollywood generic conventions

¹²¹ According to McKee’s website, screenwriters such as “John Cleese, William Goldman, Paul Haggis, Peter Jackson, Jane Campion, Akiva Goldsman, Joan Rivers, Kirk Douglas, Meg Ryan, Drew Carey, Russell Brand, the entire writing staff of Pixar, and over 100,000 others” have attended McKee’s “Story” seminars.

that he intends to avoid, and yet, each cliché, almost in order, is incorporated into *Adaptation*. After Charlie attends McKee's seminar, he not only ceases to critique Donald's use of trite clichés and overburdened "thriller" conventions, he also becomes an active agent in advancing *Adaptation*'s familiar generic tropes. Donald and Charlie also "trade" texts: Charlie sits in his hotel room in New York with Donald and reads *Story* while Donald reads *The Orchid Thief*, further destabilizing the relationship between the serious and the superfluous writer. The third act of the film, then, is even less an adaptation of *The Orchid Thief* and instead becomes a formal and generic "adaptation" of McKee's screenwriting text, whereby plot turns and familiar generic tropes are foregrounded.

The tone of *Adaptation*'s second half "adheres, at least nominally, to the same Hollywood conventions" that it subverts (Harner 35), mirroring McKee's rhetoric in the introduction to *Story*: "a rule says, 'You must do it this way.' A principle says, 'This works . . . and has through all remembered time.' The difference is crucial. Your work needn't be modeled after the 'well-made' play; rather, it must be well made within the principles that shape our art. Anxious, inexperienced writers obey rules. Rebellious, unschooled writers break rules. Artists master the form" (3). The real Charlie Kaufman, himself (*Adaptation*'s screenwriter), makes a similar statement in an interview with David Poland: "I don't think there's any difference between structure and story. They're two parts of the same thing . . . I don't believe in the idea that there is a structure that movies have and that you need to adhere to it. I think, you look at what it is you're trying to express and you figure out how to use it." As such, each "rule" detailed for Charlie by McKee is subsequently broken in the diegesis. McKee tells Charlie, for example, "don't you dare bring in a *deus ex machina*," only to have Laroche attacked and killed by an alligator in the swamp at the last moment before he shoots Charlie for discovering Orlean's drug

use. Kaufman, obviously aware of McKee's text, appears to internalize and ironically subvert McKee's directives (while, even more ironically, conforming to them). *Adaptation* illustrates the fact that it "need not be modeled after the 'well-made' source text." Instead, *Adaptation* masters the formal requirements of the new environment and, simultaneously, adapts it and adapts to it, along the lines of Linda Hutcheon's theory that an adaptation is "repetition with variation" not replication with adherence (8).

A tension remains between originality and adherence to convention. In this respect, Kaufman's rather adroit negotiation, and simultaneous ironic subversion, of formulaic structural and generic dependence, perhaps best illuminates how this tension leads to a well-made adaptation: one that adapts its sources, imbuing the adaptation with "original" and deviant material, in order to evolve and integrate into a new environment. In the case of *Adaptation*, this is the Hollywood environment of classical narrative structures, and the film's early meditation on the desire to resist such conformity gives way to the realization that such resistance is in a sense futile, as more familiar generic formula win out over Charlie's desire to make a film simply about flowers, which would be radical due to its commitment to a non-action based narrative. In this sense, the demands that Hollywood imposes upon its products can be seen as a kind of creative agency that makes certain demands of the narratives that are "selected" to proliferate within its environment. *Jurassic Park* meditates on similar concerns; rather than resisting the environmental demand for generic conformity, *Jurassic Park* embraces such demands wholeheartedly, asking the opposite question that *Adaptation* does. Instead of pondering how to resist generic conformity, *Jurassic Park* explores the question: what is the best formula to create the greatest generic (and biological) attractions? The search for the answer is also thematically

foregrounded within the diegetic narrative, albeit with a sensibility very different from that of *Adaptation*.

In *Jurassic Park*, after the opening sequence, in which one of the dinosaur handlers is killed by a velociraptor, Hammond must secure endorsements from the scientific community regarding the safety of the park to mitigate the risks posed to the park's investors. As Drs. Grant, Sadler, and Malcolm attend the park, they are shown a short video detailing how the dinosaurs are genetically engineered. The short video, however, doubles as a kind of self-reflexive metaphor for the process of generic engineering.¹²² The video describes the process of cloning the dinosaurs (i.e., the controlled replication of previously deceased creatures) from a preexisting DNA blueprint, within which the scientists must patch the "holes" in the genetic code from other similar preexisting sources. In the case of the dinosaurs, frog DNA is used, with unforeseen consequences, as the process of cloning comes into conflict with the processes of adaptation (i.e., the uncontrolled evolution of creatures to conform to the demands of the current environment), whereby the all-female dinosaurs find a way to breed, due to the ability of the frogs to swap sexes. The process of using a DNA blueprint and splicing in other missing elements works metaphorically for the process of generic engineering, wherein a certain blueprint may exist (e.g., Michael Crichton's novel), but certain other characteristics must be spliced into that blueprint to bring the content to life in a new media environment. These new "DNA sequences" are other blockbuster set pieces, such as the moment of revelation, and the aesthetic design of the dinosaurs, which itself has evolved over several iterations of stop-motion animation and

¹²² Beyond the functioning as a self-reflexive metaphor for the process of generic engineering, this video foregrounds animation, and so is also self-reflexive of the medium of image creation, visually evoking a history of animated films about evolution, resurrection, and dinosaurs from *Gertie the Dinosaur* (McKay 1914), to *Fantasia*, and now to *Jurassic Park*.

developments in character animation. Like Hammond's dinosaurs, specific sequences are spliced into the genetic/generic design to maximize the return on investment. This concept is further expanded in the more recent *Jurassic World* (Trevorrow 2015), as the Indominus Rex, a new genetically designed hybrid-dinosaur, essentially functions to conflate the two concepts. The Indominus Rex is both a genetically engineered dinosaur, with an overt generic design: it is built as the ultimate attraction by Dr. Henry Wu, blending multiple elements from different reptilian species to create the ultimate spectacular dinosaur, which also happens to be an ultimate killing machine. Ironically, it is this genetically/generically engineered killing machine that audiences so desire to watch (as evidenced by *Jurassic World's* massive domestic and global gross: \$652 million and \$1.67 billion respectively, garnering it the second position in the annual box office for 2015 behind only *Star Wars: The Force Awakens*). Thus, as the Indominus Rex must navigate Isla Nublar (i.e., the island on which the park is located), it must also perform its generic functions, which are shown to be designed by engineers (i.e., creative agents) within the diegesis, even while, metaphorically, these creative agents are also at work to generically engineer the film itself.

To extend the discussion both films' aesthetic sensibilities, both films utilize their aesthetic register to highlight their resistance or conformity to their respective generic designs. In other words, *Jurassic Park* overtly engages with its historical antecedents, of the "Spielberg-Lucas-Coppola cinema of effects" (Gunning 387), by way of its aesthetic design: larger than "real" life monsters; clean, photographically realistic cinematography; attractive and conventionally heroic protagonists; unattractive and conventionally villainous antagonists; un-ironic engagement with proven generic tropes, such as the moment of revelation; all of which is presented in vivid Eastmancolor, in relation to *Adaptation's* generally dark monochromatic

palettes (e.g., the brown-reds and blues associated with Charlie's rather bland personality) (see figure 2.1 and 2.2).¹²³



Figure 4

¹²³ As the director of *Jurassic Park*, Spielberg is obviously a member of the “Spielberg-Lucas-Coppola cinema of effects” already, but I mean to highlight the fact that *Jurassic Park* openly celebrates the place it occupies within this cinematic stylistic mode.



Figure 5

On the other hand, *Adaptation*'s aesthetic sensibility is drastically different than *Jurassic Park*'s, in that it appears to register its resistance to generic (and environmental) conformity in its aesthetic design due to its foregrounding of typically unattractive filmmaking strategies, such as: dark, and under-lit scenes; monochromatic color palettes; a balding protagonist who sweats profusely; shabby interior designs; and ill-fitting clothes. Of greatest significance in the comparison between *Jurassic Park* and *Adaptation*'s aesthetic and generic designs is that the comparison highlights the largely impossible task of creating a non-narrative visual experience, as the visual style of each of these films carries and conveys information, regarding each films'

engagement with debates of environmental conformity or resistance (regardless of whether the effort to resist or conform to their relative environments proves fruitful or futile), and the overt efforts to generically engineer their narratives.

Aesthetic Adaptation: Shallow Focus and Oscillating Motion Speed in Contemporary Action Sequences

While it may appear to be a convenient marriage between the theory of aesthetic adaptation as biological homology and films that thematically reflect concerns about adaptation and spectacle (or at the very least, engaging concerns about negotiating generic expectations), aesthetic adaptation is a constructive theory that works to support the understanding of the evolution of aesthetic designs. Where Elsaesser's historical model of media archeology, of tracing the media genealogy backwards through time, does explain what happens over time, aesthetic adaptation attempts to explain why things change as they do, while providing a predictive/future orientation to the theorization of aesthetic design. Take for example the shallow focus and oscillating motion speeds of the action sequences displayed in *Alita: Battle Angel* (Rodriguez 2019), which reflect the generic and aesthetic design of its Hollywood action sci-fi/fantasy contemporaries, rather than the aesthetic design of its source material(s): the manga, *Battle Angel Alita* (Kishiro 1990-1995), or the anime film, *Gunnm* (Fukutomi 1993). The question that the theory of aesthetic adaptation seeks to answer, then, is why does *Alita: Battle Angel* follow its Hollywood counterparts aesthetically, rather than engaging more fully with the aesthetic of the source material?

The creative team of *Alita: Battle Angel* could have just as easily chosen to replicate the visual effects of *Speed Racer* (The Wachowskis 2008), which Stephen Prince describes as "faux-

lens perspectives . . . [that] include exaggerated depth of field, achieved in the compositing," which looks like Japanese animation (87). A lot of Japanese animation is "done with large painted background and modified layers on top of that, like traditional cel animation. It puts everything in focus" (Prince 87-88). Invoking the theory of aesthetic adaptation—which takes into account fitness, inheritance (i.e., historical antecedents), economic success, and contemporary environmental demands—helps to explain why *Alita: Battle Angel* reflects its other Hollywood contemporaries, such as *300* (Snyder 2007). In the action sequences, *Alita: Battle Angel* shares a similar use of focus depths and oscillating motion speeds with *300*, rather than *Speed Racer's* focus depths (which are much deeper). Furthermore, *Alita: Battle Angel* also does not replicate the flashy neon streaks that *Gunnm* utilizes during its action sequences, and such neon streaks are reminiscent of other anime properties such as *Ninja Scroll* (Kawajiri 1993). The reason is that *Alita: Battle Angel* is produced by a conservative Hollywood institution that is focused on recouping cost as efficiently as possible by adapting the success of previous successful properties. Adaptation, conservation, replication of success in an effort to fit within its environment are logics that govern the aesthetic design of contemporary films, and the theory of aesthetic adaptation fully reflects Hutcheon's observation that adaptations operate with a logic of "repetition with variation" (p. ?) I argue, however, that this is a fundamental truth of Hollywood more broadly, as it attempts to maintain its own status quo. The image, then, is always a reflection of its previous successes and a reflection of its contemporary engagement with its environment, and from the image the logic of adaptation and the presence of a film's historical antecedents become apparent.

Ultimately, I argue that images, spectacular or otherwise, are always narratively charged, as they convey information about a film's generic design and its engagement with environmental

demands, even beyond being visual nexuses, connecting numerous diegetic and extra-diegetic narrative threads. Considering that spectacular imagery is imbued with meaning, it cannot be theorized to be simply part of a film's overall aesthetic design. Furthermore, considering that spectacular imagery is generally given privileged status within a film, the theories of wonder and attractions, and narrative theory more broadly, must account for far more than they previously have in light of spectacular aesthetic adaptation. Darwinian evolution, when applied homologically to the processes of aesthetic adaptation, allows for such an expansion of how the aesthetic designs of two films, such as *Jurassic Park* and *Adaptation* that are equally concerned with the processes of adaptation and yet radically different in terms of their aesthetic design, can inform the theorization of the narrative potential of spectacular images.

Chapter 4

Aesthetic Adaptation and Conveying Information via Effects:**Networked Narrative Effects****The Implications of Narrative Effects via Aesthetic Information Networks**

Challenging the theoretical restrictions imposed upon the experience of wonder allows for a much deeper and more complex appreciation of visual effects, but it also greatly complicates the categorization of “wondrous imagery.” If wonder is no longer the sole by-product of a confrontation with an aesthetic object that lacks *a* narrative that explains the existence of the object technically or scientifically, then it allows for the theorization of a much more complex relationship between spectators and visual stimuli. Pierson’s theory of wonder, for instance, does account for a particular kind of spectator engagement with specific cinematic objects, allowing for the creation of heuristically manageable categories. The consequence of establishing such categories is that they have become prescriptive guidelines, rather than provisional analytical frameworks that are designed to help guide the interpretation of effects. Effects have subsequently come to be evaluated based on achieving these conditions (i.e., is the effect novel? Does it disrupt the narrative? If so, does it make the viewer curious about how it was constructed, in technical or other extra-diegetic terms? And, if the effect does not achieve one of these conditions, is it then of less value, or worse yet, just an “empty spectacle”: a pleasant, but uninformative spectacle that has little social or critical value?). Associating the value of effects with novelty encourages theorists to overlook the historical antecedents of the effects, to bypass those trends that have been in development for decades before manifesting in

the contemporary moment, and to then seek “novelty” in the “new and improved” imaging technologies, rather than observing them as a series of adaptations. What all of this overlooks is the fact that the development of new imaging technologies—that is, the creation of spectacular images that convey information and that engage with a plenitude of narratives—is business as usual for Hollywood cinema: creating the visually striking, “never before seen” object, is in fact, Hollywood’s *modus operandi*. Technological novelty is not novel at all.

The foregoing chapters aimed to analyze the critical underpinnings that inform the theoretical positions regarding effects, and to interrogate these positions in order to reassess the theorization of effects, exploring the territories in which effects may find value beyond narrative disruption. The first chapter highlighted that digital visual effects are not inherently disruptive and that narrative “disruption” (i.e., the privileging of visual objects over other cinematic elements) is not an inherent quality of effects themselves, rather the privileging of the visual object is a byproduct of the effect’s treatment. If an effect is privileged, it is placed at the center of the film-going experience via cinematographic design, the fulfilment of generic expectations, and paratextual marketing materials and, therefore, should not be valued as inherently disruptive nor measured via a set of static characteristics. The second chapter questioned why narrative disruption is still regarded as a theoretical “gold-standard” of intellectually engaging cinema, and ultimately argues that static strategies of intellectually engaging filmmaking are not conducive to challenging contemporary socio-cultural conditions of inequity.¹²⁴ In addition, maintaining a

¹²⁴ In this case, by the contemporary socio-cultural conditions of inequity, I am referring to those conditions encountered by North Americans grappling with the systemic inequities of late-capitalism because I am dealing with contemporary blockbusters, and the primary target demographic of those films are North Americans participating in the culture of late-capitalism. Nevertheless, disruptive strategies have been employed by many filmmakers, playwrights, musicians, etc., to address the specific concerns of their target demographic.

narrow focus on the socio-ethically ideal strategy of anti-immersive strategies encourages film scholars to overlook other contributions that effects make to the meaning-making system of a film. The third chapter confirms that narrative disruptions are not only a potential impossibility, but that cinematic narratives develop meaning via networks of information that are always-already entangled (and further entangling) with extra-diegetic narratives. Effects, therefore, must also be analyzed in terms of how they contribute to the development and proliferation of networked narratives.

This final chapter, then, explores the many values and influences that effects (and cinematic aesthetic designs more broadly) have on cinematic meaning making.¹²⁵ I also argue that effects do not have a static value, but instead engage with their own narrative networks, and that each display of visual effects (via visual systems) contribute to the meaning of a film. The meaning of an effect is not static, but rather it is always dynamic and in the process of always-already offering new meaning. Furthermore, in this chapter I conclude that the wonder years are not gone, and that wonder is alive and well. The theorization of wonder, however, must expand to account for other non-technical understandings and experiences of effects. In this chapter I explore the influence that effects have had on the development of particular kinds of spectacular images that convey information via aesthetic networks (e.g., stop-motion animation's aesthetic of imperfection); intermedial juxtaposition (e.g., the gaudy digital train of Wong Kar-Wai's 2004 film *2046*) and how effects can, for example, help illuminate explorations of cultural identity formation; environmental adaptation of contemporary monster blockbuster films (e.g., the intertextuality of contemporary blockbuster marketing strategies); and the metaphorical use of

¹²⁵ By "cinematic aesthetic design," I mean the overall stylistic design of the film, encompassing the cinematography, the mise-en-scene, editing, generic structure, colour timing, etc. It is the overall stylistic design of the film.

extra-diegetic technological narratives to convey information (e.g., the enhancement of liminality in Guillermo del Toro's 2006 film *Pan's Labyrinth*). The purpose of highlighting these many potential facets of contemporary effects is to highlight how highly diverse in and of themselves effects, spectacular images, and cinematic aesthetic designs are. Offering blanket theorizations of "spectacular images" is problematic as it obfuscates the differences, subtleties, and nuances of potential meanings within disparate types and styles of spectacular images. In addition, this chapter will highlight that spectacular images have different significations dependent upon the generic environments in which they appear (i.e., the meaning of a spectacular image in 2046 will be drastically different from one in, say, *Jurassic Park*). Ultimately, this chapter seeks to highlight the numerous, diverse functions of visual effects, and to demonstrate that in order to accurately develop theories of visual effects, scholars must first accept that such systems of signification are in fact diverse, that spectacular images convey information, and that such theoretical concepts as wonder, attractions, emblems, etc., are not dependent on narrative disruption, but are rather highlighted via moments of visual privileging within the design of the films themselves.

Expanding the Theoretical Horizons of FX Theory: Part I

The Cultural Wonder of Intermedial Juxtaposition in 2046: The Spectacular Art Film Image

Assessing how effects contribute to the meaning of films outside of the blockbuster genre is essential to determining other potential contributions effects and digital imaging technologies make to the systems of informational conveyance in cinema, particularly when the use of these digital technologies and the deployment of visually novel images in non-blockbuster genres complicate the current theorization of visual effects. Wonder, as it is currently theorized, is far

too narrow in its scope, because there are many spectatorial experiences that exist beyond technical wonder. In this section, I suggest that one such form of wonder is cultural wonder, whereby spectators are encouraged to compare and contemplate how different media forms convey information, and how the information conveyed by way of these different media forms influences cultural identity formation. For instance, Wong Kar-wai's *2046* (2004), an art film produced in Hong Kong, presents the diegetic narrative in several different mediums, such as historical archival-footage (likely 8mm black and white film), fictional 35mm celluloid footage (footage that resembles other historical dramas), and 2K digital renditions of a futuristic fictional Hong Kong. To be more specific, *2046* juxtaposes digital images of a fictional, post-handover Hong Kong with images from its cultural history: the analog archival footage of the anti-colonial riots that took place in Macau and Hong Kong between 1966 and 1967. The significance of this intermedial juxtaposition is that it encourages spectators to contemplate the differences between these modes of informational conveyance: why is the diegetic narrative being presented in these different visual media formats? And, what is the purpose of juxtaposing these different aesthetic registers? In the case of *2046*—which is fraught with insecurities about identity, identity formation, and memory—the intermedial juxtaposition encourages spectators to contemplate the role that such media play in their own cultural identity formation.

The riots depicted in *2046*'s archival footage came on the heels of the Star Ferry riots in April of 1966, in which the Star Ferry company applied to drastically increase the fare for foot-passengers by upwards of 50 to 100 percent (ultimately, the fare was raised 25 percent once the riots subsided), and the broader discontent with the colonial management of the Star Ferries by the British, as well as the colonial management of Hong Kong and its people. The Star Ferry riots were, in relative terms, fairly peaceful riots, but they mark a significant turning point in

Hong Kong's history, as it was the first moment of mass organization and resistance to the colonial government in post-WWII Hong Kong. Further defiance of colonial powers grew in Macau in December of 1966, as riots broke out in resistance to government corruption. In the aftermath of the riots, the Portuguese government lost significant control over Macau, which only amplified and empowered cries of resistance. The colonial government was slow to respond to the growing unrest in Hong Kong, and with "assistance from the ultra-left wing of the Chinese Communist Party, the Pro-Beijing organizations in Hong Kong launched a series of uprisings against the colonial government in May 1967," which were significantly more violent than the initial Star Ferry riots (Lam and Chan 107). These riots mark the shift to a post-colonial Hong Kong identity, with which Chow Mo-Wan (Tony Leung) engages rather ambivalently in *2046*. Chow states in matter-of-fact voice-over narration that the riots were occurring in 1966, while recounting the details of his love life. The film overall treats these moments of significant national upheaval ambivalently as well, considering that Chow's love life, the shots of the riot, and Chow's imagined future of *2046* are all given equal treatment. This sense of ambivalence is further reinforced thematically by the number 2046. Personal, national, (post)colonial, and cultural identities all become intertwined by the number, as 2046 is the final year before the 50-year mark of Hong Kong's self-regulation before the state falls under the direction of the People's Republic of China; it is the hotel room in which Chow's affair takes place with Su Lizhen (Maggie Cheung) in *In the Mood for Love* (Wong 2000); and it is the fictional location in Chow's science-fiction serial, where characters go to "recapture lost memories" (*2046*). Thus, 2046 is the representation of the constant pre-liminal, the always-already, moment preceding change; life itself is the realization that change is the only constant, and becoming is an impossibility.

The exploration of the “2046 moment,” the “moment preceding change” theme, functions on a formal level as well. *2046* critically examines its own mediality, as it juxtaposes non-fictional analog footage of historical events, fictional 35mm footage of Chow’s life, and digital shots of an imagined future. The contrast between the digital images and the analog celluloid archival footage therefore encourages the spectator to contemplate the mediated nature of the film, historical events, and cultural narratives alike. To bring this discussion back to the theories of wonder and attraction, which are predicated largely on moments of non-narrative distanciative contemplation, the intermedial juxtaposition in *2046* could be classified as a distanciation technique, because the shifts in medium are potentially jarring. The shift in medium is unmotivated by traditional narrative logic, which encourages spectators to question what, then, motivates the shift in medium, and the shift between levels of story (Chow’s personal story, the national story, and the story being written by Chow). Even though the intermedial juxtaposition encourages spectators to contemplate the cinematic apparatus, it does not mean that the juxtaposition is anti-narrative. Instead, the contrast in image styles and media forms in *2046* encourages the spectator to engage with both the diegetic narrative (i.e., Chow Mo-Wan’s melancholic romantic pursuits) and the extra-diegetic narratives of the broader network that *2046* actively highlights (i.e., the contemporary handover of Hong Kong from the British Empire to China, and the historical movements of socio-cultural liberation of the 1960s). Thus, the function of the digital/analog image division is not anti-narrative, nor even anti-immersive, but rather it strategically encourages spectator engagement with a complex network of narratives: the juxtaposition, and by extension the spectacular digital image (e.g., the future-Hong Kong cityscape) marks a moment of narrative proliferation.

Importantly for the theorization of effects, and digital imagery more broadly, the process by which the film encourages spectator engagement with this collection of narratives is sparked via a kind of wonder. Instead of, “I wonder what technology was used to achieve this image?” one might ask, “I wonder why these images have been juxtaposed, and what do these images mean? What information do they convey?” The film encourages spectators to explore the history of the images, as well as their cultural significance. The subsequent “A-Ha!” moment is not related to a technical explanation of the images’ technical provenance (i.e., that BUF, the VFX company behind *2046*’s unique styling, used proprietary wireframe modeling and rendering programs to create the images), instead it is a cultural one. Ultimately, the process of indulging one’s curiosity inspired by wonder is the same as the sense of technical wonder, whereby the spectator is confronted by an unfamiliar image (or image structure, or generic composition), and her/his curiosity is sparked to uncover more information. By suggesting that cultural wonder is as pertinent as technical wonder, the theorization of wonder becomes more complex, since part of the allure of scientifically aligned wonder is that it is more easily quantified. There are clear steps that track progress from uncertainty to certainty: I am unsure how the skeletons in *Jason and the Argonauts* (Chaffey 1963) are constructed, and I am uncertain how they could be interacting with Jason (Todd Armstrong). In turn, this uncertainty sparks the spectator’s curiosity to seek answers to the questions posed, which subsequently are answered when they discover that an effects technician, in this case Ray Harryhausen, employs a series of projection screens, while layering and reshooting the same footage multiple times frame-by-frame, adding the movement of the skeleton figures via stop-motion animation. The intellectual spark of wonder’s curiosity reaction is doused when the answer (i.e., certainty) is achieved. In terms of cultural or

historical wonder, the process is much more ambiguous because the answers are not as easily quantified in terms of either uncertainty or certainty.

In the case of *2046*, for example, the scene displaying futuristic Hong Kong is presented in an uncommon and visually striking style (e.g., a digital futuristic city that appears to be slightly out of focus, or with a feeling that it is like a 3D image seen without the polarized glasses), and the placement of the image within the film's structure is designed to generate uncertainty as to the image's diegetic function (i.e., the first shot of the film's second scene is the cityscape, and spectators are not given any information about the city is at this point in the film).¹²⁶ Beyond the image's diegetic ambiguity, there is still the potential that this scene may generate a sense of technical wonder as well, but in this case answering the question as to how the image was created does not offer much satisfaction when attempting to answer the question

¹²⁶ The development of the cityscape in *2046* does, however, have a rather fascinating history, as according to BUF's website, "Wong Kar Wai asked if the wire frame could somehow be used in the final city imagery. BUF began making tests wherein the wire frame element was composited over the final render. The results looked promising and BUF realized that this unique approach could produce a futuristic city unlike any other. At the same time, the more BUF explored this option, the more Wong Kar Wai gravitated towards a very stylized city." Furthermore, to enhance to unique qualities of the cityscape, "wire frame models of the buildings were colorized and composited over their rendered counterpart, but BUF didn't line them up exactly. Being off mark, the wire frame element gave the cityscape a 3D intriguing and surreal look. Its animation was also slightly desynchronized from the main animation, which created the eerie illusion of a vibrating city. The final touch was to lightly bend and twist some wire frame models in ways that gave the shots more body." The significance being that the digital images were designed to be unique, visually striking, and to offer a very particular, and overtly constructed, aesthetic style, considering that the image is almost made in reverse, by overlaying the original wireframe model overtop of the final cityscape. Furthermore, according to BUF, "*2046* was a truly unique project: unique in the unprecedented artistic freedom that they enjoyed; unique in the director's approach to the visual effects; and unique in the distinctive style of the digital imagery. For the first time, BUF was actually allowed to express in a feature film the creativity that had become their trademark on commercials. From a visual effects point of view, *2046* was like a commercial produced on a feature film schedule." Ultimately, the statement suggests that the visual style, the aesthetic itself, encourages a particular kind of meaning, one that is largely non-cinematic, and much more consumer-commercial oriented. The implication is that the style of the spectacular image bears meaning, and conveys information (i.e., the image itself is narrative).

of why the image is present in the film (i.e., both in terms of how was the image created, and what its function might be). Wonder, nevertheless, is present, as it is sparked by a confrontation with a visually striking image, but the answer as to what information this image conveys is not provided by way of a scientific or technical origin narrative. The answer to the image's meaning is provided by a cultural-historical analysis. The narrative that is required to satisfy the curious desire perpetuated by the wondrous confrontation in this case is more easily satisfied by cultural rather than technical or scientific lines of wondrous thought.

In terms of diversifying the potential modes of wonder, it is necessary to describe what, exactly, spectators are wondering about. This complicates its theorization because there are so many potentialities. Of course, spectators can still be full of wonder about how the image was created. Technical wonder (e.g., wondering about the technical and formal provenance of the image), therefore, must also be dynamic. *2046* actually leaves much to be wondered about, considering that BUF uses proprietary software, rather than the usual programs MAYA and NUKE, to construct the wireframe models and to composite the shot elements, respectively. The more dynamic and complex “absence” of information in this moment, however, is arguably related less to how and more to why the shot was made as it was, and what the images mean. With respect to *2046*, wonder should be thought of in terms of informational ambiguity, rather than a total absence of information, or a rupture, or a shift in the flow of information. Wonder is not an anti-narrative device; rather it manifests when ambiguity is present, or when spectators are provided with incomplete information. Furthermore, wonder's multivalence (technical, scientific, historical, cultural, ontological, etc.) means that spectators can have some information about image objects (i.e., that the image object conveys information and is “known” to some degree), and can still wonder about the *other* narrative threads, about the other missing information, about

the ambiguity that the image object presents. In the presentation of the cityscape in *2046*, there is a plentitude of missing information that can be gained by uncovering information along several narrative lines. The cityscape of *2046* is a site of intense signification offering a high degree of wondrous potential.

The kind of visually inspired cultural/historical wondrous experience offered by *2046*'s cityscape suggests that the wonder years are far from over. The mode of wondrous exploration is fraught with ambiguity, however, and there is a significantly greater degree of difficulty in quantifying the movement in knowledge from uncertainty to certainty. For example, while the style of the digital images in *2046* makes clear that they are constructed, their appearance next to the archival footage juxtaposes these media forms, generating a comparative structure of differing media forms.¹²⁷ The radical difference in the cityscape's aesthetic design from that of the archival footage encourages spectators to be curious, to explore, and to wonder, which, to return to Socrates' valuable observation, "is *the only* beginning of philosophy" (Plato 55; my emphasis). The question, then, becomes: what is the purpose of this intermedial juxtaposition, of juxtaposing digital cityscape with archival analog footage? Weaving these narrative elements together (i.e., the historical narrative represented by the archival footage, and the fictional narrative of a potential future represented by the digital city) suggests that each media form has an equal influence on the present. Each is a moment captured/created in time and in a distinct medium; together they also comprise a kind of "prosthetic memory," as both contribute equally to mediated identity formation (Landsberg 18). The digital cityscape, and the analog historical footage, are equally influential in terms of constructing and influencing modes of cultural

¹²⁷ For example, the color palette is completely unnatural, the cityscape is unfamiliar in its design, and the images register as digital compositions in relative comparison to the celluloid images.

identity formation. Even though the archival footage is a byproduct of an actual event, while the digital cityscape constitutes an "event" (according to David Rodowick), both the "real" past and imagined "future" are equally influential in a contemporary world governed by globally networked media narratives.¹²⁸ Both images, too, are subject to manipulation. The "real" shot (archival historical footage) gains new meaning and information when juxtaposed with the "imagined" shot (digital cityscape). Both shots are constructed and manipulated to encourage a wondrous interaction, to encourage the pursuit of further information, and to resolve the ambiguity of the intermedial juxtaposition by exploring broader intermedial narrative networks. The juxtaposition ultimately produces a nexus of narrative access points. *2046*, therefore, encourages a particular kind of wondrous experience, as it constructs the conditions by which spectators are encouraged to reflect on the unfamiliarity of the digital image, and on the uncertainty regarding its presence within the film.

The reason why it is important to discuss wonder in a broader sense is that, by focusing strictly on the technical aspects of the digital image, much of the depth and richness of a film like *2046* is overlooked because it does not offer a wondrous experience in largely technical terms. By following the kind of cultural/historical wonder offered by the cityscape of *2046*, I argue that the juxtaposition of the image and media forms in *2046* ultimately suggests that the narrative of Hong Kong's history and culture is mediated, which of course is true of all historical narratives,

¹²⁸ Rodowick suggests that digital "shots" are in fact "events" and not shots in the photographic sense because digital "shots" are always algorithmically composited. Digital cameras capture light and then convert that light into code that accurately represents the profilmic input. Rodowick suggests that the digital conversion of light into code, which is regulated by algorithm, means that the digital image is not indexical. The analog shot is indexical because light imprints itself onto film stock, rather than being "converted" by way of algorithm. The digital event, then, is subject to manipulation and human interference, whereas the indexical analog shot has a contiguous relationship with light and is not subject to such manipulation (Rodowick 165-171).

and some of the film's meanings (i.e., its informational conveyance) are achieved by encouraging spectators to wonder about the digital cityscape and to explore the function of juxtaposing media forms. The meaning of these intermedial juxtapositions in *2046* must be investigated, especially in terms of the confrontation with the spectacular image, the digital cityscape, by wonder. In pursuing the curiosity sparked by wonder, I argue that these instances of intermedial juxtaposition serve a precise cultural function, confronting the spectator with what Linda Hutcheon deems the "subversive potential" of intertextual relations (174). Specifically, by raising spectator awareness of the mediation of the representation of historical and cultural narratives, *2046* encourages spectators to question how they understand cultural narratives, which is an important venture in a (an increasingly) globalized world. Digital cinema facilitates forms of cultural identity, and exposes the difficulty and consequences of preserving identity in the face of cultural imperialism. As theorists, we must look beyond the purely technical information conveyed by digital cinema, in order to theorize the value of digital technologies beyond outmoded theories of narrative ruptures, and to understand how spectacular images can be used to confront perceptions of identity.

In searching beyond the constraints of contemporary theories of digital cinema, which largely seek to define the specific value of spectator interactions with digital aesthetics, it is revealed that digital cinema plays a significant role in cultivating narrative clusters that influence cultural globalization. The kind of intermedial juxtaposition that is seen in *2046*, and the subsequent moments of cultural/historical wonder, display the depth and richness of digital aesthetic imaging technologies, with significant implications for the current scholarship on digital transnational cinema, for example. Even though *2046* is an idiosyncratic example, there are several other contemporary texts that reflect a similar logic, and that encourage wondrous

engagements with cultural/historical identity narratives via digital aesthetic design. These include: *Éloge de l'amour (In Praise of Love)* (Godard 2001), *Russian Ark* (Sokurov 2002), *Howl's Moving Castle* (Miyazaki 2004), *Caché* (Haneke 2005), and *The Journals of Knud Rasmussen* (Kunuk 2006).¹²⁹ These digital films all use their aesthetic designs to negotiate the troubled and open-ended nature of cultural identity, and to examine the consequences of cultural preservation in the current era of globalization, and they do so by encouraging spectators to engage with their (digital) images. The significance of this observation is that any notion of a static valuation of digital aesthetics cannot account for such complex examples of digital aesthetic design. Furthermore, to suggest that any of these films construct and function with a singular, capital-N, insular and hermetic narrative, simply cannot account for the richness of these films' meanings. I argue therefore that examining the theoretical underpinnings of wonder (and other monological theories of digital aesthetics) assists film scholars in resisting the authority of grand narratives, and consequent monological cultural modeling. Of course, in a networked, globalized world, the nature and fluidity of cultural narratives and cultural identity are pluralistic, and our film theories must also reflect this kind of dynamism by accounting for the broader experiences of intermedial networked narratives that exist and influence (and are influenced by) the aesthetic design of film texts. Therefore, understanding a broader conception

¹²⁹ *2046* is idiosyncratic due to its blending of earnest narrative style with the use of non-photorealistic digital images, while the other films in this list offer other non-normative approaches to using spectacular, interesting, and/or intriguing digital images or non-normative uses of digital technology. *Éloge de l'amour* uses digital videotape to achieve an anti-normative aesthetic, *Russian Ark* is one of the few single-take films, *Howl's Moving Castle* blends digital and traditional animation styles to highlight the differing layers of the image, *Caché* exploits the potential of digital technology thematically, and *The Journals of Knud Rasmussen* uses digital technology to capture and examine the exchange between local (Inuit) and global (non-Inuit) identity.

of wonder affords film scholars more leeway and the flexible tools needed to negotiate and analyze the influences of globalization in global media.

At this juncture I would like to connect cinema's polynarrative nature with the theoretical work done by Jay David Bolter and Richard Grusin in *Remediation: Understanding New Media*. The underlying double logic of new media (the "double logic," being that both immediacy [the erasure of mediation] and hypermediacy [the foregrounding of mediation] are both active logics) is also applicable to the logic of cultural identity formation. The intermedial juxtaposition in *2046*, for example, exposes what I term the "double logic" of cultural globalization. The double logic of cultural globalization is the logic by which definable national identities are constructed and reified in an attempt to resist the influence of globalization, but ironically such acts of concretizing cultural identity only essentialize, indeed falsify, the cultural identities they purport to define.¹³⁰ This is a double logic in the most paradoxical sense, as the desire to construct identifiable identities creates that which it seeks to suppress. The desire for a definable identity in fact produces the loss of a local and dynamic cultural identity in the face of—indeed, in response to—global cultural imperialism, and the broader narratives that influence identity formation. Films such as *2046* that explore cultural identity while thematizing the function of intermedial juxtaposition are able to "destabilize both formal and cultural identity and thereby shift power relations," allowing spectators to critically analyze the role that media play in identity formation (Hutcheon 174). The value of understanding the double logic of cultural globalization cannot be

¹³⁰ By defining what a particular cultural identity is, it concretizes and essentializes that identity, and such an identity becomes prescriptive, a set of norms by which one must live in order to be of a particular culture, which then undercuts and falsifies the development of an organic cultural identity. Instead of allowing a cultural identity to form over time, it becomes an issue of constraining the limits of culture, thus hindering cultural growth, in an effort to resist the influence of globalization.

understated at this juncture in history, especially in light of (for example) the recent hate movements which are predicated on historical narratives of white supremacy and pure national identities.

Such films as *2046* form part of a largely unexplored trend in contemporary (digital) cinema, whereby digital films utilize other media to construct intermedial networks in response to the globalizing of culture. Juxtaposing digital images and archival footage—or the many other media mixing techniques these films embody—promotes critical analysis of media narratives and their role in cultural identity formation, thereby highlighting the manipulability of the fictional and the larger cultural narratives engaged by these films. These films negotiate the double logic of cultural globalization directly, while suggesting that by responding to the fear of cultural imperialism, cultures are actually imposing upon themselves cultural restrictions in order to construct a definable national identity. These films thus expose the complexities of cultural identity as they vacillate between and among resistance, complicity, nostalgia and cultural definition and redefinition. More than anything, these films expose the fact that all narratives engage with a plentitude of other narratives, and that moments of wonder (technological and otherwise) expose moments of intense signification. These moments of intense signification allow a collection of narratives to form a nexus through which the broader network can be accessed and explored via wondrous curiosity.

Expanding the Theoretical Horizons of FX Theory: Part II

An Aesthetic of Imperfection and the Aesthetic Blueprint for High-Concept Monster Films

Because Wong Kar-Wai's are critically acclaimed art films, praised for their thoughtful exploration of modernity and contemporary identity formation, it could be argued that the

richness and complexity of Wong's images have less to do with the narrative networks generated via aesthetic design, and more to do with Wong's idiosyncratic and high-quality auteuristic filmmaking strategies. While the films of auteurs garner significant attention, and are often celebrated for their unique direction and aesthetic design, a film's aesthetic design always contributes to its meaning regardless of its status as a prestige film or a made-for-TV B-film. The majority of scholarly attention, when analyzing FX-centric films, is still focused on the works of major auteurs (e.g., Lucas, Spielberg, Cameron, Bay, Del Toro, etc.), but there is a significant body of work that has the potential to enrich the theorization of contemporary film aesthetics. There are many films that are still being overlooked when it comes to FX theorization. The unique and underexplored films of Ray Harryhausen, for instance, have significantly influenced the development of digital aesthetics, thus they provide a rich opportunity to understand how information can be conveyed visually. Harryhausen's visual style, and the particular mode of stop-motion animation he employed, branded as "Dynamation," has contributed to the development of a particular narrative network. Harryhausen's films form one of the cornerstones of what I call the aesthetic of imperfection, which has accrued meaning by cultivating and celebrating the imperfection of stop-motion animation's movement-style as a kind of soft resistance to the high-gloss perfection of contemporary blockbusters. The aesthetic itself carries a fluid meaning that continues to develop and change via the interweaving of constantly evolving narratives that inform the aesthetic.

Harryhausen's films have largely escaped theorization, though this is not due to an oversight or a lack of awareness by film scholars. Harryhausen's career has been well documented as a series of "how to" guides and historical overviews of his works, produced both by effects scholars and by biographers of fan-curated collections of Harryhausen's FX work. The

first devoted exploration of Harryhausen's films was *FXRH: Special Visual Effects Created by Ray Harryhausen*, a fanzine published between 1971-1974 as Harryhausen was moving into the latter part of his career. In 1972, shortly after the publication of the initial issue of *FXRH*, *Film Fantasy Scrapbook* was released by A.S. Barnes and Co., with a second edition released a mere two-years later. *Scrapbook* is a collection of production art, movie posters, film stills, personal stories, a certain degree of effects "how to" material, and significant discussion regarding the animation processes developed by Harryhausen in order to produce FX on a minuscule budget. More recently, but in a similar vein to *Scrapbook*, Harryhausen and Tony Dalton released a comprehensive career retrospective, *Ray Harryhausen: An Animated Life* in 2003, followed by *The Art of Ray Harryhausen* in 2005, and a documentary film, *Ray Harryhausen: Special Effects Titan* (Penson), released in 2011. After Harryhausen's death in May of 2013, both specialist and mainstream media outlets published countless obituaries and eulogies with an overarching and unanimous call to mourn the passing of one of the most influential yet critically underappreciated filmmakers of all time. *Variety*, *The Los Angeles Times*, *The New Yorker*, *Wired Magazine*, *BBC News*, as well as fan postings from the blogosphere, and many others, all celebrated their appreciation for Harryhausen's unique creatures, innovative filmmaking techniques, and adventurous films. Even before his death, a collection of Hollywood filmmakers petitioned to provide Harryhausen with a star on Hollywood's Walk of Fame in 2003, at which point Spielberg wrote: "Without Harryhausen's effects work over the last five decades, there never would have been a *Star Wars* or a *Jurassic Park*. His films continue to set our imagination on fire" (as qtd. in McLellan, n. p.). Many other filmmakers, including James Cameron, John Carpenter, Joe Dante, Frank Darabont, Peter Jackson, John Landis, George Lucas, Nick Park, and Guillermo del Toro, have also made similar statements.

It is surprising, then, that Harryhausen's FX work, which has had a significant degree of influence on fans and filmmakers alike, has escaped critical theorization. Even beyond the ubiquity of fan-oriented documentaries and compilations of Harryhausen's production art, theorists in fact have not overlooked Harryhausen, and nor are theorists unaware of his work, but they tend to merely note the historical influence that Harryhausen's films have on the films that occupy the theoretical focus of their works. For example, in *Special Effects: Still in Search of Wonder*, Michele Pierson notes that Harryhausen's films had a significant influence on such fanzine publications in the 1960s and '70s as *Photon* and *Cinefantastique*. Pierson notes that these fanzines greatly influenced the development of future effects technicians (66-77). In *Plastic Reality: Special Effects, Technology, and the Emergence of the 1970s Blockbuster Aesthetic*, Julie Turnock notes that the stop-motion work of Harryhausen is directly linked to the development of *Star Wars*' heterogeneous FX aesthetic, as Phil Tippett,¹³¹ one of the *Star Wars* franchise's major FX contributors, was inspired to take up the craft of stop-motion animation after seeing *The 7th Voyage of Sinbad* (Juran 1958). In *Cult Film: An Introduction*, Ernest Mathijs and Jamie Sexton highlight the comparable influence that Harryhausen's films have had on filmmakers such as Sam Raimi, as does Stephen Prince in *Digital Visual Effects in Cinema: The Seduction of Reality*. Each of these texts, however, highlights the historical influence that Harryhausen's work has on the FX industry, while the aesthetic design of his films has escaped serious exploration and theorization. The most theoretically inclined exploration of Harryhausen's work is Joshua David Bellin's chapter "Monsters from the Middle East: Ray

¹³¹ Phil Tippett was stop-motion artist responsible for the model work used during the Battle of Hoth's AT-AT (Imperial Walker) attack scene in *Star Wars: The Empire Strikes Back* (Kershner 1980). Tippett went on to supervise the character animation for *Jurassic Park* (Spielberg 1993) after it was decided that computer animation would be used, as opposed to stop-motion animation for the animated dinosaur shots.

Harryhausen's *Sinbad* Trilogy" in *Framing Monsters: Fantasy Film and Social Alienation* (2005), which examines the orientalist nature of Harryhausen's *Sinbad* films, and the socio-historical context from which the films emerge. None of these works, however, provides a comprehensive or in-depth theoretical account of Harryhausen's FX aesthetic.

With such a significant degree of influence, though, Harryhausen's work remains intriguing, and it is doubly intriguing considering it has escaped theorization. I argue that this is largely because Harryhausen's FX aesthetic actually frustrates current theoretical conceptions of FX. In fact, I will argue that Harryhausen's films do not fit the discourse of FX, the contemporary understanding of blockbuster films, attraction theory, wonder, or the aesthetic appreciation of spectacular imagery. Thus, Harryhausen's films pose a challenge to theorists that requires a revisiting and reformulation of certain theoretical understandings of FX aesthetics. Through an examination of the FX in *The Beast from 20,000 Fathoms* (Lourié 1953), *20 Million Miles to Earth* (Juran 1957), *The 7th Voyage of Sinbad* (Juran 1958), *Jason and the Argonauts* (Chaffey 1963), and *Clash of the Titans* (Davis 1981), I will argue that Harryhausen's works function outside the parameters of an attraction-based aesthetic, and yet I will also highlight that Harryhausen's work actually establishes an early blueprint for contemporary blockbusters. The ultimate contribution that Harryhausen's works provide for the aesthetic theory of FX, however, is the aesthetic of imperfection.

The two pillars upon which contemporary attraction theory is built are novelty and perceptual realism. Harryhausen's films are branded as having a certain novelty to them, however, by the marketing of the special effects. For example, *The 7th Voyage of Sinbad* trailer shows images of a stop-motion animated cyclops while boasting "this is Dynamation," branding the special effects' style as unique. Furthermore, in the *Jason and the Argonauts* trailer,

spectators are informed that the skeleton swashbucklers are “brought to the screen through the incredible special effects magic of Dynarama.” Novelty, by way of attraction, however, may explain part of the initial appeal of the films, but it does not explain their enduring fan appreciation. Also, these films resist an aesthetic of perceptual realism (regardless of Harryhausen’s intent), so that to evaluate these films in terms of realism largely misses the point. That Harryhausen’s films are FX heavy, yet in contemporary terms perceptually unrealistic, poses a considerable challenge to the current theoretical conceptions of FX. Stephen Prince, for example, argues that “[p]erceptual realism...is central to understanding visual effects in cinema, the goal of effects artists, and the credibility that the effects image seeks to elicit among viewers” (34). Perceptual realism certainly defines the FX style of the majority of Hollywood’s contemporary tentpole films.

Phil Tippett invokes a completely different rationale when describing his appreciation of the stop-motion films of Harryhausen: “I had no idea what the technique was that brought these things to life, but I really liked the aesthetic of the kind of surreality and the unreality of the stop-motion animation” (Luceno, n. p.). As Harryhausen himself stated in a 2006 interview with Christopher Bahn of *A.V. Club*, “[t]here’s a strange quality in stop-motion photography, like in *King Kong*, that adds to the fantasy. If you make things too real, sometimes you bring it down to the mundane” (Bahn, n. p.). The foregoing highlights the discrepancy of potential aesthetic goals in an FX film and their subsequent evaluation in FX theory. The fact is, at this point, theories of FX do not have the range to theoretically analyze diverse aesthetics, or to account for aesthetics with different objectives. As Michele Pierson notes, “we won’t fully understand the kinds of claims CGI effects made—continue to make—on audiences’ attention if we persist in describing

them solely in terms of photorealism or simulation” (*Special Effects* 55).¹³² I will address this problem in this section, expanding it beyond VFX (i.e., purely digital aesthetics). Effects, both special and visual, have predominantly been held accountable for the replication of a plausible (perceptual and narrative) reality, and they are largely judged and appreciated in both academic and popular criticism based on the success of this process.

Harryhausen’s films provide a challenge to the notion of an FX theory based on perceptual realism, which is evidenced by the fact that Harryhausen’s films have been largely avoided in FX theory. In addition, Harryhausen’s FX work highlights the fact that novelty is an inadequate framework, as Harryhausen’s films have inspired two distinct modes of filmmaking: the contemporary VFX blockbuster, which does in fact tend to operate with a high degree of “perceptual realism,” and contemporary stop-motion films, which operate with an aesthetic of imperfection. The fact that these two modes of filmmaking are drastically different, yet emanate from the same source, suggests that our current theories of VFX are not dynamic enough, as they do not allow for a multitude of aesthetic experiences to occur at once. They do not account for differences of appreciation, nor do they explain why films that are defined by their spectacular images and novel viewing experiences continue to draw spectators to them even decades later, when the images are no longer novel (both in terms of the original spectators who return to these films, and new spectators who are only discovering these films many years later, yet are still familiar with such imaging technologies).¹³³ The fact that these two modes of filmmaking are at

¹³² Simulation, according to Pierson, is the “copying of physical or phenomenal reality” by way of visual effects. In essence, this is the integration and/or blending of VFX into shots in order to recreate an image so that it appears to be filmed without the use of VFX.

¹³³ While it could be argued that Harryhausen’s films would likely be unfamiliar for contemporary viewers, it is not necessarily the case because contemporary spectators could be

odds with each other in terms of their aesthetic objectives (the typically photographically realistic aesthetic of the contemporary blockbuster, and the stop-motion films that inherently resist perceptual realism), even though they emanate from the same well of inspiration, suggests that there are a multitude of experiences and aesthetic pleasures derived from the same effect. The logic of novelty and spectacularity certainly influences, and may even govern, the marketing strategies of blockbuster films, but novelty and spectacularity fail to account for the experience of aesthetic heterogeneity in theoretical terms.

Aesthetic Heterogeneity: Stop-Motion Imperfection

Stop-motion animation is just one of the many imaging and animation processes that filmmakers can use to achieve specific aesthetic outcomes. It is pertinent to highlight some of the aesthetic modes and stylistic choices made by filmmakers who use stop-motion animation to explore how differences in aesthetic objectives are influenced by narrative designs (and vice-versa). The purpose of this section is not to suggest that all of the stop-motion animation films, or the works of Ray Harryhausen more specifically, are homogenous in terms of their style. Rather, it is to suggest the fact that stop-motion animation can be used to achieve numerous stylistic objectives. Stop-motion animation has also been celebrated and utilized by contemporary filmmakers, however, to achieve an alternative aesthetic mode to photorealism (e.g., Travis Night's *Kubo and the Two-Strings* [2016], Charlie Kaufman and Duke Johnson's *Anomalisa* [2015], Chris Butler and Sam Fell's *Paranorman* [2012], Henry Selick's *Coraline* [2009] and *The Nightmare Before Christmas* [1993], Wes Anderson's *Fantastic Mr. Fox* [2009]

familiar with films such as *Coraline* or even *Army of Darkness*, which both use stop-motion animation, and both exploit the surreal qualities of the aesthetic style.

and *Isle of Dogs* [2018], and Tim Burton and Mike Johnson's *The Corpse Bride* [2005]).

Ultimately, the aesthetic design of these films appears to openly deny perceptual/photorealism in an effort to resist aesthetic, cultural, and industrial demands. These films utilize the "surreality" of stop-motion's alternative aesthetic, in fact, by marrying it with the broader themes of resistance within each of these films.

Each of these films tend to create alternative realities and worlds within their diegeses, while thematically exploring the validity of alternative norms and realities: in *Coraline*, a mirror world is found behind a secret door in Coraline's house; in *Kubo and the Two Strings* fantasy and dream worlds are represented in an alternative origami style of stop-motion animation; and, in *The Nightmare Before Christmas*, the residents of Halloween Town subsequently discover the existence of Christmas Town by stumbling through a portal. Furthermore, each of these films challenges Western socio-cultural norms and traditions; the protagonist is often an outcast and/or anti-hero, and the diegetic world is typically populated with generically atypical characters. Beyond the intentional stylization of fantastic/unreal characters and worlds, the actual movements of the characters in these films is often jerky and conspicuously unrealistic (even though contemporary "stop-motion" films can digitally "correct" the lack of motion-blur that analog stop-motion films are subject to in order to create smoother movement paths). Even though it could be argued that these contemporary stop-motion animation films are more closely aligned with other contemporary animated films than live action VFX films, historically stop-motion animation films have a significant association with blended live-action films, and many stop-motion films post-1950 draw significant influence from Harryhausen's work.

In terms of contemporary blockbusters, however, perceptual realism and novelty are the cornerstones of effects theory and, on these grounds, it may seem as though Harryhausen's work

would be antithetical to the theorization of contemporary effects films. Harryhausen's stop-motion aesthetic largely functions in terms that are contrary to perceptual realism and, I would argue, novelty as well. The continued popular and critical interest in Harryhausen's films, I argue, is predicated on a sense of familiarity, on a particular meaning that stop-motion animation has accrued. In other words, North-American stop-motion animation has developed a kind of aesthetic narrative (i.e., the accrued meaning and subsequent information conveyed by the aesthetic style). As Harryhausen notes on many occasions, the films he worked on were typically completed on a "shoe-string budget" and often there was not adequate time to do reshoots or multiple takes, which meant that there is a certain improvised and necessarily imperfect (i.e., unpolished) quality to the image (*Special Effects Titan*). Steve Johnson, the sculptor and prosthetic make-up artist whose film credits include *Ghostbusters* (Reitman 1984) and *Spider-Man 2* (Raimi 2004), suggests that Harryhausen's films are appealing in part precisely due to the fact that the stop-motion effects are perceptually imperfect: "I think if he [Harryhausen] finessed it and did two-takes, three-takes, it wouldn't come from his heart, he would refine it too much" and the shots would lose meaning as they were "perfected" (*Special Effects Titan*). According to Johnson, Harryhausen's style of imperfection is also celebrated and practiced by Clive Barker, the horror novel writer, as Johnson notes that Barker "likes to make mistakes" when he paints, and it is based on these mistakes that "Harryhausen's stuff really resonates and sticks in our minds, because it's very pure" in its unrefined nature (ibid.). The question then becomes, why is Harryhausen's aesthetic appealing when it is noted for being "surreal" and "unrefined," while conveying a kind of improvised tone that consists of aesthetic "mistakes?" I argue that it is because Harryhausen's stop-motion aesthetic, even though it is an aesthetic that displays a high-

quality craftsmanship, ultimately reflects a kind of camp sensibility and ethos of unrefined improvisation that refutes the corporate aesthetic of perceptual realism.

The imperfect qualities of Harryhausen's stop-motion aesthetic is a focal point for a culture of resistance and difference, one that has inspired a certain anti-normative, camp sensibility. Camp sensibility is itself fueled by a lack of economic means, which encourages artistic improvisation, an acceptance and celebration of the imperfect, and subsequent resistance to established aesthetic expectations, while often engaging macabre, disavowed, and horrific material.¹³⁴ What we tend to see in contemporary digital Hollywood effects films are high budgets, precisely controlled aesthetic designs, massive monsters (quite literally, as the most recent iterations of Godzilla and King Kong are the largest to date), and a remixing of earlier forms, which has contributed to a lack of a particular kind of creativity and an adherence to convention, control, and rules. Whereas in earlier analog Hollywood effects films, there tended to be significantly lower budgets, imprecise images, mistakes or flaws, smaller monsters, which led to the innovative development of new images simply out of necessity. This is not to say, however, that these innovations were necessarily always successful, in fact, the opposite is generally true.

The relationship between the stop-motion aesthetic and a kind of tongue-and-cheek counter-culture resistance, intentional or otherwise, is certainly not missed by "counter-culture" artists. Sam Raimi, for example, utilizes the stop-motion aesthetic in *Army of Darkness* (1992), a film known for its camp-horror aesthetic, to animate the skeleton army of Deadites that Ash

¹³⁴ Susan Sontag's observations in "Notes on 'Camp'" reinforce the camp aesthetic of Harryhausen's style, as she notes: "The pure examples of Camp are unintentional; they are dead serious. The Art Nouveau craftsman who makes a lamp with a snake coiled around it is not kidding, nor is he trying to be charming. He is saying, in all earnestness: Voilà! the Orient! Genuine Camp --" (19).

Williams (Bruce Campbell) must destroy. By adapting the stop-motion aesthetic of the skeleton fights from *The 7th Voyage of Sinbad* (Juran 1958) and *Jason and the Argonauts*, *Army of Darkness* trades on the discrepancy in photographic depth and motion blur between Bruce Campbell and the separately photographed stop-motion skeletons to enhance the film's camp surreality. The aesthetic of imperfection has been adapted beyond cinema, as well. Punk musicians, such as The Misfits, pay direct tribute to Harryhausen films in their song "1,000,000 Million Years B.C.," and the band's aesthetic style is based on the camp horror aesthetic from 1950s B-films. Even The Misfit's logo, the fiend's mask from the 1946 film serial, *The Crimson Ghost*, reflects this sensibility (Brannon and Witney). These kinds of relations continue to reinforce the notion that Harryhausen's films and the stop-motion aesthetic together form a kind of soft-resistance or counter-aesthetic, which provides information based solely on the accrued meaning of its aesthetic design.

Stop-motion, because of its early uses (e.g. the creation of fantastic characters for creature features), has become symptomatic of a lack of socio-economic prestige. Early stop-motion animation is both low-budget, and by proxy, low-brow, due to its use in "cheap" creature features. The association between the aesthetic and its socio-cultural potential, then, comes to construct part of the meaning of this aesthetic, which provides specific significations that creative agents can then exploit to generate further meaning.¹³⁵ In particular, due to its associations with the B-Film, and its surreal imperfections, which provide a sense of improvisation/DIY, stop-motion animation tends to mirror an anti-normative politics. The

¹³⁵ Stop-motion animation, for example, has its own narrative, both historical and cultural. Stop-motion animation's association with a camp aesthetic style creates a kind of stylistic brand. Thus, the use of stop-motion animation in non-camp formats is often jarring due to the brand resistance. It is this branding of aesthetic style that I am referring to as the aesthetic narrative.

imperfection of the image resists the commercial imperative of high capitalism's perceptual realism, which marks the aesthetic as a "fit" vehicle for anti-"normative" narrative texts starring non-normative heroes and non-normative story content. Furthermore, due to the creature-oriented nature of Harryhausen's work (i.e., he often worked on creature feature B-Films), the aesthetic's associations with counter-cultural designs is further amplified, as the B-Film, itself has been celebrated as an icon of contemporary post-modern anti-normative resistance. As a consequence, stop-motion animation is used in films to signify a kind of anti-normative sensibility for the viewer, meaning that the film's aesthetic functions as a kind of generic signifier in and of itself, as exemplified by a film such as *Anomalisa* (Kaufman and Johnson 2015), which utilizes the stop-motion aesthetic of imperfection to emphasize the imperfection of lived reality.

Of course, stop-motion's aesthetic signification has developed and shifted over time; the aesthetic is itself heterogeneous, and its meaning varies depending on its contextual use. For example, the BBC's *Trumpton* (1967) has a different signification than *King Kong* (Cooper and Schoedsack 1933), and different from either of these is the aesthetic meaning developed in *Coraline*. In tracing the development of American monster films, however, from *The Lost World* (Hoyt 1925) through *The Beast from 20,000 Fathoms*, to del Toro's *Hellboy* (2004), there is a certain appreciation and engagement with the aesthetic design and materiality of the monster film, as well as the typical anti-hero protagonists, and thematic counter-cultural sensibility, which in turn influences the meaning of such films as *Paranorman*, *Kubo and the Two Strings*, and the other films from the Laika studio. Based on the alternative aesthetic mode of stop-motion used in the Laika films, which thematically reinforces the celebration and engagement with difference, the design and display of different types of contemporary "spectacle" is becoming

increasingly reliant on targeting specific media interests that spectators bring to the theatre—interests that are usually related to nostalgic reengagement with outmoded media forms. The interest in nostalgic mediality seems to be particularly high at the time of this writing, as both a film’s mediality and its materiality is used as a marketing tactic to target specific demographics of potential viewers, which I will explore in greater detail further on in this chapter. Furthermore, instead of realism, there is a greater desire for quality craftsmanship and adaptation (i.e., the engagement with existing spectator schemata: pairing familiarity, met expectations, and innovation). *Kubo and the Two Strings* is an interesting example of this, whereby critics loved the film, largely due to its craftsmanship. Even though this film “failed” commercially (it grossed a mere \$69.9 million globally on a budget of \$60 million), this has more to do, arguably, with the lack of familiarity spectators have with Laika’s studio brand than anything else. If ILM or Disney released *Kubo*, the marketing and brand clout would have provided the means to reach a wider audience, and increase the economic return, as the film has been hugely successful critically, garnering an “A” CinemaScore from audiences, and achieving a 96% fresh rating from the aggregate critic scores on *RottenTomatoes*. As Charles Kenny of *Animation Scoop* suggests, “[m]odern media is a shout-fest and whoever shouts the loudest gets the attention. The old adage that great art will always succeed is not universally true. Art is being forced to compete on a more uneven playing field than it already was. *Kubo*’s audiences didn’t show up because they either didn’t know about it, or, because they already did” (n. p.). Even though audiences “want something new and unique all the time . . . the reality is that they almost never want something truly new and truly unique. Such a film is a bridge too far. They want something that’s either slightly new, or evolutionarily unique” (Kenny). There is a complex interaction, therefore,

between that which is familiar, that which is novel and new, and the right “fit” that a film’s aesthetic and brand meaning must achieve in order to succeed.

To return to the discussion of the aesthetic of imperfection and perceptual realism, the theorization of perceptual realism as a category is still too broad, as a perceptually realistic aesthetic is one in which the visual image appears to adhere to conventional visual formulae. In a sense, perceptually realistic images are images that appear to be visually consistent with other photo-realistic films. There are a number of “perceptually realistic” films and scenes, however, that are radically different: the rancor sequence in *Star Wars: Return of the Jedi* (Marquand 1993), for example, is achieved via stop-motion animation, and is an aesthetically heterogeneous sequence.¹³⁶ Even though the rancor’s stop-motion animation achieves motion blur (thanks to “Go-Motion,” Phil Tippett’s proprietary animation technique), in terms of texture and mobility the rancor is significantly distinct from Luke Skywalker (Mark Hamill) in aesthetic terms, yet it still appears to adhere to the fundamental principles of photographic/perceptual realism, and thus is acceptably “realistic.” On the other hand, the jaeger/kaiju fight sequences in *Pacific Rim* are also acceptably realistic, but they are aesthetically homogenous (i.e., the grains, textures, and lighting are all produced to be the same). Even though each of these sequences is radically different in terms of its aesthetic design, they are still deemed acceptably perceptually realistic. Therefore, perceptual realism as a concept is still too broad to be theoretically rigorous in terms of its explanatory power, and needs further specificity to be truly effective.

Aesthetic Heterogeneity: High-Concept Digital Monster Films

¹³⁶ The rancor is a giant creature that Luke Skywalker (Mark Hamill) fights in the pit of Jabba the Hutt’s palace.

In terms of the historical connections between the works of Harryhausen and contemporary monster, science-fiction, and fantasy films, one of the most significant drivers of FX (both special and visual FX) is the creature feature. These films “star” fantastic beings, which are products of prosthetic make-up effects and costuming (e.g., mummies, vampires, zombies, the phantom, and the rubber suit versions of Godzilla), as well as differing forms of animation blended with live-action footage (e.g., King Kong, more recent iterations of Godzilla, *Kaiju*, mechs, *Jaegers*, robots, etc.) ranging from claymation to digital animation. The creature feature has driven effects work from the earliest days of cinema, yet when analyzing contemporary digital aesthetics, there is an implicit suggestion that these digital works are wholly new; that, due to the processes of digital image capture and digital post-production, they occupy a post-cinematic position. Viewing cinema’s identity as a mere extension of analog technologies, however, essentializes a static identity that never existed in the first place. Cinema’s technological apparatus has never been static, and by defining cinema’s identity in relation to a static conception of its technological apparatus has afforded digital films a wholly new and distinct identity in relation to their historical antecedents. Furthermore, the relationship between preceding creature features and contemporary digital creature features is made apparent in many contemporary creature features via self-reflexive references. Creature feature designs reflect their generic predecessors, and they create networks of narrative information that span from cinema’s digital present to its earliest analog days. Take, for example, the more recent and overt explorations of cinema’s fantastical origins in *Hugo* (Scorsese 2011), which clearly suggests that contemporary generic filmmaking styles and strategies are a direct extension of the early days of filmmaking “magic.”

More specifically, however, in terms of contemporary digital blockbusters and their analog creature feature historical antecedents, even Spielberg's *Jaws* (1975) makes direct reference to Harryhausen's precursory films. *Jaws* is significant in this sense because it has been highlighted in numerous studies as being the cornerstone film of the contemporary blockbuster movement.¹³⁷ In terms of the blockbuster, then, all roads lead to and pass through *Jaws* as informational node, connecting the early creature feature films to the contemporary digital blockbusters. For example, Sheriff Brody (Roy Scheider) exclaims, "You can't tell me that thing's a fish... It's more like one of those things they make movies about. You know, the monster from 20 million fathoms," playing on the titles of two of Harryhausen's films, *The Beast from 20,000 Fathoms* (Lourié 1953) and *20 Million Miles to Earth* (Juran 1957). Other titles that come to mind are *Creature from the Black Lagoon* (Arnold 1954), *It Came from Beneath the Sea* (Gordon 1955) which is another Harryhausen product, and *20,000 Leagues Under the Sea* (Fleischer 1954). The number, "20,000," which originates with Jules Verne's 1870 novel "*Twenty Thousand Leagues Under the Sea*," is a popular number for mid-fifties nautical science-fiction films, and the *Jaws* reference takes advantage of this multiplicity of influences. It is important to note that the Harryhausen films are likely to be as influential as *20,000 Leagues* to *Jaws* overall, and in particular to the development of the monster, because the *20,000 Leagues* film does not actually feature a monster, but instead a man-made submarine. There is a significant parallel, however, between *Jaws*' second act and the premise of *20,000 Leagues*. In *Jaws*, the film's three principals, Brody, Quint (Robert Shaw), and Hooper (Richard Dreyfuss),

¹³⁷ *Jaws* has been highlighted as the blockbuster cornerstone due to its novel horizontal integration strategies, its summer wide-release strategy, and its televised trailer, all of which generated considerable popular interest that led to one of the most successful film launches in Hollywood history. *Jaws*' influence, therefore, cannot be understated, as it laid both the corporate and generic strategies that are still proving successful some forty years later.

set off in search of the shark before being shipwrecked, and in *20,000 Leagues* there is a similar three-man character dynamic, as Prof. Pierre Aronnax (Paul Lukas), Conseil (Peter Lorre) and Ned Land (Kirk Douglas) are lost at sea before being collected by the submarine, which is thought to be the “monster,” Nautilus. *Jaws* draws on a rich history of monster and science-fiction films that underpin the prototypical blockbuster.

Steven Spielberg overtly addresses the correlation between contemporary digital filmmaking strategies and the creature animation of Ray Harryhausen: “I just want to acknowledge the fact that, we wouldn’t be here today making these movies, like *Jurassic Park* and like *Avatar*, without Ray, the father of all we do today, in the business of science-fiction, fantasy, and adventure” (*Ray Harryhausen*; n. p.). The issue is more complex than Spielberg suggests, however, as Harryhausen’s contribution to the “Harryhausen canon,” a collection of fifteen films,¹³⁸ is as an effects technician, rather than a more traditional organizing agency, such as the director in the auteur model. I am interested in why the aesthetic legacy of Harryhausen’s films are credited to him rather than directors Don Chaffey or Nathan H. Juran, and I argue that it is due to the design of Harryhausen's creatures, and how the style itself functions as an influential source of information for contemporary digital filmmakers. In relation to the aesthetic imperfection, for example, and the heterogeneous nature of the blended live-action and stop-

¹³⁸ The fifteen films I consider to be Harryhausen’s “major” works are the creature features that showcase Harryhausen’s stop-motion animation work: *Clash of the Titans* (Davis 1981), *Sinbad and the Eye of the Tiger* (Wanamaker 1977), *The Golden Voyage of Sinbad* (Hessler 1973), *The Valley of Gwangi* (O’Connell 1969), *One Million Years B.C.* (Chaffey 1966), *First Men in the Moon* (Juran 1964), *Jason and the Argonauts* (Chaffey 1963), *Mysterious Island* (Endfield 1961), *The 3 Worlds of Gulliver* (Sher 1960), *The 7th Voyage of Sinbad* (Juran 1958), *20 Million Miles to Earth* (Juran 1957), *Earth vs. the Flying Saucers* (Sears 1956), *It Came from Beneath the Sea* (Gordon 1955), *The Beast from 20,000 Fathoms* (Lourié 1953), and *Mighty Joe Young* (Schoedsack 1949).

motion aesthetic, the aesthetic style is imbued with accrued meaning. Harryhausen's creature design functions in a similar way, by way of character animation.

In order for a creature to be given cinematic "life," according to Harryhausen and other creature animators such as Phil Tippett, it must be given character, and the contemporary digital blockbuster maintains much of the earlier principles of character animation from filmmakers such as Harryhausen. Not only do the Harryhausen films, such as *Jason and the Argonauts*, provide the animation principles that function as foundational components of contemporary blockbusters, but the early stop-motion creatures illuminate a complex and dual appreciation for the SFX. The creature features gave life to both the aesthetic of imperfection and to the idea of character animation. "Character" in this sense is dualistic: to create *a* character, it must be given character. Thus, the influence from the early creature animation, such as the 1933 rendition of King Kong, and Harryhausen's numerous creatures, is that each creature, in order for it to be given cinematic "life," must be animated with its own personality to encourage affective alignment between it and the spectator. Harryhausen focused on marrying the creatures' aesthetic qualities with their character traits. Talos, from *Jason and the Argonauts*, for example, is a giant bronze statue that is animated to move slowly and stiffly to mirror the character's aesthetic design. The skeletons in *Jason* are animated to move with greater jerkiness and reckless abandon because they are both a collection of bones and already dead and, therefore, do not fear a second death. When creating effects sequences that did not attain a sense of perceptual or photographic realism, Harryhausen placed the emphasis on character design that aligned the aesthetic, physical characteristics, and personality traits of the creature to overcome the lack of perceptual realism. By maximizing interaction with the spectator, Harryhausen strove to limit the spectator's

concern for perceptual realism, which was achieved by marrying the creature's aesthetic design, its character motivations, and animation.

Disruptive Monsters: The Effects of Blending Aesthetic Modes (Or Lack Thereof)

Beyond character animation, which certainly does “disarm” a significant degree of spectator criticism, is the blending of textures and grains between intermedial objects that also determines the degree to which the object is integrated into the image. Perceptual realism in this case is largely determined by the blending of the images on screen, or by blending of shots in a sequence so that they are visually consistent: if the digital object, or even an analog effect, contrasts the grains and textures of the rest of the screen, there is an emphasis placed on the disjuncture, the difference. The degree to which an object can be blended into the rest of the aesthetic, in terms of grain textures, tones, etc., determines the degree to which it is accepted as perceptually/photographically “real.” The brontosaurus in *Jurassic Park*'s initial reveal, for example, is photographically “realistic” precisely because the digital object is blended evenly with its photographic backdrop. Ironically enough, the success of this shot is likely due to the technological inefficiency of the blending process used to create this shot.¹³⁹ To include the shots of digital dinosaurs in *Jurassic Park*, the background image would be shot on 35mm film, which was then scanned into a computer, causing some image degradation. The digital object would be added to the now digitized analog footage, and then reprinted back onto 35mm film, again causing some image degradation, and subjecting the digital image's pixellation to

¹³⁹ By inefficient blending, I mean that *Jurassic Park*'s digital objects are blended into the image by first scanning and transferring 35mm footage onto a computer, and then adding the digital object to the image, and then the completed image is reprinted on 35mm film, meaning that the image goes through several stages of degradation and layering of film stock grain.

“grainification” when it is printed onto 35mm. The digital dinosaurs, then, are blended fairly evenly with the analog footage, as both are subjected to the film stock’s analog grains. Much in the same sense, the “million alien shot” in *District 9* is effective precisely for the same reason: digital animators created a clean digital image that was then recorded with the imperfections of VHS, blending the shot into the aesthetic logic of the live-action by overlaying the digital gloss with the grain and textures of VHS’s outdated technology. The discrepancy in grain and texture marks the object as something different; whether this is intentional or otherwise, the disjuncture calls attention to itself as an object for contemplation and scrutiny. When the effect is textured and degraded to the same degree as the rest of the on-screen material, the result is a kind of aesthetic fidelity to the traditional analog screen image.

The most recent version of *The Thing* (van Heijningen 2011), for example, is largely ineffective in generating horror or dread due to its poor integration of digital object into the film’s broader aesthetic. The problem is not that the digital object, or the digital effect, detracts from the film’s narrative, or that the digital object disrupts “the story.” Rather, it is the poor craftsmanship and a lack of understanding regarding the aesthetic demands of the generic environment to which the film must respond to that is so problematic. The match between the digital “thing” and the rest of the film is disjointed, as the color palettes of the digital thing and the live-action sets and characters do not match. The thing has soft/fuzzy edging, where the rest of the image and the diegetic world has clear, hard, and well-defined edges, and the movements of the thing are far too smooth in relative terms. None of these blending problems are inherent to the digital effect, but rather are indicative of poor quality craftsmanship, or a lack of

understanding regarding the blending of different image formats.¹⁴⁰ For example, van Heijningen opted to shoot *The Thing* on 35mm film stock, using anamorphic lenses, but in blending the digitally animated elements with the live-action footage, as well as the animatronic and sculpted elements of the monster, the texture of the digital element is not blended to match the background textures. The end result is that the monster is not aesthetically blended to the broader aesthetic of the film. This is not an inherent problem, however, as long as the disjuncture is utilized thematically, and the difference is made to reflect the demands of the text (i.e., an aesthetic of impurity).

In the case of *The Thing*, though, the generic expectations for the film promise to generate a specific kind of affective response that is undercut by the poor-quality craftsmanship. The aesthetic is married poorly to the film's generic logic: the expectations that are set by the horror genre, and by the film's marketing, suggest that the thing is something to be feared, but this particular digital object is not blended well enough to generate that fear. "Poor" matches between fantastic object and a film's overall aesthetic, however, can be quite functional, as exemplified by Harryhausen's work and more contemporary films with either a counter-cultural aesthetic sensibility, or a film that utilizes the disjuncture thematically, such as *2046* or (albeit less overtly) *Pan's Labyrinth* (del Toro 2006).¹⁴¹ Additionally, in a comparison with the

¹⁴⁰ I argue that these issues are not inherent to the digital image because they are an issue of craftsmanship. It is not the fault of the digital image that it is blended poorly with an analog image, it is the fault of the craftsman.

¹⁴¹ By "counter-cultural aesthetic sensibility," I mean literally, that the aesthetic sensibility functions as a counter-point to dominant cultural and cinematic aesthetic norms. In *Pan's Labyrinth*, for example, the use of muted and minimalist digital technologies in a contemporary monster film stands apart from the massive digital creatures that dominate the screens of the late 2000s into the 2010s. Furthermore, this aesthetic counter-point is paired with a story that is non-normative, in the sense that the princess does not survive (which is antithetical to the culturally and economically dominant Disney-model) and the fact that *Pan's Labyrinth* is a "children's

heterogeneous aesthetic of the 1982 version of *The Thing* (Carpenter) the monster's aesthetic is, again, quite distinct from the rest of the human characters in the film, but there are number of elements that contribute to the success of the earlier film: (1) the monster effects are well crafted, in the sense that when the monster moves, it is has non-anthropomorphic qualities, but qualities that are idiosyncratic and particularly "alien" that work well to illicit an unpleasant spectator response; (2) the grainy textural overlay is consistent for the human actors and the animatronic/prosthetic monster because the monster and human actors are shot using the same cameras, film stock, and technology; (3) the color palette is consistent throughout the film, whereas in the 2011 version, the human body interiors are colored with a soft, almost bubblegum-pink tone, where in the 1982 version the interiors are a much deeper candy-apple to red-wine color that is much more familiar in the horror genre; and (4) the eviscerated bodies in the 1982 version "leaked" fluids consistently, generating a rather unpleasant affective response, whereas the eviscerated bodies of the 2011 version are relatively clean and tidy. On an aesthetic level, the 2011 version completely misses the point of the monster aesthetic.

The purpose of analyzing the aesthetic design of each version of *The Thing* is that each provides the spectator with multiple levels of information via its aesthetic design. Furthermore, common conceptions of digital aesthetics are largely inadequate in their devaluation of disruptive on-screen digital objects. For example, in the 2011 *The Thing*, the common digital aesthetic design problems, such as soft edging, poor texture and lighting matching, overly smooth movements, etc., are largely related to quality control (much in the same sense that many of the "cutting edge" effects achieved in *2001: A Space Odyssey* [Kubrick 1963] are created via

story" only amplifies its moments of ultra-violence, as well as its general portrayal of either untrustworthy or helpless adults.

processes developed in the 1930s: rotoscoping, contact printing, and black screen mattes). The 1982 version shows that the fact that the monster, as an otherworldly alien creature, is aesthetically heterogeneous from the other human characters, is not inherently problematic. The issue is that the 2011 monster is poorly matched in terms of grain overlay, while its movements defy the conventions of perceptual realism, but this is itself an engagement with a kind of narrative. Spectators recognize the aesthetic difference of the 2011 monster, which marks it as distinct from the rest of the diegetic world, but in understanding the aims of the horror genre's aesthetic design, this kind of intermedial juxtaposition (of digital object within an analog image) is out of place.

Other properties have used this kind of aesthetic design to their benefit, by engaging with a B-level aesthetic, such as the popular camp film series, *Sharknado* (Ferrante 2013, 2014, 2015, 2016, 2017, and 2018). Of significant interest, then, is that this kind of camp aesthetic, embracing intermedial juxtaposition to emphasize the camp value of this aesthetic style, has adapted well to its niche environment. These kinds of films have made the most of the aesthetic of imperfection, whereas the 2011 version of *The Thing* failed to develop an appropriate aesthetic for its generic environment. The aesthetic design of the film and the use-value of intermedial juxtaposition must be carefully calibrated to match the generic environment in which the film is developed, and within this interaction a rich exchange of information occurs. Ultimately, I would argue that the digital object in these moments is not the cause of a narrative disruption, but rather of a narrative reorientation and a narrative proliferation, wherein the information presented on screen is out of sync with the generic information and familiarity that spectators engage with (consciously or otherwise). Thus, when there are moments that draw spectator ire for their disruption, I argue that it is because the emphasis (intentional or otherwise)

placed upon the disjuncture between the broader aesthetic and the digital object is that the style of the images is simply out of sync with one another and their generic environment.

Effective Aesthetic Heterogeneity

In his socio-cultural evaluation of Harryhausen's films, Joshua Bellin highlights the fact that the films are a product of their time, and that they reflect the anxieties and concerns of the culture in that specific socio-historical moment. Even though I appreciate this mode of scholarship, it only provides a partial explanation for the origins of Harryhausen's *Sinbad* films, by explaining the justification for the narrative and story centered choices, but it fails to explain the formal choices. The socio-cultural models of Harryhausen's films fail to explain why these films were shot in stop-motion and why this aesthetic seems to have enduring value. It may appear to be self-evident that production costs and available technologies provide all that is necessary to explain the formal choices determining Harryhausen's aesthetic design, but, again, the production constraints of the time do not explain why these films still have active fan communities. Bellin notes however that, even though the psychoanalytic model for monster movie analysis has proven popular—because monsters, it has been argued, satisfy a desire to explore the Other—this model is inadequate (74). Monsters, however, have been a draw for audiences throughout film history, from the "moon men" of Méliès' *A Trip to the Moon* (1902) to the giant squid-like floating aliens in *10 Cloverfield Lane* (Trachtenberg 2016) and they provide insight into recurring social anxieties that have been adapted via intermedial processes. What form the monster takes is both informed by the contemporary environment (i.e., via the contextual approach, as per Bellin's model) and by aesthetic adaptive strategies to build upon the history of monstrous forms. The point is that these logics operate simultaneously: that there is a

desire to interact with a screened monster developed for the moment (i.e., a contextually developed form for the monster), and—my own suggestion—that there is an aesthetic appreciation for the formal manifestation of the monster on screen. Aesthetically, monsters have changed considerably over the years, ranging from the stop-motion monsters of Harryhausen, the prosthetic monsters of John Carpenter (e.g., 1982's *The Thing*), the man-in-suit as exemplified by Ishirō Honda's *Godzilla* (1954), the combination of prosthetic and the man-in-suit as exemplified by *Alien* (Scott 1979), and the contemporary digital monsters of *Pacific Rim* (del Toro 2013). Each of these provides a completely distinct aesthetic experience, and yet, each is historically related to the others, meaning that Harryhausen's creature and other non-humanoid work has formed the basis for many of the contemporary craftsmen's ability to develop non-humanoid monsters on screen.

While the set of relations that underpin the meaning of stop-motion's aesthetic is much more diffuse (e.g., the aesthetic functions as an influence, a concept, a set of ideas, a touch of counter-culture, rather than a blueprint or a fixed meaning), there is a much more direct relation between Harryhausen's monsters and the contemporary blockbuster in terms of character animation. While the set of principles is much more direct in providing an influential blueprint for contemporary creature animators (e.g., each animated creature must have its own set of attitudes and unique flourishes in order to give it character or cinematic "life"), both are significant influences that inform contemporary films. To suggest that contemporary monster films contain empty spectacles that are narratively disruptive is to overlook the function of intertextual relations and the historical narrative of cinematic aesthetic developments, which is to our significant detriment as scholars. Instead, what is required is to not deny the influence, or the aesthetic meaning that is imbued with multiple lines of historical development, but to embrace

the rhizomatic plurality of aesthetic meaning, so that the potential meanings of contemporary blockbusters are not disregarded.

Expanding the Theoretical Horizons of FX Theory: Part III

Narrative Effects and Aesthetic Narrative Networks: Contemporary Mass Market

Blockbusters

In the recently released *Power Rangers* (Israelite 2017), there is a brief moment during the final action sequence, in which the Power Rangers have fallen back to collect their “Zords”¹⁴² to combat the sheer volume of Rita Repulsa’s “Putty”¹⁴³ army, when Jason (Dacre Montgomery), the Red Ranger, in his Tyrannosaurus Zord, steps on a bright-yellow Chevrolet Camaro with black racing stripes, exclaiming: “Sorry, Bumblebee!” The significance here is that Bumblebee is one of the most iconic Transformers from the recent Michael Bay-directed *Transformers* series reboot (2007-2017) and the literal “stepping on” of Bumblebee’s untransformed car encourages direct comparisons between the two franchises. Certainly, this kind of self-reflexive moment is nothing new, especially in contemporary post-modern films (in the case of *Power Rangers*, “late-Capitalist” may in fact be a more accurate descriptor). What is intriguing, though, are the narrative implications of this moment, which does not function in a truly disruptive manner. Instead, the tongue-in-cheek reference highlights a continuity of style, overtly affirming the similarity between the *Transformer*’s franchise and the *Power Ranger*’s aesthetic sensibility.

¹⁴² Zords are large robotic exoskeletal suits in the shape of dinosaurs, akin to the Jaegers in *Pacific Rim* (del Toro 2013), at least in terms of function if not style. The Zords, however, can also combine and transform into the “Megazord,” a giant anthropomorphic robot.

¹⁴³ Putties are essentially stone golems created and enchanted by Rita Repulsa, the arch-nemesis of the Power Rangers.

Even in this sense, such an overtly self-reflexive comparative strategy is nothing new, particularly in relation to Michael Bay's oeuvre. In the first instalment of the rebooted *Transformers* (2007) series, as the Transformers crash into the earth and scan the automobiles that they then gain the ability to transform into, there are two references to precursory texts, though only one as overt as the *Power Rangers* reference. One of the Transformers, Ratchet (Robert Foxworth), crashes through a storefront in the form of what appears to be a meteorite-like object, and a teenager with a camera runs towards the scene exclaiming, "This is easily one-hundred times cooler than *Armageddon*. I swear to god!" The scene then cuts to another Transformer, Ironhide (Jess Harnell), climbing out of a pool in front of a little girl, who asks Ironhide, "'Scuse me, are you the tooth fairy?" juxtaposing the 'obviously' fictional character with the "real" and present character of Ironhide. Further compounding the ironic interplay of fictional characters, and nostalgic '80s toy product placement, with "real" characters is that the little girl is holding a *My Little Pony* stuffed toy, which is one of Hasbro's other more prominent toy lines. Beyond the immediate juxtaposition of "real" and "mythical" characters, the spectator is encouraged to compare this moment with familiar historical antecedents in a kind of one-upmanship, in this case between Bay and Steven Spielberg's *The Lost World: Jurassic Park* (1997), wherein a very similar scene occurs (which I analyze in greater detail below). Ultimately, both *Power Rangers* and *Transformers* engage with both their historical antecedents and aesthetic influences, as well as their contemporary box-office competition, to engage in a rather fitting action-centric mode of masculine filmmaking bravado: a mix of synergistic marketing and rather animalistic marking of territory. To dismiss either of these moments as mere spectacle, or self-indulgent narcissism, is to miss the point of the growing network of narrative influences that are developed via multiple lines of interest: aesthetically, auteristically, and diegetically.

The meteorite reference in *Transformers* of course functions as a marketing opportunity for Michael Bay to rather shamelessly promote his own precursor disaster film, and to encourage spectator admiration at the advances in quality of the visual effects that have been made since he directed *Armageddon* in 1998. Even more importantly than the incestuous self-referentiality, the pool scene in *Transformers* appears to compare itself to Steven Spielberg's monster-in-the-city moment from *The Lost World: Jurassic Park*, the second instalment in the *Jurassic Park* franchise. In *The Lost World*, Benjamin (Colton James), a young boy, looks out his bedroom window after being roused from sleep by the impact tremors of the Tyrannosaurus Rex that has escaped from the cargo hold of a ship to run amok on the mainland in San Diego. Upon seeing the dinosaur, the boy decides to wake his parents. The dinosaur leans over to drink from the boy's backyard pool, and the family dog starts barking at it. The parents initially believe that Benjamin is frightened by his fish tank before they follow him to his room and they see the dinosaur for themselves, at which point Spielberg includes his own self-reflexive string of references harkening back to the primary set-piece of the first film. Once Benjamin's parents see the T-Rex, they view it through the window of the room, where the T-Rex is standing with the dogs chain hanging out of its mouth with the dog house still attached (reminiscent of the goat that lured the T-Rex to the fence in the first film). Benjamin subsequently takes a picture with the flash on, replicating the same mistake that Lex makes in the first film by shining a flashlight at the T-Rex, drawing its attention, before both moments culminate with the roar of the T-Rex. This moment, rather interestingly, draws attention to the demands of the genre, which consistently call for "bigger, better, newer" effects and action set-pieces, by encouraging spectators to juxtapose their own experience of the first film with this condensed version of the same sequence. In *The Lost World*, the entire sequence takes two-minutes and ten-seconds to move from the initial

arrival of the T-Rex at Benjamin's house to the culmination of the T-Rex roar, compared to the nine-minutes and twenty-four-seconds in the original. Clearly, there is an awareness that drawing attention to the achievements of previous films is part of the narrative logic of blockbuster franchises, but there is more interesting depth, as well.

Narratively, *The Lost World* is clearly an homage to *King Kong* (Cooper and Schoedsack 1933), as both films follow a team of explorers/collectors who decide to collect the "giants" of their respective islands, only to have the animals escape and terrorize their respective cities. The significance is that each of these filmmakers (e.g., Israelite, Bay, Spielberg) is certainly aware of the generic demands of contemporary blockbusters—of novelty, generic advancement, and proliferation—but also each filmmaker is aware of the precursory films that have established these conventions and created the grounds upon which these current films operate. It is important to analyze the specific function of these self-reflexive moments, therefore, which are narratively driven aesthetic comparisons, and to explore the meaning of this kind of networked narrative strategy, and why it is so prevalent in the contemporary blockbuster. Each of these moments is designed to encourage spectator juxtaposition, to encourage a "looking" beyond the self-contained diegetic micro-narrative of the film, to the larger macro-narrative of monster aesthetic design, and the interplay between aesthetic design, generic conventions, and both the broader narrative of late-capitalism's technological advancements (as inherently progressive) and the more finite narrative construction of the genre. Oddly enough, the narratives of contemporary blockbusters appear to oscillate somewhere between aggressive disdain for the conservative parameters of the tent-pole film (of course the structure of *King Kong* can, and will be, repeated *ad nauseum*, due to the fact that it has been both critically and economically successful), and a far less critical, potentially even overtly celebratory, homage to the monstrous predecessors of

the current cinematic giants. The generic constraints faced by these directors encourage specific modes of creative adaptation, constraints that function in a similar manner, at least metaphorically, to those operating in the natural world. According to David L. Smith: “[e]volution, after all, is more than just an artifice; it is a fundamental truth about how the world works [. . .] [as] Nature itself seems to be of two minds on the matter, operating at once as a creator of unique individuals and as a repeater of tried-and-true formulas, pure poet and shameless hack” (431). In this case, the two minds appear to be the two poles of blockbuster filmmaking strategy, which demand at once an adherence to convention and formulaic structures that have proven to be effective in mitigating the financial risk inherent in tent-pole productions, as well as a proliferation of the new, “the latest and greatest,” and the never-seen-before. The easiest way to be able to facilitate the achievement of these antithetical demands, however, is to maintain formulaic narratives, while driving new feats of “imag(in)ing” technology.

According to George Lucas, in a joint interview with Steven Spielberg at the University of California in 2013: the studios are “going for the gold, but that isn’t going to work forever. And as a result they’re getting narrower and narrower in their focus. People are going to get tired of it. They’re not going to know how to do anything else” (Cohen; n. p.). Spielberg also notes that, “because so many forms of entertainment are competing for attention, they [studios] would rather spend \$250 million on a single film than make several personal, quirky projects” (Cohen). The correlation between massive budgets (largely spent on imaging technologies and “high quality” effects) and narrative conservatism (the narrowing that Lucas highlights, and the lack of quirky projects according to Spielberg) is a by-product of the contemporary filmmaking business model.

In Spielberg's *The Lost World*, there is an inherent silliness to the tone of the pool scene, which reads as a kind of disdain for the narrative conventions of the blockbuster, as Benjamin's parents' response to the sight of the T-Rex is borderline parodic. In seeing the dinosaur, they throw their hands out to their sides and freeze in position, offering only a half-hearted Hollywood scream. Why include this scene at all? In Spielberg's own admission, *The Lost World*, is a mediocre film: "[m]y sequels aren't as good as my originals because I go onto every sequel I've made and I'm too confident. This [the first] movie made a ka-zillion dollars, which justifies the sequel, so I come in like it's going to be a slam dunk and I wind up making an inferior movie to the one before. I'm talking about *The Lost World* and *Jurassic Park*" (Dargis n.p.). *The Lost World* was largely a critical disappointment, both in terms of its current critical standing and its standing at the time of its release (Rotten Tomatoes ranking lists the average rating as 5.6/10 based on the critics' response). What is more intriguing about the film, however, is not its critical reception, but its narrative strategy. Replicating narrative set-pieces, with the purpose of extending and enhancing their previous success, is a staple of the blockbuster genre, but it becomes all the more apparent when the effort fails.

The purpose of highlighting this kind of allusion via generic set-piece, or via momentary aesthetic comparison, is to suggest that even the most wondrous moments of contemporary blockbusters are engaging a pre-existing history of wondrous moments (self-reflexively, [un]successfully, or otherwise). Such wondrous moments, then, offer information about the competitive value that the present moment offers relative to other films of the same genre. In the Darwinian sense, this kind of one-upmanship is a by-product of the "ratio of increase" being so great that it leads to a "struggle for life" (Darwin 397). The relationship, though, rather than being overtly violent, is actually much more symbiotic, or perhaps more aptly, synergistic. Bay's

allusion to *The Lost World*, for instance, encourages spectators to anticipate a familiar narrative structure (of escaped beast that requires capture, ending, ultimately in the vanquishing of the beast). It also encourages spectators to hold the two properties in the same light, as a massive commercial vehicle of similar ilk. One-upping the set-pieces of previous films does encourage the spectator to remember and compare the current property to its antecedents, but it also becomes a shorthand for contemporary filmmakers to efficiently establish tone and narrative clarity. It is repetition with variation provided via the generic design of the film, and delivered in the generic set pieces, which most often culminates in moments of wonder.

The life for which these films struggle is largely an economic one. The ultimate informational conveyance of these set pieces, then, is one of economic display, of economic dominance, which, in the late-capitalist era, is the ultimate expression of success, of identity, and ultimately of life itself. Moments of contemporary wonder, from *Mad Max* to *Independence Day* to their ultimate expression in the 3D-reveal of Pandora in *Avatar*, are a display of sheer expenditure. It is this point more than any other that truly highlights that narrative is never a self-contained vehicle, hermetically-sealed within the diegesis of the film itself, but is instead a braided coil of intra- and extra-diegetic information, as the most awe-inspiring thing is the sheer scale of cost. Frequently, the biggest box office earners are also those named as “the most expensive ever made,” as evidenced by the oeuvre of James Cameron, the more recent Marvel films, and the Pirates of the Caribbean franchise.¹⁴⁴ Blockbuster wonder does encourage a sense of reflection, but it is a reflection based on the aesthetic design of the film, which is largely a by-

¹⁴⁴ Regarding James Cameron's propensity to film the most expensive film of all time, both *True Lies* and *Titanic* set records for production cost in 1994 and 1997, respectively, and the remaining four films of the *Avatar* quintology are being filmed on a combined budget of \$1 billion, making them the most expensive simultaneous film production of all time.

product of the sheer scale of the film's budget. Because they are a generic staple, moments of wonder, always offer information about their position in relation to other films that are similar to them (and there are many moments of allusion or self-reflexive one-upmanship) to encourage spectators to comparatively engage with the historical antecedents. They do this moreover in order to display their value, both in the metaphorical sense as a superior product, and in the literal sense, where that which is to be wondered at is the sheer cost of the production.

Conclusion and Future Directions:

Moving Beyond Medium Specificity and Monological Frameworks to the Polyaesthetic Influence of Network Narratives

What is clear in analyzing the consequences of viewing VFX through the theoretical lens of attractions, wonder, emblems, or other contemporary evaluative frameworks, in which the function of VFX is named and defined as being *either* attraction, *or* a wonder, *or* an emblem, etc., is that in each instance there is a monological interpretive framework imposed upon the function of an effect. As this study has sought to suggest, the relationship between and among technology, aesthetics, and cinema is far too complex to be reduced to a singular analytical framework. Instead, theorizing the complexities of FX requires a system such as aesthetic adaptation as it allows for the interaction of competing (and at times paradoxical) logics: a system that can account for moments of wonder, the draw of visual attractions, the moments of the emblem's intense signification, while also accepting that these moments are present on screen at the same time that N/narrative information is conveyed. When the Enterprise is revealed for the first time in *Star Trek: The Motion Picture* (Wise 1979), for instance, it is an exemplar *par excellence* of a scene that could be readily defined by way of the logic of cinematic wonder. Tellingly, Douglas Trumbull's own description invokes the key terminology of the theory:

[T]his sequence was all about arriving at the Enterprise, and cruising around it, doing a series of reveal shots. As you approach, you have to look through this dry dock to the Enterprise, which is docked inside of it, so you never quite get to see it. As the little

shuttle vehicle, which has got Shatner in it, passes the Enterprise, it needed a lot of interactive lighting so it would seem like it would actually be there . . . The shuttle comes around, and you find it turns, and then faces the Enterprise from the front, and that's the big reveal shot. And, that's where Goldsmith cut loose with the most beautiful music you've ever [heard]. And, *you get to see the Enterprise in its full glory . . .* I wanted it to be this beautiful, epic, spectacular sequence that *had no dialogue, no story, no plot, everything stops*, and let the audience just love the Enterprise. I wanted everybody to buy into the beauty of space, and the beauty of their mission, and the beauty of the Enterprise itself, and just have everybody get out of the way and let that happen, which was something I'd really learned with Kubrick on *2001*. Just stop talking for a while, and let it all flow. (Trumbull "Lighting", my emphasis)¹⁴⁵

Trumbull's description of the scene reflects Pierson's description of wondrous cinematic effects, whereby the narrative is momentarily disrupted in order to allow spectators to gaze up the cinematic object in its entirety and wonder how it was created. The description, however, also fits the model of the attraction as defined by Gunning and Gaudreault, whereby the narration (via textual systems) is disrupted or non-present, and the sequence privileges the visual image as a significant event within the film text and yet remains tonally distinct from the rest of the text. The analysis of the scene is not limited to these two theories, however, as even Whissel's emblem could fit this moment, as it is a moment of intense thematic signification, as the visual

¹⁴⁵ Trumbull's description of the Enterprise's revelation is particularly pertinent in this case as he was afforded the creative freedom to direct the sequence, as well as creating the special effects. See, for example, Scott Feinberg's "Future of Film: VFX Legend Douglas Trumbull's Plan to Save the Movies", *The Hollywood Reporter*, for further information on Trumbull and his many film credits and technological innovations.

object on screen and the dialogue that frames this scene emphasize the utopian and idealistic ideology of the Star Trek universe.¹⁴⁶

What is most intriguing about this scene is the fact that Whissel's emblem and Pierson's wonder were largely devised to explain digital phenomena. Complicating the matter even further therefore is that nothing on screen during the scene of the Enterprise's revelation is digital. The only digital technology aspect of this scene is the motion-control system, which is used to exactly replicate the camera's movement paths. These repeated movement paths expedite the creation of the mattes required to isolate the photographed Enterprise for the composition of the final shot(s). The digital mechanisms are not captured on screen, and even though the movement of the scene is arguably a byproduct of digital technology (meaning that it would be possible to describe the shots as digital proxies), the primary visual elements, the Enterprise, the shuttle craft, the space dock, and the crew working on the enterprise are all produced via analog technologies. The digital technology is not "seen" on screen. The digital motion control camera rig, in fact, supports the production of analog matte shots that display analog images of the Enterprise with clean edging against an analog backdrop of "space." Thus, from this example, it

¹⁴⁶ According to Whissel's theory of the emblem, the dialogue and the textual information that frame the spectacular image imbue it with meaning. In this scene, James T. Kirk (William Shatner) returns to the newly refitted Enterprise to take command of the ship in order to confront the destructive power of V'Ger, a massive alien energy force. The scene of the Enterprise's revelation is preceded by a conversation between Kirk and Scotty (James Doohan) regarding the crew's lack of preparedness and the unfamiliarity they have with the Enterprise. It is then followed by Kirk's return to the ship, at which point he makes his way to the chaotic bridge, until Kirk's return calms the crew and alleviates their concerns. The suggestion is that all is returned to normal when a man assumes his proper place, launching the film's central theme, which is concerned with the search for identity. When analyzing the revelation of the Enterprise in relation to the contiguous scenes, these pre-and proceeding scenes enhance the meaning of the scene displaying the spectacular image, and they encourage a specific allegorical analysis of the image. In the case of the Enterprise in this scene, it is the mechanism by which the chaos of the universe (and, via metaphorical extension) the chaos of the human soul are mitigated, via the drive towards a utopian order of purpose-driven identity.

can be inferred that wonder and emblems exist in many forms and manifestations, both before and after the Wonder years of digital spectacle that Pierson describes. By extension, and as this study has suggested, digital cinema is not solely responsible for the recent renaissance of the cinema of attractions, as digital technology has been influencing the development of spectacular images for at least forty years (e.g., the Dykstraflex, one of the first digital motion control systems, was developed to support the analog image compositing for *Star Wars* [Lucas] in 1977), and thus, can only be accepted to be one element of a much wider and more complex interaction of environmental demands and influences. Attractions, in one sense or another, have always been a fundamental component of the cinema, but which attractions are foregrounded, or more precisely, which elements are foregrounded as attractions, changes as cinematic technologies change, and the style of foregrounding these technologies transforms over time. As Ian Christie points out, “[a]s ‘realism,’ however stylized, came to be the most prized quality of cinema in the sound era [after 1928], so the artifice that made possible spectacular scenes had to be hidden, or at least not foregrounded” (110). This kind of privileging of attractions, trickery, and effects highlights the fact that just as realism is an ideological effect of cinematic style, so too is spectacularity. The difference is that spectacularity is just as culturally conditioned as realism, and nor is spectacularity a static, inherent, categorical mode of cinematic “attraction.” Spectacle is itself dynamic, and largely historically determined, and works between and among the other aspects of the cinematic system. In fact, moments of intense interplay between systems of monstration, narration, and thematic signification are a fundamental component of cinematic discourse.

Of particular interest for this study, then, is how spectacular imaging strategies and the marketing strategies surrounding spectacularity, have shifted over time, and, also, how

spectacularity and realism have come to be valued in an interdependent, and rather paradoxical, relationship. Contemporary spectacle, in fact, appears to reject the early self-reflexive gag and trick strategies of the cinema of attractions. Contemporary spectacular cinema is designed to anticipate and address the plenitude of spectatorial desires, such as: exceptional and unique craftsmanship (e.g., never-seen-before, a new evolution, most expensive film ever); broader integration into social and hyper-mediated networks (e.g., the Marvel Comics Universe); and, an exploration of the medium's materiality (e.g., expert spectators are aware of the constructed-ness of the medium and seem to desire an exploration of the medium's potential). Spectators are being confronted with greater flows of networked information and differing modes of aesthetic display, resulting in complex interactions within informational nexuses. It is necessary, therefore, to re-examine the binary conceptions of cinematic viewing practices (spectacle/narrative, realism/formalism, etc.) in order to address contemporary modes of display and informational conveyance.

It is apparent that the Enterprise's revelation scene functions according to several logics simultaneously, regardless of whether these networked logics appear to be working in conjunction with one another at certain moments, or in competition with one another at others. Theoretically, the Enterprise's revelatory scene does appear to adhere to the logic of wonder, as the scene could be described as merely displaying the Enterprise rather than advancing the plot. Certainly, in terms of traditional action-centric plotting and narrational strategies no one speaks, and no "actions" are taken. In their position as "passive" observers, Kirk and Scotty mirror the film spectator, but to accept the position of viewing as strictly passive undermines not only the spectator's intellectual agency, but the power of showing in and of itself. On the one hand, even though it could be argued that narrative and narration are suspended, the scene still

communicates very specific information. As Trumbull claims, the scene is designed to convey “the beauty of space, and the beauty of their mission, and the beauty of the Enterprise itself,” which of course suggests that the scene’s monstrational strategies and its aesthetic are ideologically motivated to convey this information (i.e., that the aesthetic mode of spectacular display is also a mode of monstration). In terms of theoretically analyzing this scene, it would be detrimental to ignore its informational conveyance, regardless of the fact that the scene conveys information largely by way of visual display, not to mention aurally via the musical score, and even if it does not seek to move from point A to point B in the film’s plotted narrative.¹⁴⁷ The scene, even without the movement from one plot point to another, is still providing the spectator a significant amount of calculated information, and to accept that narrative is only conveyed via diegetic dialogue or diegetic narrational strategies undermines and flattens the complexity and the heterogeneity of the cinematic medium, even as it privileges certain forms of informational conveyance while dismissing others.¹⁴⁸ In fact, I would argue that the impact of revelation of the Enterprise is largely dependent on the existence of a myriad of narratives.

One such communicative agent that must be accounted for when analyzing the conveyance of a film's meaning is the film’s aesthetic, which stands as its own communicator of meaning. It is worth noting, even though it may seem pedantic, that it would be difficult to argue that a film noir aesthetic, for example, does not convey narrative information, especially

¹⁴⁷ While it could be argued that the Enterprise's revelatory scene functions as a plot transition—shifting Kirk from admiral on a space station, to captain of the ship—if the revelatory scene is cut, while much ideological information would be lost, the plot would progress largely unaffected.

¹⁴⁸ C.f. Lisa Purse's "The New Hollywood, 1981-1999: Special/Visual Effects" in Charlie Keil and Kristin Whissel's *Editing and Special/Visual Effects* (New Brunswick, New Jersey: Rutgers U Press, 2016).

considering that film noir's own generic history, and film noir's namesake for that matter, is attributed directly to its aesthetic (cinematographic) style. Contemporary spectacular aesthetics, however, are treated very differently than film noir aesthetics and I would argue that contemporary spectacular aesthetics are taken far less seriously in academic criticism. There is much to glean, however, from the aesthetics of spectacular images, and we—as film scholars, critics, and fans—must address spectacular aesthetics with the same vigor with which we approach film noir, art cinema, or any other “cinema,” genre, or modality. The revelatory scene in *Star Trek*, for example, stands in stark contrast to the aesthetic developed three years later for *Blade Runner* (Scott 1982), even though both films' FX are overseen by Trumbull. Trumbull suggests that *Blade Runner*'s “opening shot. . . really establishes the whole look of the film, and the whole kind of ambiance of a world gone completely out of control with polluted air, very low visibility, chemical cracking plants in every direction” (Trumbull “*Blade Runner*”)—a vision that stands as the counter-point to the utopian revelation of the Enterprise, which promises to bring order to the universe's chaos.

Trumbull highlights the fact that via the system of monstration, the cinematic worlds of *Star Trek* and *Blade Runner* are defined by their aesthetic as either utopian or dystopian. One world is governed by utopian optimism, highlighting the positive potential of human endeavors (regardless of how problematic the political undertones may be), while the other is governed by dystopian cynicism, highlighting humanity's failed potential. Neither mode of display is passive, but rather highly ideological. It is logical, however, to describe the Enterprise's revelatory scene in terms of wonder and visual pleasure, and the film itself is perhaps the example *par excellence* of cinematic wonder with its commitment to the display of visually impressive feats of technological innovation, but this is not the only organizing principle at work within the scene or

the film overall. To suggest that wonder supersedes all other forms of conveying meaning essentializes the cinematic experience, and to suggest that wonder cannot exist while some other guiding or organizing force of meaning conveyance is present is equally limiting. Furthermore, to describe wonder as the primary function of effects undermines the experience of the awe-inspiring visual despair of *Blade Runner*'s opening sequence. According to the definition of wonder, as utilized by Pierson, and based on the work of Fisher, wonder is a product of visual pleasure and a kind of happy curiosity. Yet, the opening scene of *Blade Runner* would be more accurately described as being awe-inspiring and encourages a kind of sublime repulsion, considering how the future appears as a polluted wasteland.

Certainly a film's aesthetic is central to its meaning, and thus, its monstrational presence cannot be discounted or treated as a secondary element, or dismissed as a non-communicating agent of informational conveyance. Beyond the aesthetic, however, there are, for example, a number of intertextual and paratextual narratives that inform the means of informational conveyance in *Star Trek: The Motion Picture*, and the Enterprise's revelatory scene. Present in this moment are a number of overarching, extra- and intertextual relations that influence the meaning of this scene. For example, the moment of revelation is a staple of the science-fiction genre, which functions to satisfy spectatorial desire;¹⁴⁹ therefore, *Star Trek: The Motion Picture*, by utilizing such a familiar generic trope, places the revelatory moment into relation with any other such familiar scenes spectators may have encountered. In terms of informational

¹⁴⁹ Moments of revelation are most common in monster movies, but the revelation of spacecraft is not uncommon in science-fiction more broadly. Comparable moments of revelation in monster and science-fiction films include, for example, the revelation of the Phantom's face (Lon Chaney) in *The Phantom of the Opera* (Julian 1925), the revelation of the city destroyer spacecraft in *Independence Day* (Emmerich 1996), the T-Rex breaking through the fence in *Jurassic Park* (Spielberg 1993), and countless others.

conveyance, the scene functions to situate itself in relation to a longer history of similar science-fiction films, whether such a comparison is desired or not. In order to be successful, *Star Trek* must respond to the aesthetic development of the starship and the alien craft, considering that *Star Trek: The Motion Picture* launched ten years after the airing of the final episode of the original series.¹⁵⁰ The existence of *Star Trek: The Motion Picture* is really owed to Paramount's desires to capitalize on the contemporary popularity of A-picture science-fiction developments of the late 1970s, particularly on the heels of *Close Encounters of the Third Kind* (Spielberg 1977), which proved that high-quality science-fiction films beyond *Star Wars* could attain commercial success. At this point, it would no longer be adequate to operate with the "make-do, B-grade aesthetic" that defined so many of the 1950s and 1960s science-fiction films (Pierson 175). *Star Trek: The Motion Picture*, with a budget of \$15 million, is funded as a prestige A-grade quality film, and to base its aesthetic on "outdated" imaging technologies would create dissonance between spectators' desires and the final product. To be more specific, using a design strategy such as the stop-motion animation to create the image of the Enterprise (like the spacecraft in *The First Men in the Moon* (1964) or *The Earth vs. Flying Saucers* (1956), which have acquired a camp dimension in retrospect) would not satisfy spectators' desires and expectations and the film's promise to provide a prestige aesthetic. Therefore, it is essential that a film, to be successful in one sense, achieve a particular kind of perceptually comparable aesthetic to that of its peers and rival films, such as the comparable aesthetic modes of *Star Wars* and *Close Encounters*. If a film does not generate a comparable aesthetic, it must be employed for the

¹⁵⁰ For better or worse, the majority of the time the film's success is defined by its commercial success (determined by the return on investment). Success, though, is not solely determined by a film's commercial viability. Instead, some films are designed to acquire accolades and awards, while others are designed to expose a cultural "truth," while others are designed to be formally experimental.

specific purpose of intentionally juxtaposing the films' aesthetics with other contemporary comparable films. *Sin City* (Rodriguez, Miller, and Tarantino 2005), for example, offers a drastically different aesthetic than the other comic book adaptations of the early 2000s, such as Sam Raimi's first two *Spider-Man* instalments (2002 and 2004) or even Bryan Singer's first two *X-Men* films (2000 and 2003), and it uses its aesthetic design to indicate its difference (i.e., dark and gritty vs. bright and family-friendly).

Furthermore, the Enterprise scene must also navigate the difficulties of the fans' adherence to the myth of fidelity, as the revelation of the Enterprise is also the moment in which the iconography of the television show is adapted to the cinematic screen, and therefore this moment also engages spectatorial expectations, working to both satisfy the spectators' desires to see the Enterprise finally realized on the cinema screen (ten years after the final episode), while still offering them something novel and engaging to justify the necessity for cinematic adaptation.¹⁵¹ The number of narratives operating within a single scene, such as that of the Enterprise's revelation, shows that comprehensive narrative disruption is an inherent impossibility, due to the fact that cinematic texts are polynarrative vehicles (regardless of whether the polynarrativity is diegetic, extratextual, or intertextual). Even if it is accepted that one level of narrative can be disrupted, such as the diegetic narrative, the cinematographic privileging of the spectacular image encourages a shift in narrative focus from the diegetic narrative to extra-diegetic paratextual narratives, and other generic and networked narratives. Disruption is therefore largely a misnomer that betrays the assumed privilege of the goal-driven,

¹⁵¹ The lines delivered by Scotty just prior to the revelation of the Enterprise directly address such concerns, as he states that the crew has just spent "eighteen months redesigning and refitting the Enterprise" and then when Kirk confronts Commander Willard Deckard about assuming command of the Enterprise due to his experience with the ship and her crew, Deckard retorts, "Admiral, this is an almost totally new Enterprise." Built into the narrative of *Star Trek* is the logic of adaptation: it is both familiar, and yet wholly new.

action-centric cinema, as the spectacular object does not interrupt an event or activity in process: *it* is the event in process; *it* is a conduit that shifts narrative focus to a largely extra-diegetic network narrative. Whether or not a scene or sequence of scenes in a cinematic text is governed largely by narrational (verbal/textual) forces or monstrational (visual) forces is too synthetic a debate when it comes to cinema, as the visual and the verbal/textual are largely interdependent and contingent systems that depend on one another to convey their information. Ultimately, the by-product of both these forces (monstration/narration) is informational conveyance delivered via a communicative agent. Thus, regardless of that agent's identity (the Enterprise, the overall aesthetic, the stop-motion style, a character, the cinematographer, the director, etc.), the cinema is, in this perspective, a medium through which a collection of communicative agents convey information via numerous narrational and monstrational systems. Furthermore, a cinematic narrative is not typically ruptured or arrested in moments of wonder, but, instead, there is an emphatic shift from one narrative thread to another thread (from one "voice" to another), which is often accompanied by a marked tonal shift in a film. The importance of this observation is to highlight that there are at times competing, layered, and interspersed narrative threads, and oftentimes this shift is one that moves from a micro- to a macro-narrative level.

Beyond the blockbuster cinema that occupies so much of the conversation regarding the theorization of digital cinema, there are many other particular kinds of cinemas that are making significant contributions to the development of contemporary digital aesthetics. While being able to navigate the networked information of the Enterprise scene is important, this study has sought to pave the way to a broader exploration of digital cinema and contemporary aesthetic designs. In terms of future directions for this research approach, I am most interested in fan-made films, particularly those that gain an online, open, and copyleft release, which seem to be cut from a

different cloth than, say, the most recent *Avengers* film. In David Rodowick's view, "[f]or the moment, I would also still insist on holding on to the specificity of theatrical film viewing [as one of, if not *the* defining feature of cinema], because for me, intuitively, electronic images and screens are not 'cinema'; that is, they cannot produce the social and psychological conditions of a certain pleasurable spectating" (33). I completely disagree. It is not that a film designed to be viewed at home "cannot produce . . . a certain pleasurable spectator," regardless of whether it is designed for a smartphone screen with small speakers or headphones, or for the biggest smart TV with a state-of-the-art surround-sound system. By maintaining that there is a division between "electronic images and screens" and "cinema," it encourages an hierarchizing of moving image arts, where we have Cinema, with a capital C, on the one hand, and those lesser moving images on the other. Rather, what we do have are two differing modes of cinematic engagement. The more traditional and nostalgically oriented experience of the in-theatre seated viewing arrangement, and the newer economy of attention, in which an online release is but one of many moving-image arts that competes for spectator attention. This does not constitute a lesser art, nor a mitigation of pleasure, but merely a different pleasure. Certainly, I recognize that the most recent *Avengers* film approaches its audience in a different way, with an entirely different mode of presenting its moving images, but that does not mean that as theorists we should disregard fan films, or films that engage with alternative aesthetics, such as the aesthetic of imperfection.¹⁵²

One of the more recent manifestations of such a phenomenon is the directing duo Adi Shankar and Joseph Khan's pet-project *Bootleg Universe*. *Bootleg Universe* is a short fan film collective (fan-film production company) that makes off-beat, often violent, dark, and adult-

¹⁵² I hesitate to use the term fan-film because it often also refers to an amateur production, when *Kung Fury*, *Power/Rangers Unauthorized*, *Predator: Dark Ages* (Bushe 2015), or even *Spawn: The Recall* (Paris 2014) are clearly professionally made fan films.

oriented fan remakes of existing properties—properties that often preclude the kinds of adult-themed possibilities that are explored in the *Bootleg Universe* films. The most popular remake is *Power/Rangers Unauthorized*, a 14-minute “NSFW: Not Safe For Work” remake of the popular children-oriented *Power Rangers* franchise, which as of September 2017 had garnered 21.5 million views. The remake has impressive production values and stars popular television icons James Vanderbeek of *Dawson’s Creek* (1998-2003), and Katee Sackhoff of *Battlestar Galactica* (2004-2009). In the film, *Power Rangers* is remade with “graphic violence, nudity, sexual situations & drug use, and is intended for mature audiences only” (Adi Shankar). The Power Rangers in the remake are being murdered one by one, which prompts an investigation by Rocky DeSantos (James Vanderbeek), who is the second red ranger of the franchise. The short is presented as a frame narrative, wherein Kimmy (Katee Sackhoff), the pink ranger, explains what has happened to her counterparts since their last major battle with the machine empire.

In the flashbacks, each ranger is shown to be dealing with post-traumatic stress disorder through alcohol and drug use, etc., in a way that is reminiscent of the treatment of post-traumatic stress disorder in contemporary war films. The aesthetic of the interrogation scenes is a mashup of *Blade Runner* (Scott 1982) and *Minority Report's* (Spielberg 2002) aesthetics, but each Power Ranger’s story arc, shown via flashback, have their own unique aesthetic design.¹⁵³ These individual story aesthetic designs operate via the remixing of intertextual references. The story arc of Zack Taylor (Gichi Gamba), the black Power Ranger, stylistically reflects comedic elements similar to those seen in other retro-nostalgic fan-made kung-fu films, such as *Kung Fury* (Sandberg 2015), and the initial fight scene of his story is a riff on the John Woo/*Gun-*

¹⁵³ Just prior to the beginning of the interrogation scene, is an exterior establishing shot of a dark city with flying car traffic similar to that of *Blade Runner's*, and then the interior color palette of the interrogation room is also similar. Mixed into this aesthetic is the cleaner lines and digital elements of the *Minority Report's* PreCrime unit.

Fu/*The Matrix* stylistics.¹⁵⁴ The pink Ranger's back story mirrors that of "the bride's" from *Kill Bill* (Tarantino 2003). Each of the pink ranger's flashback scenes also includes a Tarantino flair for violence and they also all contain common elements, such as the blood spattering the "camera" lens. Fan films like the *Power Rangers* short film (like a cultural object such as *Kung Fury*) are designed as a counter-point to major-budget/major-studio releases, and celebrated as such in online communities, as it allows fans to buck the narrative conservatism of a major studio release, while adapting the aesthetic stylings fans appreciate. As a result, such textual objects can avoid a considerable amount of the studio's conservatism. Such fan films cultivate a schlock and awe style, which is achieved precisely by bypassing the traditional, more grand offerings of the traditional cinema, as the narratives themselves reflect this kind of open interweaving of narrative and aesthetic influences.

The postmodern/postclassical network narrative that these films reflect is certainly nothing new. What is changing, however, is not the mode of narration but the interfaces through which we engage with these objects. Ultimately, there is a democratization of access in the post-analogue cinema, which is demonized by some as the desanctification of cinema as democratic medium, and valorized as others as the desanctification of cinema as democratic medium.¹⁵⁵ The

¹⁵⁴ *Kung Fury*, is itself a popular 31-minute fan film that received crowdfunding via Kickstarter, producing a budget of \$630,019. The film has received at least limited theatrical releases, often as an introductory film for cult offerings, but the primary focus of the release was through digital channels, such as YouTube, Steam, and SVT2. The popular story of the film's production is that it was made by Sandberg in his basement, but like all films "made in a basement" the production equipment and offices were much more elaborate and involved than a basement production.

¹⁵⁵ While the "democratization" of filmmaking is a highly contentious issue, as the domestic box office is clearly controlled by a very small minority of studios. In 2017, for example, Walt Disney Studios, and its subsidiaries Marvel Entertainment and Lucasfilms, held five out of the top ten films; Sony Pictures Entertainment, and its subsidiary Columbia Pictures, held two out of the top 10; Warner Brothers held three out of the top ten; and Universal Studios held the last one. The online distribution of independently produced films, however, is currently unregulated,

lesson, ultimately, becomes: why, as theorists, should we disregard fan-made, digitally created and distributed films or even popular spectacular films as something other than, or even worse, lesser than, cinema? Certainly, we can appreciate these things on opposite ends of a continuum, but something like *Kung Fury* is steeped in a love for secondary market/videocassette cinema, to the point that VHS resolution, tracking marks, and other video artifacts are digitally overlaid onto the film itself. Truly, films such as *Power/Rangers Unauthorized* and *Kung Fury*, engage with layers of mediality and celebrate the medium specific nature of imperfection present within these distinct forms, as a kind of resistance to Hollywood's economic, and by extension, narrative, conservatism.

Cinema, in its ever-changing manifestations, is forcing film theorists to justify their rationales and their positions regarding the boundaries that define what qualifies as cinema in light of this broad range of evolving moving image arts. Ultimately, this challenge, though, is for the betterment and the health of institutionalized films studies. Perhaps, at some future time, as film scholars we will decide that fan films are ultimately not cinematic objects because we have proven that they do not fit within the continuum of cinematic objects, but nevertheless, until that point, we must test our current theories against such assumptions to see if they stand.

The most intriguing consequence of exploring the many modalities of cinema is that "Cinema" can be seen as a disparate collection of objects that all share the presentation of moving images. The disparate modalities can all be plotted, in a sense, along an X/Y axis of varying degrees of professionalization, distribution channel, provenance, materiality, etc. The difficulty, however, in terms of film theory, is to be able to wrangle all of cinema's myriad forms and to account for all of its vicissitudes. Nevertheless, the varying forms of cinema provide

which means that producers have direct access to their spectators, but whether this means that film production is truly democratic is yet to be determined.

opportunities to reevaluate our theories, and in terms of this study, the theories of visual effects, which to this point are evolving in fascinating avenues. Of particular interest are the texts that attempt to cover all aesthetic visual forms in an effort to reevaluate contemporary theoretical assumptions, such as Norman Klein's *From the Vatican to Vegas: A History of Special Effects*, or Sean Cubitt's *The Practice of Light: A Genealogy of Visual Technologies from Prints to Pixels* (2014). For example, Sean Cubitt challenges the traditional assumption that the medium of cinema is determined by its relationship with film stock. According to Cubitt, light itself is the medium, thus aligning how cinema is defined by the medium of projection, rather than the medium of storage. With a shift from the materiality of film stock and the whirr of the film projector's analog motor, there is clearly some anxiety about the shift to digital capture, image manipulation, and projection. There is, however, the potentiality to see this not as the death of cinema, but instead, as a continuation in the practice of light projection.

That is not to say that we, as film scholars, cannot distinguish between television, cinema, and new media. When we distinguish differences between these things, however, we must also accept that these distinctions are only ever provisional, and that our definitions of cinema in turn are only ever provisional. In this moment, cinema is a predominantly digital medium that is developed for many different distribution channels: theatrical release, disc-based releases such as Blu-Ray and DVD, digital purchase and rental services such as Apple's iTunes Store and the Cineplex Store, television broadcast such as TMN and TCM, subscription based online streaming services such as HBO Go and Netflix, illegal online streams and bootlegs, and, in the same vein, online downloading services offering torrents, other online streaming services such as YouTube, and even vines (micro-cinema) on social media platforms such as Instagram. The medium specificity of cinema as film, or film as cinema, is an antiquated model that

inadvertently or otherwise excludes moving-image formats from the institutional study of cinema. Therefore, an updating of cinema's object of study is currently necessary, and a challenging of its current theoretical conceptions must also take place. In appropriate fashion, marking the need for such transition, the American film studies association is no longer named the Cinema Studies Society, but instead the Society for Cinema and Media Studies, opening the door for these myriad forms of cinemas.

Keeping in mind the considerable changes that the field of digital cinema studies has undergone, even in the past five to seven years, it has become more important to develop an analytical framework that is flexible, adaptable, and yet still critically rigorous. Since *Avatar*—and truly *Avatar* was the harbinger by which digital cinema would become the ubiquitous and dominant Hollywood product—it has become clear that digital cinema is both a massive all-encompassing industry standard, and yet thoroughly heterogeneous. Digital cinema is comprised of Hollywood's critical darlings such as *Birdman* and *The Revenant*; indie dramas such as *Under the Skin*; animated films such as *Kubo Two Strings* and *Angry Birds*; and the biggest blockbusters of all time, including *Jurassic World*, *The Avengers*, and *Star Wars: The Force Awakens*. Therefore, as film scholars continue to develop digital theory, they must also keep in mind the significant differences in these digital products and to work with theories that are as dynamic as the texts themselves.

Filmography

- 10 Cloverfield Lane*. Directed by Dan Trachtenberg, performances by John Goodman, Mary Elizabeth Winstead, and John Gallagher Jr, Bad Robot, 2016.
- 20 Million Miles to Earth*. Directed by Nathan Juran, performances by William Hopper, and Frank Puglia, Morningside Productions, 1957.
- 2001: A Space Odyssey*. Directed by Stanley Kubrick, performances by Keir Dullea, Gary Lockwood, and William Sylvester, Stanley Kubrick Productions, 1968.
- 2046*. Directed by Wong Kar-Wai, performances by Tony Chiu-Wai Leung, Li Gong, Faye Wong, and Ziyi Zhang, Shanghai Film Group, Orly Films, and Paradis Films, 2004.
- 20,000 Leagues Under the Sea*. Directed by Richard Fleischer, performances by Kirk Douglas, Jason Mason, and Paul Lukas, Walt Disney, 1954.
- 300*. Directed by Zack Snyder, Performances by Gerard Butler, Lena Headey, Dominic West, and David Wenham, Warner Bros., Legendary Entertainment, and Virtual Studios, 2006.
- Adaptation*. Directed by Spike Jonze, performances by Meryl Streep, Nicolas Cage and Chris Cooper, Columbia-TriStar, 2002.
- After Life*. Directed by Hirokazu Koreeda, performances by Arata Iura, Erika Oda and Susumu Terajima, Engine Film, Sputnik Productions and TV Man Union, 1998.
- Alice in Wonderland*. Directed by Tim Burton, performances by Mia Wasikowska, Johnny Depp, and Helena Bonham Carter, Walt Disney, 2010.
- Alien*. Directed by Ridley Scott, performances by Sigourney Weaver, Tom Skerrit, John Hurt, and Ian Holm, Brandywon Productions and Twentieth Century Fox, 1979.
- Alien: Resurrection*. Directed by Jean-Pierre Jeunet, performances by Sigourney Weaver, Winona Ryder, Dominique Pinon, and Ron Perlman, Brandy Wine Productions and

Twentieth Century Fox, 1997.

Aliens. Directed by James Cameron, performances by Sigourney Weaver, Michael Biehn, and Carrie Henn, Brandy Wine Productions, Twentieth Century Fox, and SLM Production Group, 1986.

Alita: Battle Angel. Directed by Robert Rodriguez, performances by Jennifer Connelly, Rosa Salazar, Eiza González, Twentieth Century Fox, Lightstorm Entertainment, Troublemaker studios, 2019.

Amélie. Directed by Jean-Pierre Jeunet, performances by Audrey Tautou and Mathieu Kassovitz, Claudie Ossard Productions, Union Générale Cinématographique and Victoires Productions, 2001.

Anomalisa. Directed by Duke Johnson and Charlie Kaufman, performances by David Thewlis, Jennifer Jason Leigh, and Tom Noonan, Harmonius Claptrap, Shoot Entertainment and Starburns Industries, 2015.

Armageddon. Directed by Michael Bay, performances by Bruce Willis, Ben Affleck, Billy Bob Thornton, and Liv Tyler, Touchstone Pictures and Jerry Bruckheimer Films, 1998.

Army of Darkness. Directed by Sam Raimi, performances by Bruce Campbell, Embeth Davidtz, and Marcus Gilbert, Dino De Laurentiis Company, Renaissance Pictures, and Universal Studios, 1992.

Arrival of a Train at La Ciotat. Directed by the Lumière Brothers, Société Lumière, 1895.

Atanarjuat: The Fast Runner. Directed by Zacharias Kunuk, performances by Natar Ungalaaq, Sylvia Ivalu and Peter-Henry Arnatsiaq, Aboriginal Peoples Television Network, Canada Television and Cable Production Fund License Program and Canadian Film or Video Production Tax Credit, 2002.

A Trip to the Moon. Directed by Georges Méliès, performances by François Lallement and Jules-Eugène Legris, Star-Film, 1902.

Avatar. Directed by James Cameron, performances by Sam Worthington, Zoe Saldana, and Sigourney Weaver, Twentieth Century Fox, Dune Entertainment, Ingenious Film Partners, and Lightstorm Entertainment, 2009.

Avengers: Age of Ultron. Directed by Joss Whedon, performances by Robert Downey Jr., Chris Hemsworth, Mark Ruffalo, Chris Evans, Scarlett Johansson, and Jeremy Renner, Marvel Studios and Walt Disney Pictures. 2015.

Batman Begins. Directed by Christopher Nolan, performances by Christian Bale, Katie Holmes, Liam Neeson, and Michael Caine, Warner Bros., Syncopy, and DC Comics, 2005.

Batman v Superman: Dawn of Justice. Directed by Zack Snyder, performances by Henry Cavill, Ben Affleck, and Amy Adams, Warner Bros. and DC Comics, 2016.

Ben-Hur. Directed by William Wyler, performances by Charlton Heston, Jack Hawkins, and Stephen Boyd, MGM Pictures, 1959.

Ben-Hur. Directed by Timur Bekmambetov, performances by Jack Huston, Toby Kebbell, and Rodrigo Santoro, MGM Pictures, Paramount Pictures, and LightWorkers Media, 2016.

Birdman or (The Unexpected Virtue of Ignorance). Directed by Alejandro G. Iñárritu, performances by Michael Keaton, Emma Stone, and Edward Norton, New Regency, M Productions, Le Grisbi, and TSG Entertainment, 2014.

Blade Runner. Directed by Ridley Scott, performances by Harrison Ford, Rutger Hauer, Sean Young, and Daryl Hannah, The Ladd Company, Shaw Brothers, and Warner Bros., 1982.

Caché. Directed by Michael Haneke, performances by Juliette Binoche, Daniel Auteuil, and Maurice Bénichou, Les Films du Losange and Wega Film, 2005.

Captain America: Civil War. Directed by Anthony Russo and Joe Russo, performances by Chris Evans, Robert Downey Jr., Scarlett Johansson, Sebastian Stan, and Anthony Mackie, Marvel Entertainment and Walt Disney Pictures, 2016.

Captain Marvel. Directed by Anna Boden and Ryan Fleck, performances by Brie Larson, Lee Pace, and Samuel L. Jackson, Marvel Studios, 2019.

Casablanca. Directed by Michael Curtiz, performances by Humphrey Bogart, Ingrid Bergman, and Paul Henreid, Warner Bros., 1942.

Chinatown. Directed by Roman Polanski, performances by Jack Nicholson, Faye Dunaway, and John Huston, Paramount Pictures, Penthouse, and Long Road Productions, 1974.

Citizen Kane. Directed by Orson Welles, performances by Orson Welles, Joseph Cotton, and Dorothy Comingore, RKO Radio Pictures and Mercury Productions, 1941.

Clash of the Titans. Directed by Desmond Davis, performances by Laurence Olivier, Harry Hamlin, and Claire Bloom, Charles H. Schneer Productions and Peerford Ltd., 1981.

Close Encounters of the Third Kind. Directed by Steven Spielberg, performances by Richard Dreyfuss, François Truffaut, and Teri Garr, Julia Phillips & Michael Phillips productions and EMI Films, 1977.

Cloverfield. Directed by JJ Abrams, performances by Mike Vogel, Jessica Lucas, and Lizzy Caplan, Paramount Pictures and Bad Robot, 2008.

Coffy. Directed by Jack Hill, performances by Pam Grier and Booker Bradshaw, American International Pictures and Papazian-Hirsch Entertainment International, 1973.

Coraline. Directed by Henry Selick, performances by Dakota Fanning, Teri Hatcher, and John Hodgman, Focus Features, Lakai Entertainment and Pandemonium, 2009.

Corpse Bride. Directed by Tim Burton and Mike Johnson, performances by Johnny Depp,

Helena Bonham Carter and Emily Watson, Warner Bros., Tim Burton Productions and Laika Entertainment, 2005.

Creature from the Black Lagoon. Directed by Jack Arnold, performances by Richard Carlson, Julie Adams and Richard Dening, Universal International Pictures, 1954.

Dinosaur. Directed by Eric Leighton and Ralph Zondag, performances by D.B. Sweeney, Julianna Margulies and Samuel E. Wright, Walt Disney Pictures and The Secret Lab, 2000.

District 9. Directed by Neill Blomkamp, performances by Sharlto Copley, David James and Jason Cope, TriStar Pictures, Block/Hanson and Wingnut Films, 2009.

Don Juan. Directed by Alan Crosland, performances by John Barrymore, Warner Bros., 1926.

Drunken Master. Directed by Yuen Woo-Ping, performances by Jackie Chan, Siu Tin Yuen, Jang Lee Hwang, Seasonal Film Corporation, 1978.

Dunkirk. Directed by Christopher Nolan, performances by Fionn Whitehead, Tom Glynn-Carney, Jack Lowden, Harry Styles, Kenneth Branagh, Cillian Murphy and Tom Hardy, Syncopy, 2017.

Earth vs. the Flying Saucers. Directed by Fred F. Sears, performances by Hugh Marlowe, Joan Taylor and Donald Curtis, Columbia Pictures Corporation, 1956.

Éloge de l'amour. Directed by Jean Luc Godard, performances by Bruno Putzulu, Cécile Camp and Jean Davy, Avventura Films, Peripheria and Canal Plus, 2001.

Fantastic Mr. Fox. Directed by Wes Anderson, performances by George Clooney, Meryl Streep and Bill Murray, Twentieth Century Fox, Indian Paintbrush, Regency Enterprises and American Imperial Pictures, 2009.

Festen. Directed by Thomas Vinterberg, performances by Ulrich Thomsen, Henning Moritzen

and Thomas Bo Larsen, Nimbus Film Productions, Danmarks Radio and Nordisk Film- & TV-Fond, 1998.

First Men in the Moon. Directed by Nathan Juran, performances by Edward Judd, Martha Hyer and Lionel Jeffries, Ameran Films, 1964.

Forrest Gump. Directed by Robert Zemeckis, performances by Tom Hanks, Robin Wright and Gary Sinise, Paramount Pictures, 1994.

Foxy Brown. Directed by Jack Hill, performances by Pam Grier, Antonio Fargas and Peter Brown, American International Pictures, 1974.

Furious 7. Directed by James Wan, performances by Vin Diesel, Paul Walker, Dwayne Johnson, Michelle Rodriguez and Jordana Brewster, Universal Pictures, Media Rights Capital and China Film Co., 2015.

Futureworld. Directed by Richard T. Heffron, performances by Peter Fonda, Blythe Danner, and Yul Brenner, American International Pictures and The Aubrey Company, 1976.

Gertie the Dinosaur. Directed by Winsor McKay, performances by Winsor McKay, George McManus, and Roy McCardell, McKay and Vitagraph Company of America, 1914.

Ghostbusters. Directed by Ivan Reitman, performances by Bill Murray, Dan Akroyd, Sigourney Weaver and Harold Ramis, Columbia Pictures Corporation, 1984.

Gladiator. Directed by Ridley Scott, performances by Russell Crowe, Joaquin Phoenix and Connie Nelson, DreamWorks, Universal Pictures and Scott Free Productions, 2000.

Godzilla. Directed by Ishirô Honda, performances by Takashi Shimura, Akihiko Hirata and Akira Takarada, Toho Film Co., 1954.

Godzilla. Directed by Gareth Edwards, performances by Aaron Taylor-Johnson, Elizabeth Olsen and Ken Watanabe, Warner Bros., Legendary Entertainment and Toho Company, 2016.

Gravity. Directed by Alfonso Cuarón, performances by Sandra Bullock and George Clooney, Warner Bros., Esperanto Filmoj and Heyday Films, 2013.

Guardians of the Galaxy. Directed by James Gunn, performances by Chris Pratt, Zoe Saldana, Dave Bautista, Vin Diesel and Bradley Cooper, Marvel Studios, 2014.

Guardians of the Galaxy: Vol 2. Directed by James Gunn, performances by Chris Pratt, Zoe Saldana, Dave Bautista, Vin Diesel, Bradley Cooper and Kurt Russell, Marvel Studios and Walt Disney Pictures, 2017.

Gunnm. Directed by Hiroshi Fukutomi, performances by Miki Itô, Shunsuke Kariya, and Kappei Yamaguchi, Madhouse, Animate Film, KSS and Movic, 1993.

Hard Boiled. Directed by John Woo, performances by Chow Yun-Fat and Tony Chiu-Wai Leung, Golden Princess Film Production Limited, Milestone Pictures and Pioneer LDC, 1992.

Harry Potter and the Half-Blood Prince. Directed by David Yates, performances by Daniel Radcliffe, Emma Watson and Rupert Grint, Warner Bros. and HeyDay Films, 2009.

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Hellboy. Directed by Guillermo del Toro, performances by Ron Perlman, Doug Jones and Selma Blair, Revolution Studios, Lawrence Gordon Productions, Starlite Films and Dark Horse Entertainment, 2004.

Histoire(s) du Cinéma. Directed by Jean Luc Godard, performances by Jean Luc Godard, Canal Plus, 1989.

Howl's Moving Castle. Directed by Hayao Miyazaki, performances by Chieko Baishô, Takuya

Kimura and Tatsuya Gashûin, Studio Ghibli, 2004.

Hugo. Directed by Martin Scorsese, performances by Asa Butterfield, Ben Kingsley, Chloë Grace Moretz and Sacha Baron Cohen, Paramount Pictures, GK Films and Inifinitum Nihil, 2011.

Independence Day. Directed by Roland Emmerich, performances by Will Smith, Bill Pullman and Jeff Goldblum, Twentieth Century Fox and Centropolis Entertainment, 1996.

In the Mood for Love. Directed by Wong Kar-Wai, performances by Tony Chiu-Wai Leung and Maggie Cheung, Block 2 Pictures, Jet Tone Production and Paradis Films, 2000.

It Came from Beneath the Sea. Directed by Robert Gordon, performances by Kenneth Tobey, Faith Domergue and Donald Curtis, Columbia Pictures Corporation and Clover Productions, 1955.

Jason and the Argonauts. Directed by Don Chaffey, performances by Todd Armstrong, Nancy Kovack and Gary Raymond, 1963.

Jaws. Directed by Steven Spielberg, performances by Roy Scheider, Robert Shaw and Richard Dreyfuss, Zanuck/Brown Productions and Universal Pictures, 1975.

John Carter. Directed by Andrew Stanton, performances by Taylor Kitsch, Lynn Collins and Willem Dafoe, Walt Disney Pictures and Bot VFX, 2012.

John Wick. Directed by Chad Stahelski, performances by Keanu Reeves, Michael Nyqvist and Alfie Allen, Thunder Road Pictures, 87Eleven and MJW Films, 2014.

John Wick: Chapter 2. Directed by Chad Stahelski, performances by Keanu Reeves and Riccardo Scamarcio, Summit Entertainment, TIK Films and Thunder Road Pictures, 2017.

Jurassic Park. Directed by Steven Spielberg, performances by Sam Neill, Laura Dern and Jeff

Goldblum, Universal Pictures and Amblin Entertainment, 1993.

Jurassic World. Directed by Colin Trevorrow, performances by Chris Pratt and Bryce Dallas

Howard, Universal Pictures, Amblin Entertainment and Legendary Entertainment, 2015.

Justice League. Directed by Zack Snyder, performances by Ben Affleck, Gal Gadot and Jason

Momoa, Atlas Entertainment, Cruel & Unusual Films and DC Comics, 2017.

Kill Bill: Vol 1. Directed by Quentin Tarantino, performances by Uma Thurman, David

Carradine and Daryl Hannah, Miramax, A Band Apart and Super Cool ManChu, 2003.

King Kong. Directed by Merian C. Cooper and Ernest B. Schoedsack, performances by Fay

Wray and Robert Armstrong, RKO Radio Pictures, 1933.

King Kong. Directed by Peter Jackson, performances by Naomi Watts, Jack Black and Adrien

Brody, Universal Pictures and WingNut Films, 2005.

Kong: Skull Island. Directed by Jordan Vogt-Roberts, performances by Brie Larson, Tom

Hiddleston and Samuel L. Jackson, Warner Bros., Legendary Entertainment and Tencent Pictures, 2017.

Kubo and the Two Strings. Directed by Travis Knight, performances by Charlize Theron, Art

Parkinson and Matthew McConaughey, Focus Features and Laika Entertainment, 2016.

Kung Fury. Directed by David Sandberg, performances by David Sandberg, Laser Unicorns,

2015.

La Femme Nikita. Directed by Luc Besson, performances by Anne Parillaud, Marc Duret and

Patrick Fontana, Gaumont, Les Films du Loup and Cecchi Gori Group Tiger

Cinematografica, 1990.

Lost Highway. Directed by David Lynch, performances by Bill Pullman, Patricia Arquette and

Balthazar Getty, CiBy 2000, Asymmetrical Productions and Lost Highway Productions

LLC, 1997.

M. Directed by Fritz Lang, performances by Peter Lorre, Ellen Widmann and Inge Landgut,

Nero-Film AG, 1931.

Mad Max: Fury Road. Directed by George Miller, performances by Charlize Theron, Tom

Hardy, Hugh Keays-Byrne, Warner Bros. Pictures, 2015.

Man of Steel. Directed by Zack Snyder, performances by Henry Cavill, Amy Adams and

Michael Shannon, Warner Bros., Legendary Entertainment and Syncopy, 2013.

Metropolis. Directed by Fritz Lang, performances by Alfred Abel, Gustav Fröhlich and Rudolf

Klein-Rogge, Universum Film, 1927.

Mighty Joe Young. Directed by Ernest B. Schoedsack, performances by Terry Moore, Ben

Johnson and Robert Armstrong, Argosy Pictures, 1949.

Minority Report. Directed by Steven Spielberg, performances by Tom Cruise, Colin Farrell and

Samantha Morton, Twentieth Century Fox, DreamWorks and Cruise/Wagner

Productions, 2002.

Mysterious Island. Directed by Cy Endfield, performances by Michael Craig and Joan

Greenwood, Ameran Films, 1964.

My Winnipeg. Directed by Guy Maddin, performances by Darcy Fehr, Ann Savage and Louis

Negin, Buffalo Gal Pictures, Documentary Channel and Everyday Pictures, 2007.

Ninja Scroll. Directed by Yoshiaki Kawajiri, performances by Kôichi Yamadera, Emi Shinohara,

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Gustav von Wangenheim, Prana-Film, 1922.

O Brother, Where Art Thou?. Directed by the Coen Brothers, performances by George Clooney,

John Turturro, Tim Blake Nelson and John Goodman, Touchstone Pictures, Universal Pictures and Studio Canal, 2000.

Once Upon a Time in China. Directed by Tsui Hark, performances by Jet Li, Rosamund Kwan and Biao Yuen, Golden Harvest, Paragon Films and Film Workshop, 1991.

One Million Years B.C.. Directed by Don Chaffey, performances by Raquel Welch, John Richardson and Percy Herbert, Associated British-Pathé and Hammer Films, 1966.

Pacific Rim. Directed by Guillermo del Toro, performances by Idris Elba, Charlie Hunnam and Rinko Kikuchi, Warner Bros., Legendary Pictures and Double Dare You, 2013.

Pan's Labyrinth. Directed by Guillermo del Toro, performances by Ivana Baquero, Ariadna Gil, Sergi Lopez, Wild Bunch and CafeFX, 2006.

Paranormal Activity. Directed by Oren Peli, performances by Katie Featherston and Micah Sloat, Solona Films and Blumhouse Productions, 2007.

ParaNorman. Directed by Chris Butler and Sam Fell, performances by Kodi Smit-McPhee and Anna Kendrick, Focus Features and Laika Entertainment, 2012.

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Power Rangers. Directed by Dean Israelite, performances by Dacre Montgomery, Naomi Scott, RJ Cyler, Ludi Lin and Becky G, Lionsgate, Saban Films and TIK Films, 2017.

Power/Rangers Unauthorized. Directed by Joseph Khan, performances by Katee Sackhoff and James Van Der Beek, Adi Shankar's Bootleg Universe, 2015.

Predator: Dark Ages. Directed by James Bushe, performances by Adrian Bouchet, Amed Hashimi and Sabine Crossen, Big Sis Productions, Dark Ages Productions and Fascination Pictures, 2015.

Ray Harryhausen: Special Effects Titan. Directed by Gilles Penso, performances by Ray Harryhausen, Peter Jackson and Terry Gilliam, Frenetic Arts and Ray and Diana Harryhausen Foundation, 2011.

Rogue One: A Star Wars Story. Directed by Gareth Edwards, performances by Felicity Jones, Diego Luna, Alan Tudyk, Donnie Yen and Wen Jiang, Lucasfilm, Allison Shearmur Pictures and Walt Disney Pictures, 2016.

Russian Ark. Directed by Aleksandr Sokurov, performances by Sergey Dreyden, Mariya Kuznetsova, and Leonid Mozgovoy, Egoli Tossell Film and The Hermitage Bridge Studio, 2001.

Saving Private Ryan. Directed by Steven Spielberg, performances by Tom Hanks, Matt Damon and Tom Sizemore, DreamWorks, Paramount Pictures and Amblin Entertainment, 1998.

Sharknado. Directed by Anthony C. Ferrante, performances by Ian Ziering and Tara Reid, The Asylum, Southward Films and Syfy, 2013.

Side by Side. Directed by Chris Kenneally, performances by James Cameron, David Fincher and David Lynch, Company Films, 2012.

Sinbad and the Eye of the Tiger. Directed by Sam Wanamaker, performances by Patrick Wayne,

Jane Seymour and Taryn Power, Columbia Pictures and Andor Films, 1977.

Sin City. Directed by Robert Rodriguez, performances by Jessica Alba, Benicio del Toro, Bruce Willis, Mickey Rourke, Rosario Dawson and Clive Owen, Dimension Films and Troublemaker Studios, 2005.

Spartacus. Directed by Stanley Kubrick, performances by Kirk Douglas and Laurence Olivier, Bryna Productions, 1960.

Spawn: The Recall. Directed by Michael Paris, performances by Johanna Genet, Tom Maurice and Gregory Paris, Michael Paris, 2014.

Spectre. Directed by Sam Mendes, performances by Daniel Craig, Christoph Waltz and Léa Seydoux, B24, Columbia Pictures and Danjaq, 2015.

Speed Racer. Directed by The Wachowskis, performances by Emile Hirsch, Matthew Fox, and Christina Ricci, Warner Bros., 2008.

Spiderman. Directed by Sam Raimi, performances by Tobey Maguire, Kirsten Dunst, James Franco and Willem Dafoe, Columbia Pictures Corporation, Marvel Enterprises and Laura Ziskin Productions, 2002.

Spider-Man 2. Directed by Sam Raimi, performances by Tobey Maguire, Kirsten Dunst, James Franco and Alfred Molina, Columbia Pictures Corporation, Marvel Enterprises and Laura Ziskin Productions, 2004.

Spider-Man 3. Directed by Sam Raimi, performances by Tobey Maguire, Kirsten Dunst, James Franco, Thomas Haden Church and Topher Grace, Columbia Pictures Corporation, Marvel Enterprises and Laura Ziskin Productions, 2007.

Star Trek: The Motion Picture. Directed by Robert Wise, performances by William Shatner and Leonard Nimoy, Paramount Pictures and Century Associates, 1979.

Star Wars: A New Hope. Directed by George Lucas, performances by Mark Hamill, Carrie Fisher and Harrison Ford, Lucasfilm and Twentieth Century Fox, 1977.

Star Wars: Episode I - The Phantom Menace. Directed by George Lucas, performances by Hayden Christensen, Natalie Portman and Ewan McGregor, Lucasfilm, 1999.

Star Wars: Episode II - Attack of the Clones. Directed by George Lucas, performances by Hayden Christensen, Natalie Portman and Ewan McGregor, Lucasfilm, 2002.

Star Wars: Return of the Jedi. Directed by Richard Marquand, performances by Mark Hamill, Carrie Fisher and Harrison Ford, Lucasfilm, 1983.

Star Wars: The Empire Strikes Back. Directed by Irvin Kreshner, performances by Mark Hamill, Carrie Fisher and Harrison Ford, Lucasfilm, 1980.

Star Wars: The Force Awakens. Directed by J.J. Abrams, performances by Daisy Ridley, John Boyega, Oscar Isaac and Adam Driver, Lucasfilm and Bad Robot, 2015.

Star Wars: The Last Jedi. Directed by Rian Johnson, performances by Daisy Ridley, John Boyega, Oscar Isaac and Adam Driver, Walt Disney Pictures, Lucasfilm, and Ram Bergman Productions, 2017.

Suicide Squad. Directed by David Ayer, performances by Will Smith, Jared Leto and Margot Robbie, Warner Bros., Atlas Entertainment, DC Comics and DC Entertainment, 2016.

Tangled. Directed by Nathan Greno and Byron Howard, performances by Mandy Moore, Zachary Levi, Donna Murphy, Walt Disney Pictures, 2010.

Terminator 2: Judgement Day. Directed by James Cameron, performances by Arnold Schwarzenegger, Linda Hamilton, Edward Furlong and Robert Patrick, Carolco Pictures, Pacific Western and Lightstorm Entertainment, 1993.

The 3 Worlds of Gulliver. Directed by Jack Sher, performances by Kerwin Mathews, Jo Morrow

and June Thorburn, Morningside Productions, 1960.

The 36th Chamber of Shaolin. Directed by Chia-Liang Liu, performances by Chia-Hui Liu, Lieh Lo, Chia Yung Liu, Shaw Brothers, 1978.

The 7th Voyage of Sinbad. Directed by Nathan Juran, performances by Kerwin Mathews, Kathryn Grant and Richard Eyer, Morningside Productions, 1958.

The Abyss. Directed by James Cameron, performances by Ed Harris, Mary Elizabeth Mastrantonio and Michael Biehn, Twentieth Century Fox, Pacific Western and Lightstorm Entertainment, 1989.

The Angry Birds Movie. Directed by Cley Kaytis and Fergal Reilly, performances by Jason Sudekis, Maya Rudolph, Bill Hader, Columbia Pictures and Rovio Animation, 2016.

The Amazing Spider-Man. Directed by Marc Webb, performances by Andrew Garfield and Emma Stone, Columbia Pictures, Marvel Entertainment and Laura Ziskin, 2012

The Avengers. Directed by Joss Whedon, performances by Robert Downey Jr., Chris Evans, Scarlett Johansson, Mark Ruffalo, Chris Hemsworth, Jeremy Renner and Tom Hiddleston, Marvel Studios and Paramount Pictures, 2012.

The Beast from 20,000 Fathoms. Directed by Eugène Lourié, performances by Paul Hubschmid, Paula Raymond and Cecil Kellaway, John Dietz Productions, 1953.

The Bourne Identity. Directed by Doug Liman, performances by Matt Damon, Franka Potente and Chris Cooper, Universal Pictures, The Kennedy/Marshall Company and Hypnotic, 2002.

The Bourne Supremacy. Directed by Paul Greengrass, performances by Matt Damon, Franka Potente and Brian Cox, Universal Pictures, The Kennedy/Marshall Company and MP BETA Productions, 2004.

The Bourne Ultimatum. Directed by Paul Greengrass, performances by Matt Damon, Edgar Ramírez and Joan Allen, Universal Pictures, The Kennedy/Marshall Company and MP BETA Productions, 2007.

The Crimson Ghost. Directed by Fred C. Brannon and William Witney, performances by Charles Quigley, Linda Stirling and Clayton Moore, Republic Pictures, 1946.

The Dark Knights Rises. Directed by Christopher Nolan, performances by, Christian Bale, Tom Hardy and Anne Hathaway, Warner Bros., Legendary Entertainment and DC Entertainment, 2012.

The Deer Hunter. Directed by Michael Cimino, performances by Robert De Niro, Christopher Walken, John Cazale, Universal Pictures and EMI Films, 1978.

The Fate of the Furious. Directed by F. Gary Gray, performances by Vin Diesel, Jason Statham, Dwayne Johnson, and Michelle Rodriguez, Universal Pictures, China Film Co., Original Film, and One Race Films, 2017.

The Fifth Element. Directed by Luc Besson, performances by Bruce Willis, Milla Jovovich, Gary Oldman, and Chris Tucker, Gaumont, 1997.

The Golden Voyage of Sinbad. Directed by Gordon Hessler, performances by John Phillip Law, Caroline Munro and Tom Baker, American Films and Morningside Productions, 1973.

The Hobbit: The Battle of the Five Armies Directed by Peter Jackson, performances by Ian McKellen, Martin Freeman and Richard Armitage, New Line Cinema, Metro-Goldwyn-Mayer and WingNut Films, 2014.

The Hunger Games. Directed by Gary Ross, performances by Jennifer Lawrence, Josh Hutcherson and Liam Hemsworth, Lions Gate and Color Force, 2012.

The Hunger Games: Catching Fire. Directed by Francis Lawrence, performances by Jennifer

Lawrence, Josh Hutcherson and Liam Hemsworth, Lions Gate and Color Force, 2013.

The Hunger Games: Mockingjay - Part 1. Directed by Francis Lawrence, performances by Jennifer Lawrence, Josh Hutcherson and Liam Hemsworth, Lions Gate and Color Force, 2014.

The Hurt Locker. Directed by Kathryn Bigelow, performances by Jeremy Renner, Anthony Mackie and Brian Geraghty, Voltage Pictures, Grosvenor Park Media and Film Capital Europe Funds, 2008.

The Jazz Singer. Directed by Alan Crosland, performances by Al Jolson, May McAvoy, Warner Oland and Yossele Rosenblatt, Warner Bros. and The Vitaphone Corporation, 1927.

The Journals of Knud Rasmussen. Directed by Zacharias Kunuk and Norman Cohn, performances by Pakak Innuksuk, Leah Angutimarik and Neeve Irngaut, Igloolik Isuma Productions Inc., Kunuk Cohn Productions and Barok Film A/S, 2006.

The Killer. Directed by John Woo, performances by Chow Yun-Fat, Danny Lee and Sally Yeh, Film Workshop, Golden Princess Film Production Limited and Long Shong Pictures, 1989.

The Little Prince. Directed by Mark Osborne, performances by Jeff Bridges, Mackenzie Foy and Rachel McAdams, Onyx Films, Orange Studio and Centre National de la Cinématographie, 2015.

The Long Kiss Goodnight. Directed by Renny Harlin, performances by Geena Davis and Samuel L. Jackson, Forge, New Line Cinema and Steve Tisch Company, 1996.

The Lost World. Directed by Harry O. Hoyt, performances by Wallace Beery, Bessie Love and Lloyd Hughes, First National Pictures, 1925.

The Lost World: Jurassic Park. Directed by Steven Spielberg, performances by Jeff Goldblum

and Julianne Moore, Universal Pictures, Amblin Entertainment and Digital Image Associates, 1997.

The Matrix. Directed by Lana Wachowski and Lilly Wachowski, performances by Keanu Reeves, Laurence Fishburne and Carrie-Anne Moss, Warner Bros., Village Roadshow Pictures and Groucho Film Partnership, 1999.

The Phantom of the Opera. Directed by Rupert Julian, performances by Lon Chaney, Mary Philbin and Norman Kerry, Universal Pictures, 1925.

The Revenant. Directed by Alejandro G. Iñárritu, performances by Leonardo DiCaprio and Tom Hardy, Regency Enterprises and RatPac Entertainment, 2015.

The Singing Fool. Directed by Lloyd Bacon, performances by Al Jolson, Betty Bronson and Josephine Dunn, Warner Bros., 1928.

The Terminator. Directed by James Cameron, performances by Arnold Schwarzenegger, Linda Hamilton and Michael Biehn, Hemdale, Pacific Western and Euro Film Funding, 1984.

The Thing. Directed by John Carpenter, performances by Kurt Russell, Wilford Brimley, Keith David, Universal Pictures and Turman-Foster Company, 1982.

The Thing. Directed by Matthijs van Heijningen Jr., performances by Mary Elizabeth Winstead, Joel Edgerton and Ulrich Thomsen, Morgan Creek Entertainment Group, Universal Pictures and Strike Entertainment, 2011.

The Twilight Saga: Breaking Dawn Part 1. Directed by Bill Condon, performances by Kristen Stewart, Robert Pattinson and Taylor Lautner, Summit Entertainment, Sunswept Entertainment and TSBD Canada Productions, 2011.

The Valley of Gwangi. Directed by Jim O'Connell, performances by James Franciscus, Gila Golan and Richard Carlson, Warner Bros.- Seven Arts, Morningside Productions, 1969.

- The Wizard of Oz*. Directed by Victor Fleming, performances by Judy Garland, Frank Morgan and Ray Bolger, Metro-Goldwyn-Mayer, 1939.
- Thor*. Directed by Kenneth Branagh, performances by Chris Hemsworth, Anthony Hopkins and Natalie Portman, Paramount Pictures and Marvel Entertainment, 2011.
- Titanic*. Directed by James Cameron, performances by Leonardo DiCaprio, Kate Winslet and Billy Zane, Twentieth Century Fox, Paramount Pictures and Lightstorm Entertainment, 1997.
- Toy Story*. Directed by John Lasseter, performances by Tom Hanks and Tim Allen, Pixar Animation Studios and Walt Disney Pictures, 1995.
- Transformers*. Directed by Michael Bay, performances by Shia LaBeouf, Megan Fox, and Josh Duhamel, Paramount Pictures, Dreamworks, and Hasbro, 2007.
- Transformers: Age of Extinction*. Directed by Michael Bay, performances by Mark Wahlberg and Nicola Peltz, Paramount Pictures, Di Bonaventura Pictures and Hasbro, 2014.
- Transformers: The Last Knight*. Directed by Michael Bay, performances by Mark Wahlberg, Anthony Hopkins and Josh Duhamel, Paramount Pictures, Di Bonaventura Pictures and Hasbro, 2017.
- Tron*. Directed by Steven Lisberger, performances by Jeff Bridges, Bruce Boxleitner and David Warner, Walt Disney Productions and Lisberger/Kushner, 1982.
- True Lies*. Directed by James Cameron, performances by Arnold Schwarzenegger, Jamie Lee Curtis and Tom Arnold, Twentieth Century Fox and Lightstorm Entertainment, 1994.
- Twentieth Century Fox: The Blockbuster Years*. Directed by, Kevin Burns and Shelley Lyons, performances by Irwin Allen, Robert Altman and Don Ameche, Fox Television Studios, Foxstar Productions and Prometheus Entertainment, 2000.

Under the Skin. Directed by Jonathan Glazer, performances by Scarlett Johansson, Film4, British Film Institute and Silver Reel, 2013.

Valerian and the City of 1000 Planets. Directed by Luc Besson, performances by Dane DeHaan and Cara Delevingne, EuropaCorp, TF1 Films Production and OCS, 2017.

Week End. Directed by Jean-Luc Godard, performances by Mireille Darc, Jean Yanne and Jean-Pierre Kalfon, Comacico, Les Films Copernic and Lira Films, 1967.

Westworld. Directed by Michael Crichton, performances by Yul Brynner, Richard Benjamin and James Brolin, Metro-Goldwyn-Mayer, 1973.

Wonder Woman. Directed by Patty Jenkins, performances by Gal Gadot, Chris Pine, and Robin Wright, Warner Brothers, DC Entertainment, and Dune Entertainment, 2017.

X-Men. Directed by Bryan Singer, performances by Patrick Stewart, Hugh Jackman and Ian McKellen, Twentieth Century Fox, Marvel Enterprises and Donners' Company, 2000.

X-Men: Dark Phoenix. Directed by Simon Kinberg, performances by Sophie Turner, Jennifer Lawrence, Olivia Munn and Jessica Chastain, 20th Century Fox Film Corporation, Bad Hat Harry Productions and Donners' Company, 2019.

Television Shows

The 100. Jason Rothenberg, creator. Bonanza Productions, Alloy Entertainment and Warner Bros. Television, 2011-2016.

Battlestar Galactica. Glen A. Larson and Ronald D. Moore, creators. British Sky Broadcasting, David Eick Productions and NBC Universal Television, 2004-2009.

Dawson's Creek. Kevin Williamson, creator. Outerbanks Entertainment, Columbia TriStar Television and Columbia TriStar Domestic Television, 1998-2003.

Primevil. Tim Haines and Adrian Hodges, creators. ITV Productions, Impossible Pictures and M6 Films, 2007-2011.

Rome. Bruno Heller, William J. MacDonald and John Milius, creators. HD Vision Studios, British Broadcasting Corporation and Home Box Office, 2005-2007.

Spartacus: Blood and Sand. Steven S. DeKnight, creator. Tapert/Donen/Raimi, Starz!, 2010-2013.

Speed Racer. Tatsuo Yoshida, creator. Tatsunoko Production and Yomiko Advertising, 1967-1968.

Star Trek. Gene Roddenberry, creator. Desilu Productions, Norway Corporation and Paramount Television, 1966-1969.

Star Trek: The Next Generation. Gene Roddenberry, creator. Paramount Television. 1987-1994.

Terra Nova. Kelly Marcel and Craig Silverstein, creators. Amblin Television, Chernin Entertainment and Kapital Entertainment, 2011.

Trumpton. Gordon Murray, creator. British Broadcasting Corporation and Gordon Murray Puppets Production, 1967.

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