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New Screen Order: How Video Games Are Changing Cinema Interiority

David Sedman and Randy Clark

> *"Final Fantasy* is nothing more than an extravagant video game in which characters fix things, fly things, gather things and shoot things . . . .(A)fter a while, you want to play it, not just watch it." -- Robert Wilonsky, film critic[1]

When *Tron* was released in 1982, it was quickly recognized as the first significant interface between a motion picture and a video game. In *Tron*, the main character, Kevin Flynn, is transported from a realistic setting to a video game setting. Once Flynn becomes a part of the video game interface, the audience's frame of reference becomes the gamespace. While most critics focused on the visual aspects of *Tron—Variety* for example, calls it "loaded with visual delights but fall(ing) way short of the mark in story and viewer involvement"—the direct translation of the video game characteristics to the movie theater screen would prove to be the more significant trend in the defining of space in American popular film.[2] The spatial relationships of the characters in *Tron*, the camera's point of view, and the actor's relationship to the environment are key elements that define the film's interiority. In the 28 years between the original *Tron* and its sequel, *Tron: Legacy,* a very profound transformation came to the movie industry as films created with character-generated imagery (CGI) and having game-like sequences became commonplace.This article discusses how the influences of gaming have transformed character motivations and production processes within cinema. It analyzes a new breed of game-era storytellers and suggests that the very interiority of popular American cinema has now become virtually identical to that of the video game.

Cinema interiority is a multidimensional concept. Heather McDonald said that interiority consists of three aspects: 1) interiority as a psychological state; 2) spatial relationships and 3) temporal processes including space, time, order and logic.[3] As gaming technology evolves, audience's expectations and processing of interiority have adapted with them. In her book, *A Theory of Adaptation,* author Linda Hutcheon states that technology has driven informed processes of adaptation in all three forms of narrative engagement—showing, telling, and interacting with stories.[4] For Hutcheon, the result of technological advances and fast-moving special effects is a more demanding audience in that requires creative, imaginative visualizations are required of film directors. As a result of such advances, Hutcheon notes, is that "[T]he supernatural world of wizardry and monsters of the Harry Potter stories can be made visible and realistic through computerized media."[5] These animated worlds that exist now both in videogames and films "can be used to create both interiority and exteriority," she said. There is no question that contemporary

audiences who have grown up with gaming seek out films with quicker action sequences and more game-like onscreen sequences, as can be demonstrated by three recent films that rank among the highest grossing in motion picture history: *Avatar* (2009), *The Dark Knight* (2008), and *The Avengers* (2013). Film professionals who have grown up with gaming are using many of the same tools in movies that are used in the creation of gaming. The result is a new interiority in cinema that is being driven by gaming.

Critics have long compared films with their counterparts in literature and theatre; over time, such comparisons have broadened to include television and, more recently, arcade gaming. Noël Burch compares the screen image to that of the glass surface above a pinball machine's playfield.[6] Burch discusses the pinball players' unconscious mental processes of selection and physiological processes of focusing that enable them to process action and even predict future action within the closed playfield. Those processes translate well in discussing how contemporary film audiences process CGI-centric films. Film critic Leo Braudy defines closed films as those in which the audience is lured into an arbitrarily preset or manufactured space.[7] Open films are those films that allow the audience to relate the action and characters to the recognizable dimensions of the real world. Much as the pinball has no function outside of the machine, video games function entirely within a framework and consist of characters that often have no existence apart from the game itself. In the wake of *Tron*, there have been more closed films. Filmmakers make little use of the space outside the frame and in fact may rely upon it not at all. Characters exist to perform tasks or to expedite specific plot functions and little is done to cause them to change or grow as individuals.

While pinball, itself, had little impact on the interiority of film during its reign as arcade favorite through the 1970s, the same cannot be said of the video game that surpassed pinball in the arcades in the 1980s. Video games have had a noticeable impact on contemporary cinema. Certainly, one can see such an influence in video game related films such as *Tomb Raider* (2001), *Hitman* (2007), *Max Payne* (2008), the *Resident Evil* (2002-1012) series, and *Mortal Kombat* (1995). Director Uwe Boll has made a career of buying the rights to make videogame film versions of such titles as *House of the Dead* (2003), *Alone in the Dark* (2005), *Postal* (2007), *Bloodrayne* (2007)*, In the Name of the King: A Dungeon Siege Tale* (2006). The interest in the games is obvious, as Boll said in an interview. "I looked out for more game properties and made more movies based on games," he said. "The sales were easy because you had a built in audience."[8] But the influence of gaming extends far beyond the economics of video game adaptations and extends past films based on the games as the plot progression and development of films became more akin to gaming and appealing to an audience consisting of gamers. Critics, including Peter Travers, argue that the 2001 film, *Pearl Harbor* was similar, if not identical, to a video game. "Call it…a gamer's fantasy of war…Step right up, folks, and watch carnage that's suitable for framing." In addition to stating that the film "has no soul," consists almost entirely of "set pieces," keeps moving "on to the next crowd pleasing rush" and relies heavily on "digital dazzle" that gives it a "glam, sham, lollipop brightness"—all of which are criticisms that could be aimed at any number of lesser video games.[9] Travers cites some specific scenes from the film that do indeed seem to be game inspired. They include "the now-infamous point-of-view shot of a bomb about to crash through the decks of the USS Arizona," the scene in which the two main characters "climb into their cockpits, wearing hula shirts, to take down a few enemy planes," and the scene in which President Franklin Roosevelt rises from his wheelchair and stands to inspire the Cabinet, an incident that never occurred in real life but which provides the film with an engrossing bottom to top action sequence worthy of any video game.[10] Many modern video games give players the option of multiple

viewpoints, some of which are not possible in real life. *Pearl Harbor* likewise gives audiences a variety of impossible viewpoints, including that perspective of a Japanese bomb hitting its target.

Like many contemporary films, *Pearl Harbor*'s action sequences mimic those of a standard multi-level arcade game in which the goal is to move from one battle scene to the next. Action films commonly use a storytelling device that finds main characters clearing a screen of bad guys and progressing from accomplishment to accomplishment or from level to level to use video game terminology. This device is perhaps most evident in *Batman Begins* (2005), in which Batman's first appearance—his first significant accomplishment, therefore—involves him dropping down from above in an enclosed space, overwhelming at least eight criminals (the camera moves so quickly and the film is edited so abruptly that it is impossible to get an exact count) then leaving the scene by moving back into the sky. The element of multi-level game-like play can also be seen in *Next* (2007), a movie which transforms Philip K. Dick's cerebral short story into something of a game of challenges and resolutions by having Nicholas Cage's character use his precognitive abilities to anticipate and therefore conquer a room filled with people who would like to capture and kill him. In *Shoot 'em Up* (2007), a movie whose very title sounds like that of a video game, the evidence of gameplay is particularly evident in one scene in which Clive Owen's character chases dozens of men up and down a stairwell, as he shoots an automatic weapon he holds in one hand and holds a baby with the other. *Washington Post* critic Stephen Hunter linked the action sequencing in *Shoot 'em Up* to a fusion of film and game design whose incongruous plotting is handled "without a whisper of coherence or meaning."[11] Three decades after the release of *Tron*, it is apparent that video games and their related technology have had an increasingly significant impact on the look, the screen space, and the character development within film.

Because the target audience for big budget franchises is also an audience immersed in gaming culture, more recently, there appears to be almost a symbiotic relationship between the creation of video games and their movie counterparts. The Batman character, in particular, had inspired several video games before Christopher Nolan made either *Batman Begins* or *The Dark Knight*. Furthermore, while the increase in computer generated game-like action may be apparent in mainstream action film releases, these same characteristics are being employed to different purposes in movies ranging from animated features for a younger audience and even to art cinema releases. As Roland Bathes has explained, that narratives consist of units, particularly distributional, which deal with actions, causes, and effects, and integrational, which include locations and the psychology of the characters, and personality traits. The influence of video games on filmmaking would mean that there has been an increase of the former, perhaps at the expense of the latter. Furthermore, Barthes states that there are distributional factors that he calls catalyzers; a catalyzer "fills in" between important scenes and "accelerates, delays, gives fresh impetus to the discourse, it summarizes, anticipates and sometimes even leads astray." With the influence of video games, catalyzers have begun to play a much more important role within films, many of which are accelerated almost from beginning to end.[12]

Braudy's suggestions about the appeal of closed films with audiences has resonated in the gaming era as motion picture characters in contemporary cinema literally and figuratively move from stage to stage in an attempt to reach an ultimate goal or complete a task much like those in gaming. Films such as *DOA: Dead on Arrival* (2006) and *Street Fighter: The Legend of Chun-Li* (2009) have traditional plot points that could be associated with open films. In DOA, for example, one of the characters is a Japanese princess who must choose between competing in a martial arts

competition to avenge her brother or staying home and serving as ruler. Yet such films are constructed of scenes that remind the movie audience of game playing rather than provoking interest in what impact the scene might have on future plot development or what elements the setting might have on the plotting. The filmmaker rarely if ever moves outside the frame keeping the action in a closed screen space. This is common with gaming whose software development takes place on a computer screen with strict boundaries or whose motion capture is often limited to a finite space such as a sound stage. Similarly, as directors use production techniques similar to that of gaming in their films, the audience has no incentive to move outside the frame on its own as they would in an open film. Further, they can't actively play along as there is no joystick or other gaming device provided. Viewers are not asked to speculate but instead are willingly carried along with the film's characters from one very proscribed level to another identifying with the films' protagonists and urging them on to their ultimate goal, the viewer is a complicit participant in a preset course of action in video game inspired films; yet, it can be said that they are actively predicting the course of action in the closed space perhaps even using their gaming backgrounds to think about moves that could be made to accomplish the on-screen task. When Wreck It Ralph moves from one game environment to another to another, the audience understands the very nature of each goal within the three games that into which Ralph is swept into. Direct translations of video games to the screen, such as *Double Dragon* and *Street Fighter* have similar interiority. Much as Weinbren states of digitally-created characters or avatars in games which "have no interiority," audiences "attribute their own motives, desires, hopes and fears in the context" that transpires to this character.[13] Though the movie audience members have no gaming controllers, they too witness and root for the clearing of stages adapted from battle sequences much as with their video game counterparts. Finally, this participation effect occurs with motion pictures that seemingly have no connections at all to video games with such diverse works *as The Terminator* (1984), *Stay Tuned* (1992), *Judge Dredd* (1995), *Crouching Tiger, Hidden Dragon* (2000), and *Inception* (2010). All of these films are dependent upon heroes completing a series of action-oriented tasks as audiences await their movements to their final stages. Pixar Studio's Jenny Tsoi said that there exists "a trend of movies that partially emulate action video games and have fight scenes that recreate the feel of Capcom and Data East arcade games. Some of the fight scenes seem as if the audience has willed the characters in the feature film to slow down and do a certain kick move or karate chop or flip," she said.[14]

Mental state is also an important aspect of interiority. Closed films are more dependent on setting than open ones and less dependent on character development. Even closed films, however, must sometimes address the thoughts and motivations of their characters. Classic Hollywood cinema has developed several methods of expressing a character's mental state, such as, voiceovers, monologues, and epistolary presentations such as letters or diaries. None of these is physical enough for closed films that must present even character thoughts in the most material manner possible. For this reason, many contemporary films use the flashback over all other methods in addressing the character's psychological make-up use the flashback over all other methods. During a flashback, characters are moved from one spot, sometimes without much concern for continuity, to another spot and back. *Tomb Raider* (2001), for example, uses flashback scenes between Laura Croft and her father to provide Croft with some reason for her quest. Flashbacks rarely appear in video games, nor is character motivation of great importance; the inclusion of these motivational devices to the *Tomb Raider* film shows that some differences still exist between motion picture and video game. The flashback addition is also a natural part of the transition from game to screen, with user control

and interactivity supplanted by some element of interiority. The flashback remains dependent on closed space, however, and actually presents a frame within a frame—the space that the character physically inhabits briefly co-exists with the space that the character merely holds in memory.

Flashbacks are a means of engaging audience participation. Psychologist Hugo Münsterberg says that there is both voluntary and involuntary attention.[15] Involuntary attention is drawn by stimuli that are loud, shining, and unusual. Most of what is seen on screen falls into this category. The flashback is voluntary in that the audience makes a conscious decision to pay attention and make a connection between the flashback and the present day. Interpreting a flashback is just one strategy that the audience may use when watching a film. Recognition of identical characters is another and is the more common storytelling device in both gaming and films that have game-like interiority. Some films place characters, who are identical in appearance, into the same space. Audiences are expected to make a decision as to which character is the "real" one. Unlike films of the past, technology has made "cloning" of characters a simple cut and paste function. *Mission: Impossible 2* (2000), *Spy Kids* (2001), and *The X-Men* (2000) use scenes in which identical characters share the same frame. The characters seem to be indistinguishable in both appearance and behavior as opposed to the split screen effect or "mirror" effect used in earlier films and television shows. Dialogue, makeup and costuming – once the standard cue for the audience – are rarely used today to indicate one character as an imposter. Now, audience recognition is based simply on the fact that two identical characters cannot occupy the same frame and therefore one must be fake. Because the audience has no joystick or gaming gun, the audience chooses which image they believe to be the impostor and root for the character to be exposed. There is often an overt time lock and the audience plays along as they anxiously wait for the time to expire. Both *Mission: Impossible* films use the time lock in this manner.

As motion pictures more commonly encompass elements of the video game's storytelling universe, the narrative device of cause and effect is replaced by a more video game-like causation. Critics have said that many movies such as *Charlie's Angels* (2000), *Transformers: Revenge of the Fallen* (2009), and *The Avengers* (2012) abandon cause and effect. Each sequence is self-contained to the point that commentators have said of modern films, such as these, that the scenes could be shuffled like a deck of cards because order is not of great importance. Protagonists remain static no matter what experience has previously occurred, very much like the animated character, the Roadrunner, who after being flattened by some huge object, immediately reshapes himself and goes scampering off. Of *Charlie's Angels*, film critic Roger Ebert likened it to a "video game trailer"[16] and *Time Out London* called it "five or six trailer moments" placed in no particular order.[17] Characters are involved in situations that should demand some degree of physical or mental consequences or changes, but, much like in games in which characters carry on with neither of those changes, the game-like film portrays characters moving forward unchanged in much the same way. A more specific example of this occurs in *The Mummy Returns* (2001) in which the characters have married and become parents, yet remain fundamentally unchanged. This is a discernible effect of video games' increasing influence on the interiority, storytelling, and characterization in today's films.

Further evidence of the impact of video games can be seen in the depiction of movie villains. In pre-video game era films, villains have a backstory, motivation and personality. Contemporary

closed films commonly do not provide antagonists with any such traits. Comic book readers have for decades been told the complicated origins of The Joker, the Scarecrow, Ra's Al Ghul and Two-Face, but these origins are whittled down considerably for *Batman Begins* (2005) and *The Dark Knight* (2008). Computer-generated films favor spectacle over logic in battle scenes. Film critic Tom Long said of the film, *Battle: Los Angeles* (2011), "The film feels so much like a video game, your hands keep reaching for the controllers—shoot the aliens… Who needs characters, who needs plot, who needs context...? Just shoot the aliens."[18] In the *Mummy Returns* (2001*)* and *Phantom Menace* (1999), hordes of anonymous, computer-generated villains attack the heroes and are quickly eradicated within the play frame. These films use volume to impress audiences to the point where logic is no longer a factor in the outcome. In some films, villains resurface, as is the case in many video games—but – but the film audience is not provided with any logical explanation. In the movie, *The Sixth Day* (2000), any character that is killed returns as a full-bodied clone in the very next scene. Multiple versions of the protagonist are even allowed to exist in *The Sixth Day.* Ripley is killed at the end of *Alien 3* (1992) and brought back as clone in *Alien: Resurrection* (1997). In *Ironman 3* (2013), the audience finds it almost mundane that there are multiple versions of Ironman created. For Ann Hornady of *The Washington Post*, the characters "slip in and out of so many aerodynamic sarcophagi that *Iron Man 3* begins to take on the contours of *Attack of the Clones*,"[19] which itself resembles the screen space of a videogame. If the protagonist can always be replaced with a clone of herself/himself, then from a traditional story-telling perspective, the protagonist, and even the audience, has very little at stake, but, for an audience who grew up on video games, the instant replacement of the central character is common, possibly even expected.

Although not all films clone their protagonists, many have multiple heroes which may have as much to do with the production processes of CGI-intensive films often requiring multiple crews working on post-production of individual scenes as it does with traditional plotting. As opposed to older films, in these films the protagonists do not generally interact. Instead, they multitask and must do so within the same space. Two or more characters will be working toward connected, yet distinct goals. In *The Mummy*, one character tries to steer a runaway bus while another fights a group of supernatural creatures on the bus. The two are dependent upon each other to complete their mission successfully in order for the characters to advance. In *Charlie's Angels*, three characters advance to the final goal of freeing Bosley from a locked cell through clearing separate stages. The protagonists function like video game characters both in terms of their abilities, which seem joystick-controlled, and that they share the same space, but are rarely in the same frame. This can be attributed to films now having a similar production process to that of video games. For a video game, the characters are developed separately and are brought together in the final stages of production. The development of digital films and effects films are often delegated to teams of creative artists, some of whom are from different companies. This explains why contemporary films have characters reacting at the same time to the same stimulus but not acting together. James Gunn, screenwriter of the first *Scooby-Doo* movie and the remake of *Dawn of the Dead* (2004), a film which contains scenes similar to first person shooter moments in video games, wrote his first video game in 2012 and maintains that today, writing movie scripts and writing video games are similar tasks: "Storytelling is pretty similar from form to form, whether it's screenwriting, novel-writing, television or games. It's mostly the breadth that changes."[20]

The evidence of the interiority of cinema becoming more similar to that of video games is becoming increasingly apparent in the motion picture production process. In the creation of a video game, the

canvas is the computer desktop. This technique is becoming commonplace by motion picture directors. *The Matrix* was designed on a desktop. The key action scenes did not require the building of traditional sets as the acting was done in front of a green screen before being integrated into a computerized environment. In the film, *Artificial Intelligence: A.I.*, (2001) director Stephen Spielberg tested special effects using a modification or mod of Unreal Tournament. "We were able to record the moves so Stephen actually sat there on the set before we were shooting and fiddled around with his Powerbook on his lap," said A.I.'s Visual Effects Director Dennis Muren. "He became familiar with the relationship between everything so that a week later, when (Spielberg was) on the real set, he already was comfortable." [21]

While Spielberg used a mod to test special effects, other directors are creating entirely on the computer screen not unlike the creation of many video game titles. *Final Fantasy* (2001) is entirely digitally generated, so that both actors and sets are virtual. This is identical to the production process of video games. The pre-production storyboarding on a feature film such as *Final Fantasy* becomes indistinguishable from the pre-production of almost any video game. As a result, the finished motion picture's look and feel becomes similar to that of the video game. Another form of filmmaking where the process of film and gaming is linked would be machinima. In machinima, the virtual reality of a game engine is the underlying technology for the creation of the film. The 2006 feature-length film *BloodSpell* used the Aurora gaming engine created by BioWare. Hutcheon argues that the success or failure of such an adaptation, in which interactive machinima becomes a less user-controlled interaction within a traditional film, cannot be addressed simply as transforming from one medium to another.[22] The film adaptation is clearly designed to recreate the interactions, look and screen space of the original game material and Hutcheon states that "the lines of differentiation are not clear as we might expect" when comparing media types ranging from film to computer.[23] The lines have become blurred for the gamer who experiences films and the film consumer who participated in gaming. In machinima film creation, the actual game playing experience can be captured during the film version's production. "When you shoot a video in an online game, other people (can) actually participate and sometimes on a large scale," said machinima creator Daniel Foucher who created the *Cantina Crawl* series. "They can bring their own unique personalities and actions to the process, much in the way real actors do."[24] The look and space of the video game space, the characters and their props can become one and the same.

Even onscreen character movement is affected by video game aesthetics. For decades, video games had traditionally been two-dimensional. There was very little movement on the "Z" axis representing depth, until the most current generation of video games. The same was true of film as most action is from left to right or right to left and occasionally from top to bottom or bottom to top. The motion of right to left was considered very unusual in films created prior to the video game era. The notion of having screen movements from left to right was consistent with the written page and is considered natural in filmmaking going back at least as far as author Rudolf Arnheim.[25] For the video game generation, right to left movement is as common as left to right movement. Such movements have been inherent to video game hardware since the first video games. Film followed suit. Now, it is common practice to see screen action from right to left. The film *Tomb Raider* is filled with such motion along the horizontal "X" and vertical "Y" axes. The same is true, however, of many recent movies that are not based on video games, including action films such as *Columbiana* (2011) and *Smokin'Aces* (2006); science fiction movies like *Lockout* (2012), and almost all of the comic book adaptations of the past decade.

The video game has also influenced the manner in which point of view shots are used. Bob Bejan, director of the interactive films, *Ride for Your Life* (1995) and *I'm Your Man* (1992), explains that the use of extended Steadicam shots to capture motion is "much more prevalent today and largely a point of view that's reflective of the way that video games look. The audience is more accepting because they want to see the movie in the first person as the player." Bejan said, "The result is that "video game culture and point of view permeate the performance as well because it is the fabric."[26] Matt Hanson author *of End of Celluloid: Film Futures in the Digital Age*, states that gaming is one component that is leading to a new breed of "imagemakers" who are creating films that are "non-linear, emergent, and extensible."[27] He suggests that viewer expectations in an evolving "frame" of digital filmmaking in which new narrative worlds are being created.

The evolving frame has led storytellers in contemporary film to take chances that they might not have prior to the nonlinear storytelling that audiences can now accept thanks to gaming. In his book, *The Brain is the Screen,* author Gregory Flaxman says that experimental cinema employs "irrational disconnected aberrant schizophrenic spaces" that "no longer obey laws of traditional commonsensical causality."[28] The impact of gaming is that spaces of the mind are now easily incorporated into both game and film. As a result, Flaxman's comments now apply not just to experimental film but to mainstream movies. For all intents and purposes, *Run Lola Run* (1998) is predominately a video game in which the audiences selects their favorite ending from the three provided by the director. *Memento* (2000) asks the audience to come to a series of conclusions based upon a reverse-order and highly fragmented narrative. *Time Code* (2000) presents four simultaneous real time narratives and allows the audience to follow any one of the four storylines. *eXistenZ* (1999) moves its characters from the "real world" to a virtual reality game and allows audiences to deduce the perspective and the realm of each major action. *The Center of the World* (2001), which shows its protagonist on screen using a video controller, establishes that the main character can only interact with other characters for limited periods of time and during specified hours of the day. In the future, these characteristics will increase as both independent and mainstream film audiences demand more participatory, game-like storytelling.

Probably no other filmmaker better exemplifies the game changing nature of cinema interiority than Zack Snyder. Snyder's use of green screen to layer in gaming-like backgrounds has provided him with limitations of neither space nor screen elements. Characters can be real or can have superhuman reactions because there are no repercussions with set objects or set backgrounds. Advances in green screen technology that allowed Snyder to make a motion picture based on the graphic novel *The Watchmen* (2009)—a work that had long been considered unfilmable. Snyder is not shy about the influence and usage of gaming on his films, citing the game *Call of Duty: Black Ops* as he was making *Superman: Man of Steel* (2013) and *Gears of War 2* during the making of *Sucker Punch* (2010). Author Adam Rosenberg, writing for the cable channel and website of the video game generation, *G4*, explains that *Sucker Punch*'s storytelling is told in "full-blown levels" in which the protagonist earns a series of weapons in order to complete the task presented in the at the outset. The film audience can make sense of the action thanks to their understanding of the game medium coupled with their adoption of cinema's new interiority.[29]

Not surprisingly, Snyder's production team uses a toolkit that is similar to those used by video game creators. The President and CEO of Fantasy Lab, Michael Bunnell received a Scientific and Engineering Academy Award for enhancing the look of films using such digital sets and objects. Bunnell points out that "with so many backgrounds being computer-generated like those in the

videogames that they play, the ability to create that space and its look (illumination, colors, shadows) leads to greater control" in the production and post-production process.[30] The cross-platform nature of Global Illumination (GI) which Bunnell's company is using in game development has been used in dozens of diverse films including: Snyder's *Sucker Punch* (2010); *Transformers 2* (2009); Pixar's *Up* (2009); the game adaptation *Prince of Persia*; and gaming titles including *Hitman* and 2K Sports' *Basketball*.

Entering the 21st Century, both the film industry and game industry strive to make games and films appeal more three-dimensional. Major films ranging from *Avatar* to *Final Fantasy* made increased use of the Z-axis. Meanwhile, gaming consoles including the Playstation 3, xBox 360 and Wii allowed for 3D capabilities. Erwin Panofsky anticipated such a movement in his observation that the viewer "is in permanent motion as his eye identifies itself with the lens of the camera, which permanently shifts in distance and direction. And as movable as the spectator is, as movable is, for the same reason, the space presented to him."[31] The creation of movies will undoubtedly continue to follow the progression of videogames to more realistic three-dimensionality, holography, and interactive possibilities.

There is no questioning that character interiority continues to be transformed through the increasing interaction between filmmaking and the desktop. Characters react to immediate stimulus on screen rather than past events. Their motivations are no longer confined within a "real setting." Interactions are no longer limited from actor to actor. Just as in video games, characters may be inserted or obliterated with a simple keystroke. In films like *Inception*, backgrounds also transform based on character action, inaction, and progression of time. As noted previously, the film, *BloodSpell,* was created using the Aurora game engine to specifically take advantage of the Dungeon Master client that allowed actor models to be created or taken out with a single keystroke. Writing in the 1960s, Burch identified the opposition of animation and real film as a new organic dialectic.[32] The dialectic could be approached in two ways, manifest or illusory. Manifest oppositions emphasized the contrast between that which was real and that which was animated; illusory oppositions tried to disguise the differences. Burch felt that this dialectic held much promise and—though the release of *Tron* was years away—the film had the unexpected result of shifting the dialectic from an opposition of animation and real film to one of real film and computer generated images; Burch's premise that a change was on the horizon in filmmaking proved to be prophetic. Film, already an artificial device, is being made more artificial. Real characters in real situations with real problems (once the very essence of film storytelling and cinematic art) are no longer required or even necessarily desirable in the video game era of cinema. A filmmaking community and its audience that has been raised with videogames have forever altered the rules of cinematic interiority in the art of filmmaking. In their world, all boundaries have been obliterated. For the creative community there is no sense of "game over," but, rather, a bold new beginning.

A single frame from *Sucker Punch* (2011) demonstrates the impact of gaming on screen space and interiority as the scene has the look, feel, and movement associated with a video game, despite the fact that *Sucker Punch* was not based on a videogame title.

The tools used in the creation of video games and cinema have become intertwined, creating game-like sequences in live action films such as 2011's *Battle Los Angeles*. Critics and viewers, alike, feel as if they are within a "level" as much as a scene and are not far removed from wanting to actively participate with a gaming device to clear the screen of digitally-created intruders.

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