FROM THE INSIDE LOOKING OUT: 3D FILMS AND VIRTUAL CINEMATIC WORLDS

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Chapter 1: Introduction

Of the various developments in film over the past century, the development of 3D effects is one of the most fascinating. First popular in the 1950s, the format has ebbed and flowed throughout cinema over the past 60 years, finding a recent bout of success that has resulted in several films being released in 3D, record-breaking box office intakes for such films, and plans to keep producing more in the immediate future. While 3D has been examined in terms of a cinematic trend, little attention has been given to the inherent appeal of 3D itself. 3D by its nature is a technology that heightens the realistic properties of cinema, in that previously flat, scrolling images are replaced with images that purportedly show objects protruding from the screen as well as receding into it. This creation of an all-encompassing space heightens one's mental immersion within the cinematic narrative, as the technology taps into a potential desire to experience such realistic narratives as opposed to simply seeing a world that is always out of reach, thanks to the boundary of the screen. With 3D, this boundary is erased, increasing the experiential quality of film and turning cinema into a space more reminiscent of virtual reality.

This thesis examines 3D cinema in the context of immersive narratives, and argues that the experience of 3D cinema is similar to experiences with virtual reality. With the advancements of digital imagery in cinema and the resurgence of 3D, films are reaching a level of virtual immersion previously unseen. This advancement in film technology increases a film’s ability to draw audiences into a constructed world for pleasure, a characteristic films have always possessed, but one that is redefined and re-imagined with growing effects technology. 3D is thus a refinement of cinema's inherent immersive properties, a development that speaks to the desire to be able to experience fiction in a way that makes it seem more realistic. This is only enhanced by digital 3D technology, which combines the constructive power of computer-generated imagery with the screen-breaking, depth-making, boundary-crossing power of 3D. Such use of
the technology also benefits film by making it reminiscent of simulated videogame environments, media which are known for the pleasure they produce in creating a virtual space that users “inhabit” via avatar and control over narrative progression. 3D films, then, are appealing in their ability to turn a film into a virtual immersive experience, as opposed to a text that one simply perceives. This development speaks volumes not only of film's potential to be an experiential narrative, but in how we can analyze the pleasures that are to be derived from cinema.

Films and Reality

The unique ability of film to present the imagined as realistic is one that has been analyzed long into film's history, and under several contexts. Early theories in this regard focus on film's ability to present reality, often condemning effects-driven cinema as overly superficial for such a realistic medium. Recent theoretical attention on special effects and digital cinema examines more closely their effect on perceptions of reality, with concern being expressed over the potential to experience fiction as “fact.” Theorists examine what it means for a film to be realistic, particularly in the context of a medium associated with objectivity producing subjective realities. Their ideas provide a starting point for how the appeal and implications of 3D cinema can be analyzed, given its talents in adding spatial reality to the varying degrees of reality found in cinema.

Cinema and Transmission of Reality

One significant focus of early theorists is on film's ability to produce realistic images, a quality that film possesses in a unique way in relation to art forms such as paintings or graphic arts. Filmmaker and theorist Maya Deren distinguishes between these two forms by stating that graphic arts portray a “likeness” of the artist's “mental concept” of whatever it showcases; whereas photography, and subsequently film, show an object that “creates its own image” upon
the photograph (“The Creative Use of Reality,” 189). Films, then, possess a unique capacity for capturing and transmitting reality. Deren argues that cinema is at its best when filmed images are produced with as little control of the elements as possible, suggesting that cinema should be filled with “controlled accidents” that let reality speak for itself (192). She does, however, suggest that these filmed realities are at their best when the filmmaker uses these realities to construct a text that makes better the actual reality it has filmed (192). Deren concludes that films “must create a total experience so much out of the very nature of the instrument as to be inseparable from its means” (197). A two-step, almost paradoxical process, then, is suggested for films to reach their full potential: filming reality with as little intervention as possible, then rendering reality as artistically significant in the context of the film medium.

Deren's views on the artistic potential of cinema are shared with André Bazin, who also wrote of cinema's realistic properties. Bazin describes both photography and film as evidence of society's “obsession with realism” (“What is Cinema,” 168). Describing the graphic image as eternally subject to the artist's subjectivity, Bazin in turn describes photography as an objective art form, describing its audience as “forced to accept as real the existence” of the subject of the image (168-9). Bazin uses terms like representation and resemblance to describe the subject of the filmed image, but still distinguishes such representations from traditional graphic arts by describing such images as a “transfer” of reality (169). By having the tool capture the image, the camera almost serves as artist. The camera alone is not capable of artistry, though, which is a point that Deren and Bazin both make. While Bazin notes that photography is at an advantage when the artist is absent from the process of image capture and manipulation (169), he also notes that photography captures reality so objectively and fantastically that it renders reality to a higher state than it would be simply by existing. In short, it takes an artistic rendering of reality to make it seem truly fantastic (170). It is because of this capacity that photography “produces an image
that is a reality of nature … an hallucination that is also a fact” (170). Cinema, then, is not merely a means to show audiences that which they have already seen; it is a means to showcase reality in a way that audiences have never seen it before.

Bazin's description of film as “hallucination that is also fact” is significant not only in regards to perceptions on cinema's ability to transmit reality, but perhaps more accurately speaks to the ability of cinema to make the unreal seem realistic. While Bazin and Deren emphasize a film's strength as lying in the transmission of reality, they both concede that there are illusory properties behind what appears on the screen. This is because, as objective as they may wish the film medium to be, it is still subjective in that is subject to the filmmaker's desires. Problems may arise, then, from the very thing that makes film so great: its ability to produce realistic images and worlds that seem quite real, but are in fact not. Jean-Louis Baudry makes similar assessments in regards to filmic realities, but places more emphasis on such realities being false. Going one step further than Deren and Bazin, Baudry suggests that cinema provides a “more than real” reality, one that nearly engulfs the viewer within a reality that is not his or her own, but is powerful enough to make him or her think that it is (“The Apparatus,” 216). Such power is heightened by the very nature of cinema, with dark theaters, fluid motion, and scenes moving from one to the next without flaw playing out as one would expect their own reality to unfold. As such, the audience's intense “attachment to the images,” as well as the “identification created by cinema,” is more easily understood (219). Baudry likens the experience of realities presented by cinema to our own dream experiences, similar in that both put the subject into a state of false reality, but different in that a film is external to the subject's mind, thus reducing the “possibility of [the audience/subject] exercising any kind of immediate control” (221). Cinema, then, is not only a master at producing realistic fiction, but can become a part of one's own reality, in lieu of accurately filming it.
Several of these ideas examine film's ability both to transmit reality and transmit a specific reality for audiences. While early theorists allude to the constructedness of cinema, there seems to have been little focus on exactly why filmmakers would want to employ these effects to make the fantastic seem real, as opposed to the other way around. A desire to see a moving fiction, a story that was previously relegated to the mind, is what drives the appeal of cinema. After all, if audiences wanted to simply see reality, they could do so without the aid of cinema. Film's strengths then lie not only in making reality seem fantastic, but in making the fantastic seem real. Baudry's focus on film's creation of false realities taps into this notion, albeit with a sense of caution, and without consideration of the audience's willingness to be fooled, given an engagement with what is established as fiction to begin with. Such assessments are further refined with the introduction of digital cinematic effects.

**Digital Cinema and Creation of “Reality”**

Special effects are significant in that they are used to create scenes, actions, creatures, and the like that do not always exist in reality, yet can appear in a format associated with a greater sense of reality. Digital cinema takes these effects even further, as entire worlds can be constructed thanks to computers, yet still transmitted as if these images were traditionally photographed. With such digital advancements, the filmed image is almost reverting back to the painted image that Bazin and Deren specifically distinguish from film. What is implied, though, when such constructive artistry — the wholesale creation of fictional *worlds* — is presented through a medium associated with more objective transference? Lev Manovich takes a similar approach to Baudry's in that he considers the audience in relation to the ways their realities are affected by realistic but entirely created images. Looking specifically at computer-generated images (CGI), Manovich sees such imagery as greatly changing what it means both to be a filmed image and to watch a filmed image, stating:
“In the case of 3-D computer graphics, the situation is quite different. Now reality itself has to be constructed from scratch before it can be photographed by a virtual camera. Therefore, the photorealistic simulation of 'real scenes' is practically impossible, as techniques available to commercial animators only cover the particular phenomenon of visual reality.” (The Language of New Media, 192)

CGI, then, allows for an even greater dream state on the part of cinematic realities in that imagination is literally realized by digital artistry. Further, CGI is notable in that it simulates simulation, making fiction seem all the more realistic. Manovich notes that in the case of digital cinema, reality is not being simulated, but rather, photographed reality is what is being imitated (200). Manovich explains that “what computer graphics have (almost) achieved is not realism, but rather photorealism — the ability to fake not our perceptual and bodily experience of reality but only its photographic image” (200). It is interesting that Manovich notes this distinction, as it suggests cinema as never being in a state of reality to begin with. If CGI film is imitating a constructed reality, then it is essentially constructing construction, making more recognizable the cues of a world specific to cinema and, as such, a specific reality that audiences recognize as separate from his or her own. Indeed, Manovich notes this ability of the audience to see cinematic reality as distinct from cinema, stating that the subject “lets herself be fooled” (209). Perhaps “being fooled” is not necessarily an accurate characterization, though: rather than being fooled, perhaps it is better to suggest that the subject is accepting the reality of cinema on its own terms, escaping into that particular dream for the duration of the film.

An acceptance of filmic reality and all films as constructive by nature, as opposed to one form of film being “truer” to reality than another, is the best approach to examine cinema; and greater effects should be seen as a refinement of cinema's ability to transmit fiction realistically as opposed to being a problematic representation of reality. Stephen Prince promotes this
mentality, looking at digital cinema in the context of what it means for cinematic realities specifically. Noting the rapid spread of digital effects into “all phases of contemporary film production,” Prince discusses the challenge digital cinema brings to traditional views of cinema, citing the “paradox” of “creating credible photographic images of things which cannot be photographed” (“Perceptual Realism,” 270-1). He concedes that digital imagery cannot be considered real in the same sense as images which are strictly filmed, given their ability to transcend reality, thanks to computer technology (274). Rather than treat digital imagery as subsequently bad, though, the model by which films are viewed theoretically should be changed so as to promote discussion of varying degrees of “cinematic realism,” allowing theorists to discuss filmed images, digital images, and “the ways that cinema can create images that seem alternately real and unreal” (276). Cinema, then, should be considered not by the means by which it can best transmit reality, but by the varying degrees of reality that different forms of cinema generate.

Such suggestions not only have implications for the consideration of reality versus cinematic reality, but for how audiences perceive the end result of the film. John Belton describes digital cinema as one that changes the filmmaking process, but not the means by which audiences perceive films. He notes that, unlike past advancements which allowed audiences to see films differently (such as color and widescreen), digital cinema largely unfolds the same way as films past, just with a greater means of realizing filmmaker fantasies (902-5). Belton specifically states that digital projection attempts to imitate projection characteristics found with 35mm film (906), and similarly, that digital imagery in cinema merely serves as another special effect that unfolds similarly to material techniques used in 35mm films past (906). The only major changes he foresees are comparably minor, such as the elimination of scratches and dust from a given film print (908). Belton suggests that CGI thus needs a novel factor when being
sold as a process for audiences (913). Such a need may be where 3D can come into play. CGI, after all, is a process that does its best to imitate the in-camera process in regards to editing and shot composition, likely in an attempt to match the reality of cinema that has long been accepted by film audiences. However, the marriage of 3D with CGI can bring about a factor that revolutionizes digital cinema for the film audience in addition to the filmmaker.

Also significant among Prince and Belton's suggestions is the idea that digital cinema is not only another way of producing realistic images, but that even traditionally-filmed images contain varying levels of fiction as well as fact. Considering film in terms of varying degrees of realness, as opposed to one form showcasing reality and the other not doing so at all, is the more appropriate means of examination, especially given the existence of digital cinema. Further, Manovich's concept of photorealism can be expanded in that digital cinema as a whole can be seen as a product of Prince's cinematic realism, or making sure to imitate an unfolding of a narrative similar to the way that “reality” proceeds as it is filmed. All coincide with the notion of 3D bringing about a new way of examining film in terms of its enhancement of cinematic realism. It works to enhance the spatial properties of cinema, and brings something new in the sense that scenes no longer are dictated by the shape and boundary of the screen. However, it is still a part of cinematic reality as opposed to actual reality, with the pleasure of 3D coming from its seeming real as opposed to actually being so.

The Immersive Narrative

3D films are unique in their ability to show constructed cinematic realities in that unlike previous effects, which result in the film remaining flat against the screen, 3D makes the film appear to come forward and actually become part of the audience's world. This in turn greatly increases the sense of a filmic world’s status as part of the actual world, but of the audience being enfolded and immersed within the cinematic narrative. Such a state not only increases the
sense of reality experienced when watching a film, but heightens the sense of virtual reality that such cinematic environments entail. Similarities between digital 3D cinema and virtual reality environments, then, provide an excellent means of examining the phenomenon of 3D film.

**Narrative Immersion and Possible Worlds**

Many describe the process of engaging with a given text as a journey. Such a metaphor suggests that a text is a world within which one can exist, even if only for the moment of engagement. Marie-Laure Ryan uses this metaphor of world extensively when discussing narrative immersion. The text’s mere existence is not enough, though: to create a world-like experience, a given narrative must be “apprehended as a window on something that exists outside language and extends in time and space well beyond the window frame” (*Narrative as Virtual Reality*, 91). This is not literal, of course; the audience's imagination is still a key factor. However, a text must possess the ability to trigger the reader's imagination so as to create this mental connection (91). Transportation, then, comes from a reciprocal relationship between reader and text, where the reader is willing to sojourn, mentally, and the text is presented in a way that provides a virtual destination.

The destination is one that can be considered not simply a world, but a possible world. Ryan describes possible world (PW) theory as the idea that “reality … is a universe composed of a plurality of distinct elements, or worlds, and that it is hierarchically structured by the opposition of one well-designed element, which functions as the center of the system” (99). This center is termed the actual world, or the space that we literally inhabit (99). Possible worlds are ones to which we connect via our imagination, via texts that prompt us, via virtual realities, or via some sort of system that gives us the illusion of accessibility from the starting center point of our actual existence (99-100). When one completely immerses him- or herself into a possible world presented by fiction, the reader “reorganizes the entire universe of being around this
virtual reality,” a process that Ryan terms “recentering” (103). Just as film theorists call for filmmakers to use their minds to render filmed reality fantastic, so too must audiences organize their consciences to immerse themselves within constructed fantasy worlds, resulting in a reciprocal process of creating an experience.

The 3D film, then, enacts such possibility by making more literal this sense of two worlds inhabiting one another, with the screen no longer serving as a barrier between audience and text. Such immersion may even render indistinct the separation of cinematic reality from our own even after the film is over. In describing engagement with film and other visual media, Alison Landsberg argues that films influence cultural memory by implanting their worlds into the memories of our own, creating a “prosthetic memory” that merges possible-world memories seamlessly with actual ones (2). Consistent with PW theory, Landsberg notes that these prosthetic memories come from a combination of a “connection to the past” and an awareness of the present, a dual experience between actual presence and possible histories that create an immersive experience for a given individual (9). Film demonstrates a special capacity for creating this dual experience, “mak[ing] visible what … remained beyond an individual's reach” (12). By presenting audiences with an attainable possible-world, film provide “a site in which people experience a bodily, mimetic encounter with a past that was not actually theirs” (14). In so doing, various films and their constructed realities provide paths to possible worlds that people can immerse themselves in if they so choose.

Landsberg, like Baudry and to an extent, Manovich, is concerned with the possibility of fiction displacing fact in the minds of audiences. However, what is ignored is the willingness on the part of the audience to acknowledge such narratives as illusion, and therefore, to be able to view these fictitious worlds as just that — a fiction wherein audiences willingly immerse themselves for the duration of the narrative. While it is true that simulation technologies,
including digital imagery and 3D effects, can heighten the realistic qualities of such narratives, audiences are usually aware enough of these experiences’ constructedness that they can continue to view such worlds as merely possible ones. The bridge between narrative and audience is one greatly aided by the imagination. Indeed, it is a connection that is, in and of itself, imaginary.

**Separation Between Audience and Text**

Even when a reader feels as if he or she is completely lost in a fictional world, the reader is never fully gone from this reality. It is a transport that is imaginary, and thus, whatever connection the reader imagines he or she has with that world is just that: imagined. Media such as 3D film, though, seemingly deliver these possible worlds to the viewer, making it is easy to see why this otherwise apparent separation seems to be erased. 3D film is not the first form to suggest this change to critics. Walter Benjamin saw this separation vanishing from texts as they became more and more mass-produced. Benjamin argues that mass production removes an “aura” that once existed around original works of art, which, given their unique existence in time and space, seemed all the more special given their inability to be in multiple places at once (“Work of Art in the Age of Mechanical Reproduction,” 1). By having easy access to a given text that is reproduced on a mass scale, audiences no longer have to travel far and wide to see a given work of art — the art instead comes to them (1). Such a situation proposes a seemingly unlimited opportunity for an audience to connect with an object, a story, or any other sort of mass-mediated art.

However, with this illusory diminishing of aura still comes very actual separation between audience and text, namely in how an audience can influence the appearance and message of a filmed text. Benjamin notes, for example, the ability of the camera to “bring” an actor to a large audience. However, by doing so via camera, the actor is not only forever contained within this one reproduced image, but the image that the mass audience sees is
controlled by the camera as opposed to the actor (1). Benjamin summarizes this conundrum by stating that “what matters primarily [in a film] is that the actor represents himself to the public before the camera, rather than representing someone else” (1). Access to a given text, then, may seem more readily available because the text is distributed on a mass scale. However, there may be in the aura's place a separation caused by both the presence of the camera and the inclusion of what the filmmaker alone wants the camera to emit.

While Benjamin was speaking in terms of cultural ideology, his ideas bode well in assessing the illusory aspects of connecting with a possible world presented by film. At the simplest level, audiences will always be separated from a filmed world because it is just that — a filmed world that does not exist beyond the screen. 3D films may seem to escape from the screen, but these images are still contained by a projector, and exist on a reel of film or within a series of digital files. These images do not persist after the movie is over. Furthermore, the need to solicit the audience’s imagination in order to enter these possible worlds is slightly diminished, or at least somewhat less a controlling factor in possible-world perception than the imagination of the filmmaker, who has created the world as he or she sees it, and subsequently mass-produced this image for multiple audiences to absorb and consume. Audiences are invited to immerse themselves in these texts, but to do so on grounds that keep them at a distance.

Distance, though, is not always a hindrance towards engagement, and may even be a necessity. In further describing interaction with a text, Ryan argues for an occasional disruption from total immersion. In countering critics who deplore the disappearing “transparency” of a medium, Ryan states that critique is only valid when the separation between audience and textual world has vanished so completely that there is no “return to the surface” in regards to coming back to reality (176). Rather than view texts simply as immersive or not, Ryan proposes that one should examine a given work simultaneously as both a fictional text and a possible world, with
audiences simultaneously immersing and distancing themselves as they engage with a text (199). Such awareness leads not only to ensuring that a given reader never becomes too deeply engaged within a given text, but — importantly — also increases appreciation for those elements that allow for immersion in the first place (199). Awareness, then, should not be strictly reserved for the possible world that a given text is presenting. Rather, a reader would ideally connect with both the possible world and the means by which this world is presented, leading to an all-encompassing experience that immerses one in both the possible world and the means by which it is rendered possible.

As with the compromise being approached between realist and digital films, the concept of immersion versus lack of immersion is best viewed not as a dichotomy, but as a continuum of degrees of textual experience. 3D technology brings to the forefront these varying degrees of immersion. When watching a film that pops from the screen, an audience member may be immersed in a possible world that comes to her, while at the same time, may be removed from total immersion by seeing this world through digital effects, entirely constructed fantasy worlds/actors, special glasses, and the marked inability to engage his or her other senses — touch, taste, smell — in all that is happening before him or her. The experience is also one that creates a new means by which one can engage with a given text: that of engaging with a text that seems to offer — sometimes quite literally — a bridge between worlds. 3D film, then, is a unique and fascinating form of cinema in that the experience of it is more reminiscent of experiencing virtual reality, as opposed to the more traditional experience of simply watching a given narrative progress. This characteristic is inherent in the marketing of 3D films, the construction of 3D films, and the similarities between the look of such films and modern videogames.

The first section of the thesis focuses on the means by which 3D technology is marketed
within film advertising. Drawing on Christian Metz's concept of photographic fetish, it is argued that 3D satisfies audience's desires to “touch” moving imagery and experience films as if they were a part of them. The marketing of 3D technology emphasizes a fluid boundary between screen and audience, focusing on the superiority of the 3D image over its 2D counterpart in terms of experience and, subsequently, the evolution of cinema into an active experience as opposed to a passive spectacle only. Such promotion, though, is one that must be followed by the film itself. Looking more closely at 3D as an aesthetic, the next section draws on concepts of cinematic realism and realistic fantasies to analyze 3D in the context of virtual reality. It is proposed that increased digital imagery, paired with the utilization of 3D to heighten cinema's spatial properties (as opposed to simply resembling a cinematic pop-up book), creates an experience that is more immersive and enriching than 2D experiences past. While 3D technology still draws on tenets that identify filmic realities, 3D adds something new by turning the scene into a space as opposed to simply an image. James Cameron's 2009 film *Avatar* is analyzed as an example of 3D properly utilizing the spatial characteristics it is capable of. Building on this concept of cinema as being reminiscent of virtual space, the final section examines this characteristic in the context of audience perception. Jean Baudrillard's concerns with simulation are added to the previously-established mix of thought concerned with the realistic properties of simulation. Drawing from these concerns, it is emphasized that pleasure from such narratives comes not from being mislead, but in knowing that such narratives are fiction; and the sense of awe thus comes from these narratives' *seeming* real, as opposed to their *being* real. Videogames are examined in this context, and images from videogames and 3D films are compared in order to point out the shared sense of pleasure that comes from engaging with both media. The conclusion reiterates the implications of 3D in regards to its experiential appeal, reflecting on what its popularity reveals in regards to the pleasure derived from engagement with movies.
Chapter 2: Marketing 3D

Advertising is the life force of any major corporate product, especially film. Advertisements for movies ride by on the subway, grace magazines in the form of ads, and punctuate television shows. While ads for films are prevalent, less so are ads for the cinematic techniques behind them. Effects are often a selling point for a given film, but the advertisement is still largely focused on the film itself. The film then sells the effects, as opposed to the effects selling the film.

With 3D, this relationship is somewhat reversed. Being such a process, the technique is one that is not only promoted heavily when it is attached to a given film, but one that even warrants its own advertising. Ads across movie theaters boast about 3D technology, and films are framed as being lucky to have the process. Such advertisements promote 3D's capacity for realistic depiction of a world, emphasizing its potential to turn a film into a realistic experience for its audience. It is sold not just as a technology, but as an experience, one that incorporates itself into one's reality more than a mere 2D film can ever hope to do.

From its first major boom in the 1950s to the present resurgence, 3D has sold itself as an experience that incorporates the world of the film into the world of the audience. Several advertisements place emphasis on the ability of 3D to turn a movie into something that is not simply watched, but is also touched in the sense of sharing space. Other advertisements in turn focus on 3D's superiority over 2D, stemming from this ability of 3D films to cross the border of the screen between the film's world and ours. All work together to emphasize 3D's virtual properties, but ultimately, it is the films themselves that must sell this process.

Selling an Experience: 3D's Satisfaction of Cinematic Desires

As evidenced previously, much of the thought surrounding film comes from its ability to (seemingly) bring still images and imagined possibilities to life. Often likened to photography,
film is a unique medium in that it can create the illusion of movement through the rapid
sequencing of individual moments, as opposed to capturing and depicting a single, isolated
moment, thereby giving the greater illusion of a continuous reality. Christian Metz elaborates on
the idea of film as presenting continuous time, stating that photography “point[s] to … what was,
but no longer is,” while film produces “a stream of temporality where nothing can be kept,
nothing stopped” (“Photography and Fetish,” 83). Because of its continuous motion and the
ability to bring new objects and characters into the space during the duration of its run (86-7),
film has the ability to satisfy desires of capturing moments in a way that photographs can only
tease about doing (87). As such, Metz argues that film is not capable of producing a “fetish” in
the way that photography, with its seeming lock on time, can; but that because of its ability to
“endlessly [mime] the primal displacement of the look between the seen absence and the
presence nearby,” can “activate” the desires associated with photographic fetish (87). Because a
film cannot be “touched,” it does create a sense of teasing in that it provides a sense of
simulation as opposed to a moment of capture; but Metz argues that because so much happens at
once, a film can create the desire but not necessarily be the subject of desire. What the viewer
wants is the simulation of reality, not the capture of reality that films surpass (88). In short, then,
film by its nature can create desire in its simulation of possible worlds, but the very nature of
film prevents film itself from being desired, as the realistic but illusive movement is all too much
for the viewer to bear.

3D's bringing-forward of the action, though, increases the fetishistic properties of film.
Metz argues that film creates fetishistic desire but is not in and of itself a fetish, especially since
it cannot be touched or held in the way that a photograph can. The sense of a boundary between
film and person, then — Benjamin's aura of separation, perhaps — is what is both intriguing and
off-putting about film. 3D in appearance erases this boundary. Films feature moments that
happen without boundaries to what has been captured. 3D brings these moments forward and
gives the illusion of being able to hold them in one's hand and experience them within one's own
space as opposed to simply watching a world flit back and forth upon a screen. Yes, the element
of teasing still exists, as one cannot actually touch the objects coming forward. But film itself is
not fetish because of a sense of chaos and separation. 3D, albeit in an illusory manner, takes
away this separation between both worlds. Furthermore, photography's fetishistic properties are
still rooted in an illusory satisfaction of desires. Metz argues that people can hold a photograph
and thus seemingly hold a moment suspended in time. However, they are only holding the
moment's likeness — they know that what they hold is a created artifact, a piece of art, an
illusion of reality. Arguably, the pleasure comes from the illusion of mixing existences, the
simultaneous combination of a past moment with the present. 3D similarly brings dual realities
together, heightening film's desirability amongst audiences who fetishize the photograph but cast
aside film in favor of something they can hold. 3D provides something to hold, something to
experience, and something to ingratiate the audience into a simulated existence.

3D's fetishistic properties are ones that are known by film studios as they promote the
process. During the first 3D boom, the movie theater's biggest competition came from television,
a medium that significantly brought filmed images to a single person, thus mimicking the
photograph in televised images' ability to be “held,” so to speak. Movies, then, sought to increase
the visceral properties of the film-going experience, and made sure to show audiences that they
were not only meeting their desires to experience (as opposed to simply watch) a film, but that
such an experience was superior to the mere unspooling of 2D movies.
“A Lion in Your Lap, a Lover in Your Arms:” 3D Films, Audiences, and Vice Verse

Integration

3D has a long history, with known 3D films going as far back as the 1920s.¹ It was not until the 1950s, though, that 3D saw its biggest potential to be a part of the film market. Movie theaters everywhere were noticing declining profits, due largely to the introduction of television in homes across the United States (Morgan and Symmes, 53). Hollywood needed to find a means of drawing larger crowds, a means that would set the theater experience apart from that of television. Attempts were usually made in terms of vision, as theater owners attempted to turn the theater into an experience as opposed to a showcase. The first attempt came in the form of Cinerama, which involved a giant screen that stretched around the theater, creating a peripheral experience for the audience (53). It was in 3D, though, that studios saw the most potential in the war against television.

Director Arch Oboler is credited with getting 3D off the ground. When he saw examples of footage that incorporated a technique entitled “Natural Vision 3-D,” he decided to use the technique in an upcoming film. He began filming Bwana Devil with the new system, and in 1952, the film became the first major release of the 1950s 3D boom (54). The film was a box office smash, and studios were intrigued. With continued success from films such as House of Wax (1953), the studios were completely sold (64). They began to demand a constant stream of 3D films, and the demand was met, with several films being released in 3D during the two-year boom. These films ranged from Westerns to cartoons to musicals, all proudly boasting of the “amazing” technology behind them.

Indeed, the advertising for such films was both fervent and a call to the captivating power behind the 3D process. From its earliest popular inception, 3D was sold as a process that created

¹ See Morgan and Symmes, 165
a more visceral experience for the average film-goer. The process was framed as one that broke through the 2D barrier that films before, and television at the time, contained between the world of the film and the world of the audience. With a pair of glasses and a properly-equipped theater, the two worlds could seamlessly meet and be incorporated with one another for the duration of the film. 3D was not just an effect, it was a door — a door swinging widely open to welcome an eager audience.

Such barrier-crossing was emphasized both textually and pictorially. An early poster for *Bwana Devil* incorporates several techniques that emphasize the realness of the 3D process (Figure 1). Selling the technique first and foremost, the type at the top of the poster boldly claims, “The world's FIRST FEATURE LENGTH [sic] motion picture in Natural Vision 3 Dimension.” The poster proceeds to emphasize 3D's realness with two taglines that tie to the process: “A lion in your lap!” and “A lover in your arms!” Such language grabs the audience on a personal, individual scale, emphasizing that 3D is not only a realistic process, but one that reaches out to you specifically and incorporates itself into your reality. This is only emphasized by the accompanying pictures, which show, respectively, a lion leaping forth and a woman's outstretched arms. Each image shows the respective characters coming forward from the screen and stretching out over a shadowed audience, bringing home the emphasis on films literally coming to the audience and their world. Even the title itself does this, as “BWANA DEVIL” cuts diagonally through the shadowed audience. Such placement of pictures and text demonstrate not just the film popping forward, but also popping into another world: our own.

The acknowledgment of the film's audience within the advertising is not insignificant in regards to this particular selling point. Rather than simply advertise the film itself and ask the audience to view it, the ads incorporate the audience into the film, stressing the broken barrier between audience and film. Further, by incorporating the body, the taglines show that this film is
not simply an experience for the eyes. The lion is in your lap, the lover is in your arms, and the film is touching you, just as you desire to touch the film as it goes by. What is perhaps most interesting is that such advertising creates an almost reciprocal sense of crossing over. While the imagery of the filmic images leaping from the screen suggests an incorporation of the film's world into that of the audience, the inclusion of the audience in an advertisement for the film suggests the incorporation of the audience into the world of the film. In the filmmakers' eyes, the audience is already a part of the world, with seamless transitions between the two as images from
the film flow freely between screen and movie theater. It makes sense, then, that 3D is referred to as “natural vision” — to the advertisers, the film and the audience are naturally one in the same. All it asks is for audiences to agree, meeting audiences halfway with a technique that literally brings the film to them.

Several posters maintain this theme of both crossing over and being touched in regards to 3D. A poster for House of Wax features showgirls dancing over an audience with an announcement that the film will “bring you every thrill of its amazing story in Natural Vision 3 Dimension,” suggesting 3D as an offering to potential film-goers. Further, the audience is integrated into the advertising not just by image, but by becoming a part of the film's action. In a newspaper advertisement for Howard Hughes' Second Chance (Figure 2), for instance, stars Linda Darnell and Robert Mitchum are shown in each other's arms. However, in one ad, Robert Mitchum's image has been erased, replaced with a white void containing, “THIS IS YOU!” Neighboring the image is the tagline, “So Real every man will feel he's kissing Linda Darnell” (an equivalent ad blocks out Darnell with the same caption, and the tagline reads, “So Real every girl will feel she's in the arms of Robert Mitchum”). Such an ad almost goes a step further than previous posters, in that the audience is not only shown in tandem with the film, but actually shown in the film itself as one of the characters, being embraced by the other. The action and the subjects of the image do not seem so teasingly far away when the audience in question is actually wrapped in the arms of the actor/film. Similar language can be found in an advertisement for Inferno (Figure 3). In addition to featuring images on the screen spilling over onto the audience, the image is bordered by proclamations that emphasize the audience's integration into the film via 3D. Statements include the following: “YOU are trapped in the great Devil's Canyon of the Mojave Desert,” “YOU hang from a cliff and lower yourself into the valley below,” and “YOU are part of an overpowering, flaming love story!” It is “you,” and not just the film, that takes part
Figure 2, Chapter 2:

Newspaper ad for *Second Chance*. Multiple desires are touched upon to appeal to the audience. (Morgan and Symmes, 80)

Figure 3, Chapter 2:

Advertisement for *Inferno*. Interestingly, the most 3D effect in this fetish-tapping poster is that of passion between the two leads. (Morgan and Symmes, 80)
in these actions. Such statements, particularly the latter, further drive home the technology's argument that it is not merely an effect, but an all-encompassing one that brings film and audience together into one narrative and, potentially, one possible world.

3D, then, is heavily promoted as a process that removes the barrier between the actions on the screen and the world of the audience, merging the two together in almost an erotic fashion (it is likely not a coincidence that so much of the advertising surrounding 3D involves sexual connections between the audience and the actors onscreen). With the visceral properties of 3D being proclaimed, advertising also took the second step of promoting the 3D cinematic experience as one greatly superior to its 2D counterpart. This sort of advertising also appeared in the 1950s, but went especially to the forefront in the recent resurgence.

“A Superior Experience:” 3D as a Better Filmic World

3D itself does not necessarily change a given film. It does not affect the storyline, change the appearance of the actors beyond the dimensional level, or exist on its own in terms of visibility. 3D is an enhancement effect, one that takes what exists on film and makes it different by bringing objects forward and creating the illusion of depth. Studios, then, not only sold 3D on its own as a visceral effect, but began contrasting the effect with 2D films. This was especially prevalent in advertising during the more recent resurgence. While the process was generally new to audiences in the 1950s, audiences of the current boom are likely more familiar with 3D as a whole. It was not found often in films, but the concept was known, even if it was mostly in the context of 3D theme parks and an occasional television episode or special release film. As such, 3D is marketed more heavily as an improvement on the existing 2D film format, as opposed to just showcasing what 3D itself can do in terms of boundary crossing.

Indeed, a popular selling point of 3D today involves re-rendering a film that was already released, but made special again courtesy of 3D technology. Disney recently found success in re-
releasing the first two *Toy Story* films in 3D. The advertising for the re-release takes great care to emphasize that the films should be seen again not just because they are good movies, but because they are now in 3D and are thus better than they were before. One trailer for the re-release demonstrates this mentality. It begins with the main character, Woody, looking for his friend Buzz Lightyear. Buzz speaks off-camera about how something is incredible, then appears from the outside of the screen entirely (Figure 4), including the black space surrounding the frame where Woody stands. The image establishes the connection between the film and the audience, along with the permeable membrane that is the screen, especially when Buzz leaps from the audience into the screen. Buzz carries with him a pair of 3D glasses, stating that they let you see into “the third dimension.” Woody peers through the glasses and reacts with the same amount of awe that Buzz did before (Figure 5). The characters, then, revel in the technology, and interestingly peer out at the audience, somewhat reversing the fetishistic gaze inherent in looking at 3D film.

What is more interesting, though, is the characters' feeling all the better for appearing in 3D. Woody's friend Jessie enters the screen and realizes her new appearance, exclaiming, “I'm in 3D! WHOA!” while moving her hands towards the audience (Figure 6). Cheapness of the trick aside, Jessie shows her astonishment at being in 3D, an experience that seems to heighten her own existence within her mind and, it is hoped, the audience's minds as well. This is further emphasized when Rex joins the three of them and says, “I'm ready to go!” Woody looks at Rex with uncertainty and says, “Uh, Rex … you're not in 3D.” Rex insists that he is in 3D, then turns to the side, revealing that he is in fact “2D” — he is flat on both sides (Figure 7). “Oh,” he cries, “how embarrassing!” Such a statement suggests that to be in 2D is inferior to the state that his friends are in, and that in turn, 2D is a lesser experience than 3D. What is especially interesting about this clip is that the characters were drawn in 3D to begin with. The *Toy Story* films are
From the trailer for *Toy Story 1* and *2* in 3D. Buzz leaps from the audience, showing the lack of boundaries between audience and film. Screenshots taken by author.

Figure 5, Chapter 2:

From the trailer for *Toy Story 1* and *2* in 3D. Woody and Buzz examine everything in 3D with superior vision. Screenshots taken by author.


Figure 6, Chapter 2:

From the trailer for *Toy Story 1* and *2* in 3D. Jessie revels in her new format. Screenshots taken by author.

Figure 7, Chapter 2:

From the trailer for *Toy Story 1* and *2* in 3D. Rex appears erroneously in his “old” format. Screenshots taken by author.

computer generated, and while not 3D in the sense of objects coming forward and caving in, they were 3D animated images, ones with greater depth than their 2D counterparts and also featuring greater depth than Rex features in the ad. By rendering Rex to be “2D,” Rex is lesser in appearance and incorrectly viewed. The ad suggests, then, that the only way to correctly view the character and the film he is in is in 3D; and that by not “upgrading” himself along with the rest of the characters, he does not look as he always did, but rather, looks worse. This could almost be read as an allegorical suggestion for viewing both versions of the film. Yes, the audience has seen Toy Story and its sequel, but now they are being re-released in 3D, and are thus being made better than they were before. Perhaps one thought it was adequate before, but now it can be even more pleasurable than the previous experience, that which was not much of an experience at all— that was merely a scene, a running play. It was not a merging of two separate worlds.

Much 3D marketing today follows this pattern of promoting not just the technology itself, but extolling its potential to enhance the film-going experience. This is evidenced not only by the re-releasing of 2D films with 3D technology, but by the way it is advertised without a given film as an anchor. 3D films advertise having the technology on their posters and in their trailers, but alongside movie posters exist posters which advertise the 3D technology itself. For instance, one poster at a movie theater in North Carolina (Figure 8) features simply the words: “Dolby 3D Digital Cinema: Believe Your Eyes.” The poster hung outside with movie posters featuring what was currently playing at the theater. Such placement suggests that it is not only films that are playing and value. Such a viewpoint is also demonstrated by similar ads which feature a somewhat inverse relationship of 3D advertising for certain films, as opposed to films advertising 3D. Movie posters which boast that a title is in 3D are certainly owing a debt to the technology, as they are using 3D as a selling point. However, such advertising still suggests that the 3D process is anchored to a given film and that it is working in tandem with the film. With
Figure 8, Chapter 2:

Poster advertising 3D technology, alongside posters for films. Taken by author, Southpoint Cinema, Durham, NC.

Figure 9, Chapter 2:

Standee advertising 3D technology and films. Rebecca Bostian, Southpoint Cinema, Durham, NC.
stand-alone advertising for 3D, it is suggested that 3D works alone, and only films that are lucky enough to should be noted, but this particular effect as well — one that stands alone in regards to quality and have it will feature it, almost creating a new sort of aura around a mass-mediated product. Such a relationship can be found in a standee from the same North Carolina theater (Figure 9). The standee features a pair of 3D glasses, and in each lens is a poster for an upcoming 3D film (Alice in Wonderland and A Christmas Carol, in this case). These films are then visually under the control of the 3D process, with their existence seemingly relegated to the technology as opposed to just simple enhancement. The standee's statement, “A Superior Experience,” further lends credence to this notion, as it suggests that these films are not only in 3D, but all the better for it, as opposed to their 2D alternatives.

This suggestion of greatness is one that 3D not only suggests for given films, but also for given audiences. The marketing behind the process is determined to sell 3D not just as an effect, but an experience, one that entails much more than just simply watching a film. The phrase “A Superior Experience” suggests this at the base level: not only that to watch a film in 3D is better, but that to do so is to take part in something that approaches an all-encompassing experience, one that is much more involved than was found in movie-watching before. Varying names for the 3D process also suggest its realistic nature, as common terms for current 3D technology include “Real Vision 3D” (perhaps calling back to “Natural Vision 3-D”) and, even more simply, “Real-D.” What is perhaps most interesting, though, is the use of the phrase “Believe Your Eyes.” Such wording performs two tasks. One is the found task of turning 3D visuals into ones that are not simply seen, but experienced, in that it creates something new for your vision to take in. But most importantly, it suggests that to see in 3D is to believe, and in turn, is to believe as real.

Such a suggestion further adds to the marketing of 3D as something which can be felt as opposed to simply seen, even with the noted absence of the audience from the actual posters. It is
interesting that the shadowed audience, so prominent a figure in 1950s advertising, is largely absent from the graphics of 3D advertising today. However, present advertisers may be more confident not only in the ability of current 3D technology to create a virtual presence, but perhaps also in the ability of today's audiences to buy into it. The absence of the audience from the imagery can even be seen as more aggressively promoting 3D as a portion of our reality, as there is no longer a theoretical audience experiencing 3D — we alone are that audience. However, that 3D posters can simply ask one to believe his or her eyes, as opposed to showing the effects happening to theoretical people, perhaps suggests a greater confidence in audiences everywhere to supplant themselves into such fictitious spaces.

Advertising, though, can only suggest so much. Ultimately 3D can only be seen when one partakes in the film — and even then, the film must continue to sell the process. This was something that films of the 1950s had to learn, and lessons that are continuously learned in the present resurgence.

**The Fall of 3D and the Maintenance of the Current Boom**

When 3D first saw its major boom, it was a financial success, with audiences everywhere wanting to see the latest advancement in film. The excitement, though, dwindled over the course of two years, with studios no longer wishing to invest in or promote a technology that was fading out. Several factors contributed to the technology's fall. Theaters that were capable of showing 3D films were smaller in number than their 2D counterparts, and many theater owners were unwilling to take on the necessary costs to make their venues compatible for additional 3D films (Morgan and Symmes, 78). Also problematic was the double projector and double film strip process of early 3D films, as errors in setting up these systems resulted in eye strain or headaches that audiences attributed to the films themselves as opposed to the registration errors in the viewing equipment (95). Furthermore, studios and theaters alike were setting 3D aside in favor
of Cinema Scope technology, a more refined version of widescreen than previously found in Cinerama. The technology featured one projector, regular film, and merely the addition of a wider screen to accommodate the picture, all while maintaining the spectacle previously found in Cinerama (78). Technological advancements brought 3D to the forefront, but technology also proved to be its limitation.

Technology was not the only hindrance to the early 3D boom. While the effects added to a given film, ultimately the effect was in debt to the film — and several 3D films were not up to code in terms of quality. While there were some notable entries, including *House of Wax*, *It Came From Outer Space*, and *Dial M For Murder*, several of the offerings during 3D's boom were B-movie fare that were sold largely on the basis of their being in 3D as opposed to having anything else of merit (105). One in particular was *Man in the Dark*. Already in production before 3D became popular, Columbia Studios stopped production in order to retool the script to cater to the 3D process (57). Unfortunately, that was really all the script was tailored for, as the film was only known for its effects (which included surgical tools “slicing” into the audience and a car flying from the screen) (57). Many of the effects, however, were not handled properly; and that, combined with a terrible script, gave the authors reason to label it as “indisputably among the worst 3-D films of all time” (57). 3D is a draw, but it can only go so far. If the film itself is not worth watching even at the base level of quality, then it makes sense that audiences will not be swayed by the chance to “experience” the film via 3D. A film does not tease by its very nature alone; it must also have engaging imagery and stories that tease the audience into wanting more by way of visceral experiences.

With many striking similarities to the 1950s boom, the current resurgence has both the potential to bring back 3D full force and the danger of having the technology crash and burn as it did in 1954. Films today must also take care in treating 3D as an aesthetic as opposed to merely
an extra effect or a gimmick. This is especially important as the addition of digital imagery and a
greater cultural concept of virtual reality may give 3D films the place it is looking for within
cinematic experiences.
Chapter 3: 3D Aesthetics

3D is a process that, despite being sold as amazing on its own strengths, is still dependent on the text to which it is attached. 3D films risk being sold entirely on the 3D process as opposed to taking time to ensure that they are still reminiscent of the pleasure derived from cinematic narratives to begin with. Further, when the final product's focus is strictly on 3D's ability to bring things forward as opposed to following through on the promises of an immersive space, then audiences will reject the technology as one that merely teases or distracts as opposed to creating a greater sense of immersion in regards to a film. While technological errors and studio mishandling were all factors in 3D's initial failure in regards to staying power, a major problem came from the films themselves not living up to the promises of 3D. Such promises lie in the technology's ability to captivate an audience and make them feel even more like they are in a space created by the film. While 3D film is still constrained by the need to follow a precedent established by previous cinematic forms, it enhances cinematic reality by making it more reminiscent of a virtual reality. 3D as an aesthetic, then, is one that does not abandon previous tenets of the cinematic narrative or changes film altogether, but rather enhances the cinematic narrative by increasing its virtual reality properties through digital imagery, depth of space, and a merging of filmic and audience worlds.

The Poetics of Space: Considering 3D Aesthetically

Any consideration of 3D cinema beyond the technological and historical level is relatively new. It must still be analyzed as a technology, but it should also be considered in terms of what this technological breakthrough does for the consideration of a given film's aesthetics, namely in terms of cinematic presence and the creation of scenery. David Bordwell proposes a poetic examination of cinema in regards to these terms. Citing one common question as consisting of “the principles according to which films are constructed and by means of which
they achieve particular effects,” Bordwell states that “[h]istorical poetics is thus characterized by the phenomena it studies — films' constructional principles and effects — and the questions it asks about those phenomena — their constitution, functions, consequences, and historical manifestations” (“Historical Poetics of Cinema,” 371). Such analysis considers phenomena in the context of how it both matches and exceeds the precedents set by earlier forms of cinema. Indeed, Bordwell argues that the “institutional dynamics of filmmaking set up constraints and preferred options that fulfill overall systemic norms” (371). New technologies bring cinema forward, but in a “two steps forward, one step back” manner, as they are still restricted by the previously-established tenets of filmmaking (sequential editing, narrative progression, and the like). Such analysis does well in examining cinema in terms of the new technology itself as well as what it brings to the table aesthetically.

In order to examine critically 3D in the context of aesthetics, then, one can look at the effect in terms of such a poetics. 3D is a process that revolutionizes cinema, but also draws on past cinematic tenets, such as creating a frame within which objects are viewed, bordered, and presented. What 3D revolutionizes in terms of these tenets, though, is that what was previously contained within a static boundary now has the greater illusion of fluid motion, with objects moving forward and backwards through the frame, with the frame showing depth of space, and with 3D objects, as opposed to simply a rectangular screen, providing the frame around a scene. These changes create a greater sense of a space that not only unfolds upon the audience, but draws the audience into the cinematic world. Given its similarities in appearance and immersive properties, then, 3D aesthetics can be considered in the context of virtual realities (VR).

“Entering” the Cinematic Space: 3D Cinema as (Reminiscent of) Virtual Reality

When considering virtual realities, they are often examined in the context of the technology's ability to create the illusion of a realistic world. What is forgotten, though, is that
multiple aspects are in play to make the virtual a reality for the time being. Technology is important, but equally important is the story involved, the genre behind the story, and the kind of effects that permeate the scenery. This is especially important in regards to the consideration of cinema as similar to virtual reality (VR), a consideration heightened by the use of 3D imagery.

Virtual reality, like cinema, provides a means of escape into an alternate or fantasy world. As such, the genre of the space is important to consider when constructing fantasy worlds meant to evoke a sense of reality. Though it seems paradoxical, a story/world that is largely fantasy is one that is suited best for VR. Generally, one knows that they are entering a simulation and that the space they are engaging with is not real. If the simulated world, then, is one whose rules of reality are all rooted in fantasy, then one has accepted that in the case of this particular world, what occurs is true of that particular world, and thus, one can more easily transition into that particular reality for the duration of its run. The user in question has already accepted that this world is not real, and thus, can pretend it is real without noticing errors in relation to his or her day-to-day existence. Almost paradoxically, then, the ideal virtual reality is one that does not resemble reality in the slightest.\(^2\) Rather, it must resemble a conceivable reality which a given user or viewer can access via technology and imagination.

It is no surprise, then, that films which best utilize special effects are ones that are rooted in fantastic genres. In order to enjoy the movie at all, one must suspend disbelief and enjoy the fantasy world taking place. Such a suspension bodes well for special effects, since an acceptance of the fantasy world as fiction leaves less room for noticing errors in relation to reality. This also opens the door to greater mental immersion, aided in part by the ability of the effects to bring these fantasy worlds to life. Such an ability is where 3D comes in to heighten cinema's similarities to virtual reality. Effects-laden cinema does well in creating the worlds upon the

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\(^2\) Basic resemblances, such as motion and having a space to walk through, are of course required. But the appearance of the space and its inhabitants are best left to fantasy in this context.
screen, and 3D brings these worlds to the viewer, crossing the boundary of the screen and creating a space that audiences, as well as the film's characters, can “inhabit.” This potentially heightens the realness of the world on the screen, and further, brings that reality into that of the audience, creating almost a dual existence of worlds that previously happened strictly within the mind.

The importance of digital imagery, however, is one that pertains most relevantly to 3D cinema and to the concept of cinematic virtual realities as a whole. While CGI is best utilized when it is creating an entirely new reality, it is also important that it bear the most basic resemblance to both existing reality and to filmic reality. Cinematic spaces, even at the most basically-filmed level, speak their own language that is similar yet distinct from our own day-to-day happenings. When audiences watch movies, they expect the story to unfold in a manner associated with cinematic narratives — through sequential editing, cuts, varying shots, and appropriate camera movement (zooming, panning, and the like). When such “laws” are broken, such as footage being edited together out of sequence or quick sporadic cuts, it is jarring because cinematic reality as audiences have come to accept it is being disrupted. Thus, as Bordwell emphasizes, when a director wishes to disrupt conventional filmmaking to convey a story a certain way, he or she is always careful to make sure that a basic resemblance to cinematic reality is intact. Likewise, when utilized properly, 3D is still careful to both transform cinematic realism and fall in line with it. When 3D effects are referred to as “cheap,” it usually implies singular objects coming forward in a jarring manner, and not flowing with the rest of the narrative. It is important, then, that 3D still stays within a certain frame, that 3D scenes occur with depth throughout the entire image, and that the 3D effects subsequently enhance the entire image of the filmic world and not just portions of it. Such a practice creates an entire cinematic reality with more immersive depth, and results in a greater resemblance to a virtual space.
Despite its basic resemblance to filmed reality, though, it is still significant in its ability to create fantastic worlds that previously constrained cinema to what could be constructed without the aid of digitization. This creation of fantasy worlds is important for 3D cinema, in that the marriage of 3D effects with illusory digital creations leads to an experience more closely reminiscent of an immersive virtual reality. In creating a realistic fantasy, films create a new space to explore; and with 3D, fantastic possible worlds are made all the more possible for fictitious mental transport into another space. As such, this illusion works best not only when the digital imagery is adequate, but when it dominates the visuals onscreen, if not makes up the space entirely. When a digital image has not adequately simulated reality, its failure is more obvious when paired alongside live action shots and people that obviously recall the reality that one is used to. However, when little or nothing onscreen resembles the real world, then the errors of digital effects are more easily ignored. While genre provides the fantasy story, digital imagery provides the fantasy world, creating virtual live action imagery that calls for greater absorption within a total fantasy.

Just as with fantasy genres, then, 3D works with digital imagery to bring these fantasies from the screen and “into” the live action space, breaking the boundary of the screen and the mind. Digital imagery is also the best sort of imagery to engage in this sort of crossing, in that the acceptance of an effect such as 3D is more greatly appreciated when it is rendering possible that which was impossibly 3D to begin with. People, animals, and other elements of reality as we know it already appear within our daily space, and therefore do not need 3D to seem amazing. The ability of 3D to bring digital images forward, though, and to thus render more realistic that which is already seen as fantasy, is one that speaks greatly to the appeal of 3D cinema as reminiscent of a virtual reality experience.

3D movies of late have largely been meeting these criteria, as science fiction, fantasy,
horror, and children's animated films are typically those which are released in 3D; and films focus less on random objects being in 3D and more on the entire space having depth. One film in particular — James Cameron's *Avatar* — takes all of these factors and creates a case for viewing 3D cinema as a serious genre.

**Cinematic Space from Conception to Practice: James Cameron's *Avatar***

When an effect takes hold in Hollywood, many often point to one particular film that started the boom. In the case of the 1950s 3D boom, for instance, *Bwana Devil* is known as the first major 3D release, but *House of Wax* is attributed with really starting the 3D trend. Presently, James Cameron's 2009 film *Avatar* is the 21st century equivalent to *House of Wax*, in that many are labeling its success — both in its mastery of 3D effects and its subsequent financial gain — as proof that 3D cinema is here to stay.

Set in 2154, *Avatar* tells the story of Jake Sully (Sam Worthington), a paralyzed marine who is brought in to replace his twin brother in a project focused on the planet Pandora. The planet holds a mineral which is worth millions on Earth, and several companies and soldiers seek to mine the planet for this valuable resource. The one major roadblock against their mining, though, is the Na'vi, the indigenous people of Pandora. A project run by scientists, companies, and the marines allows participants to inhabit avatars made from the DNA of both humans and Na'vi so that humans can interact with the Na'vi on Pandora with greater ease. Jake is chosen to inhabit his brother's avatar, and is given a side task by the marines to earn the Na'vi's trust and make expulsion of the Na'vi all the more easier so that they can mine for the mineral beneath their home. As Jake becomes a part of the Na'vi, though, he begins to feel conflicted between the world he works for and the world he is becoming a part of.

While there is nothing particularly inventive about the story itself, *Avatar* has broken ground largely due to its effects. Cameron had conceptualized *Avatar* for over a decade before its
release,\(^3\) and its placement in conceptual limbo was due largely in part to the need for adequate special effects. The largest concern was digital imagery. Cameron knew that in order to bring the Na'vi to life, they “would have to be computer-generated;” costumes, make-up, and other non-digital effects simply would not do (Davis, 2009). The problem, though, was that digital effects were not there yet. It was not until the release of Lord of the Rings and the impressive imagery used to create the character of Gollum that Cameron felt the technology was adequate to not only create the Na'vi and the planet Pandora, but to make them “indistinguishable from reality” (Davis, 2009). Cameron did not merely want a special effect, he wanted a believable world that audiences could immerse themselves in as fully as possible.

Such an achievement was one that could potentially be aided by 3D technology. As such, Cameron desired to shoot the film in 3D in addition to incorporating digital effects.\(^4\) Aware of the problems associated with the traditional 3D process (most notably the problem of the two camera, two projector system that, if not used properly, resulted in head aches and eye strain), Cameron and colleague Vincent Pace created a single unit that could film images both digitally and in 3D (2009). Cameron had the equipment to shoot his film, and after convincing studios to comply with the technological necessities for bringing the film to life, Avatar was released to much success. It currently ranks as the highest grossing film of all-time, with the bulk of its profits coming from 3D showings.\(^5\)

In the case of Avatar, waiting for the proper technology has been a major pay-off for Cameron. Cameron was wise to not only develop his own 3D process that created greater ease of incorporation, but to also wait for digital effects to greatly increase their realistic qualities. By

\(^3\) Davis, 2009: “Part of this ambivalence stemmed from a meeting at Digital Domain, the visual effects company Cameron co-founded in 1993. He presented his concept for Avatar and explained that the main characters were 10-foot-tall blue aliens with narrow waists and powerful legs and torsos.”

\(^4\) Interestingly, Cameron seemed aware of the VR properties of 3D. Davis, 2009: “Cameron didn’t want to make the movie unless viewers could experience the planet viscerally, in 3-D.”

creating photo-realistic animation, the film creates characters that are just real enough to create a functioning fantasy, one that is only enhanced by the 3D format bringing depth to this cinematic world. It is good, though, that while a sense of reality is achieved via the digital effects, that the digital characters maintain a sense of fantasy in their appearance and origin. The Na'vi and Pandora do not exist in actual reality, and thus, are able to be shaped based on Cameron's desires and the abilities of the digital technology. Pandora does resemble Earth enough to create a connection between the two worlds, but it is also distinct in its plants, animals, and people to create an entirely new alternate world. The digital effects merely serve to breath aspects of reality into the fantasy. Trees blow in virtual wind, flowers bloom, and animals move and roar. However, their look and manners are distinct to Pandora, and not to Earth, and are therefore accepted on their own terms. The Na'vi are more closely tied to actual actors, as they were created via motion capture technology that allowed the actors to be “drawn over” with digital effects to create more lifelike characters. While lifelike in motion, though, they are still members of a reality all their own, making good on creating a fantasy world that is realistic, as opposed to turning reality into a special effect that, decidedly, appears too fake to take seriously.

Its strengths as a 3D film lie not only in its sense of photorealism, though, but in its sense of spatial reality as well. Such strengths are evidenced immediately in the beginning. The film opens with Jake narrating about his dreams of flying. The accompanying scene zooms overtop a misty forest, with the audience flying through the air as Jake does in his dreams. Such a practice immediately connects the audience to the protagonist's mind and world, a process only enhanced by the 3D sense of the depth of space. The effect does not make the trees come forward, but allows the scene to almost flow into itself and create an immersive space for the audience to fly through and past. The effect ends abruptly by cutting to black, then to a close-up of Jake's opening eye. The scene then cuts to Jake's face, reminding the audience that he is the main
character as opposed to them. However, the 3D still remains to create a space that enfolds the audience. The vision of Jake's face is quickly blurred by the image of blue floating lights upon his face, which the 3D brings to the forefront and thus focuses on in favor of Jake. Such focus reminds the audience that they are still experiencing a world as dictated by the filmmaker. The 3D, however, allows for greater experience and identification, and subsequent immersion within this factual hallucination. As the scene progresses, 3D is used to turn the frame into a space as opposed to simply a shot. Jake awakens inside a small space where he has been enclosed in a cryogenic sleep for over five years, and the space encloses the audience too. The walls surround the frame and stretch out on all sides, giving audiences a gap to peer into and out of, almost from inside the frame. When Jake is removed from the space, the surrounding pods and room flow into the screen similarly to the previous scene that zoomed through the sky. The simulation of in-camera (camera imagery that doesn’t rely on external editing equipment) work also adds to the effect, as the “camera” “floats” with Jake in zero gravity, creating a shaky-cam effect where little in-camera effects were actually utilized. The floating camera effect combined with the spatial framing created by 3D thus immerses the viewer not just in a space, but in an experience that the actors also experience. This shared illusion between actor and audience, audience member and audience member, and audience and filmmaker, is what makes the experience so grand.

The film's 3D spatial strengths are exhibited not only in the ability for scenes to move into the screen as well as come forward, but in 3D's creation of framing via objects as opposed to the screen alone. Throughout the film the scene is bordered by objects, such as plants, people, weapons, and the like. Such bordering maintains a scene within a frame that is reminiscent of typical cinematic views, yet introduces a new means of experiencing cinematic reality by

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6 It is of note that 3D, for the time being, seems incapable of producing shots in deep focus, as 3D objects in the foreground are automatically sharper than those in the background. To develop 3D deep focus shots would be an astounding achievement
bringing forward objects that not only border the frame, but break it. Scenes are interrupted by people coming into the foreground from the side, almost resembling an audience member standing in front of the viewer; and leaves and flowers blow into the frame and cover it, seemingly coming from the direction of the theater as opposed to just from the film itself. By having 3D objects surround the cinematic space, the illusion further suggests that they are surrounding the audience and bringing them into the frame, as opposed to merely reaching out from the screen.

Such enveloping is also achieved when audiences are seemingly given a barrier between them and the scene — a barrier that does not consist of the screen, but of the objects within it. Several scenes take place behind windows, computer screens, and other translucent objects where one can see the action behind it. For example, scenes within labs often swivel around a circular computer monitor, creating the effect of an audience sitting, stadium-style, around the object as opposed to being rooted in front of it. Later scenes of war also feature the marines within helicopters with circular windows, and shots that take place from the view of the pilots show the world of Pandora from behind these windows. The windows cave into the scene, creating a greater sense of illusion in the sense that audiences are inside of this space, this film, and are looking out into layers upon layers of cinematic space.

Layering, then, is the ultimate selling point of 3D in the case of Avatar. When 3D is only incorporated to have certain objects come forward from an otherwise generally flat space, it is fun for the time being, but can grow tiresome, especially if it is not a part of the cinematic whole. But if 3D is focused on the creation of space as opposed to the promotion of objects, then it can more greatly convey a sense of being a virtual reality for audiences to explore. By creating an effect that envelopes the audience with objects, 3D turns what was previously a flat, spooling existence into an entire space, one that caves in as well as moves out, one that borders the
audience as it does the film and greater immerses the viewer into a film's creation. By creating an all-inclusive, multi-crossing space, *Avatar* resembles a virtual reality that not only comes to audiences, but gives audiences the illusion that they are within it as well.

Films such as *Avatar* are not only important for considering 3D in terms of virtual reality, but important for the technology's survival as a viable genre. From its beginning, 3D has been sold as a process that brings audience and film together in a virtual sense. It is with a film like *Avatar* that this selling point is realized. Masterful digital effects, a feasible fantasy world, and an innovative treatment of 3D imagery all work together to create a 3D film that is memorable as a 3D film. What remains to be seen, though, is the willingness of the audience to continue to support films in the 3D format.
Chapter 4: The 3D Audience

3D is a technology that creates a sense of permeable space between a filmic world and the audience's world. The advertising surrounding the process emphasizes this fluidity, and when properly utilized in films, such as the use found in Avatar, the resulting effect is one that creates depth and outreach simultaneously. The pleasure to be found in 3D films varies from person to person, and can never be exactly pinpointed across all audiences. It can be surmised, though, based on the characteristics that make 3D so appealing. The out-of-mind creation of fantastic spaces is what has driven the creation of mass-mediated narratives and the evolution of effects that can bring these imaginations to life. They have found culmination through the development of digitally-simulated environments, particularly those found in videogames. Videogames are special in that users can “inhabit” the space by taking on the role of an in-game character and, via this avatar, move through a given narrative from beginning to end. Such fluidity of exchange between worlds is one that is very similar to the cinematic environment created by 3D, in both the sense of inhabiting a digital space and in terms of the pleasure derived as a result.

The pleasure to be derived from fictitious and immersive spaces is one that has been examined in terms of how it can be considered real and what this means for “actual” reality. Such pleasure resides in the ability of known fictions to appear real as opposed to actually being real. The concept of a possible world is one that links videogames to 3D films, especially when both narratives are computer generated and give the illusion of a boundary-crossing space. All of these considerations point to the pleasure that comes from the contradiction of being able to experience that which does not actually exist.

The Appeal of the Hyperreal: Why We Want to Cross the Border

In sorting through the various ideas surrounding immersion within fictitious worlds, the common themes of reality and fantasy all emerge. Indeed, such narratives can be seen as
troubling substitutions for a crumbling concept of reality. Jean Baudrillard examines simulation in the context of creating new spaces, seeing simulated environments as taking on a whole new level of existence ("Simulacra and Simulations," 1). Similar to Manovich's concept of photorealism, Baudrillard proposes that simulated environments are "hyperreal," in that they present a reality that is more real than reality itself (1). Such hyperrealities are created from models that, in their attempt to be a part of reality, end up creating a reality that is in fact not — and in turn, may suggest the arbitrary nature of our own concept of what is real in relation to what is created (1). Indeed, Baudrillard goes as far as to suggest that the simulated image is a "murder" of reality as we know it, with simulation "threaten[ing] the difference between 'true' and 'false', between 'real' and 'imaginary'" (1). The danger, though, lies not in simulation's hyperreal existence, but in the idea that its existence exposes the arbitrary nature of what we know as real. Baudrillard specifically questions concepts of order, fearing a delve into reality anarchy in a world where simulation “always suggests, over and above its object, that law and order themselves might really be nothing more than a simulation” (1). He does not see a total abandonment of the real on the part of society though, but rather, a desire to obtain a reality that may or may not be sliding through society's fingers. Says Baudrillard, "What society seeks through production, and overproduction, is the restoration of the real which escapes it" (1). In short, then, simulation provides a somewhat paradoxical bandage on a social quest for order in its concept of reality. By creating alternate realities that are reminiscent of actual reality, society may in fact be erasing reality.

A common thread amongst such theorizing is the idea that simulated worlds are not simply simulations, but narratives that change the concept of reality by becoming a form of it. Manovich describes digital imagery as being “too real,” while Baudrillard uses “hyperreal” to describe entire simulated environments. It almost, and perhaps intentionally, seems contradictory
to refer to absolute fiction as being entirely too real. Most of the texts described in this manner are ones which are constructed in order to make the impossible possible. If by their very nature these texts have been dubbed impossible, then to describe them as “more real than real” is a flawed suggestion. These are entities that are rooted in fiction, imaginations that are brought to life via media that can render them possible, but not necessarily actual.

Such suggestions are usually not directed towards the environments themselves, though, but in audience perceptions of said spaces. In analyzing audience engagement with such media, the responses have ranged from the fetishization of a moment of reality captured, to the adoption of homogenized filmic memories, to a loss of the sense of one's own reality in seeing the arbitrary nature found in simulation. All suggest that pleasure, delusion, or whatnot comes from audiences perceiving these fictions as real. There seems little room for acknowledging an audience's ability to differentiate fact from fiction, and to subsequently take pleasure from this differentiation.

Indeed, such a suggestion not only overestimates the ability of simulated spaces to trick audiences in a dangerous manner, but underestimates the appeal that comes from engaging with the fictive. It seems that many theorists believe that when audiences engage with fiction, they desire something that is actually real or serves as a replacement reality; or that if they do not want this, then 3D imagery, virtual realities, and the like are tricking audiences into believing a reality that is not theirs. In this discussion, there seems to be no room for the idea that it is not reality that is desired, but rather, imaginative escapes from one's reality for the duration of the fiction. The delight of a simulation in any form can come from its realistic properties, but this delight comes from the fact that audiences know it is fictitious to begin with, and now such a fiction is being realized as a possible form of reality. It is not that audiences (always) want them to be real, it is that they want them to be possible, or rather to seem real. There is a big difference
between being and seeming, and this makes all the difference in one's perception of a simulated space.\footnote{Indeed, the pleasure of experiencing imitation may derive from being able to “learn” a new set of rules via a developed fictitious “reality.” Long before the likes of Manovich and Baudrillard made their claims on the appeal of the digital, Aristotle claimed that pleasure from fiction came from the sense of learning derived from imitation. He states specifically: “Thus the reason why men enjoy seeing a likeness is, that in contemplating it they find themselves learning or inferring, and saying perhaps, ‘Ah, that is he.’ For if you happen not to have seen the original, the pleasure will be due not to the imitation as such, but to the execution, the colouring, or some such other cause.” (Poetics, 1).}

To experience the possible within the actual is a pleasure found in the pure fictitiousness of the event. It is through turning a text into an experience, then, that this pleasure can be enhanced. It is this potential for enhancement that leads to printed words becoming visual representations, and to visual representations becoming interactive narratives. Such appeals are what make narratives such as the videogame so fascinating, and it is from the uniqueness of the videogame that the appeal of 3D is properly realized.

**To Experience Rather Than Read: Videogames and Experiential Spaces**

Narratives come in many shapes and forms, be they through drawings, text, movies, and other seemingly endless possibilities. The differences between various means of telling a story lie, then, in how the story is perceived and received. Non-visual texts require greater engagement via the imagination in regards to perceiving the story, while cinema provides the audio and visuals, and only asks for one's eyes, ears, and belief. Videogames are an interesting hybrid of the two in regards to engagement, in that visuals are provided but one must “turn the pages” by taking on the role of a character and moving said character through the narrative in order to discover what happens next. What makes them unique from other visual media is that a given audience must interact with the narrative and thus become a part of its world in order for the narrative to unfold. When one watches a movie, the narrative unfolds whether or not the viewer is paying attention. If that same person turns on a videogame and does not play, then there is no
unfolding of the story; one stays stuck at the beginning until he or she picks up the controller and moves the protagonist forward. Thus, one must interact with a given possible world in order to experience it, in turn leading to a greater sense of immersion, since one must become a part of the world in order to see it unfold. When one has to actually interact with and, via controller, “enter” the space, immersion is more likely to take place, as the boundary between screen and audience is crossed via controller and videogame avatar. Further, it gives the user a greater sense of a given fiction existing as a realistic possibility if he or she is a “part” of it. To experience as opposed to simply watch; to touch, move, progress, and take action, even virtually, equates to a greater sense of immersion within a narrative than can be found from text or moving visuals alone.

Such immersion is one that is familiar to the gamer, an audience that has grown in the mainstream and, subsequently, one that is currently taking part in other visual media, including movies. As such, when certain forms of cinema are reminiscent of the videogame medium, then the pleasure derived from these sorts of films can be compared to the pleasure derived from the videogame experience. Digital 3D cinema, with computer-generated graphics and the illusory creation of space, is the most viable candidate for this sort of comparison.

To Experience Rather Than Watch: 3D Cinematic Spaces and the Videogame Connection

The similarities between cinema and videogames are numerous even without the digital 3D connection. Both are visual narratives that move from beginning to end, with a cast of characters encountered throughout. Both are generally enjoyed via similar media, be it through television, computers, or other screens. The creation of an immersive environment, though, is something that is unique to the videogame format. However, with the spatial similarities found in 3D films, the appeal of such a format is no longer restricted to the videogame format.

In examining the look of the digital 3D film, it is interesting to see the similarities it
shares to a spatial videogame environment. Games which feature 360-degree rotation when moving through levels provide similar framing to that found in 3D films, which frame via objects as opposed to the limitations of the screen. Figure 1, for instance, compares a scene from *Avatar* with an image from *The Legend of Zelda: Ocarina of Time*. In the former, Jake is surrounded by a virtual image of a tree, which in 3D, would be in the foreground creating a circular framing effect around Jake, the captain, and other objects in the screen. The camera panning also contributes to this effect, as it circles around the scenery as opposed to remaining stationary or simply moving from left to right. In *Ocarina of Time*, the character Link is similarly surrounded by 3D objects within a 3D space, which serve as the border of the game as opposed to a flat, side-scrolling format. When Link moves through the space, he also moves all around as opposed to just from side-to-side, as the game allows for characters to move in a 360-degree fashion. As detailed previously, viewers of *Avatar* also “move” with the camera in a similar fashion, as 3D allows for sights within the film to seemingly come from all angles. While the images do not come from behind the viewer the way that they come from behind one's videogame avatar, it is significant that both texts are visually connected by this appearance of a deep space as opposed to a flat surface, increasing the experiential properties of each and further connecting the pleasure of such videogames to the pleasure of 3D film.

Also fascinating about the image from *Ocarina of Time* is the use of descriptive items to frame the scene. Surrounding Link are blurbs of information about his weapons, his money, a map, and his life expectancy. Such objects remaining stationary on the screen as Link/the user moves through changing scenery allow for a greater creation of depth, as these objects appear at the forefront constantly while objects surrounding them move back and forth. *Avatar* has similar imagery in scenes where Jake films his video diary. Information about the time, date, and the like is stationary upon the screen, and appears in 3D over Jake, creating a barrier that produces a
From top to bottom: images from *The Legend of Zelda: Ocarina of Time* and *Avatar*
greater illusion of Jake as sitting across from the camera/viewer, as opposed to simply in front of it/him or her. Such visual cues not only remind viewers of the videogame format, but create a connection that links the experiences of both media.

The visual cue of the appearance of space is not the only shared quality between the two texts. A large part of 3D's appeal is the illusory integration of the audience into the space and action of a film. Such visual cues from the 3D technology, as well as the overall make-up of the film, is similar in nature to the point-of-view inherent in first-person videogames, or a visual format where users do not see their character in full upon the screen — rather, they see the space of the game as if they were actually in the space, seeing only their hands or their weapons (or what people see of themselves when they are not in front of a mirror). Continuing with Avatar as an example, several shots, while not from the first-person perspective, do share similar visual qualities. Figure 2 compares an image from the PC version of Halo with another image from Avatar. The still from Halo is from the first-person perspective, as the user sees the action from behind his or her gun as he or she looks and moves across the space. In the scene from Avatar, one is not necessarily in the cockpit from the first-person perspective, in that the character in focus is viewed in full. However, with that character being off to the side, and the entire scene occurring behind this window, one is given the sense that they are also in the cockpit. This sensation is strengthened when it is in 3D, as the window seemingly caves into the screen, moving out over another layer of cinematic space that is the planet Pandora outside of the helicopter. The camera also moves in motion with the helicopter, creating a greater sense of movement through the space on the part of the audience who feels as if they are in flight, looking out upon Pandora. The sensory experience is one that cannot help but be compared to 3D videogame environments, especially from the first-person perspective.

Videogames and cinema are understandably a reciprocal influence upon one another.
From top to bottom: images from *Halo* and *Avatar*


After all, videogames did not appear until well after movies were an established medium. The narrative progression of videogames can often be compared to that of film, both story-wise (beginning, development, climax, conclusion) and visually. However, the influence of modern gaming cannot go unnoticed in relation to both the current 3D film format and on the way such films are perceived. The tendency of (good) 3D films to create a spatial effect as opposed to a “popping out” effect is one that is similar to the evolution of the videogame to incorporate 360-degree spaces as opposed to side-scrolling images, and both environments are ones that are highly digital and reminiscent of vast virtual spaces. Videogames especially are known for being fictive spaces which users can “inhabit” for the duration of the narrative, performing actions and moving in various directions through the story/world. When audiences see a digital 3D film, then, with its depth of framing and creation of an enveloping space, they are receiving the same sense of pleasure that comes from the inhabitation that occurs within a videogame environment.

Furthermore, the pleasure to be found in both goes further back to the pleasure one finds in being able to engage with a space that is not in fact real. The barrier of the screen creates the sense of impossibility. This is a fiction that unfolds, one that is not to be experienced beyond the mental level; and only seeing a narrative unfold increases this lesser power on the part of the user to actually be a part of this moving space. By breaking down this barrier, be it through controller or a special effect, one can feel that he or she is gaining a sense of power by being able to access that which is not a part of the “established order” of reality. This does not equate to the sense of chaos that Baudrillard fears from simulation. Rather, it gives audiences and users another means of experiencing alternate experiences, of being able to viscerally escape from reality for the duration of a narrative and actively engage with fiction. Such vacationing is not a departure from reality, or an abandonment of realistic order. Rather, it gives people a chance to imagine outside of their imaginations, to simply add something new to their daily motions.
Interaction with a text can aid in immersion within a text's given world. 3D films are not interactive in the same manner as videogames, since the narrative is set with a distinct beginning and end, and will unfold before the viewer's eyes without needing help beyond pressing “Play” or starting the projector. However, by being reminiscent of a possible world that one interacts with, 3D cinema appears as a more familiar foray into immersive narratives, and subsequently, is more convincing in its immersive properties. It is for this reason that a great 3D film is one that best utilizes its virtual properties and turns the film at hand into a space reminiscent of virtual reality. Such a practice not only makes the film more convincing as a possible world, but creates familiarity with other forms of possible worlds such as videogames. By resembling another popular form of immersive narrative, 3D may find the enduring audience that it lacked during surges past. Whether or nor 3D is here to stay remains to be seen, but its staying power can only be helped by the similarities it shares to modern gaming experiences.
Chapter 5: Conclusion

3D is one of the most interesting developments in the history of cinema. Its development has spoken to what does and does not equate to realistic experiences that are obtained from the filmic format, and what is desired when engaging with a film in regards to immersion within a given narrative. The visceral experience of previously-static cinema is what is promoted in advertisements, and what visionary directors wish to create when they use it in their films. When properly utilized, 3D changes cinema by turning films into cinematic virtual realities, immersive spaces that remind audiences of traditional films but with a virtual twist. 3D certainly has a place, and while the fact that it “looks cool” may be the surface reason behind its success, deep down, the process taps into one's desire to experience that which is not actually real.

3D is currently seeing a great bout of success, with 3D films making financial gains and studios begging for more. However, if not handled properly, today's 3D films could see the same “success to failure” story that those of the 1950s boom went through. By regarding the effect as one that is dependent upon the film itself, remembering that the quality of the film is just as important, and remembering 3D's success in creating entire spaces (as opposed to just 3D objects), films today can be more successful in introducing a film format that is here to stay.

The Current 3D Success Story

Anyone who speaks the language of Hollywood knows that money is its lingua franca. Hollywood will continue to produce whatever it attributes to bringing in the box office receipts. These attributions may range from genres to stars to effects, and 3D is no different. The 1950s boom began with the box office success of films like *House of Wax*, and likewise, the continued success of 3D films is only opening the door for even more of these films to be made.

The first major release of the current boom, Robert Rodriguez's *Spy Kids 3-D*, was also
the first major success, making $200 million total.\textsuperscript{8} With the success came a slow trickling of 3D films over the next several years. Usually the film's 3D aspects were advertised, but almost as a supplement to the film at hand. In these spaces, though, 3D was gradually building an audience, usually being attached to children's animated films and action adventures. 2009, though, has overall proven to be 3D's golden year, with films such as Disney/Pixar's \textit{Up}, Focus Feature's \textit{Coraline}, and Robert Zemeckis' adaptation of \textit{A Christmas Carol} all enjoying successful runs. The biggest success story has fittingly come from \textit{Avatar}. It has become the highest grossing film of all-time, grossing over $600 million in the United States and over $1 billion worldwide, with the majority of the profits coming from 3D sales.\textsuperscript{9} With the financial success of 3D, especially that of \textit{Avatar}, studios are replacing their former reluctance with a “full speed ahead” mentality on 3D's future. Several upcoming films in 2010 are set to be in 3D, and over 14,000 screens are preparing to convert to digital projectors capable of showing these films.\textsuperscript{10}

With everyone from studios to movie theaters preparing for a wave of 3D productions, it seems that the process has a rather secure future. However, as past 3D endeavors have shown, there is no such thing as guaranteed security. 3D still has the potential to ebb back into relative obscurity, especially if care is not taken to utilize the technology properly.

\textbf{Strains on the Eyes, the Wallet, and the Imagination: 3D's (Continued) Shortcomings}

While box office numbers can speak volumes about 3D's success with audiences, it is hardly the whole story. After all, box office receipts reflect a film's success before viewers actually see the film in question, and to predict success based on expectations is to lose sight of the bigger picture. Indeed, while audiences may go into a film with high anticipation for 3D, they may come out feeling very differently thanks to physical ailments, inflated prices, and bad use of

\textsuperscript{8} See Davis, <http://www.wired.com/magazine/2009/11/ff_avatar_cameron/all/1>
\textsuperscript{10} See McCracken, <http://online.wsj.com/article/SB10001424052748703510204575085941244173662.html?mod=googlenews-wsj>
the technology. All of the shortcomings share the common trait of removing the audience from
the film and thus from immersion, reminding audiences through shortcomings that this virtual
reality is perhaps too imperfect to bother experiencing. Further, it risks turning this experience
into one that audiences regret taking part in, as opposed to satisfying desires originally inherent
in converting a film to 3D in the first place.

One major concern with the 3D process is its potential to create physical discomfort, and
not in the form of involuntarily flinching when an object comes flying at one's face. Reports of
eye strain, head aches, and nausea have been detailed upon 3D screenings.\footnote{See Beech, <http://www.reuters.com/article/idUSTRE6080XO20100109>}
\footnote{See Beech, <http://www.reuters.com/article/idUSTRE6080XO20100109>}
Morgan and Symmes reported similar complaints during the 1950s boom, and argue that the ineptitude of
movie theaters with the equipment was the cause for eye strain and head aches (Amazing 3-D, 95). However, in the 1950s 3D was shown using a two-projector system, one that was ripe for
mistakes when simply aligning the projectors incorrectly could create physical strain. 3D films of
today are shown on a single projector, mitigating the possibility of technical misalignment and
placing any blame for discomfort squarely on the process itself. The reports of physical ailments
are relatively small in number and are usually associated with people who have existing eye
problems,\footnote{See Beech, <http://www.reuters.com/article/idUSTRE6080XO20100109>} and such problems are not universal — this author, for instance, is near-sighted,
wears her glasses underneath of the 3D pair, and does not have any physical side effects while
watching 3D films. However, physical ailments attached to the process itself is one that may
make audiences think twice about spending their money on films which utilize 3D.

Also making audiences think twice about spending their money is how much of their
money they may have to spend. Currently the average price of a movie ticket in the United States
is $7.46.\textsuperscript{14} When one sees the same film in 3D, though, the price goes up, usually by at least two or three dollars. In a DC theater, for instance, an adult ticket in the evening costs $10.75, while an adult ticket for a 3D screening costs $14.75. It is a relatively hefty fee added to an already-expensive activity. There is no telling on whether or not the increase in 3D films and venues will lessen (or even increase) the extra money charged to see such films, but in the meantime, an extra fee to see a film in 3D may only serve as a deterrent, especially when many theaters not only offer to show the same film in 2D, but to show it at a cheaper price.

This competition of sorts between 2D and 3D, especially in price, is one that further pressures 3D films to demonstrate not only how good they are in 3D, but to suggest that in order to be best experienced, they must be seen in 3D. This is where 3D has the greatest potential to both survive and fail. Likely due to hesitance towards the process, a lack of widespread screens capable of showing 3D films, and perhaps to simply allow for choices, studios will usually release a film in both 2D and 3D. Such a practice suggests to moviegoers that 3D is optional and merely a bonus to the film at hand. This is potentially dangerous to the consideration of 3D as a viable format, as such a practice suggests that the technique is not necessary to view the film at hand. When characterized as a bonus feature as opposed to an engrained effect, 3D is subsequently viewed as an extra and perhaps bothersome format, when it could potentially be an effect that is just as important as digital imagery and other effects that cannot be “removed” from the given film. It is understandable that 2D prints of films are made available due to hesitance based on past 3D failures as well as the inability of a large number of screens to carry such films (the latter of which, as mentioned previously, is currently being remedied). However, when a film is made to be seen in 3D, it makes more sense that the majority of screens should be able to show the film as the filmmaker intended.

\textsuperscript{14} See Cieply, \textless http://www.nytimes.com/2010/01/27/movies/awardsseason/27record.html\textgreater
This assumes, of course, that the film in question is one that must be seen in 3D. Several of the 2009 3D releases were praised by critics and audiences alike, but *Avatar* is really the main film that was most praised as one that had to be seen in 3D. As previously demonstrated, *Avatar* did well in utilizing 3D technology to create a cinematic virtual space for audiences to mentally enter, which is what makes 3D so appealing and, in the case of *Avatar*, so necessary. Unfortunately, the same cannot be said for all of 2009's 3D releases. Even when utilized well, several films simply used 3D to bring objects out to the audience or enhance the visual properties and not the immersive ones. It is also likely that several of the upcoming 3D releases will continue to do the same, especially when films that were previously filmed in 2D are being re-rendered into 3D to meet supposed demand. What needs to be realized, though, is that the demand is not for 3D itself — it is for good 3D films that create welcoming immersive experiences for the audience. A good 3D film needs more than just items popping off the screen, a novelty that wears out rather quickly. It needs to create an all-inclusive space, folding the audience into a 3D world that blurs the boundary between screen and audience.

All of these potential problems call back to the concept of audiences being too far removed from the immersive experience promised by 3D. While not all can be controlled by the process itself (such as physical ailments), several, such as the quality of the film and the proper use of the technology, are in the hands of the filmmakers and the studios behind them. It would help to remember that it is not the 3D itself, but rather, what 3D suggests: a greater sense of being on the part of a fictitious product.

**The Power of Seeming: 3D Technology and the Allure of Experiential Fiction**

The utilization, success, and failures of 3D technology speak volumes about what it means for audiences to take pleasure in engagement with fiction. Fiction by its nature is rooted in imagination. When constrained to the imagination, though, it is continuously apparent that such
possibilities are only possible within the mind. Just because we can imagine something existing does not mean that it will actually appear outside of our heads.

With media such as film, these images can in fact appear; and with 3D cinema, these images can appear as separate from the screen and as a functioning, fully dimensional space that can be experienced as opposed to watched. In the creation of fantastic cinematic spaces, of bringing to life creatures and worlds previously unheard of, 3D technology allows for the realistic rendering of the previously impossible, now appearing as not only possible, but as a functioning world that seems credible within a mix of its own terms and ours in regards to reality. The erasure of limitations, then, is what fuels the appeal of 3D cinema. By taking on the characteristics of possibility, of giving the appearance of transcending the boundaries placed on the realm of fiction by reality, 3D satisfies a desire on the part of audiences to have cinema take on a role that it should be denied of by its very nature — the role of being possible. The satisfaction that comes from contradiction, of seeing the impossible become a seeming reality, is what fuels the success of 3D and other technologies like it.

Such considerations are important when examining what it means to enjoy 3D films. 3D technology is a significant development because of the virtual reality properties it adds to a narrative form not normally associated with such simulation. Cinematic special effects are often examined in the context of how they look, and how they subsequently change the look of a film. Such consideration in turn leads to considering how audiences watch a film, and whether or not they think that the spectacle is appealing strictly on a visual level. But as the thesis demonstrates through its analysis of 3D, these movies are appealing because they bring a greater sense of seeming to a world that is known not to be, and more importantly, bring forward possible worlds that could previously only be “seen,” so that they may instead be experienced. Such a consideration is important because it helps us better to realize what it is we enjoy about cinema
beyond the fact that a given film “looks amazing.” 3D is amazing because in creating a sense of permeable space where a static screen once stood, audiences are better able to be immersed within the narrative as part of the effect, enhancing the virtual properties of cinema and, subsequently, the greater sense of seeming that a cinematic world can have for the duration of its run. In examining 3D technology within this context, one can come to a greater understanding of why we strive to experience the imaginary, why we pay money to watch such possible worlds unfold, and to understand just what we wish to experience when we “see” movies.

3D technology is an effect that greatly enhances the immersive properties of cinema, with 3D films taking on the characteristics of virtual reality. The appeal of experiencing a film as opposed to simply watching it is one enacted by the spatial properties of the 3D effect and the resulting similarity such films bear to modern videogame experiences. There is great potential for the consideration of 3D cinema in this regard, as well as for the appeal behind cinema in general and immersive fiction. Greater examination of 3D films in terms of their aesthetics as opposed to a general overview of the technology can lead to a greater understanding of what it means for 3D films, as opposed to just 3D, to be appealing; and the visual and experiential connection to the virtual reality format can be further analyzed in terms of what connections audiences are actually seeing between the two formats. In exploring the appeal of 3D in terms of immersion, one can come to a greater understanding of the experiential appeal of cinema. By creating scenes reminiscent of virtual reality, 3D enhances the ability of films to immerse an audience into their worlds, doing so by extending themselves into the world of the audience.


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