

Beyond the Infinite:
A Genre Study of the Hypothetical Space Film

by

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Introduction

This project first started in the Fall of 2014, when I was a freshman at Wesleyan University enrolled in a class called “The Language of Hollywood.” About halfway through the class, we watched Stanley Kubrick’s *2001: A Space Odyssey* (1968) in a gloriously large theater with hundreds of students. I had seen the film a few years before, spending a summer afternoon with it in my living room. After watching *2001* in class, the film stayed with me for days on end. Over my time at college, I saw plenty of great films, but *2001* always lingered in the back of my mind. Eventually, I was able to put my finger on what it was that had affected me so deeply: Kubrick’s evocative construction and treatment of outer space. After realizing this, I had to go deeper into space film. What made this rendering of space more powerful to me than say, *Star Wars* (1977)? What is it about space that allures filmmakers and audiences alike? Is there a certain pattern or attitude towards space that runs through these films? In my research, I was surprised to find that not many people were asking these types of questions. There have been plenty of studies written on the tradition of sci-fi films, but nobody has yet conducted an in-depth probe of outer space films. Outer space holds a special and unique place in the human imagination. As humans have already traveled most of the globe, outer space is the last great unknown, the final frontier, and is ripe for narratives of exploration. Its immense size and strange wonders form an encouraging canvas for artists and creators.

My study began as an inquiry of the aesthetic treatment of space on film and how special effects were designed to impact audiences. After discovering the rich

history of outer space film, I realized that I had to think much larger in order to fully understand how these films work. In the history of outer space film, there is a distinct event that separates two eras: the release of *Destination Moon* (1950). *Destination Moon* triggered the creation of what I call the hypothetical space film, a genre distinct from science fiction that highly values scientific accuracy and creating narratives within our universe. Outer space film that does not fall into this genre I call fantastical space film. Although most of this thesis will focus on hypothetical space films released after *Destination Moon*, knowing the history of outer space on film is required in order to fully understand the context of these films and how they distinguish themselves from more fantastical science fiction in both content and production.

Current literature on science fiction will often use specific examples to demonstrate how outer space fits into the author's definition of the genre. These examples will be broadly related to the themes the author argues are central to the sci-fi genre. One of the most ambitious and thorough studies of science fiction cinema is the book Screening Space: The American Science Fiction Film by Vivian Sobchack. Sobchack's book discusses the cultural, aesthetic, and thematic concerns of American science fiction and largely avoids the production and industry history of the genre. In the book, Sobchack attempts to define the genre and apply a number of the films' prevalent concepts and practices to this definition. The definition that Sobchack lands on is long and winded: "The SF film....a genre which emphasizes actual, extrapolative, or speculative science and the empirical method, interacting in a social context with the lesser emphasized, but still present, transcendentalism of magic and

religion, in an attempt to reconcile man with the unknown”.¹ She then argues that the stance and scope of space, planets, suns, etc. give us “the visual scope of a god” by separating our viewership from our corporeal selves.² In her argument, Sobchack brings up an idea that will become central to my argument for the hypothetical space film as a genre. The reconciliation of man with the unknown, as I will argue, is a central component of common narrative formulas of the hypothetical space film. Though I disagree with her assessment of celestial bodies giving us a “godly” perspective, she brings up an important point in how the visuals of space films are directly related to transcending limitations and affecting the audience. In her book, Sobchack uses the image of Saturn in *Silent Running* (1972) to demonstrate a shift out of human perspective.³ Here, she is correct in illustrating the transcendent effect it has on the viewer but fails to explain how the feeling of transcendence fits within the arc of the film. Sobchack then presents a large volume of science fiction patterns, using the genre’s icons to dissect its aesthetics. She makes the case that nearly all of these icons, whether they are robots or laboratories, evoke the genre of science fiction but are not rigidly attached to it the way guns are to the gangster film or the frontier to the western. In addition to these points, she asserts that the more rigidly defined genres (western and gangster) have a historical awareness that influences their visuals and narrative.⁴ While this is certainly true for science fiction at large, the distinctions she applies to more iconographic genres apply to the hypothetical space film as I present it. For example, Sobchack provides a thorough analysis of the spaceship as an icon,

¹ Vivian Sobchack, *Screening Space: The American Science Fiction Film* (New York, The Ungar Publishing Company, 1988), 63.

² Sobchack, *Screening Space*, 102.

³ Sobchack, 102.

⁴ Sobchack, 65-66.

an important idea for my construction of the hypothetical space film. Her conclusion is that the spaceship holds no consistent meaning in the science fiction film, as its context radically changes depending on the film's specific narrative and use of the ship. I agree that a universal, consistent meaning cannot be placed on spaceships, even when contained to the hypothetical space film. However, I disagree with her assessment that lack of coherent meaning results in the spaceship lacking "emblematic power."⁵ In the hypothetical space film, the spaceship can be portrayed in a positive or negative light, as Sobchack notes.⁶ But throughout these films, the spaceship reflects the power of humanity to master technology and move beyond an Earthbound perspective.

Like Sobchack's book, other studies of science fiction do not elaborate much on space after tying its cultural associations with common themes of sci-fi. Geoff King and Tanya Krzywinska's book, Science Fiction Cinema: From Outerspace to Cyberspace, is one of the few to actually make a distinction between outer space films that appeal to realism and accuracy and more fantastical space films. The authors, when discussing science fiction's tendency to journey through space, present the "two broad alternatives" as "generally realistic" or "all-out fantasy."⁷ Their greatest contributions to the discussion of space on film come in how they differentiate the treatment of space travel in these two modes of filmmaking. King and Krzywinska assert that space travel offers "spectacular and sensational pleasure"

⁵ Sobchack, 68.

⁶ Sobchack, 68, 70.

⁷ Geoff King and Tanya Krzywinska, *Science Fiction Cinema: From Outerspace to Cyberspace*, (London: Wallflower Press, 2000), 23.

as well as “a way to gain a different perspective.”⁸ On the “fantasy” side, this appeals directly to the imagination and impossible spectacle. On the “realistic” side, space travel proceeds more “slowly” in order to establish “believability and solidity,” using *Destination Moon* as an example.⁹ Here, they draw an important distinction in the aesthetic trends of hypothetical space film but do not probe further into the conventions and norms of these films beyond their appeals to realism. Sobchack, King, and Krzywinska demonstrate the current shortcomings in the literature on outer space film. They relate the films back to science fiction at large instead of deeply analyzing them in relation to each other. This work will explore the questions authors such as these have yet to ask. Among them: What kind of experiences do people want and expect from outer space film? How do these films explore the relationship between humanity and outer space? What are the recurring traits and associations of space throughout these films and how are they presented? What kinds of stories are being told with space? Before answering these questions, it’s important that we have a basic understanding of the history of space on film.

The text I refer to most frequently when discussing the history of space film production is Bradley Schauer’s Escape Velocity: American Science Fiction Film, 1950-1982. This book provides an excellent account of how the industry shifted in the latter half of the 20th century. Schauer’s writing proved to be instrumental in establishing the industrial context of outer space films and the different factors that influenced their production. For discussing the development of outer space aesthetics, I refer to Julie Turnock’s Plastic Reality: Special Effects, Technology, and the

⁸ King and Krzywinska, *Science Fiction Cinema*, 22.

⁹ King and Krzywinska, 23.

Emergence of 1970s Blockbuster Aesthetics. In this book, Turnock provides a compelling history of special effects techniques and the choices that informed the aesthetic treatment of outer space. It is most useful for discussing the impact of *Star Wars* in the history of outer space film, as Turnock describes how the “ILM aesthetic” pioneered by Lucas and Spielberg became the gold standard for science fiction blockbusters. Together, these two books provide the historical backdrop for my discussion of the hypothetical space film as a genre. They offer compelling and illuminating insight that locates the genre’s development within cultural and industrial trends.

The first glimpses of outer space in film date back to silent trick films of the early silent era. Short films such as *A Trip to the Moon* (1902) and *The “?” Motorist* (1906) both exploit the mysteries of space for visual gags and sensational spectacle. They are also among the first fantasy films, as both filmmakers construct a vision of space that doesn’t adhere to the laws of nature. Instead, they focus on what is possible within the ultimate fantasy environment: cars driving around Saturn, moons with faces, etc. Another film from this period that similarly exploits space for visual gags is *A Voyage Around a Star* (1906). These films hold an important place in the history of space on film as they demonstrate the setting’s inexorable ties to wonder and spectacle. As filmmakers discovered more cinematic tools and the visual tricks possible through film, space became a common setting to project these senses of wonder and magic.

In the 20th century, space’s universal sense of wonder translated into mainstream success in the family-oriented serial *Flash Gordon* (1936). Due to

Gordon's pre-existing popularity as a comic book icon, Universal gave the serial a disproportionately large budget of \$350,000 and marketed it towards both adults and children.¹⁰ Soon, *Flash Gordon*, and by extension, outer space film, became culturally identified as children's entertainment. This attitude towards outer space film was solidified by the release of the *Buck Rogers* (1939) serial, reducing the esteem of the setting and relegating it to children's serials and comic books. These serials were also important for the development of outer space film for being among the first to render outer space as it is seen in the night sky. The absurdist *mise-en-scène* of Méliès is cast aside for a vision of space where everything appears as it does to us on Earth.

For a decade after *Buck Rogers*, fantastical notions of outer space dominated the production of outer space media. In 1950, producer George Pal thought he could profit from diverging from this cultural association and produced an independent film called *Destination Moon*.¹¹ This film became the first hypothetical space film and introduced the genre's central techniques and formula. Eagle-Lion, the studio that produced *Destination Moon*, was known at the time for producing B-level films. The budget for *Destination Moon* fell between that of a B and A-level production, meaning that in order to make a profit the film would have to be released to a first-run, general audience with theaters sharing a percentage of the box office take.¹² As a result, the marketing for *Destination Moon* relied heavily on its scientific accuracy and visual spectacle. Both appeals to scientific accuracy and filming in Technicolor were attempts by Pal to legitimize the film and separate it from the pulp tradition of

¹⁰ Bradley Schauer, *Escape Velocity: American Science Fiction Film, 1950-1982*, (Middletown: Wesleyan University Press, 2016), 26.

¹¹ Schauer, *Escape Velocity*, 33.

¹² Schauer, 34.

science fiction.¹³ Released earlier that same year was *Rocketship X-M* (1950), a black-and-white exploitation film that took advantage of *Destination Moon*'s press and was rushed through production. These two films illustrate the two paths for outer space film that emerged at the time. *Destination Moon* placed heavy emphasis on accuracy, the narrative was kept grounded in dry realism in order to appear more dignified to a mainstream audience. Conversely, *Rocketship X-M* ventures into fantasy and pulp territory in its final act, continuing the tradition that Pal was fervently keen on avoiding. Ultimately, it is the fantastical vision of space that emerges as the more popular alternative, and more big-budget space films of the '50s follow this mode of filmmaking. Between 1950 and 1958, the two biggest outer space productions were *The War of the Worlds* (1953) and *Forbidden Planet* (1956). *The War of the Worlds*, also produced by Pal, was his biggest hit as it made \$2 million against a \$1.7 million budget.¹⁴ *Forbidden Planet* was produced by MGM, a studio that was apprehensive towards sci-fi but thought that because the film was an adaptation of Shakespeare's *The Tempest*, its intellectual pretensions would make it a worthy A-level feature.¹⁵ As it would turn out, no major studios produced an A-level sci-fi feature after *Forbidden Planet*.¹⁶ In 1962, the only films of 22 released that year to make over \$1 million were comedies, highlighting the failure of dramatic science fiction.¹⁷ Until the release of *2001: A Space Odyssey*, the science fiction genre was mostly filled with spy films, historical adventures, and parodies.¹⁸

¹³ Schauer, 35.

¹⁴ Schauer, 57.

¹⁵ Schauer, 57.

¹⁶ Schauer, 102.

¹⁷ Schauer, 95.

¹⁸ Schauer, 106-107.

Kubrick's *2001: A Space Odyssey* is a monumental film in the history of outer space film as it prompted a widespread re-evaluation of science fiction cinema at large. At the time of its release, mainstream audiences viewed science fiction as "a juvenile genre detached from serious, adult concerns."¹⁹ Many critics initially panned the film, complaining that it was "confused," "dramatically inept," and "not to be taken seriously."²⁰ More artistically-minded critics and the youth were among the biggest supporters of the film in 1968, and it soon became a cultural phenomenon due to its unconventional narrative and heavy emphasis on special effects. As the film gained more popularity and counterculture esteem, critics began acknowledging it as a breakthrough of cinema. In response to negative reactions to the film, William Kloman wrote in the *New York Times* a month after the film's release: "people restless to 'get on with the action' miss what the real action is."²¹ For many viewers, the film's approach to storytelling and avant-garde visual style proved that there was well of potential for outer space film beyond exploitation horror and pulp.

Around the same time as *2001*, the American space program and the Apollo missions lingered in the mainstream cultural psyche and influenced space film production. Films such as *Countdown* (1968) and *Marooned* (1969) were produced to profit on their relevance to concurrent space missions and follow the hypothetical space film model presented by *Destination Moon*. There were not many outer space films produced during this time. Most science-fiction film from the late '60s to early '70s had their stories contained to Earth in order to keep production costs low, appeal to more politically-minded viewers, and, keep the genre "from the exploitation

¹⁹ Schauer, 114.

²⁰ Schauer, 114-115.

²¹ Schauer, 118.

tradition of the past” where “the specter of Buck Rogers lingered.”²² But going into the later 1970s, *2001* had the biggest effect on the production of space film as it made major studios more willing to experiment with film form and content.

The biggest hypothetical space film of the early 1970s was Douglas Trumbull’s *Silent Running*. It was Trumbull’s directorial debut after working on the effects team for *2001: A Space Odyssey*. *Silent Running* is a hypothetical space film with strong environmentalist themes. The film was considered a flop but constituted a landmark in effects in the uniquely rendered Valley Forge spaceship and lovable robot companions. Later in the ‘70s, the rise of the blockbuster contributed heavily to the resurgence of pulp and fantasy in popular space film. George Lucas started production on *Star Wars* with a background in experimental filmmaking and a penchant for joyful adventure. The fantastical nature of *Star Wars*’s narrative was influenced by adventure serials such as *Flash Gordon* and shied away from the intellectual pretenses of films like *2001* and *Silent Running*. The area where *Star Wars* had the most lasting influence, however, was in visual effects. *Star Wars* pioneered both the “ILM aesthetic,” which centered around seamless photorealism and Lucas’s investment in the aesthetics of graphic dynamism.²³ *Star Wars* aimed to be both credible and fantastic in its aesthetics, requiring Lucas to build multi-layered cinematic environments that would look believable from the eyes of the camera.²⁴ *2001* strongly influenced Lucas’s development of the ILM aesthetic by providing a

²² Schauer, 151.

²³ Julie A. Turnock, *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics*, (New York: Columbia University Press, 2015), 68.

²⁴ Turnock, *Plastic Reality*, 23-24.

photorealist style that all future space film would be measured against.²⁵ But, in contrast to *2001*, the photorealist style of *Star Wars* was manifested through a “lived-in” cinematic environment. Realism and credibility are derived from intricate details of the world that illustrate signs of use and information about the world of the film. This style can also be seen in the space film *Alien* (1979), where at breakfast, cluttered domestic trappings and cigarette smoke coexist with a more fantastical set design.

The other significant impact of *Star Wars* in outer space film was its focus on graphic dynamism. Graphic dynamism is a mode of filmmaking that aims to relate the sensual and intellectual impact of film by rousing the viewer with visually striking cinematic aesthetics.²⁶ This is often achieved through techniques such as the rapid juxtaposition of sound and image, kinetic energy, and compressing time and space. The notion of graphic dynamism is rooted in experimental animation and montage filmmaking of directors such as Sergei Eisenstein.²⁷ The star gate sequence in *2001* is a famous example of graphic dynamism in space film prior to *Star Wars*. For Lucas, graphic dynamism takes the form of impactful sound design synchronized with flashes of light and color. The colored strobes and quick cuts of laser fights throughout *Star Wars* are one example of how the film uses graphic dynamism to communicate the sensory adventure of outer space to audiences. Following *Star Wars*, more outer space films took a fantastical and graphic approach to representing outer space and constructing a narrative.

²⁵ Turnock, 70.

²⁶ Turnock, 15.

²⁷ Turnock, 116-117.

Two major fantastical outer space films were released the same year as *Alien*: *Star Trek: The Motion Picture* (1979) and Disney's *The Black Hole* (1979). Released ten years after the original series was canceled, *Star Trek: The Motion Picture* was a critical failure. The film was rushed to meet its December release date, leading to a remarkably inexpressive use of effects despite effects supervisor Trumbull being given a *carte blanche*. *The Black Hole* was similarly ill-received despite garnering praise for its special effects. In a 1980 issue of *Cinefantastique*, a magazine started by Frederick S. Clarke dedicated to professional and sophisticated criticism of fantasy, horror, and sci-fi films, Clarke writes that *The Black Hole* exhibits “a total lack of understanding on the part of its makers as to what constitutes good science fiction, or good filmmaking for that matter.”²⁸ For many, the outlandish fantastical elements of *The Black Hole* resulted in a poorly constructed story that didn't make compelling use of its setting or characters. In the next decade, however, more well-received space films were produced in both the hypothetical and fantastical modes of filmmaking.

The following year saw the release of *Flash Gordon* (1980), a campy tribute to its parent 1936 serial and the pulp traditions of outer space film's past. With acclaimed art-film veteran Max von Sydow in the cast and a soundtrack by Queen, *Flash Gordon* presents a joyfully self-aware vision of fantastical outer space that revels in irony and humor. The early 1980s also saw the release of the next two installments of the *Star Wars* trilogy: *The Empire Strikes Back* (1980) and *Return of the Jedi* (1983). These two films continue the tradition of pulp adventure set by the first installment while striving for more sophisticated narratives and achievement in special effects design. The extreme versatility of outer space in film was then

²⁸ Schauer, 134-135.

demonstrated in 1984 with the release of three films: *2010: The Year We Make Contact* (1984), *Dune* (1984), and *The Last Starfighter* (1984). All three of these films are particularly notable outer space films. *Dune* for its notoriously disappointing execution, *2010* for being tasked with following up Kubrick's masterpiece, and *The Last Starfighter* for its use of CGI effects and integration of video games into the narrative. These films were all produced as blockbusters, following the legacy of *Star Wars*, and demonstrate how the fantastical space film was the more popular among mainstream audiences. The second half of the 1980s saw the release of *Aliens* (1986), the sequel to 1979 hit *Alien* with James Cameron as director, further solidifying fantastical space film as the more popular and profitable mode of filmmaking.

Production of space film has continued heartily from the 1990s into the present day. The hypothetical space film saw two giant releases in *Apollo 13* (1995) and *Armageddon* (1998). Both of these films took a distinct approach to the genre, as *Apollo 13* is a docudrama firmly grounded in historical events while *Armageddon* takes scientific and stylistic liberties as it provides the action film model for the hypothetical space film. Additionally, the renewal of the *Star Wars* franchise began at the end of the decade with *Star Wars: Episode 1 - The Phantom Menace* (1999). *Star Wars* then became the biggest hits of the '00s with the second and third installments of the prequel trilogy, *Attack of the Clones* (2002) and *Revenge of the Sith* (2006). During this decade, fantastical space films continued to be the predominant mode of filmmaking, though films such as *Solaris* (2002) and *Moon* (2009) followed in the hypothetical tradition.

Currently, production of hypothetical and fantastical space films continue as the hypothetical begins to rise in cultural prestige. Films such as *Gravity* (2013), *Interstellar* (2014), and *The Martian* (2015) received a great number of awards and fared better at the Oscars than most fantastical space film. Other hypothetical space films produced during this time include *Europa Report* (2013) and *Approaching the Unknown* (2016). The fantastical space film today retains its popularity mainly through the Marvel franchise and sequel *Star Wars* trilogy, with films such as *Guardians of the Galaxy* (2014) and *Star Wars: The Last Jedi* (2017). Throughout this extensive history of outer space on film, hypothetical space film has rarely held the limelight despite exerting a great influence over creative and industrial trends.

In the first chapter of this thesis, I will define the hypothetical space film and its elements through a study of *Destination Moon*. As the progenitor of the genre, nearly every plot beat of the film points towards a genre convention that appears again and again in the decades to follow. When conducting my genre study of the hypothetical space film, I shall use Jeanine Basinger's *The World War II Combat Film: Anatomy of a Genre* as a model. In her book, Basinger dedicates a chapter to arriving at a comprehensive definition of her genre of study. She dissects the film *Bataan* to arrive at what it means to be a WWII combat film and I will do the same to *Destination Moon* to arrive at what it means to be a hypothetical space film. Basinger's systematic breakdown of *Bataan*'s story elements is an effective way to illuminate the conventions and patterns of a genre, so I will apply this technique to my definition of the hypothetical space film.

This chapter will also give an overview of the genre's development, touching upon important films from 1950 to 2015 that illustrate how filmmakers innovate within the conventions set by *Destination Moon*. From there, the second chapter will be solely dedicated to the aesthetics of outer space on film. This chapter will begin with an analysis of the hypothetical space film's expressive use of realism in rendering space. Films such as *2001: A Space Odyssey* and *Interstellar* will illustrate how the genre creates an expressive and evocative vision of space while conforming to the limits of scientific accuracy. This discussion will be followed by an aesthetic analysis of the "unknown" in hypothetical space films. The aesthetic techniques used during confrontations with the unknown greatly contrast with the goals and style of realism. I shall explore this dichotomy in order to reach a full conclusion on how this genre uses aesthetics to affect viewers. In order to further distinguish the aesthetic techniques of the hypothetical space film, the second chapter will also include a brief discussion of pervasive aesthetic trends in fantastical space films. This is an important discussion as fantastical space films provide the model for generally accepted "movie space" and are more impactful in shaping audience's expectations of space. The discussion of hypothetical space aesthetics in this chapter will demonstrate how the genre plays with these expectations and guide the audience's emotional response to the film.

Finally, this thesis will conclude with a chapter solely dedicated to a case study of Alfonso Cuarón's *Gravity*. *Gravity* is an important film in the development of the genre for how it deepens the narrative potential of the genre's conventions. This chapter will dissect both the plot and aesthetics of the film, analyzing how the

language of the hypothetical space film is adapted to tell a story previously foreign to the genre. Together, these three chapters will give a clear picture of the history and current state of the hypothetical space film. Through the study of this genre, we can better understand how space engages with viewers and occupies a unique, significant place in cinema.

Chapter 1

Liftoff! The Development of Space and Technology From Gimmick to Genre

Space before 1950

As the first half of the 20th century was coming to a close, almost all production of science fiction film had been part of the pulp tradition. The influence of *Buck Rogers* (1939) and *Flash Gordon* (1936) pervaded film production and the popular opinion of science fiction. By the 1940s, science fiction was entrenched in the niche audiences of children or specialized adult fans. Film studios in the mid-20th century looking to produce science fiction movies were faced with the dilemma of opening a niche genre to a wider audience. Additionally, around this time there was a proliferation of more “juvenile” forms of the genre, such as the television space opera, that further marked science fiction as a frivolous product aimed at younger consumers.²⁹ This sentiment was augmented by the perpetuation of comic book characters in popular media that started in the 1930s. Everything, from the content of film and radio to the time they were broadcast, was aimed at marketing the genre to an audience of children. One of the first immensely successful cinematic products of this time was the 1936 *Flash Gordon* serial. Although many of the serial’s supplementary products (costumes, toys, etc.) were aimed primarily at children, Universal attempted to make the serial appeal to a “mixed audience” of children and

²⁹ Schauer, *Escape Velocity*, 22.

adults alike.³⁰ Despite performing well, *Flash Gordon* did not help shift the main demographics of either sound serials or science fiction. *Variety* magazine went as far as to call the style of science fiction practiced by *Flash Gordon* “far-fetched” “pseudo-scientific thriller-givers.”³¹ This cultural association of science fiction with juvenile audiences helps explain why there were few American big-budget science fiction features leading up to 1950. Studios that aimed to produce a distinguished science fiction work would have to overcome audience prejudice and assure the adult population that the film would be catered to their tastes.³² Before the release of *Destination Moon*, the status of science fiction film, and the space film by extension was highly fantastical and associated with children's' entertainment. More prominent authors aimed to have a higher level of scientific realism to their works, but this sentiment had not translated to film production just yet. In order to sell *Destination Moon* as a profitable, bigger-budget, adult feature, Eagle-Lion would have to actively work against the cultural stigma of the fantastical.

At the time of production, Eagle-Lion was in debt and needed *Destination Moon* to be a massive success. The film had to be established as an “A” feature from a studio that until then was known for churning out “B” films. On top of all this, the final budget for the film was \$587,000: well below the standard budget for an “A” feature at the time.³³ In order to sell the film as a marketable science fiction “A” feature separate from the pulp tradition, Eagle-Lion strongly emphasized the film’s

³⁰ Schauer, 26.

³¹ Schauer, 26.

³² Schauer, 30.

³³ Schauer, 34.

scientific realism both within the film and in the marketing strategy.³⁴ Rocket scientists and technical personnel visited the set during shooting to ensure the highest level of scientific accuracy. The advertising campaign worked to deliberately and specifically separate *Destination Moon* from the tradition of science fiction pulp. Producer George Pal told the *Los Angeles Times* that there would be no “Buck Rogers comic-strip stuff” and promotional material given to exhibitors stated, “there is no hokum, no comic-book sensationalism, no pulp magazine fantasy.....here is FACT.”³⁵ The film is a work of science fiction, but the producers wanted it to be seen as something greater and more sophisticated. The conscious effort to sever the film’s connection to existing trends in science fiction suggests why the film became the genesis for a new genre: the hypothetical space film. Fealty to scientific accuracy and avoidance of pulp tropes in the script encouraged the filmmakers to develop conventions that would become the building blocks of the hypothetical space film and influence the genre for decades afterward.

Teamwork and Transcendence

Before I begin my analysis of *Destination Moon* as a seminal hypothetical space film, I shall lay out the prevalent narrative of the genre. The experience of watching a hypothetical space film is the experience of watching the relationship between humanity and the universe expand. By definition, this is a genre where the premise of the film has a specific relationship to the historical context of production. Characters are people from our Earth and stories are grounded in contemporary

³⁴ Schauer, 35.

³⁵ Schauer, 37.

scientific knowledge. An important element of these films is that the characters come to represent humanity at large. The experiences and transformations of the characters speak more to progress on a global scale than they do on a personal level. Humans, over the course of the film, travel into space and come into contact with some form of the “unknown,” which prompts a re-evaluation of the relationship between humanity and the cosmos. Effects of this re-evaluation often include the elevation of humanity, the reaffirming of humanity’s progress, and/or a major transcendence of perspective. This genre, born out of a desire to provide more scientifically-minded films, offers a unique viewing experience that evokes feelings of accomplishment and enlightenment through scientific exploration. Hypothetical space films most often celebrate scientific thinking and humanity’s mastery of science and allow the viewer to transcend their human scope of perception. They do this through exploring the virtues and consequences of journeying into space, showcasing the wonders and dangers of the universe, and commenting on the place or role of humanity in the universe. These films give audiences a transcendent cosmic experience from watching humanity evolve through the scientific solving of seemingly impossible problems.

The technology-centric plot of *Destination Moon* solidified the standard conventions and structure of the hypothetical space film. Central to the film’s status as a foundational work is its focus on the relationship between humans and outer space. *Destination Moon* is, by a long shot, not the first American work to feature outer space as both *Flash Gordon* and *Buck Rogers* predate the film. But despite being set in outer space, these serials do not give it the same thematic treatment as

Destination Moon. Hypothetical space films, starting with *Destination Moon*, provide a meditation of humanity's position within outer space and explore the trials and rewards of humanity's journey into the unknown. *Destination Moon*, with its obsessive attention to fact and reality, gives us the icons, characters, situations, problems, and themes of the standard hypothetical space film. The film is a story of a group of men who, through ingenuity and mastery over science and technology, achieve the impossible and stimulate a re-evaluation of humanity's place in the cosmos.

The film begins as all hypothetical space films do: with the initial mission. The initial mission forces us to move beyond our boundaries. There is an established relationship between humanity and space at the onset of the film and the mission calls on characters to expand that relationship. In this way, the initial mission also serves as the call towards the "unknown." The "unknown" is the quality of outer space that attracts us. It reflects outer space as a place of extreme danger, extreme beauty, and extreme knowledge all at the same time. The thematic weight and dramatic tension of hypothetical space film rests on the collision of the unknown with humanity. But before we can enter the unknown, we must be called there. This narrative model is similar to the "hero's journey" model, as both contain calls to adventure that push the protagonist beyond their comfort zone within the world. The crucial difference lies in how the hypothetical space film nearly always generalizes this adventure beyond the hero and applies it to humanity as a whole. The initial mission acts as this call to action and provides the specific context of how humanity is going to engage with the unknown. Typically, the mission is presented in a mission briefing scene that plainly

lays out the motivation for the film's journey. In *Destination Moon*, the mission is twofold: we must go to the moon to stop other countries from using it for war, and we must go to the moon because we can. To the crew members, the crux of the mission is to be the first to step foot on the moon. "It's research! Pioneering!" proclaims one of the crew members when asked why it's worth going to the moon. The setup of the initial mission clearly articulates the separation between humanity and the unknown. As it stands in the beginning of the film, the moon is a place of immense wonder with the potential for great danger. In order to protect humanity, the crew must brave the danger of the unknown. Another role of the initial mission is to locate the film's narrative relative to the time of production. Anchoring the film in a specific time frame dictates the technology available to the narrative and can also provide auxiliary narrative concerns for the film. *Destination Moon* takes place at roughly the same time as its production, and the animated short presented at the mission briefing educates the characters and the audiences on the basics of rocket science while further establishing the setting of the film in the pre-Apollo United States. During the mission briefing, particular emphasis is placed on the importance of stopping other countries from using the moon for war. The military thread is quickly cast aside as the film progresses, functioning more as a statement on 1950's national anxieties rather than a consistent narrative feature. The animated short also gives historical context to the film. Its visual style resembles that of Walt Disney's *Disneyland* (1954) television program. Furthermore, an episode of *Disneyland* titled *Man in Space* (1955), with notorious aerospace engineer Wernher Von Braun, gives a similar though much more substantial explanation of rocket science. An interesting note about the animated short

in *Destination Moon*: the narration emphasizes that traveling to the moon is not “comic book” stuff, reiterating the sentiments of the film’s promotional material and distinguishing it from earlier science fiction. The animated short is a concise method of cramming all of the technical specifics of space travel into a digestible sequence that the financial backers within the film and the audience can understand.

The next element of hypothetical space film that *Destination Moon* establishes is the assembling of the team. There are four members of the team in *Destination Moon*: General Thayer (the military-minded space nut), Jim Barnes (the manufacturing magnate), Dr. Charles Cargraves (the scientist), and last-minute add-on Joe Sweeney (the younger, less-polished radio operator). Hypothetical space films nearly always focus on the efforts of a team in space, not an individual. Although certain members can be singled out for their expertise or shortcomings, the emphasis is usually placed on how the characters function together as a single team unit. In *Destination Moon*, the team is comprised of individuals with specialized backgrounds: military, industry, science, and everyman. Though pulling one person from every pool doesn’t become a standard model for assembling teams, it generalizes characters into archetypes that will be repeated throughout the genre’s development. The distinction between individuals with military and science backgrounds becomes a point of drama for *Countdown* (1968). Lowell in *Silent Running* (1972) is repulsed by the everyman attitudes of his crewmates. *Destination Moon* articulates the greater strength of the team through the division of labor and responsibilities. The separation of responsibility indicates that in order to succeed in space travel, humans must work together. This film, like many other hypothetical

space films, suggests that no one person alone can face the unknown. One of the truest measures of humanity is the ability to work together towards a common goal. The crew members in *Destination Moon* follow this philosophy, establishing a role for the team that will be heavily modulated and experimented with in future films. A feature of the team assemblage unique to *Destination Moon* is that the final step in the formation of the team (enlisting Joe Sweeney) is entwined with the role of protocol.

Protocol is found in all hypothetical space films, it is the spoken or unspoken code of behavior and instructions that guide the progress of the mission. In the hypothetical space universe, protocol gives the narrative a degree of scientific authority and maturity. A clear and rigid protocol system emulates the tone of a real space mission, where every move and decision is pre-calculated. The emphasis on protocol allows for myriad narrative possibilities. Suspense and drama are created through the subversion or breaking of protocol, a key feature in nearly all hypothetical space films. Breaking protocol is significant in that it often propels the narrative forward, but is important on a thematic level because it characterizes the humanity of the crew. Protocol is rigid, logical, and machine-like. Any basic computer or machine can follow protocol and in this genre, only humans are capable of breaking protocol which makes it an intrinsically human act. In *Destination Moon*, the crew breaks protocol by launching the ship in spite of public protest and a court order. Prior to take-off, public opinion turns against the crew due to paranoid propaganda about potential radiation danger from the rocket launch. In response, a court order forbids the rocket from taking off before this is addressed. The crew figures that if this launch is stopped, they'll never get another chance to go to the

moon again, so they break protocol by ignoring the order and launching ahead of schedule. Doing so forces them to replace their sick radio operator with Joe Sweeney, but the long-term payoff is a successful mission. Protocol in this genre places rationality in opposition to humanity, emphasizing the limits of scientific thought and planning. The irrationality of humans becomes an integral component that leads to higher understanding and transcendence. Breaking protocol is a technique to illustrate how the intrinsic qualities of humanity are a critical factor in overcoming danger and the unknown.

The liftoff sequence exemplifies protocol in *Destination Moon*. Preparing for takeoff, the four crew members systematically strap themselves into their seats. They each pull a control panel in front of them and flip a series of bright red switches in quick succession, each one offering a crisp and satisfying *click*. Jim, the captain, relays orders to the Joe at the radio, who communicates with ground control in an extremely concise, technical, and practical fashion. Dry technological jargon such as “phone check tracking center” dominates the dialogue, setting up a sense of rhythm and progression. Switches are flipped and buttons are pressed, all in the right order to give the viewer a sense of the process that goes into completing a mission on a cosmic scale. Verbal confirmation is required on all of the instruments, communications, and the power station. This confirmation, in turn, establishes a sense of balance and order aboard the spaceship. As the crew finishes the last few tasks, sound cues enter the film to punctuate the end of the process. A warning sound blares at regular intervals over the last lines of verbal confirmation until a loud siren emerges at the conclusion. Protocol and process also serve as a way of cinematically

rendering technology. Hypothetical space films are replete with technology and technological jargon. Technology is what propels us, humans, forward. It reflects the grandeur and capabilities of scientific reasoning. Following protocol allows the humans on board to interact with technology in a way that is emblematic of their mastery over it. The spaceship is littered with dials, buttons, levers, and screens but the process of protocol subjects all of these visual elements to the prerogative of the crew. The crew members have total mastery over their vessel and technology the same way Jesse James has mastery over his horse and *The Man With No Name* has mastery over his gun. The strong emphasis on protocol also creates cinematic rhythm and patterns that the audience can follow. The deliberate, steady pace of protocol helps to communicate the impressive feeling of technology to the viewer. We are told, directly or indirectly, what the dials and switches do and can feel the effect they have on the characters and the film. Translating the process of space travel into easy to follow cinematic patterns gives the viewer a sense of mastery and progress as they watch the film.

Once the crew escapes from Earth and there's no immediate protocol to follow, the film shows us how these astronauts spend their time aboard the ship. Within the ship, we are given a brief period where the men bond by joking around with each other and playing music. During this journey in an inhuman land, the astronauts have time to be human and relate to each other as such. At the beginning of hypothetical space films, the runtime dedicated to the mission and exposition give little space for character development. For *Destination Moon* and other films such as *2010: The Year We Make Contact* (1984), the introduction of bonding and more

human characteristics serves as a break into the second act. *Destination Moon* is preoccupied with the scientific aspects of the film, so this moment isn't given time to fully develop before an issue with the antenna is discovered. Other speculative space films such as *Interstellar* (2014), made with the blockbuster appeal in mind, use more of this time to develop their characters and establish personal conflicts among the crew. The spaceship acts as an incubator of humanity and drama in these films, so filmmakers will come to use the non-technical time to add a layer of human drama that compliments the main arc of their films. This layer of human drama gives the audience another entry point into hypothetical space film that isn't dominated by technology and science. It makes the characters identifiable, relatable, and ultimately makes their triumph a more personal experience for the viewer. If the crew is going to represent humanity, being able to relate to them is important in establishing an emotional connection with the audience.

During the journey in *Destination Moon*, the crew discovers that the radio antenna on the exterior of the ship has been frozen. The frozen antenna sequence combines two common elements of the hypothetical space film's structure: the technological failure and the spacewalk. Technological failure can take many forms, the key feature being that it can only be fixed by direct human action. Humanity must re-master the technology if the mission is to continue safely. With many of these films, there is more than one technological failure or problem. Each time an issue relating to technology occurs, the crew must once again regain mastery over their constructed environment. The spacewalk can serve a number of purposes. First and foremost, it acts as a contact between humanity and the unknown. This can be a

practical first contact or introduction to space, as it is in *Destination Moon*, or serve as the final moment of transcendence, as it does in *The Martian* (2015). A shift in perspective is a feature of coming face-to-face with the unknown and the crew in *Destination Moon* experiences this shift as they look down upon Earth from a volatile and dangerous environment. As one of them says, they'll "never be able to describe it to anyone." Spacewalks provide the crew with the opportunity to transcend the narrow scope of human perception and reflect on the massive wonder of space. But with that wonder comes a danger. When Cargraves is set adrift in space, the awesome wonder becomes an awesome danger. The film drops the tone of enlightenment and portrays space as an unforgiving abyss. Hypothetical space films, like *2001: A Space Odyssey* (1968), switch between these two tones at different points in the story depending on which is more helpful to the narrative. Abrupt switches such as this one are used frequently to generate dramatic tension and comment on the nature of space as a whole. Space is used as both setting and narrative problem in hypothetical space film, and spacewalks typically illustrate this idea most clearly. To save his crewmate, Barnes has to bravely jettison himself off the rocket with an oxygen tank. This action uses Barnes's improvisation to show how we can overcome the danger of the unknown. The only thing stronger than the indifferent violence of space is the resourcefulness of human thinking.

When the spaceship Luna makes lunar touchdown, we are introduced to a crucial component of the hypothetical space film: the revelation of the unknown. Until this point in the film, the moon is an object of desire and an abstract goal for the protagonists. We do not know what is there, or if anything lies in store for us, but we

want to go there anyway. This attitude is typical of how these films treat the unknown during the front end of their narratives. As two of our astronauts open a side door and look out onto the landscape, the unknown becomes known. In *Destination Moon* and many films to follow, this revelation is handled in a predominantly visual manner: the significance of the moment is rendered pictorially instead of through dialogue. For *Destination Moon*, the unknown is ultimately and climactically presented as a long, sprawling tracking shot of the lunar landscape. This image is meant to transcend our human scope of knowledge. Its steady pace and fantastic detail prompt the viewer to watch it with an equal sense of awe and meditation. At this moment, the unknown is presented directly to the audience, they don't see it through the lens of any character. In order to create the feeling of transcendence and higher understanding, the film must make the *viewer* feel that they are seeing something beyond perception for the first time. The hypothetical space film aims to inspire a reflection on our place in the universe. The expansive lunar surface shot presents the viewer with a landscape so unlike anything we encounter on Earth that it forces us to reevaluate how we view nature and our environment. Additionally, to audiences at the time, it was meant to be absorbed as an accurate depiction of what the lunar surface would look like, as artist Chesley Bonestell highly valued authenticity.³⁶ Ultimately, this experience of setting foot on the moon and the spectacular influx of cosmic knowledge elevates humanity within the film. Barnes, looking out across the lunar surface, claims possession of the planet "for the benefit of all mankind." The action of landing on the moon is symbolic of humanity's achievements and intellectual triumph. Out of completing the initial mission (reaching the moon before the Russians do), we undergo a shift in

³⁶ Schauer, 36.

perspective and humanity's triumph is celebrated through our experience with the unknown.

After the group lands on the moon, they engage in radio conversation with people back on Earth. Communication is a common element in hypothetical space film and plays an important role in developing the themes and situations of the genre. When the protagonists are in space, communication (radio or otherwise), is the main way of establishing a connection to Earth. Whether it's mission control or family on the other line, the party on the receiving end gives the crew a relationship to Earth and humanity at large. *Destination Moon* does not make extensive use of its communications during the journey to the moon, opting instead to use it after the landing to reaffirm the spectacle and triumph of the mission's success. The communication is later used in what will become a more typical fashion when the crew discusses with mission control how to return to Earth after using too much fuel on the landing. The participation of both the crew and mission control during this moment is emblematic of a collective human effort to return the crew home safely. Upon reaching a solution, the crew realizes that they will have to leave their radio systems on the moon in order to reach the critical mass needed to escape the moon's gravity. This decision demonstrates another common element of hypothetical space film: losing communication. Just as the presence of interstellar communication is a common story block, characters nearly always lose their ability to communicate with Earth over the course of the film. This is indicative of the total isolation and distance brought about by space travel and a common trial throughout the genre. If the communication is a stand-in for the crew's connection to humanity, then losing that

communication represents the severing of that connection. Without the assistance or emotional guidance of the people of Earth, the crew has to come up with a course of action by themselves in the middle of their deadly environment. Often, the severing of communication offers a way for the crew to demonstrate the power of effective teamwork and/or humanity's potential for greatness in ingenuity and accomplishment. In *Destination Moon*, the decision to disconnect and trash the radio illustrates the crew's ability to solve an apparently impossible scientific problem, thus demonstrating humanity's ingenuity. Without communication to ground control, the crew has no way of verifying that their calculations are correct. This provides a significant contrast between the take-off from Earth and the take-off from the moon. When leaving the Earth, the take-off sequence focused on the protocol of the mission and showing off the capacity for technology to propel humanity forward. When leaving the moon, protocol is impossible and the crew has to deconstruct the technology they previously celebrated in order to propel humanity even farther. The shedding of technology, as seen during the end of *Destination Moon*, is not a common feature of the genre but becomes one option for exploring the formula and themes of the genre. It is used most notably in *Gravity* (2013), as I will discuss in Chapter 3.

Just before the crew decides to abandon the radio, they experience a personal and existential dilemma aboard the ship. Needing to shed slightly over 100 pounds, they begin to argue over who will be left behind in order to save the others. This brings a personal dimension to the technical problem, converging the crew's human dilemma with the mission's technical dilemma. Bringing these two problems together at the climax is highly typical of the hypothetical space film, as resolving both

problems simultaneously is an effective way to demonstrate humanity's transcendence. Again, *Destination Moon* doesn't dwell heavily on the humanistic side of its narrative, opting instead to focus more on technical aspects of the narrative. But even so, the film is significant in how it sets a precedent for this mode of resolution. Ejecting the final spacesuit and the radio, the crew safely returns to Earth, where we can revel in their triumph and exploration of the unknown.

Legitimization, Experimentation, and Kubrick

To reiterate, these are the main building blocks and conventional elements of the hypothetical space film, as demonstrated in *Destination Moon*:

- Establishment of present human-space relationship.
- A mission forces the characters to move beyond their boundaries. There is a call to the unknown and/or desire to expand the current human-space relationship.
- A team is assembled for the task. Individuals may be singled out for expertise, but everyone functions as part of a greater whole.
- The group follows a precise protocol for the mission, carrying out orders and tasks with machine-like efficiency.
- The group, or one particular member, breaks protocol. This is done as a way of asserting human qualities to solve a technical issue or achieve an impossible goal.
- Mastery over technology propels the group forward in achieving their goals.
- Communication is established and later lost between Earth and space. Communication acts as a stand-in for the group's connection to their home and their past.
- Technology fails and humanity is tested.
- A re-mastery of technology is attained, reaffirming human ingenuity.
- The group has time to be personal during the journey. Human problems and drama emerge among the group.
- One or more group members go on a spacewalk, creating direct contact between the human and the unknown. This often highlights both the beauty and danger of space.

- The unknown becomes known and the human scope of perception and/or knowledge is transcended.
- Personal/human problems are resolved as technical problems are resolved.
- Humanity is elevated by the experience, and the viewer leaves the theater feeling an enlightened and expanded relationship with outer space.

As more and more hypothetical space films were produced, these elements were frequently modulated to offer fresh and exciting viewing experiences. One such convention that has been used across multiple decades is that of the robotic or A.I. assistant. This convention first appeared in the fantastical space film *Forbidden Planet* (1956) with Robby the Robot. For the hypothetical space film, the convention premiered most prominently in *2001: A Space Odyssey* with the HAL 9000. Within the genre, the A.I. or robotic assistant is a sentient machine that both assists the group in their mission while also representing the scientific capabilities of humanity within the film. However, these poor robots are nearly always made under unlucky stars. Hypothetical space films that include a robotic assistant commonly sacrifice these characters at some point during the story. This is true for HAL 9000 in *2001*, Huey and Louie in *Silent Running*, and TARS in *Interstellar* until Cooper (Matthew McConaughey) solves the tesseract. Additionally, many hypothetical space films re-establish communication between Earth and the group after it has been disconnected. This can serve a multitude of purposes but generally serves as a way of establishing a new kind of interaction between the crew and Earth. For example, *The Martian* re-establishes communication twice: first between Watney (Matt Damon) and Earth, then between Watney and his crewmates. This web of communication is used in the film to develop conflict between Watney, his crew, and their superiors at NASA.

All of these conventions relate to how these films treat space as a narrative problem. Space is a place of great wonder and knowledge, but it must be overcome if we want to access this pool of wonder and knowledge. The dangers of space are manifest in its intrinsic qualities; the only way to surpass this danger is through rigorous mastery of technology and the ability to solve seemingly impossible problems such as fitting a square peg into a round hole. In every frame outside of orbit, the presence of space lingers over the crew like a sleeping dragon. All technological problems point towards the same outcome: being left at the mercy of space to die or float away forever. Additionally, space remains untouched and relatively constant over the course of humanity's time on Earth. Meaning that, unlike other settings such as an ocean or the frontier, it's difficult to introduce specific threats that come from the environment without bringing the film to the level of fantasy. Also, of all fields of adventure, outer space is the only one that is still largely unexplored. It was and is the final frontier, having experienced almost no change over the hypothetical space film's history. This means that hypothetical space films must find different ways to exploit what is essentially the same danger from film to film. Ultimately, this is to the hypothetical space film's advantage because it encourages filmmakers to exploit the conventions in new ways and explore the dramatic potential of space travel stories.

After *Destination Moon*, the hypothetical space film wasn't widely explored by major studios. The next major pictures to take this style of filmmaking seriously came in the late 1960s with three films: Robert Altman's *Countdown*, John Sturges's *Marooned* (1969), and Stanley Kubrick's ever-influential *2001: A Space Odyssey*.

Countdown was made in the shadow of the US's Apollo program and, like *Destination Moon*, is largely occupied with providing a realist and technology-centric film about space travel. It's not surprising then, that the press referred to it as a "space drama" rather than a science-fiction film.³⁷ By continuing to market these types of films as separate and distinct from sci-fi cinema, the press and producers legitimize the hypothetical space film as a genre in its own right. As a relatively early example of the genre, *Countdown* reflects a different approach to the genre that experiments with conventions established in *Destination Moon*. The film's mission briefing is similar to *Destination Moon*: get an American to land on the moon before the Russians. From there, the Russians play a large role in shaping the story, once again creating a strong link to contemporary American audiences. The major divergences in the film's structure are sending only Lee (James Caan) into space instead of a group of people and the dedicating a lot of the runtime to Lee's training program on Earth. These decisions allow for the film to center on a dramatic conflict between two astronauts against a hypothetical space backdrop. On Earth, Lee's training is overseen by Chiz (Robert Duvall), his superior who was passed over for the mission due to his military background. Chiz's jealousy comes out in training, in which he pushes Lee exceptionally hard in order to get him ready and potentially spur him to drop out. In the film, protocol is used against Lee, illustrating a novel use of genre convention. As the training supervisor, Chiz possesses a mastery over NASA's technology and protocol and uses this mastery to humiliate and bully Lee in simulations. The film's multiple instances of Lee failing in simulations demonstrate how the film attaches protocol to both mastery over technology and personal drama. In *Countdown*,

³⁷ Schauer, 151.

simulators are a way for the astronauts to practice communication and protocol before it comes time for the actual mission. Here, Altman elaborates on the expressive use of protocol by linking failure to follow protocol with both character conflict and the failure to master technology. While Lee is in a simulator, whether it's of the lunar surface or his cockpit, Chiz communicates succinctly and articulates with firm authority. Lee, on the other hand, fumbles often and has trouble. The most striking example occurs when Lee is in the flight simulator and Chiz throws multiple malfunctions at Lee at once. Chiz is firm and unyielding in his communication, giving instructions and countdowns like clockwork. Lee, on the other hand, struggles to fix the technological issues in time and can't communicate his difficulties to Chiz. Chiz's jealousy is expressed in his firm and cruel mastery of the simulator, eradicating the neutrality of protocol and turning it into a weapon.

The film also takes a new attitude towards the nature of space. By spending so much time with Lee's brutal training and withholding space until the final act of the film, Altman plays up the danger of space. This sentiment is also reflected in how Lee's wife objects to his going in the first place and Chiz's attempts to get her to convince Lee to pull out of the mission. The moon, and space by extension, is always treated as a political goal in the film. Most of the dialogue about space is dominated by the logistics of getting there or the difficulty of the journey. The one exception to this focus is Lee himself. Despite not being as qualified as Chiz, Lee decides to go partly because of his own sense of fascination and wonder at the moon. Lee's dreams of being an astronaut guide him throughout his torturous training and keep him motivated after the Russians launch their mission a week early. This highlights an

important feature of hypothetical space heroes: their personal dreams of space travel. Hypothetical space films set up fascination as a particularly human reason to challenge space and move beyond the status quo. Irrational desire contributes to the call towards the unknown and, like breaking protocol, can be a necessary step in achieving transcendence. The sense of glory and enrichment offered by space is what motivates these heroes to overcome the danger and leap beyond the scope of human perception. Additionally, these feelings and traits are important in giving the audience a character to hold onto and/or identify with throughout the film. People watch these movies because on some level, they want to experience space. Having a character who expresses this desire and acts on that desire to achieve their goals creates a stand-in for the viewer's personal desire to see space for themselves. This functions as a way to invest audiences in a drama that is prone to sterility. Also, applying the audience's desires onto characters is a way of making the feeling of transcendence and enlightenment that these films provide more personal.

Once Lee lifts off into space, the film follows what will become traditional conventions of the hypothetical space film. In the initial stages of the journey, Lee repeats his orders as he follows them one-by-one and has constant radio communication with Chiz in mission control. Shortly after, Lee encounters a malfunction in his spacecraft, difficulty communicating clearly with Chiz, and a period of radio silence. Unlike in most hypothetical space films, these problems are not treated with much severity. Instead, they are primarily used to develop the relationship between Lee and Chiz. Although he eventually complies, Lee is hesitant to follow Chiz's instructions, thinking his understanding of protocol at the moment is

more sensible. When Lee approaches the Lunar surface, he makes his major breach of protocol by landing without a visual on the Lunar shelter. His motivations in doing so are unclear. It's suggested that he could be trying to prove himself to Chiz or that his desire to walk on the moon is too great to ignore. Here, his irrational desire is highlighted as another step towards the unknown. Either way, it is the moment where Lee's humanity eclipses protocol and scientific reasoning and brings him into the unknown. On the moon, Lee discovers the wreckage of the Russian spacecraft and lays the Soviet flag with the American flag. Given the film's occupation with the space race, this act resonates within the context of the film as a celebration of human ingenuity and mastery over science above and beyond politics. The moon in *Countdown* offers a perspective that goes beyond national identity and conflict, allowing humanity to come together in the pursuit of knowledge. In the end, Lee's survival happens by chance but is emblematic of the genre's attitude towards space exploration. After laying out the two flags, expecting to die soon, Lee follows an arbitrary direction given to him by spinning his son's toy mouse that leads him to the Lunar shelter. This toy is the one item from Lee's personal life that he takes with him on the voyage, it is there to remind him of home and provide an emotional link between Lee on the moon and humanity on Earth. Completely lost on the moon, Lee has no data that he can refer to for direction except his human intuition. His relationship with his son saves his life, affirming that it is our human, emotional, and irrational qualities that push us beyond what we conceive to be impossible.³⁸ *Countdown's* Earth-based drama and structure, despite exploring new territory in the

³⁸ The impossible task here refers to landing on the moon and finding the shelter with no reference point.

genre's themes and conventions, did not resonate as a lasting approach to hypothetical space film. Kubrick's *2001: A Space Odyssey*, released later that year, is a true landmark film in the development of the genre both in terms of developing its conventions and legitimizing its appeal to a mainstream audience.

The importance of *2001* to outer space cinema cannot be overstated, it was an undertaking like nothing before and changed the way audiences thought about outer space in film. As a well-known perfectionist, Kubrick was a perfect match for the scientific accuracy and technological focus of hypothetical space film. Like *Destination Moon* and *Countdown* before it, *2001*'s marketing campaign was aimed at separating it from the pulp tradition that science fiction was known for at the time. Posters for the films used lunar iconography to link the film to the concurrent Apollo program in an attempt to ground the film in reality to potential consumers.³⁹ Though many of the film's breakthroughs are rooted in its aesthetics and special effects innovations, which I will more thoroughly discuss in the next chapter, it also significantly bolstered the esteem of the hypothetical space film and re-invented several important conventions of the genre. The first example of this is how *2001* relates humanity to space at the onset of the film. When the audience is introduced to the human characters, they are presented as living in the hypothetical future of space travel. The "Blue Danube" sequence is followed by an interior look at Dr. Floyd's spaceflight. Technological marvels such as anti-gravity shoes/floors, space toilets, space phone, and rotating corridors are presented as commonplace features of space travel. Humanity demonstrates a pre-existing mastery over technology and space at the beginning of the film that defines the current human-space relationship. Though

³⁹ Schauer, 113.

no man had yet walked on the moon at the time of its release, *2001* makes the trip look like a breeze. This opens up new possibilities for hypothetical space film because the unknown is no longer tied to one specific period-relevant goal. The story still takes place in our universe with humans from our Earth, but setting it in our future gives filmmakers license to expand even further on the human-space relationship. This raises an important issue within the genre: where to place the limits on depictions of the future? One answer to this question is to limit the vision of the future to the current belief held by experts. This is what Kubrick did in *2001*, as two NASA employees, Harry Lange and Frederick I. Ordway III were brought on as a production designer and scientific advisor, respectively.⁴⁰ Another method used in *2001* to make the future more digestible for audiences is the inclusion of recognizable brand names. A futuristic space plane becomes more relevant and accessible when it has a giant Pan-Am logo on its side. *Silent Running* uses similar production design through its incorporation of American Airlines. Additionally, when dealing with the future in the hypothetical space film it's important to more distinctly separate the status quo from the unknown. There must be something to illustrate how the relationship between humanity and space has yet to be fully developed. *2001* solves this problem by attributing the unknown to specific objects within the film.

In *2001*, the unknown is presented as the black monolith and, later in the film, Jupiter. *2001* presents a vision of the future where we understand nearly everything about space. This understanding is manifest in the wide array of spacecraft featured throughout the film and the dominance of technology throughout the narrative. The monolith is an effective stand-in for the unknown because of its enigmatic nature. The

⁴⁰ Don Shay and Jody Duncan, "2001: A Time Capsule," *Cinefex* 85 (2001): 77-78.

viewer understands that it is powerful and almost holy from the musical motifs that accompany it. Its sharp lines and perfectly symmetrical form reflect higher knowledge. The viewer is able to accept the enigmatic nature of the monolith due to the positioning of humanity within the cosmos. We know that the monolith is not of human origin due to its presence in the “Dawn of Man” sequence, so the mystery follows the viewer into space and beyond. Trying to come to terms with and understand the monolith runs parallel to the goals of the hypothetical space film: greater cosmic understanding through scientific exploration. The monolith and star gate sequence in *2001* opens this idea of cosmic understanding and transcending human perspective into the realm of the abstract. By creating a world that is familiar and constructed from concepts the audience knows and understands, the film is able to journey into places that the audience doesn’t understand. These stories use this structure to render discovery in cinematic form, which sets them apart from other genres and allows them to deliver a unique experience to the viewer. We say “wow!” at the shots of the Pan-Am spaceplane going into the rotating space station, but they do not challenge our idea of the universe, give us a sense of discovering something new, or lift us from our human perspective. When a spaceship travels through a stargate and the astronaut evolves into a wide-eyed star baby, we say “WOW!” and feel that we have learned something new about our universe and gain a new perspective on it. Both the spaceship sequences and the star gate are moments of spectacle, but the transcendence evoked by the latter is created through the film’s specific formal elements and presentation to the viewer. In Chapter 2, I will explain more thoroughly how the different instances of spectacle work on the viewer to

prompt meditation and transcendence. *2001*'s extrapolative future design opened the floodgates for how hypothetical space film can offer wonder, meditation, and transcendence to viewers.

Another convention mentioned previously in this chapter that *2001* expands upon, which has been featured in more fantastical space films such as *Forbidden Planet*, is the robotic assistant. The robotic assistant in hypothetical space film is similar to the spaceship in that they are a reflection of humanity's total mastery over science, but differs from other technological features in how it interacts with the human crew. This allows for a wide array of narrative choices based on how the robotic assistant is treated within a given film. HAL 9000, the robotic assistant in *2001*, is the brain behind the operation of the spaceship Discovery 1 and the middleman for communication between the crew and Earth. Furthermore, HAL is the only character mentioned who is seen carrying out the routine maintenance of the ship prior to his malfunction. Poole and Bowman are shown at leisure more than carrying out instructions or taking care of the spacecraft; their mastery is only implied through HAL's subservience. On the Discovery 1, HAL's personification and conscience bring technology to the level of character, opening up the possibilities for drama and tensions between him and the crew members. HAL's voice (Douglas Rain) is soft and expressive, making him sound more human than crewmates Poole and Bowman, who speak in stone-faced monotone. Additionally, HAL is prone to mistakes and hubris, qualities we would expect from the humans but are instead given to HAL. Over the course of the film, HAL is the character that breaks protocol and catalyzes the drama, suggesting through his irrationality and emotion that he is the

most human character. Bowman's attempt to re-master technology and re-affirm human ingenuity can then also be read as his attempt to prove his humanity by besting HAL. The structure of the narrative supports this interpretation, as Bowman's moment of enlightenment comes directly after he succeeds in deprogramming HAL. *2001* uses the conventions of the robotic assistant and mastery over technology to raise questions about the nature of humans within the film and put them directly at odds with technology. This creates an austere and novel sense of drama that is strengthened by Kubrick's distinct auteurist directorial style. Humanity's restrained nature in the film builds a sense of steady and controlled scientific progress that is heavily contrasted with the kineticism and subjectivity of the stargate sequence. This stark juxtaposition suggests that the genre positions the audience as a spectator to progress and scientific mastery, but as a participant in the transcendent experience. Characters in this genre are representatives of humankind, but the films restrain from including the audience in humankind until the moment of transcendence. The emotional pleasure of the journey then rises from observing the rhythm, precision, danger, and wonder of scientific exploration. When we come into contact with the unknown, the viewer is thrust from being an observer to being a participant. The actions performed by the characters (humanity at large) are the catalyst for a personal response to the encounter with the unknown. This isn't to say that the viewer doesn't identify with Bowman during this film or that we are supposed to be placed at an objective distance from the first 3 quarters of the film, but instead that these films utilize the plight of humanity's greatest minds to give the viewer a personal sense of enlightenment, mastery, and understanding. As a result, the viewer feels both

individual and collective enlightenment when they leave the theater. All of these innovations within the genre contributed to *2001*'s status as a cultural phenomenon, reviving interest in the outer space film and raising the genre's esteem. The artistically-minded direction of *2001* and groundbreaking use of effects proved that there is a future for hypothetical space film beyond the technological dryness of *Destination Moon* and cast a large shadow on later films in the genre.

Early Revisionism and the 1980s

One of the first hypothetical space films released in the wake of *2001* was Douglas Trumbull's 1972 film *Silent Running*. It was Trumbull's directorial debut after he had worked on special effects for *2001*. This film shows how the hypothetical space genre can be used to create a character study through its handling of Freeman Lowell (Bruce Dern). The plot of the film takes place in a future where all plant life on Earth is extinct and follows the crew of the *Valley Forge*, a space freighter outfitted with several biodomes where the last surviving forests are preserved. On the ship, Lowell is mainly responsible for taking care of the plant life within the domes and cares deeply for their preservation-- he even has a conservation pledge taped to the wall of his bedroom. In order to generate tension between Lowell and the rest of his crew, the film places its mission at odds with Lowell's philosophy. Until this point, the missions detailed in hypothetical space films are eagerly pursued by the characters. The crew in *Destination Moon* wants to go to the moon, Bowman and Poole want to reach Jupiter, etc. The mission in *Silent Running* is to jettison the biodomes aboard the space freighters, which is not a mission that acts as a call

towards the unknown. In this film, the relationship between humanity and space is one of isolation and stagnation, rather than wonder and excitement. Whereas in previous films the spaceship is a marker of humanity's mastery over science and the potential for a scientific drive to propel humanity forward towards progress and the unknown, the Valley Forge spaceship suggests that humanity has stagnated into an industrial and pessimistic position within the universe. Lowell clashes with his crewmates because they have surrendered to the disenchantment of space travel, refusing to hold onto their sense of wonder and Lowell's idea of humanity. In this film, being human isn't linked to triumphs over space and science, but instead to knowing what is worth preserving when life on Earth is no longer sustainable. In Lowell's mind, the right and human thing to do is to eliminate his crewmates when they pose a threat to this idea of humanity. This allows for clever manipulation of the genre's typical approach to protocol and communication.

At the beginning of the film, Lowell is actively involved in carrying out his duties. He tends to the biodomes with scrupulous care while his crewmates take a more lackadaisical and nihilistic approach to their work. Lowell follows and values the maintenance protocol while his crewmates are indifferent and at times hostile. After receiving orders to destroy the domes, these roles are reversed. Lowell strongly opposes this decision while the rest of the crew are eager to follow through. Ultimately, this momentous shift in attitude towards protocol marks the turning point in the film as Lowell kills the rest of the crew in a drastic attempt to save the forests. In most hypothetical space films, the breaking of protocol is meant to demonstrate the good and ingenious qualities of humanity and emphasize what it means to be human.

Lowell's story frames being human as at odds with humanity itself. This approach reflects *Silent Running's* status as a character-centric hypothetical space film where Lowell's values are compared and contrasted with the values of the genre. In many genre study theories, it is said that a genre goes through a classical period before the production of "revisionist" films that re-evaluate the genre's themes and building blocks. *Silent Running's* play with the conventional elements of hypothetical space film is an example of how a genre can become revisionist early in its development. The hypothetical space film, in particular, is subject to early revisionism due to the strong enigmatic nature of space and the malleable thematic focus of its elements.

The character-centric attitude towards the genre's conventions in *Silent Running* continues as Lowell communicates with the rest of the fleet. Lowell represents an important development in hypothetical space protagonists in that he openly deceives the people on the other end. This further illustrates his separation from humanity at large, which has become cold and inhuman. He covers up the death of his crewmates and flies through Saturn's rings in order to feign catastrophe and destroy the radio communication. The conscious disconnection of the radio emphasizes the film's divide between humanity and being human. Lowell must disconnect completely from the fleet if he is to live a fully human life in space. And this is exactly what he does after escaping from Saturn. By reprogramming and naming Huey and Dewey, Lowell is able to enjoy leisure, laugh, and contemplate the morality of his actions. Fulfillment is short-lived, however, as the radio's sudden repair forces Lowell out of his solitude. Communication is re-established, but there is no bond between Lowell and the rest of the fleet. Instead, Lowell realizes that he has

no other choice but to save the forest and destroy the Valley Forge before the rescue team arrives. The film again highlights its revision of the genre's typical ideals. In a more typical film of this genre, the rescue team would dock with the damaged Valley Forge and the crews would reunite in a glorious celebration of how the human mind can endure the dangers of Saturn and the unknown. In this film, Lowell knows that the truly human thing to do is to save the forest, as his own life pales in comparison to the grandeur, beauty, and life it represents. Thus, instead of ending with the transcendence of human experience in the unknown, the film ends with a perspective shift that undermines our value of human life. The film's environmentalist tone interacts with the hypothetical space film's appeal to suggest that humanity's role in the cosmos should be selfless preservation. In the end, Dewey is the sole survivor of the Valley Forge, suggesting that humanity plays a smaller role in the evolution of cosmic life and understanding than the more typical usage of conventions suggests.

After *Silent Running*, the production of hypothetical space film was overshadowed by the tremendous success of *Star Wars* (1977), which along with *Close Encounters of the Third Kind* (1977), triggered a revival of interest in more fantastical films that could now be sold as blockbusters. It wasn't until the early '80s that another major hypothetical space film was produced. This film is Peter Hyam's *2010: The Year We Make Contact* (1984). A sequel to Kubrick's *2001*, *2010* brought geopolitical concerns back into the fold of hypothetical space film, this time with more relevance towards the genre's goals of enlightenment and transcendent experience. The film picks up where *2001* left off, with American and Russian scientists joining forces to uncover what happened to the Discovery 1 mission after

reaching Jupiter. Many conventions of the genre are employed within the film, with an added layer of Cold War animosity that resonated with contemporary viewers. During the journey, dramatic tension fueled by nationalist prejudice rises between Dr. Floyd and his Russian crewmates. Together, the crew resolves their personal differences through the solving of technological problems: they overcome a mysterious burst of energy launched from Europa and figure out how to return to Earth before being destroyed by Jupiter's transformation. This film uses the transformation of Jupiter into a second sun as a way of illuminating the wonders of the universe and showcasing humanity's mastery over science and technology. The final message from HAL, broadcasted from Jupiter, reads:

ALL THESE WORLDS
ARE YOURS EXCEPT
EUROPA
ATTEMPT NO LANDINGS THERE
USE THEM TOGETHER
USE THEM IN PEACE

This message suggests that humans are the masters of the universe and have attained domain over all worlds through their mastery of technology while also assuring us of a higher power. It also serves the purpose of promoting unity in a time of national anxiety by promoting that these worlds be used together and in peace. This is how the film molds the language and conventions of the hypothetical space film to create a story that advocates peace and understanding through scientific mastery and understanding.

Rescue and Revival: The Genre Today

The 1990s saw two major releases in the hypothetical space film that explore previously uncharted territory within the genre: *Apollo 13* (1995) and *Armageddon* (1998). Ron Howard's *Apollo 13* is significant because as a docudrama based on past events, it is the first mainstream hypothetical space film that is devoid of speculation or hypothesizing. Although *Destination Moon* and *Countdown* got their science right in terms of space travel, their visions of the moon were composed of scientific speculation as we did not have total knowledge of the content at the time of production. All of the story in *Apollo 13* is retrospective, allowing Howard to dramatize actual procedures of protocol, technological mastery, and interpersonal relationships between the astronauts. The actual trials of the Apollo 13 crew are turned into instances where technology fails and the crew has to re-master it through the help of radio communication with mission control. The intercutting between the crew and mission control struggling with technological issues such as modifying the carbon dioxide filter and reducing the electrical power used on board gives a sense of humanity's collective effort to master space against all odds. Because the narrative is constrained to a historical event, there is no traditional sense of the unknown. There is, however, transcendence and elevation of human ingenuity that is derived from the crew's successful re-entry to Earth. In the hypothetical space films, transcendence nearly always requires humanity to push beyond what they understand or believe to be possible. *Destination Moon* frames the mission to the moon as a herculean task for humanity, *2001* pushes the boundaries of our perception, even the Valley Forge is *Silent Running* isn't expected to survive the journey through Saturn's rings. To

borrow the words of Gene Kranz (Ed Harris), the journey to transcendence must be as difficult as fitting “a square peg in a round hole.” *Apollo 13* translates this difficulty into the actual ordeals of the Apollo 13 crew, bringing the genre’s central emotional catharsis into a predetermined narrative.

Armageddon represents an interesting crossroads for the hypothetical space film as it combines elements of the action film with an approach to the genre that is reminiscent of *Countdown*. *Armageddon* starts with a straightforward mission brief: destroy the asteroid on a collision course with Earth before it hits. Like *Countdown*, the film spends most of its time on Earth training the group of unlikely heroes led by master oil driller Harry Stamper (Bruce Willis). Harry and his team create the most significant deviation from the traditional structure of hypothetical space film: the non-scientist astronauts. This isn’t a totally new invention, as Brooklyn native Joe Sweeney in *Destination Moon* filled the role of an unlikely astronaut in a pinch. However, this film makes extensive use of the fact that these characters have no astronomical training and are everyday blue collar working men. The pre-established relationship between the crew creates a dramatic dynamic between characters that we haven’t yet seen in hypothetical space film. The main point of contention between the crew comes from the arrogance of A.J. (Ben Affleck), who is romantically involved with Harry’s daughter, much to Harry’s chagrin. Additionally, A.J. is prone to failure due to his short temper and self-centered attitude. Despite their background, these characters acclimate quickly to the technological challenges of the mission and Harry even oversees modifications to his “armadillos” to allow for more effective drilling into the asteroid. Thus, the film’s emphasis is not on protocol or mastery over

technology, but on the ability of these characters to overcome their own demons through their journey into outer space. This approach to character development comes from the action film, where internal struggles are resolved through overcoming external ordeals. Throughout the film, more elements of the action genre are incorporated into elements of the hypothetical space film.

When the group of drillers is in outer space, the film uses standard conventions of technological failure and re-mastery to build suspense as the asteroid nears Earth. Here, *Armageddon* introduces an action film deadline into the mastery of technology. In the nick of time, A.J. comes to the group's rescue in an armadillo and drills to the depth needed for the bomb to split the asteroid. At this moment, A.J. learns how to work on a team and puts the mission before his pride and vanity, using his mastery over technology to mark a major development in his character. A.J.'s mastery doesn't lead to intellectual and abstract transcendence as these issues have no place in an action film. Instead, re-mastering technology leads to emotional and personal growth. During training, A.J.'s arrogance at the drill causes the transmission to fail, linking his character flaws with his failure to master technology. It is only when he learns to work as a teammate and put his trust in others that he is able to regain his mastery over the drill. At the film's climax, Harry undergoes a similar moment of personal growth that is tied to the hypothetical space film's moment of transcendence. When one of the group has to stay behind and detonate the bomb, Harry thrusts himself into the position, having grown to view A.J. as a son and realizing that he shouldn't have a tight grip on his daughter's life. As the bomb detonates, Harry's life flashes before his eyes. This moment serves as Harry's

transcendent shift in perspective and cues to the audience that Harry has finally learned to give his daughter independence. The journey into space and encounter with existential danger gives Harry the experience he needs to be a selfless father, resolving the film's emotional arc as he saves the world.

The tradition of the hypothetical space film continues well into the 21st century with successful blockbuster films including *Gravity*, *Interstellar*, and *The Martian*. Despite the short time between these releases, each film utilizes the conventions and language of hypothetical space film to create different narrative experiences that showcase the genre's breadth and storytelling potential. *Gravity* demonstrates how the genre can be used to craft an extremely subjective and personal adventure film that provides a deep and extensive character study while staying true to the genre's focus on the human-space relationship. *Interstellar*, perhaps the most traditional of these three films with regard to the genre's structure and conventions, takes advantage of advancements in special effects to bring greater cinematic power to elements of the unknown. *The Martian* uses traditions of the rescue film and engages the conventions of the hypothetical space film to lend greater intellectual ambitions to this framework. Of these three films, *Interstellar* most closely resembles *Destination Moon* in how it organizes a story around the conventions and elements of hypothetical space film. In the beginning, we are given a bleak look into the future where the human-space relationship has deteriorated to the point of post-truth, as Cooper's (Matthew McConaughey) daughter Murph is scolded for believing that the Apollo missions actually happened. Then, our call to the unknown and mission briefing is given to Cooper upon discovering a secret NASA facility: life on Earth is

no longer sustainable, so we must look for a new planet to settle. During the briefing, Cooper and the audience are given the scientific facts of the mission and how Professor Brand plans to save humanity. When Cooper learns of “Plan B,” which involves abandoning the people on Earth and starting humanity anew with 5,000 frozen embryos, he grows angry at the idea of leaving his daughter behind while he starts a new colony. Additionally, as Cooper prepares for his voyage, his daughter is so angry at his decision to leave her that she refuses to say goodbye. *Interstellar* sets itself apart from *Destination Moon* and earlier hypothetical space film by giving equal weight to both the scientific voyage and Cooper’s struggles with being a father. The human drama is intertwined with the space-based drama from the onset of the film, which is one method of preventing the drama from becoming too dry and/or sterile, as it is in *Destination Moon*. For example, when Cooper returns to the Endurance after spending 23 Earth years on the water planet, he watches all of the broadcasts from his children that he missed during this time. Whereas previous films used the loss of communication to emphasize the isolation and separation from Earth that the crew members experience during their journey, *Interstellar* compounds this sentiment with an emotional gut-punch by using this technique to illustrate Cooper’s separation from his children. This unity of Cooper’s personal arc with the scientific, narrative arc occurs again when Cooper is inside the tesseract. Inside the tesseract, the audience is given their confrontation with the unknown. They journey into a black hole to find an abstract construction of reality that offers greater cosmic understanding. Cooper’s moment of transcendence and understanding comes with his relaying of the important quantum data to Murph, allowing the two of them to reunite after all hope was

seemingly lost. Ultimately, this moment of cosmic enlightenment and family reunion allows Murph to solve the problems needed for “Plan A.” Thus imbuing the triumph of humanity’s mastery over science with the emotional recognition of Cooper’s virtue in relentlessly fighting to reunite with his daughter and complete the mission. This film is a strong example of how the genre has evolved into a box-office heavyweight and crowd favorite from its sterile roots in *Destination Moon*.

I have now outlined all of the major trends within the hypothetical space film and demonstrated how its conventions are modified to reach the genre’s storytelling potential. All of the conventions and traditions within this genre are aimed at giving the audience a specific relationship to space and transcendent experience through space, though the significance of transcendence can sometimes be underplayed in favor of other themes. This genre takes full advantage of cinema’s collective experience by telling stories that celebrate the achievements and ingenuity of humanity at large. The grounding of hypothetical films in our reality and tendency to relate the narrative to our own reality gave rise not only to traditions and conventions that formed a distinct and meaningful genre but also to a set of aesthetic techniques for rendering space that conform to realism and scientific accuracy. As I shall discuss in the following chapter, the aesthetics of hypothetical space film achieve expressive goals within the mode of realism and constraints of accuracy. The affective realism of hypothetical space aesthetics helps to cement its status as a distinct genre and further separate it from fantastical space films and traditional science fiction cinema.

Chapter 2

Hypothetical Style and Aesthetics of Affective Realism

Accuracy and Expression

In the previous chapter, I distinguished between the two modes of outer space filmmaking and laid out a comprehensive definition of the hypothetical space film, noting how it differs from the tradition of fantastical space film. These definitions, however, only call upon narrative elements to categorize films and not their aesthetic elements. I did this because the hypothetical space film is not defined by its aesthetic treatment of space, but instead introduces aesthetic choices that differ from generally accepted norms. Throughout nearly all of cinematic history, the aesthetics of the fantastical provide the dominant generic representation of space. Through appeals to realism, the hypothetical space film breaks the fantastical tradition and introduces a plethora of aesthetic tools to outer space filmmakers. The attention to accuracy displayed in hypothetical space film is used to charge space with expressive meaning. Concerns of accuracy emphasize space's qualities of vastness, desperation, fear, and at times, wonder. In the current landscape of outer space film, where fantastical representations dominate viewer expectations, realism foregrounds film form and style to communicate these feelings and emotions to the audience.

The hypothetical space film uses a heightened sense of realism that makes space expressive by appealing to the audience's understanding of our universe. Film scholar Kristin Thompson describes realism as an "effect created by artwork through

the use of conventional devices.”⁴¹ She also mentions how realism is typically perceived as a departure from the norms of popular cinema and what we perceive as realistic changes as norms change.⁴² The shifting norms of realism are evident on a very basic level in films across decades. For example, the rocket designs of *Destination Moon* and *Rocketship X-M* were perceived as realistic during production in 1950,⁴³ but 18 years later for *2001: A Space Odyssey*, Kubrick’s wheel-shaped space station was the speculative vision of the future. Images of a wheel-shaped station can be traced back to paintings in a 1952 issue of *Collier’s* by Chesley Bonestell, the realistically-minded painter who created the lunar landscape for *Destination Moon*.⁴⁴ Another example of changing realism norms can be seen by comparing the black holes of *The Black Hole* (1979) and *Interstellar* (2014). The black hole in Disney’s film is misconceived as a large, colorful swirling vortex. To achieve a higher level of realism in *Interstellar*, Nolan consulted legendary astrophysicist Kip Thorne and built the black hole from massive computer simulations based on natural laws.⁴⁵ At first, Thorne was thrown off by the visual and thought that the resulting simulation had encountered a bug. But actually, he had discovered a phenomenon of black holes that was inherent in the data he had supplied Nolan, pushing the film’s black hole to an unprecedented level of accuracy.⁴⁶ For the hypothetical space film, realism is used in order to depart from the norms of science

⁴¹ Kristin Thompson, *Breaking The Glass Armor: Neoformalist Film Analysis*, (Princeton: Princeton University Press, 1988), 197.

⁴² Thompson, *Breaking The Glass Armor*, 198-200.

⁴³ Schauer, *Escape Velocity*, 37.

⁴⁴ Wernher von Braun, “Crossing the Last Frontier,” *Collier’s*, March 22, 1952, 25.

⁴⁵ Adam Rogers, “Wrinkles in Spacetime: The Warped Astrophysics of *Interstellar*,” *Wired*, October 23, 2014, <https://www.wired.com/2014/10/astrophysics-interstellar-black-hole/> (Accessed April 1, 2018).

⁴⁶ Rogers, “Wrinkles in Spacetime.”

fiction at large in both plot structure and aesthetic representation of space. The “conventional devices” used in these films include sound design, composition, editing, and motion. Several significant and expressive aesthetics trends in hypothetical space film include the use of sound effects, music, and silence to create aural meaning in the vacuum of space, a stark contrast between slow and fast motion, using composition to emphasize characters’ experiences and relationships to space, and formal experimentation when confronting the unknown.

The hypothetical space film’s use of sound is the most prominently noticeable feature of realism among these techniques. Sound design in hypothetical space films typically uses the absence of sound in space to emphasize the danger and isolation of the environment. Beyond these general aesthetic trends, each hypothetical space film uses this sense of affective realism to achieve their own specific goals. For example, *2001: A Space Odyssey* uses the lack of sound serves to prompt technological meditation by the viewer, create a sense of deep isolation, and build dramatic tension when Poole and Bowman are outside of the spacecraft. Moments where the absence of sound in space prompt meditation on technology include the “Blue Danube” sequence and the introduction to the Discovery 1. In both of these sequences, the only sounds come from the nondiegetic classical music soundtrack. Although the mere inclusion of sounds that don’t originate from the image could be said to run counter to realism, Thompson points out that a work does not have to emulate the real world completely to be understood as realism. A film just needs cues that ask us to appeal to our knowledge of the real world to be considered a work of realism,⁴⁷ and the classical music functions as this cue. Since the music is all we hear, the vision of

⁴⁷ Thompson, 198.

space that Kubrick presents to us is totally silent and can be understood as realist. The music in these scenes tells us how we should feel about the realist images of space and space travel. The classical music lends a sense of poetry and beauty to the movement of the spacecraft. The presence of the music emphasizes the absence of all other sounds, making the realistic image appear grander and more graceful. These senses of grandeur and grace prompt the viewer to meditate on the spaceships and silently take joy and pride in watching the fruits of humanity's labor take form. The sound design works more in this way during Blue Danube sequence than it does during the introduction of the Discovery 1. Instead of creating a sense of accomplishment and grace, the sound design for the Discovery 1's entry is more ominous and evokes the mystery and isolation of space. In the sequence, the "Gayaneh Ballet Suite" plays as the Discovery 1 Enters from the front left of the frame and moves slowly towards the rear right. The positioning of the camera behind the Discovery 1 draws attention to its length and the viewer is invited to marvel at its seemingly endless unveiling. At the same time, however, the soundtrack transforms space from the delightful playground it was during the "Blue Danube" sequence into a void of untold danger. The Discovery 1 moves silently away from the camera and into the darkness of space, signaling a shift in the film's handling of the environment. The next shot gives the audience a view of the front of the ship, again prompting speculation and meditation on the engineering marvels and artistic form of the spaceship. We then get a long shot of the ship showing its entire length from the side. Kubrick uses the camera to dissect the ship and present it from a multitude of angles to draw out the act of space travel. By spending more time on this simple movement,

where the ship moves without producing sound, the audience meditates longer on the realism of the film's technology and becomes primed for the realistic techniques used later when Poole and Bowman exit the ship.

When Poole and Bowman exit the confines of the Discovery 1, Kubrick's realist sound design emphasizes the isolation and entrapment of deep space while charging the images with tension. There are three such instances in the film: the initial replacement of the antenna part, Poole's death, and Bowman's retrieval of Poole's body. In these scenes, realist sound design becomes expressive as marks of accuracy are manipulated into evoking anxiety and tension from the audience. The first of these sequences illustrates the sonic choices Kubrick makes in order to create a realistic space environment. While in space, the audience is given the aural perspective of the astronauts and we hear the continuous sound of decompressing air circulating through their spacesuits mixed with their rhythmic breathing. In this first sequence, we follow Bowman as he successfully replaces the antenna part. When he exits the EVA Pod, he gently spacewalks a long distance to the antenna. In one shot he moves to the background and left side of the frame towards the antenna, slowly shrinking in size as he moves farther from the camera. The following shot has the camera placed behind the antenna on the left side of the frame. Here, we can see the antenna, the Pod, and Bowman's body floating in the great space between the two. Both of these shots emphasize the vastness of space. Caught in a black void between two lifeless white structures, Bowman is completely alone. Bowman's framing and the lack of any other sound in space foreground the realist qualities of the environment to the audience, so when they listen to this sequence they become hyper-

aware of the sounds and Bowman's actions. The extreme duration of the shot also aids in guiding the audience's attention to the soundtrack. The decompressed air and deep breaths communicate the fragility of life in this environment to the viewer. Bowman's breathing and the air sounds coax the listener into a state of constant anxiety as they listen and watch closely for any interruptions. The aural dissonance of layering a slow rhythm over a loud and steady frequency augments this anxiety by unsettling the viewer. Later in the film, when Poole ventures to the antenna and is murdered by HAL, these same techniques are modified in order to illustrate HAL's shift into a menace.

As Poole drifts in space towards the antenna, the frame's composition mirrors the previous composition of Bowman drifting towards the antenna. Whereas the antenna was in the foreground during Bowman's trip, the Pod is foregrounded during Poole's trip. This composition allows the viewer to watch HAL take control of the Pod and Poole float vulnerably in the abyss of space simultaneously. The following shot of the Pod turning around and outstretching its arms builds a dreadful anticipation in the viewer by prompting them to imagine how Poole's slow, peaceful drift will be thrown into something else more sinister and deadly. The impact of Poole's demise is made stronger by the elimination of all sound during the quick succession of cuts towards HAL's camera eye. By abruptly cutting out the sounds of breathing and air, Kubrick both demonstrates the brutality of HAL's act and suggests Poole's exposure to space. We no longer hear the circulation of air within his suit because it's all been depressurized into space. This sonic choice adheres to accuracy and impacts the viewer by juxtaposing a dense and nervous soundtrack with total

silence. When the viewer next sees Poole flailing wildly in space, the soundtrack is completely silent. The image's unbending faith to scientific accuracy serves to make it more terrifying and evocative. Watching Poole helplessly try to save his own life, the viewer is left to imagine his pain and fear. Typically, sound plays a large role in communicating pain and fear to the audience. Here, the audience is robbed of their subjective connection to the character, creating an unsettling and pitiful image of a man lost to the detached cruelty of space.

The film's final expressive use of realist sound design comes during Bowman's re-entry into the Discovery 1. Learning that HAL doesn't intend to permit back inside the ship, Bowman's only option is to manually enter the ship through the emergency airlock. In order to reach the safety of the ship's interior, Bowman will have to travel a short distance through a vacuum after being randomly ejected from his pod. The airlock is not a particularly large set piece, but even the most negligible distance can be deadly in space. Before Bowman makes the jump, we see him prepare himself in the pod. During these moments, alarm sirens grow louder and more cacophonous. These sounds press urgency into the viewer and makes them extremely anxious for action. Just as the sirens seem to climax, the camera cuts to a shot facing the pod from inside the airlock and all sounds cut out. Kubrick repeats the technique used during Poole's murder: juxtaposing extreme soundtracks with silence in order to punctuate the moment and imply radically changes circumstances. In this shot, outer space is on the plane farthest from the viewer, taking up a small rectangle of the frame in the background above the pod. Despite its small size, this patch of space dominates the image as Bowman will be fighting to avoid falling back there. Whereas

earlier in the film Kubrick presents great expanses of space to illustrate its power and danger, now Kubrick compresses that danger into a much tighter area, leaving Bowman no room for error and filling the audience with anticipation. After a few seconds, the bolts explode and Bowman is ejected in total silence. The silence is notable for how it downplays the physical impact of the explosion. Instead, our focus is on Bowman as he scrambles for something to grab. When he closes the door, the sounds of decompressing air are loudly and suddenly brought up on the soundtrack. Although they may be jolting at first, these sounds communicate safety and assurance as they indicate that Bowman is no longer in danger of flying out into space. By the end of this sequence, Kubrick has taught the audience to fear the silence of space and welcome the unsettling and jarring sounds of life. All of these moments throughout *2001* demonstrate how the hypothetical space film can create meaning and derive emotion from outer space without compromising accuracy.

Along with *2001*, *Interstellar* makes expressive and meaningful use of appealing to realism in its aesthetic treatment of space. The scene where Cooper docks onto the spinning *Endurance* demonstrates how realist aesthetics express emotion and danger. The beginning of this scene features an evocative use of silence that harkens back to Kubrick's handling of silence in *2001*. Prior to Cooper's docking, Dr. Mann (Matt Damon) attempts a manual docking operation on the *Endurance* that ends in a critical failure. He blows a hole in the spacecraft and sends it spinning out of control. Like *2001*, this scene has the silence of outer space invade the soundtrack during a crucial action beat, immediately cutting out all other sounds. Before the accident, Dr. Mann speaks to Cooper and Brand. The argument between

the astronauts creates tension at this moment; the future of mankind is put on the line as Mann attempts to take the Endurance for himself. The severity and cinematic tension of their argument are augmented by the soundtrack. A fast-paced ticking can be heard beneath Hans Zimmer's score. These sounds build a rising tension while guiding the audience's emotional response to the dialogue. Sounds of sirens and other parts of the spaceships are implemented to create more complex layering and assault the listener's ear. Before the soundtrack can reach a traditional climax, the Endurance is breached and space literally sucks all sound from the film. The *whooshing* of the sound out from the image mimics how quickly the vacuum of space would suck air from the spaceship and with this silence comes a heightened level of fear. The camera cuts to outside the Endurance, where the explosion and flames grow and tear apart the structure of the ship. Here, Nolan's use of silence punctuates the severity of the action by creating a spectacle unique to hypothetical space film. We see spreading fire followed by the destruction of metal followed by an expanding cloud of debris. The absence of sound gives the viewer a chance to linger on the potential for destruction in outer space and the consequences it will have on the crew of the Endurance. It is a powerful scene to witness in comparison to peaceful scenes of space travel. When all is right, ships move gracefully through outer space and order is reflected in the impressive tranquility of the environment. One small misstep, however, and it all goes up in flames. The pervasion of silence through this spectacular destruction illustrates that despite what peaceful images we may have seen, this brutal destruction is the reality of outer space. Just as we are helpless to hearing Poole's cries for air, we are helpless to hearing the destruction of humanity's progress. The Endurance's

explosion generates an expressive spectacle by foregrounding the natural qualities of space against the brutal carnage and narrative implications of the disaster.

Beyond the use of sound, another crucial aspect of the hypothetical space aesthetic relates to the composition of characters within outer space. As mentioned in the previous chapter, the spacewalk is an important element of the hypothetical space film as it allows characters to exist directly inside the beautiful and dangerous environment of outer space. During spacewalks, cinematography and composition expressively communicate the characters' relationships to outer space and shape the audience's emotional response to these situations. Due to their significance to the structure of the hypothetical space film, most spacewalk scenes are filmed with an especially careful attention to composition and editing. Spacewalks are seldom filmed with a shaky or handheld camera. Filmmakers instead opt for static cameras or fluid motion that captures a delicate balance between the grace and peril of these situations. Within these sequences, the aesthetics of the spacewalk have to serve the hypothetical film's goals of depicting the characters' relationship to outer space. Typically, these relationships are ones of tension, isolation, danger, and suspense. *Destination Moon*, the first true hypothetical space film, demonstrates this technique during its spacewalk. When the astronauts first step onto the surface of the rocket, the shot is upside-down. Shooting upside-down is a clear way of communicating to the viewer that the astronauts are on the bottom of the rocket. In the next shot, the moon is visible behind the heads of the astronauts. They then turn around to get a look at the Earth and the film cuts to a POV match depicting the Earth. Cutting back to the previous shot, the viewer now has a clear image in their mind of the Rocketship

between the moon and the Earth with the astronauts marveling in wonder. The framing of the upside down astronauts in front of the moon is meant to communicate this wonder. By seeing the characters upside down, we know that they are in an environment strongly unlike our own. Filming this scene upside-down also adds a layer of wonder to the set by forcing us view space differently from how we traditionally view scenes. In a film with a relatively restrained and sterile visual style, this composition signals that we are in a special world, one that is charged with endless splendor and danger.

In *2001: A Space Odyssey*, Kubrick explores the potential for composition to expressively communicate hypothetical concerns. When Poole is killed in *2001*, his body appears in multiple shots as a small lifeless dot in the middle of an inky black pool. By positioning his body so far back in the frame, Kubrick expressively communicates Poole's situation and the immense scope of the void around him. Shortly after, Kubrick uses the numerous compositions of Bowman's pod to convey his desperation. When Bowman speaks to HAL after retrieving the body, the pod becomes a stand-in for Bowman's character in space. From the time between Bowman's first request to HAL and his opening of the airlock, 12 different compositions are used to frame the pod. On a basic aesthetic level, placing the camera at such a high number of positions works to render the space as truly three-dimensional. *Destination Moon* could only achieve this illusion by filming things upside-down and right-side-up. The audience of *2001* gets a sense of how big and volumetric outer space is by seeing how far it expands in every direction along three axes. On a narrative level, these compositions are meant to draw attention to the

distance between Bowman and the Discovery 1 as we can see the pod from both inside the ship and outside. The sequence reinforces the Discovery 1 as the only haven within deep space by framing it larger than the pod and showing it from multiple angles. Kubrick traps Bowman with the camera to convey how he is trapped in space. Showing both the Discovery 1 and the pod from all of these different viewpoints emphasize the distance Bowman will have to cross in order to reach safety. The sequence appeals to the audience's emotion by constructing a space of entrapment through careful attention to composition. *2001* succeeds in demonstrating how composition can be used to both create a realistic three-dimensional representation of space and communicate its immense power and danger.

Of the hypothetical space films released thus far in the 21st century, *The Martian* (2015) makes innovative use of editing and composition when Watney is rescued during the film's climax. Like *Interstellar*, *The Martian* finds expression in fast, kinetic motion that appeals to the viewer's senses of urgency and danger. When Watney first wakes up in the MAV after successfully launching from Mars, the camera spins around the MAV. This movement is meant to be understood as Watney's POV, as the MAV is spinning when he wakes up. The next time we see Watney, however, the camera is pointed towards him and spins around him. Spinning the camera this way is Ridley Scott's method of cinematically communicating Watney's disorientation. Additionally, spinning the camera around Watney builds anticipation through kinetic movement. When Scott cuts out to the Hermes, the camera is static, illustrating the safety and stability of the spaceship. Only when the camera is in space and focused on Watney does Scott employ kinetic

cinematography. The audience is meant to experience the disorientation and danger of space with Watney during this sequence. Scott sets up a dichotomy where the stability and safety of the Hermes are communicated through a static camera while Watney's vulnerability is communicated through rapid and expressive camera movement. Once Watney frees himself from the MAV, he and the viewer experience space differently. The sequence quickly cuts between long shots and medium shots as Watney struggles to maintain control of his thrust. His unpredictability in motion and orientation is mirrored by the editing. The alternation of long and medium shots illustrates Watney's current relationship to space by giving the audience different positions within the environment and crafting unreliable orientation. After slipping from Lewis's grasp, Scott once again uses POV cinematography and a spinning camera to illustrate how Watney experiences the action. Tethered together, Watney and Lewis spin towards each other in the vacuum of space and it is Watney's last chance for rescue. The camera spins around the both of them, once again dizzying the viewer and rendering space as it is experienced by Watney. Having successfully grabbed the tether, both Watney and Lewis pull towards each other. As Watney pulls, we are given two POV shots of Lewis where she looks directly at the camera. For Watney, Lewis means rescue and life. By positioning her in the center of a POV frame and directing her to look at the camera, the audience recognizes her as the locus of Watney's attention. In these shots, she appears quasi-angelic against the spinning void behind her and represents basic human hope. The two of them then unite and the camera slows down. The spinning pattern is modulated and reduced to a more tranquil pace as space transitions from a place of danger to a place of reunification.

We now have time to meditate on the beauty of the Hermes and Mars, savoring Watney's gentle spin between the two. The techniques of films like *The Martian*, *Interstellar*, and *2001* are important in establishing the hypothetical space film's tradition of character-centric cinematography and space aesthetics.

Through the Wormhole

Despite the hypothetical space film's tendency to find expression in realism, the aesthetics of the unknown stand out as a distinct departure from this trend. Here, the unknown refers to the experience of transcending our human point of view and expanding our knowledge and/or relationship to the universe. When dealing with the unknown, filmmakers are challenged with depicting what has never been perceived. This gives the films an opportunity for formal experimentation outside the confines of realism. During sequences of experiencing the unknown, film form becomes more perceptual and strongly encourages the viewer to feel the cinema. Experiments in film form generate a sense of discovery and enlightenment through impressive, dazzling, linear forward motion. The viewer feels the act of transcendence as the old world is left behind in favor of a more enlightened perspective. *2001*'s star gate sequence is one of the most famous and evocative examples of this technique. Colorful, dazzling patterns of light emerge from the center of the frame and race past the audience as Bowman travels through the star gate, putting the viewer directly in the middle of the ride. Movement is abstracted into an entrancing seductive light show, actively impressing the wonder and enigma of the universe into the viewer. Each passing ray of light tells us that we are moving forward while the swift motion impresses a strong

kinetic feeling on the viewer. We feel as if we are leaving the previous world, with all its apes, spaceships, and hostile AIs, behind us as we venture further and further into the visceral landscape of deep space. The sequence gives us a vision of enlightenment that plays on sensory pleasure and enigmatic wonder. Experimentation at this level of abstraction is only successful in communicating transcendence when everything preceding it adheres to the strict rules of realism. The viewer is more likely to submit to perceptual and experimental cinema when it exists within a universe ruled by the laws of nature. Methodical, deliberate attention to accuracy and realism build guides the viewer into a mindset where abstraction of form and stripping of rules feel like a breakthrough. It is for this reason that the vortex in *Flash Gordon* (1980) and the journey inside V'Ger in *Star Trek: The Motion Picture* (1979) fail to impact the viewer beyond a display of technological spectacle. The opening scene of *Star Trek: The Motion Picture* introduces V'Ger as a mysterious, hostile machine-cloud that shoots massive bolts of blue lightning. After giving this to the audience, there is no way to re-ground the film in the laws of nature. So when Spock finally ventures inside of V'Ger to find a host of planets and an interstellar Eye of Horus, the sense of enlightenment fails to move beyond the narrative and affect the viewer's emotion. Similarly, *Flash Gordon's* opening scene of Ming the Merciless foregrounds the film's camp nature, coating all elements of space with a sense of joyful and self-aware irony. The vortex scene gives the filmmakers an opportunity to play with form, but its swirling colors and eye-catching patterns fail to elevate the viewer on an emotional level.

A more contemporary example of the aesthetics of the unknown can be found in *Interstellar* both when the Endurance enters the wormhole and when Cooper falls into the tesseract. The wormhole sequence is similar to the star gate in *2001* in that it uses kinetic motion and abstraction of space to convey a sense of transcendence and discovery. As the Endurance crosses the threshold, the camera is fixed to the side of the ship as it spirals into the spherical hole. On the left side of the frame, stars within the wormhole speed up and streak past the camera as the ship moves towards the sphere. On the right side of the frame, stars outside of the wormhole move off screen to the right at a slower pace. This visual separation helps to convey the feeling of meaningful forward motion while imparting a more complex visual understanding of the universe. The motion of the stars in front of the viewer challenge them to understand space differently, mirroring the experience of the crew within the Endurance. The first shot we see of the wormhole's interior appears as a large tube of stars that races past the camera, appealing to perceptual senses of motion and allowing the film to act directly on the viewer. In the next shot of the interior, the camera slowly pans up to reveal the walls of the wormhole rotating in different directions, creating a fluid kaleidoscope of stars that looms over the viewer's head. During this moment, the film presents the viewer with the inconceivable and allows them to revel in the excitement of the journey. Linear kinetic motion through the remarkably nonlinear visuals expresses the shift in perspective the audience is meant to feel. The thrill of experiencing interdimensional travel then gently tapers off as the Endurance leaves the wormhole and the extreme curves of the image gently flatten out into a familiar image of space. Our next brush with the unknown, Cooper's

experience in the tesseract, illustrates a different method of communicating enlightenment and discovery.

The beginning of Cooper's fall into the tesseract follows typical guidelines for experiencing the unknown. This sequence is noteworthy for how it uses the aesthetic techniques of the unknown to illustrate the terror of discovery. At this point in the film, the viewer has more emotional stakes in Cooper than they do in Bowman at the time of the star gate. As a result, they are more primed to align with Cooper's experience of the tesseract, which is one of uncertainty and terror. Cooper falls linearly through a square tunnel that rapidly rotates around the camera. This gives us the sense of kinetic motion that accompanies transcendence but the claustrophobia of the tunnel and sharp angles of its walls qualifies the viewer's intrigue with terror. Violent flashes of light accompany Cooper's fall, increasing the sequence's perceptual effect on the viewer and heightening the sequence's sense of danger. The camera spins faster and frames at increasingly expressionist angles as Cooper falls, switching between a linear and disorienting sense of motion that accompanies the descent into the unknown. But when Cooper stops falling, Nolan shifts the method of expressing enlightenment in the unknown. When Cooper is trying to communicate to Murph through the tesseract's bookshelf, the viewer is encouraged to pour over the impossibility of the structure and reflect on the nature of the universe. Visceral experience gives way to cerebral pleasures as Murph and Cooper figure out the reality of the situation. This scene channels the elevation and transcendence of the unknown by teaching and solving instead of feeling. *Interstellar* demonstrates both a typical and atypical aesthetic technique for making the unknown expressive.

Graphic Fantasy

Although the hypothetical space film offers an expressive approach to the aesthetics of space, what exists today as generally accepted “movie space” is drawn from the extensive history of fantastical outer space film. The production of fantastical space film not only outnumbers hypothetical space film, it has also has a longer history. To an average viewer, fantastical space film is the predominant mode of filmmaking that molds how space is realized in a moving image. The origins of fantastical space film go back to the dawn of cinema with Méliès’s *A Trip to the Moon* (1902). This film and other fantastical early silent films manipulate film form to wow the audience with a spectacular series of gags. In this era of trick filmmaking, space becomes an exciting backdrop for fantastic adventures. These films sow the seeds for mainstream representation of space as a place of imaginative wonder and fantasy during and beyond the 20th century.

Many of the aesthetic techniques of the hypothetical space film I have just described distinctly contrast the aesthetic trends of fantastical space film, the more popular of the two modes of filmmaking. Like the hypothetical space film, there is a shared pool of aesthetic techniques that filmmakers pull from in order to expressively communicate the emotion and adventure present in these films. In the fantastical space film, a sense of adventure is rendered in space through a focus on fast, graphic motion and experimenting with the visual representation of the environment.

The representation of space commonly expected by audiences today in both traditions of space filmmaking first took form in the 1950s. Following the success of *Destination Moon*, an independent production whose budget fit between those of

traditional “B” and “A” pictures, two A-level fantastical films were produced in the mid-1950s:⁴⁸ *War of the Worlds* (1953) and *Forbidden Planet* (1956). These films, shot in Technicolor, are among the first full-color depictions of space disseminated in mainstream cinema. In these films, space is little more than a backdrop to the narrative. Nonetheless, the aesthetics demonstrated in these two films are significant for setting the boundaries that hypothetical space films build upon and fantastical space films experiment within.

Forbidden Planet and *War of the Worlds*, as two of the first color representations of fantasy space, set up the vision of space that formed audience’s expectations of the environment. *War of the Worlds* utilizes outer space in one of its opening sequences in which the film takes the viewer through a tour of the solar system, describing each planet in turn and why it’s unsuitable for Martian conquest. *Forbidden Planet* is similar in that space is only explicitly depicted in the beginning and end of the film where the viewer watches starship C-57D float through outer space and approach the planet Altair IV. In both of these sequences, the viewer sees the blackness of space, stars, and planets. The starfields are arranged so that relative size and density of stars are similar to what one would see in a typical night sky. With the introduction of Technicolor, the audience can now see that the stars in this film are also colored similarly to those we see in the night sky. For the most part, the stars glow white-yellow with subtle variations in color and brightness to create the illusion of depth and differentiation. The starfield of *Forbidden Planet* is denser than that of *War of the Worlds* and features more detail in that various nebulae are visible. But despite this difference, both starfields appear authentic and do not distract from the

⁴⁸ Schauer, 52.

film's narrative or goals. These sequences solidify the expectation that the starfields we see in space films, whether hypothetical or fantastical, will look like the night sky. It is for this reason that starfields where stars vary greatly in size and color, such as those used in *Starcrash* (1978), fail to become a consistent aesthetic choice and are traditionally viewed as bad effects. Both of these sequences also give insight into how planets are traditionally rendered on screen. In *War of the Worlds*, most of the planets are positioned far from the camera so that the audience can see their entire shape. This provides an objective and empirical view of each planet. The coloration and texture of each planet give clues to their nature. *Forbidden Planet*, however, utilizes two viewpoints when showing Altair IV. The first of which is the complete, distant view that is seen in *War of the Worlds*. The second and more expressive view is what we see when the C-57D is preparing to land. In this view, the planet appears much larger, occupying a large fraction of the frame. The positioning of Altair IV has the planet arching from the bottom the frame to about halfway up the frame, roughly plateauing as it approaches the left edge of the frame. By doing this, the film highlights the curvature and scale of the planet as it appears gargantuan compared to the C-57D. Only showing a portion of the planet in the bottom half of the frame also makes the image more comprehensible, as the landing spaceship is descending from space to the planet. The switching of these two views, complete and partial, soon become the accepted norm in depicting planets in outer space film. In particular, the partial view becomes an essential tool in staging spaceships and humans in the same frame as planets, and later films will find new ways to create meaning through planets' positioning and visual qualities. Finally, *Forbidden Planet* is also a

significant milestone in how it captures the movement of a spaceship through space. In the handful of shots we are given of the C-57D gliding through space, our perspective of the ship changes slightly. For example, in the first shot we see of the ship, it flies towards the viewer from the back of the frame. As the ship approaches the top of the frame, we see the domed roof of the ship disappear behind the protruding disc beneath it. In the next shot, we can first see the top and bottom domes of the C-57D with the disc between them. While the ship moves left across the frame, the camera slowly pans over the ship, and these two movements together make the bottom dome of the ship disappear from view as we get a more overhead view of the ship. These subtle movements are significant developments in the aesthetics of spaceships because they fully render the ship as a three-dimensional object moving through a three-dimensional space. Crafting convincing and compelling movement of spaceships will become a major concern for Stanley Kubrick in *2001: A Space Odyssey* and George Lucas in *Star Wars* (1977).

Star Wars is an influential film in the development of fantastical space aesthetics for its treatment of spaceships and innovative use of models. The aesthetic started by *Star Wars*, dubbed the “ILM aesthetic” by scholar Julie Turnock, would later become the gold standard to which all later space film would aspire. In *Star Wars*, shots of the spacecraft were accomplished through the use of miniatures and motion-control cameras. The use of model miniatures gives a high level of detail to the spaceships. When these models are starkly lit to emulate the effects of starlight, light and shadow interact in a way that renders the spaceships as complex 3D structures. As with Lucas’s choice to include sound in space, the use of complex

miniatures to emulate three-dimensional objects and motion is not a new technology in 1977. Notably, *2001: A Space Odyssey* uses extensive miniature work to create the Discovery 1 spacecraft, the “pods,” and the wheel-shaped space station. *Silent Running* also uses miniature work well before *Star Wars*.

Within *Star Wars*, a strong aesthetic focus is placed on fast motion and kinetic energy, especially with regards to spaceships. By giving spaceships a sense of speed and kineticism, the film more expressively and perceptually communicates the excitement and joy of fantastical adventure. The spaceships in hypothetical space films such as *2001* and *Silent Running* all move at a slow and controlled pace. Their delicate and steady movements appeal to senses of grandeur and precise exploration of dangerous territory. The ships in *Star Wars* do not operate the same way. Instead, they move at very fast speeds and move across three axes as they twirl through space. This is made possible through motion control, which was used extensively for the first time in *Star Wars*.⁴⁹ Special effects lead John Dykstra pioneered a camera system using motion control that allowed for spaceships to travel at high speeds and interact with each other in dogfights.⁵⁰ The effect of motion control on the aesthetics of space film is that audiences post *Star Wars* learn to expect a high level of sophistication in the motion and speed of spacecraft in outer space film.

The immediate impact of *Star Wars*'s treatment of spaceships is felt in *The Last Starfighter* (1984). *The Last Starfighter* is notable for being one of the first films to use CGI to create physical objects, namely spaceships. Spaceships rendered through CGI in the age of ILM models have a distinctly different look from the

⁴⁹ Turnock, 131.

⁵⁰ Turnock, 134.

spaceships of *Star Wars* and *Alien*. Light appears to fall on these objects differently, and the textures of the ships are reduced to visual patterns. But despite their visual discrepancies, the spaceships in *The Last Starfighter* move and battle with the same kinetic style of those in *Star Wars*. They zoom quickly towards and away from the camera, twisting through the frame and moving across all three dimensions. The influence of *Star Wars* can't be missed and demonstrates how the film caters to the audience's expectations of movement in space. It's also interesting to note how the reception and legacy of *Dune* (1984), released the same year as *The Last Starfighter*, is tied to its treatment of special effects and failure to emulate this specific style. During the film, the spaceships appear flat and only move along two dimensions in a single shot. In Roger Ebert's 1984 review of the film, he makes specific mention of how the lack of "detail [and] dimension" in the spaceships contributes to the film's failure to immerse the viewer.⁵¹ Although fast-paced kineticism and dynamic movement are a staple of *Star Wars* and its myriad imitators, it is this sense of dimension and scale that most matters to an audience when watching an outer space film, whether it's fantastical or hypothetical. *2001*, for example, is famous for its meditative capturing of spaceships in motion. They do not move fast, so the audience is given more time to scrutinize the image and inspect exactly how the vessel occupies and moves across space. The Blue Danube sequence in *2001* is meant to dazzle the viewer and function as an introduction to three-dimensional outer space movement. Kubrick achieves these goals early in the sequence with a shot of the wheel-shaped space station. At the beginning of the shot, we see the entire station

⁵¹ Roger Ebert, "Dune," *RogerEbert*, January 1, 1984, <https://www.rogerebert.com/reviews/dune-1984>. (Accessed April 1, 2018).

floating above Earth, gently floating towards us and spinning. As it spins, the camera steadily moves closer and closer, giving the viewer a more detailed look at the station. In this shot, we see the shadow of the central hub move along the outer edge of the wheel as it spins. Additionally, the spokes produce shadows that shift as the spaceship spins, giving a precise illusion of sunlight falling over the station. By the end of the shot, we only see a central fragment of the space station. Within the 28 seconds of the shot, the viewer goes from a macro to a micro perspective, sees nearly all the way around the surface of the space station, and witnesses a rhythmic motion of light and shadow across the structure. The heightened level of detail present in this sequence exemplifies the kinds of spaceship graphics audiences will come to expect in outer space film. It is because of this sequence that the following shot of the Pan-AM shuttle, which moves like the spaceships in *Dune*, becomes more easily digestible.

The style and motion of spaceships established by films such as *Star Wars* and *2001* continue into the later 20th and early 21st century. Notably, the docking sequence of *Interstellar* combines the fast kineticism of *Star Wars* with the careful attention to motion and light in *2001*. During the sequence, we are given multiple views of the Endurance spacecraft that range from medium close up to extreme long shot. We also see it from a head-on perspective, top-down perspective, and multiple different angled perspectives. Nolan uses this wide range of viewpoints to charge the Endurance with expressive and clear visual authority, it is both spectacularly impressive and visibly plausible.

The other aesthetic trend that is shared among fantastical space films is the experimentation with visual representation. In fantastical space films, filmmakers

often litter outer space with colorful nebulae or other mysterious celestial bodies that add to the environment's visual complexity. These films evoke the audience's senses of adventure and wonder by giving them a vision of space that appeals to imagination over reality. When the universe doesn't look like ours, the audience isn't as beholden to their sensibilities of accuracy and can engage more easily with the adventure's emotional arc. Although this has become more common in later years with films such as *Guardians of the Galaxy* (2014), one film from the 20th century that does this quite extensively is *Star Trek: The Motion Picture* (1979). The film's main outlet for experimentation is the mysterious spacecraft V'Ger. At the beginning of the film, V'Ger appears as a part of space, dominating the environment with its blue clouds and bolts of electricity. Our experience of space is shaped through the rendering of V'Ger, as its visual magnificence presents the enigmatic and dangerous nature of the environment. When Spock ventures inside of V'Ger, the audience is given a surreal tour of the depths of outer space along with fantastic visions of the machine's interior. Among the visual elements in this sequence are abstract portals made of blue rings and electric fields, a variety of planets, and a giant eye of Horus. The viewer perceives parts of space beyond comprehension through witnessing this visual experimentation. This sequence is meant to fill the viewer with awe by rendering a radical vision of the deep reaches of the universe, providing an experience unique to the fantastical space film.

An Equal and Opposite Reaction: Hypothetical Influence in the Fantastic

Today, the fantastical space film interacts quite extensively with the aesthetics of the hypothetical space film. Films adopt certain techniques while ignoring others based on the specific goals and needs of the film. *Star Trek* (2009) provides an especially compelling example of a fantastical film adopting hypothetical aesthetics for expressive ends. During the beginning of the film, the USS Kelvin is attacked by the Narada, a Romulan ship commanded by the villainous Nero. The battle is what one might expect of an outer space dogfight. It follows the style pioneered by *Star Wars*, where color, sound, and movement are all treated with a sense of graphic dynamism as ships dart across the frame. Blasters and rocket thrusters of the spaceships create sound in this universe and we hear almost every explosion that occurs. The beginning of the battle is extremely typical of popular fantastical space film for these reasons. However, there comes a moment in the battle where the hull of the Kelvin is breached, and an unfortunate crew member is sucked into the vacuum. During this moment, the shot begins inside the ship as the young woman holds onto the wall for her life and we can hear her screams. Once she lets go, the camera follows her through the air and out into space. We can still hear the sounds of the battle until she flies through the hole into space. While we see her floating into space all of the sound is brought out of the soundtrack. Behind her body, a giant red laser is fired twice and it emits no sound. This is an impactful moment for the same reasons that Poole's death and the explosion on the *Endurance* are impactful. It stands out as a brief moment of expressive accuracy within a film dominated by the generic conventions of fantastical space aesthetics. In order to make this anonymous woman's

death an emotional moment for the audience, Abrams chose to film this sequence in the style of the hypothetical space film. The sequence acknowledges hypothetical space aesthetics as a viable and expressive method of evoking an emotional response from audiences. It reveals that the affective realism of hypothetical space film can transcend settings of extreme fantasy to communicate isolation, danger, loss, and wonder.

Realist sound design isn't the only aesthetic technique that fantastical space film adopts. *Guardians of the Galaxy* (2014), for example, utilizes a hypothetical style of composition during its emotional climax. In the scene, where Star Lord gives Gamora his helmet so she doesn't die in the vacuum of space, composition affects the viewer by foregrounding the characters' relationship to their environment while the fantastical rendering of the environment emphasizes the melodrama of the sequence. For most of the film, fantastical weapons and spaceships pose danger to the protagonists. The action takes place in space, but the film doesn't take much care to draw the audience's attention to the actual danger that space may pose to the heroes. Instead, space is dressed in spectacular visual effects in order to create an engaging universe unique to the film. Colorful nebulae and striking planets give the film's universe a sense of wonder that works by distinguishing itself from our universe. Since this universe doesn't look like ours, we do not treat it as ours and our hypothetical sensibilities are left at the door. For this reason, when Star Lord exits his pod to save Gamora from dying in the cold of space outside of Knowhere, it's registered as a melodramatic shock. When Star Lord leaves the pod and jets towards Gamora, he is framed between her and the pod. Gamora is in the bottom left corner of

the frame while the pod is in the upper right with Star Lord traversing the distance between the two. As with the astronauts in *2001* when they traveled to the antenna, the framing of this shot is meant to emphasize the distance through space that Star Lord travels without protection. The relationship between the human body and outer space is foregrounded by this short travel and introduces hypothetical concerns to the audience. This being said, the film still applies its fantastical rendering of deep space by shooting the action against the great green nebulae of Knowhere. Fantastical visuals blend with hypothetical compositions to charge the environment with existential dread and visual splendor. When Star Lord gives his helmet to Gamora, we can see the effects of exposure on his body almost immediately. In the glow of spaceship headlights, Star Lord's face quickly becomes disfigured and his eyes grow disturbingly bloodshot. The camera then cuts back to reveal Yondu's fleet arriving behind the pair, creating a melodramatic hero shot of Star Lord's decaying body holding an unconscious Gamora. The framing of this shot calls upon the hypothetical style of conveying characters' relation to outer space in order to highlight the melodrama of Star Lord's selfless heroism. Behind Star Lord, Yondu's fleet and the nebulae heighten the emotion by spackling the background with bright lights and impossible colors. These grand, spectacular fantastical elements interact with the intimate and melodramatic hypothetical elements to give the audience an emotional experience. By blending these two modes of filmmaking within the sequence, the film creates an emotional experience that would not be possible in either of the two styles alone.

Despite the hypothetical space film's innovations in charging the aesthetics of space with affective realism, there are still fantastical space films that find expression through fierce rejection of realism. *Star Wars Episode VIII: The Last Jedi* (2017) is a particularly notorious and divisive example of such films. At one point in the film, Admiral Leia Organa is blown from the bridge of her spaceship into outer space. The scene is reminiscent of Gamora's rescue in *Guardians of the Galaxy*, Leia's body is bathed in soft light as crystals start to form on her skin and she appears to lose consciousness. Just when the score makes the audience believe that all is lost, her fingers twitch and a reverberant beat on the soundtrack suggests that she may have a chance. Then, she opens her eyes and force-pulls herself back to the ship with steadfast determination. The scene is set up to use the hypothetical style as the first glimpses of Leia in space are somber enough to function as a cosmic funeral and everyone else on the bridge was killed. Instead, the power of the force reigns supreme over the aesthetics of the hypothetical and any trace of realism is discarded from the movie's visual style. The emotional arc of this scene goes from shock and despair to hope and reverence. When Leia's fingers twitch, the viewer begins to feel hope in this most dire of scenarios. Leia's ability to pull herself out of space is visually dissonant with nearly all other spacewalks on film because she is bereft of protection. Seeing an unprotected human fly through space and save themselves from death in this way triggers awe and reverence in the audience. In a film full of blasters, lightsabers, and Supreme Leader Snoke, this moment is felt as the most *unrealistic* because it directly contradicts what we know to be true. The soundtrack contributes to the hope and relief of the scene by playing a triumphant, yet somewhat restrained tune as Leia

saves herself from the clutches of death. Her narrow triumph over space communicates the exhaustive efforts of the rebel alliance throughout the film and emphasizes the film's central theme of hope in the face of certain doom. *The Last Jedi* creates a visually striking image of pure fantasy that finds expressive power in boldly subverting hypothetical concerns and aesthetics.

The rules of outer space aesthetics, dictated by a long history of fantastical space film, give filmmakers incredible flexibility in rendering the universe. The hypothetical space film's deviations from aesthetics norms allow the genre to explore new territory in outer space filmmaking and more effectively communicate the wonder, danger, and power of outer space. Up until this point, I have avoided major discussion of one influential and innovative hypothetical space film: *Gravity* (2013). *Gravity* in many ways demonstrates the flexibility and full potential of the hypothetical space film. In the following chapter, I will provide a detailed analysis of *Gravity* that will explore how it fits into the tradition of the hypothetical space film on both a narrative and aesthetic level. The film builds upon an extensive history of outer space filmmaking and could be considered to be the pinnacle of the genre.

Chapter 3

Reinventing the Genre: A Case Study of *Gravity*

A New Kind of Space Film

After stepping foot on the moon, traveling through Jupiter's star gate, crashing into Saturn's rings, and dropping a nuke in an asteroid, it's time to come back down to Earth. This brings us to the final step in my study of the hypothetical space film and a landmark of the genre: Alfonso Cuarón's *Gravity* (2013). As the first hypothetical space film to win the Academy Award for Best Director, *Gravity* propels the genre into widespread critical acclaim and heightens its prestige among moviegoers. Additionally, the film's prestige is augmented by its function as a star vehicle for two A-list performers: Sandra Bullock and George Clooney. Household familiarity with these names gives the film wider mainstream appeal while the film's showing off of these actors' capabilities appeals to critics and the Academy. These factors make the film popular beyond the niche audience typically attracted by the hypothetical space film. These choices contribute to the film's success and resonance because it centers the narrative on the emotional journey of an individual. The film is also notable for its long time in pre-production. It took several years to produce *Gravity*, as the complex nature of the shots combined with the attention to realism forced Cuarón to wait for technology to catch up to his demands. Ultimately, the film was the biggest box office hit for both Bullock and Clooney and was a massive

critical success.⁵² Cuarón's handling of the hypothetical space film's conventions and aesthetics represent a crucial turning point in the genre's development and expressive potential.

Gravity is perhaps the most important space film of the 21st century thus far. The film has the premise and conventions of a hypothetical space film but uses them to tell a different kind of story that is new to the genre. Until this point, nearly all hypothetical space films have been centered around the efforts of a team. The team is assembled to complete a mission and functions as a stand-in for humanity at large. The genre implies that it takes more than one talented individual to elevate humanity, with teamwork and cooperation being instrumental in space exploration. *Gravity* is concerned with neither the progression of the human race as a whole nor the importance of a team in space travel. Instead, *Gravity* uses the tools of the hypothetical space film to explore a different kind of human-space relationship, one that revolves around the individual and the personal journey she undertakes in orbit. The plot of *Gravity* is relatively straight-forward. The film begins with the crew of the Explorer repairing the Hubble Space Telescope when an unexpected cloud of debris arrives and tears through the ship, killing nearly all of the crew. The two survivors, astronauts Ryan Stone (Sandra Bullock) and Matt Kowalski (George Clooney), make their way to the ISS using Kowalski's propulsion pack. At the ISS, the two astronauts struggle to latch on to the station and Kowalski sacrifices himself so that Stone can make it inside the station. Stone successfully makes it inside the ISS, but an accidental fire forces her to quickly escape in a Soyuz capsule and make

⁵² Stuart Oldham, "Gravity Rises to \$500 Million at Worldwide Box Office," *Variety*, November 16, 2013, <https://variety.com/2013/film/news/gravity-rises-to-500-million-at-worldwide-box-office-1200842131/>. (Accessed April 1, 2018).

her way towards the Chinese station Tiangong-1. She avoids another encounter with the debris cloud but is distraught when she learns that the capsule is out of fuel. Stone at this point resigns to her fate and shuts off the oxygen in the capsule. The rapid onset of hypercapnia causes her to experience a hallucination of Kowalski entering the capsule, who instructs her how to activate landing thrusters to travel through space. With a newfound will to live, Stone travels to the Tiangong-1 where she enters another capsule and prepares for her descent back down to Earth. Stone travels through the Earth's atmosphere and lands in a body of water. Houston on the radio confirms her landing and sends a rescue mission as she swims to the surface and finally drags herself onto solid ground.

The plot of *Gravity* is more akin to that of a survival or adventure film than that of a hypothetical space film. This not only lends the film to more mainstream critical appeal, as actor pieces tend to be more respected than genre pieces (especially with a genre like the hypothetical space film) but also explores the emotional and psychological potential of the hypothetical space film. How the film utilizes and modifies the conventions of the hypothetical space film are essential to its effectiveness in telling the emotional journey of an individual. Since the film does not aim to depict the transcendence of humanity, the initial mission does not have a major function within its structure. The crew's "mission" at the onset of the film is to repair the HSS but this thread gets discarded no more than fifteen minutes into the film. The mission is there to show the present human-space relationship but it is not what drives the characters forward. By using the Hubble, a widely known space instrument, the

film instantly tells the viewer that the story is contemporary, signaling the parameters of this world.

The particular setting of the film and its depiction of the human-space relationship is also significant for how it undercuts the appeal to discovery that is present in many hypothetical space films. These astronauts are not journeying to Mars, or Jupiter, but are doing maintenance in Earth's cosmic backyard. Although Stone is installing a new sensor described as a "new set of eyes" through which to see the universe, we are presented with a human-space relationship that is more centered on work and difficulty than it is on discovery and exploration. This relationship also comes across in the introduction to Stone. When the audience meets Stone, she is hard at work, laboring through her nausea to make the necessary repairs while Kowalski and Shariff appear more leisurely. By not elaborating on the human-space relationship and the relative significance of the mission, the film has more time to explore the emotions and relationships of the characters. The dialogue in the opening scene is a pairing of Kowalski's casual conversations with mission control's walkthrough of the repair protocol, subverting the typical role of protocol within the genre. Kowalski talks about a Mardi Gras memory while Stone verbally confirms a manual override. Instead of emphasizing the technological efficiency of a team working together, the use of protocol here emphasizes characters' personalities and social interaction. The emergence of character stands out against the basic and monotonous mission, shaping the audience's focus to how Kowalski and Stone act as individuals in this environment together. Their actions and experiences in space are never very distant from character and emotion. Kowalski marvels at the beauty of

Earth and asks Stone what she likes about space, she says the silence. Later, he flirts with her while they work together on the telescope. The hypothetical aspects are always present, but play a secondary role in acquainting the audience to the characters and story. Once the debris cloud arrives, the plot of the film is driven into action as all of Stone and Kowalski's circumstances rapidly change. The cloud destroys any semblance of a traditional mission or protocol. The destruction of the Explorer and its crew highlights the futility of protocol in the scenario and renders all of the technology useless. It is interesting to note that the cloud of debris comes from the wreckage of numerous satellites. Advances in human technology end up being a self-destructive force that leaves Kowalski and Stone trapped and vulnerable in outer space. The only force that can guide them back to safety is individual will and intellect. Although the film does not condemn technology, it does not celebrate it or hold it as a testament to the ingenuity and progress of humanity. Technology becomes another obstacle that Stone must overcome in her journey, both avoiding and re-mastering it in order to return home. It is a clever inversion of the hypothetical space film structure. Normally, a film would start on/near Earth with everything at humanity's disposal to reach the outer limits of space. Now, we instead start in space with nearly nothing at our disposal to get back home. This type of story is well-suited to highlight the journey of an individual, as the loss of technology underscores both the loss of Stone's daughter and parallels the peeling away of her defenses.

After the first debris cloud passes, Kowalski guides Stone to the ISS as he helps her regain her composure and strength. For this part of the film, Kowalski acts a mentor figure to Stone both in how he takes command of their trek and emotionally

connects with her. Their relationship has nothing to do with their profession or previous mission, it is much too personal to have a place in traditional hypothetical space film. It would be more commonplace to have this type of mentorship in a fantastical film, where melodrama is commonly wrought through adventure. A classic example of this mentorship is Obi-Wan's role in *Star Wars*, where he guides Luke through difficult transitions and nobly sacrifices himself. What makes this sequence and relationship unique is that it unfolds within the environment of the hypothetical spacewalk. The spacewalk is a key feature of hypothetical space film, but *Gravity* explores the full potential of this narrative element by drawing it out across the entire film. Scenes of action and peril in *Gravity* use the spacewalk more conventionally to show the experience of a character in space affects their relationship with the environment. But during Kowalski and Stone's joint spacewalk, individual emotion and psychology is what shapes the characters' relationships to each other and their environment. They see the sunrise over Earth and instead of subscribing to some cosmic, universal awe, Kowalski talks of home. The beauty and wonder of the Earth is channeled into their discussion of home and daily activities. All of the wonder of the globe bathed in golden light is distilled into the psychology of one woman and how she interacts with her own home.

In *Gravity*, hypothetical images and ideas are translated into the emotions and experiences of the individual, making the audience sympathize and align with Stone's personal journey. Each phase of Stone's journey contains an obstacle that challenges her on a physical and emotional level. The steady decline of Stone's oxygen level illustrates this idea as a parameter of the hypothetical space film that emphasizes

personal stakes. When Stone finishes recounting the death of her daughter and the effect it had on her, she makes another check of her oxygen and calmly states “O² at one percent.” Character-driven dialogue is interwoven with protocol dialogue throughout the film so that the audience can connect with Stone on an emotional level. The mentioning of Stone’s oxygen level is used throughout the first part of the film, starting with the sight of Shariff’s body and ending with her recounting of her daughter’s death. When Kowalski and Stone set off to find Shariff, Stone mentions that she is at 6% oxygen. After they see the gruesome bodies of Shariff and the rest of the Explorer, she is down to 5%. As they begin the spacewalk to ISS she is at 2% and after Stone’s monologue about her daughter she is at 1%. Once Stone and Kowalski are at the ISS, she loses all oxygen at the same time as she loses Kowalski, linking physical challenge with emotional and personal growth.

Kowalski’s sacrifice is the turning point of the film. After this point, Stone works alone and she must actively re-master the graveyard of technology within which she’s caught. The symbolic significance of Kowalski’s sacrifice is presented rather heavy-handedly to the viewer. When Kowalski tells her that she has to “let go,” it’s clear that he’s not only talking about himself but also about the troubled past that still plagues her. Kowalski continues to guide Stone over the radio after he lets himself go and lays out the rest of Stone’s path for the audience. While he is doing so, Stone struggles to maintain hope in the face of her loss and the carbon dioxide in her suit. In this dialogue between the two, the language of the hypothetical and emotion work in tandem. Stone remarks that she crashes the simulator every time, emphasizing her self-doubt. Kowalski brings up Lake Zurich, referring to their earlier

conversation and showing the viewer that he deeply cares for Stone. Then, Kowalski teases Stone about her name, flirts with her, boasts of his soon-to-be spacewalk record, and marvels at the Sun. Experiencing these elements from Stone's perspective as she is dying trying to re-enter the ISS provides an emotional counterpoint to the audience. The pain of letting Kowalski go is situated with the difficulty of entering a damaged space station while breathing poison. Sorrow and tension both pull at the audience, connecting them to Stone while also building the suspense of the sequence. This emotional complexity is only possible when concerns of outer space are treated as personal concerns. The sequence appeals to our feelings of space rather than our ideas of it. It's fitting that Stone assumes the fetal position once she is safely inside the womb-like airlock, as it's a moment of contemplation and rebirth for the character. No longer able to ask Kowalski for help, she becomes a more active character and demonstrates a higher level of confidence. This is seen in how she swiftly escapes the fire on board the ISS and remains calm while detaching the Soyuz in the middle of a debris storm. In these situations, her re-mastery of technology signals a shift in her character. These scenes are more oriented towards the pleasure of action and adventure, as we get to watch how Stone narrowly avoids destruction and danger through mastery of the environment. It's also worth noting that the hypothetical space film is perhaps the only genre that can make the act of reading a manual work within a suspenseful action set piece. Stone's speed reading skills are truly unmatched in the genre!

Stone's final big moment of character development comes when the Soyuz runs out of fuel and she decides to die. This decision is brought about by her

interactions with the Greenlandic fisherman on the other end of her radio. Cuarón inverts the loss/reestablishment of communication element of the hypothetical space film by having Stone make contact with a random individual instead of mission control. Typically, the loss of communication within these films signals a separation from humanity while the reconnection with ground control guides the conclusion of the mission. In *Gravity*, Stone re-establishes contact with humanity, but this interaction that reminds her of her loss and drives her to give up. On the radio Stone hears a man, a dog, and a baby. Stone is part of a one-way dialogue where she hears the sounds of life from outside the Earth's orbit. Instead of making her feel closer to home, the emergence of radio contact highlights her isolation. As she prepares herself Stone powers down the Soyuz's oxygen level. Here, the parameter of protocol and procedure is used as an expressive device. Typically, the viewer gets pleasure from watching the different steps of protocol resolved in succession. Here, protocol gives us access to Stone's emotional state. The process of removing the oxygen from the cabin is rendered as a somber and grim affair. The video display of the oxygen level tanking is a poignant image of Stone's rapidly diminishing will to live. Turning the wheels of the control panel makes an expressive gesture out of procedure and evokes sadness in the audience. But ultimately, it is the human connection that Stone formed with Kowalski hiding deep within her subconscious that saves her. The Kowalski hallucination fulfills the hypothetical space film's convention of solving technological and human problems at the same time while staying true to *Gravity's* emotional center. At first, the viewer feels relief at the sight of Kowalski, as throughout the film he has been the voice of confidence, knowledge, and hope.

Stone's argument with Kowalski about the futility of her rescue is the manifestation of her subconscious arguing with herself over whether or not her situation is hopeless. Kowalski presents to the viewer the psychological justification for shutting off the oxygen, providing a deeper probe into Stone's emotional state. When he convinces Stone to continue her journey, he disappears and it becomes clear that he was a hallucination born from her psyche. Both the technological and emotional solutions to Stone's problems came from within herself, but by choosing to have Kowalski come back and tell her these things, Cuarón foregrounds the emotional experience of Stone's journey as well as her individual relationships to the people in her life. It's important to the film that Kowalski tells her to use the landing jets and that she doesn't read it in the manual. Otherwise, the audience wouldn't get the sense that Stone is overcoming the individual problems unique to her.

The positioning of this scene within the narrative is also essential to the realization of the film's goal. It is the end of the second act, as the third act is comprised of Stone's journey to the Tiangong and re-entry. As the concluding scene of the act, it needs to be personal enough that the audience is primed to view Stone's re-entry as an equally personal and emotional experience. The personal qualities of the scene are externalized through the staging and framing of the characters within the Soyuz. Before Kowalski enters the Soyuz, Cuarón uses a tear to illustrate Stone's current state of hopelessness. With no gravity, Stone's tear comes off her face and slowly floats towards the camera. When it reaches a certain point, the camera switches focus to the tear, rendering it as a crisp orb of water with Stone and her surrounding out of focus. We can see an upside reflection of her face in the tear,

creating an abstract image of sadness unique to the environment of space. The reduction of her figure into the warped confines of a tear communicates Stone's psychological state to the audience and generates an extremely personal feeling of sadness. Furthermore, before Kowalski enters the Soyuz, the camera is positioned close to Stone and creates a sense of claustrophobia within the cockpit. The camera stays on Stone's right side and creates the impression that there is not a great deal of space within the Soyuz surrounding her. When Kowalski comes through the door, the framing changes. He enters feet-first and plunges down towards the camera. Kowalski physically invades our space and opens it up as he descends into the Soyuz. When he sits down, the camera is positioned further from the characters and opens up the space inside the Soyuz, marginally freeing Stone. The opening up of the space stays after Kowalski disappears and Stone becomes more active within it. Positioning the camera further back from Stone allows her to act with more agency and reach across the space as she takes control of her life and plans her departure. The film also cuts to the other side of the Soyuz, creating a larger sense of space as Stone becomes more confident in herself. Expressive use of procedure also returns to the film as her act of turning the oxygen back on is a gesture wrought with feelings of relief and rebirth. All of these elements shape the re-mastery of technology as an emotional and personal endeavor. From this point until the end of the film, the audience is ready to ascribe that same level of emotional and personal significance to Stone's re-entry process. Once Stone is ready to take charge of her own life and accept what comes, the film proceeds swiftly to the cathartic re-entry sequence.

The re-entry sequence is *Gravity*'s response to "star gate" in that it represents the moment of rebirth for the central character. It is the emotional climax of the film as well as its most beautiful visual spectacle. The entire Tiangong splits apart and burns up until only Stone is left intact. Using the visual language of the journey into the unknown, *Gravity* inverts typical hypothetical tropes by assigning the moment of transcendence and elevation to the act of landing on Earth. Typically, entering the unknown or the elevation of humanity in hypothetical space film means leaving the old universe behind and moving forward into something new and unknown. In this film, going home takes the place of the new and unknown. Stone leaves her old self behind to burn up in space as she undergoes her phoenix-like charge through the atmosphere. We move forward by going back. Our sense of transcendence and elevation doesn't come from the collective efforts of humanity, but instead from Stone's individual journey and transformation.

Stone's re-entry is the final instance of Cuarón's central expressive strategy: stripping technology to access the humanity lying underneath. For most of the film, this is a painful process. Stripping away the safety and building blocks of technology within the film leads to peril, loss, sacrifice. Only after peeling back all of these layers are we able to reach the personal growth and transcendence that lies at the heart of the film. On a macro level, each major beat in the story corresponds to another layer of technology being stripped away in order to communicate an emotional experience to the audience. For example, the first encounter with the debris cloud destroys the Explorer and sends Stone flying out into space. By removing this layer of technology, Cuarón accesses Stone's peril and fear of being sent adrift. Before the debris cloud

arrives, Stone is uneasy and anxious to leave space. Her inner emotions and psychology are masked by the job she has to do as part of the mission. Once the mission and the telescope and the Explorer are gone, her fear and peril are expressed as she hurdles through the vacuum.

Re-mastery of technology works hand in hand with re-mastery of the self, shown when the next layer of technology is stripped to unearth emotion outside the ISS. At the ISS, the limitations of technology are used to access feelings of sacrifice and loss. Kowalski and Stone hit the structure without any fuel left in their propulsion pack and their tether snaps, physically separating the two. When Stone gets a tenuous hold on Kowalski, there is nothing that can help both of them get back to safety. The abandoned and damaged space station offers no way of securing both Kowalski and Stone. With no access to technology, Stone is helpless to save Kowalski and is forced to let him go. This moment comes on the heels of the audience finding out about her daughter, augmenting the emotional resonance of the scene. Shortly after this sacrifice, the debris cloud returns and shreds the ISS to pieces, creating another link between character emotion and the destruction of technology. For Stone to act on her newfound drive to move forward, she must live through the bombardment of what shelters her. Ultimately, the film builds towards the final stripping of technology as Stone re-enters the Earth a changed woman. Before reaching the Tiangong, Stone's journey has been one of pain, loss, peril, and hardship. But when Cuarón burns away the final layer of technology surrounding Stone, the audience experiences the emotional joy of Stone taking charge of her life while marveling at the beauty of her descent. What was once a dangerous and brutal process becomes a spectacular and

cathartic one. The humanity that lives beneath the technological aspects of the genre can also be seen on a micro level across different scenes in the film. When we go to the interior of spacecraft, the camera often lingers on small, mundane tokens that reflect the personalities of their operators. Inside the Explorer, Stone sees a small Marvin the Martian float away before a dead body glides into the frame. We then see a retainer floating inside the cabin. Within the Soyuz, there is not only a tarot card but also a bottle of vodka. The escape pod of the Tiangong has a golden Buddha statue. The mundane and idiosyncratic nature of these objects is a small reminder that beneath the sterile exterior of space travel are individuals with unique lives and personalities. Cuarón brings a major change to the genre by exploring how the individual can overcome personal barrier through a journey in space. By stripping away the veneer of safety that technology gives the audience and characters in these films, we are able to access the full spectrum of human emotion. By the end of the film, we realize that Stone's true mission was never about fixing the Hubble, it was about overcoming her loss and learning how to move forward.

Aesthetics of *Gravity*

The aesthetics of *Gravity* continue on the trends set by hypothetical space films mentioned in the previous chapter while also introducing a swath of hyper-subjective and expressive techniques to the environment of outer space. The sound design of *Gravity*, in particular, is notable because of its balancing of expressive realism with tactile sound effects and evocative use of music. This balance between the hypothetical and fantastical aural techniques reflects the balance that Cuarón

strikes between traditional hypothetical space conventions and an emotional individual journey within the film. The hypothetical space film, through expressive uses of music and silence, is able to charge the otherwise mute environment of space with emotion and meaning. *Gravity*'s opening title mentions the lack of sound in space as a way of appealing to our fear and knowledge of space. However, the exceptionally thick layering of sound across the film does not totally adhere to the law asserted during the titles. For most of the film, the sound is meant to be experienced as if the viewer is also inside one of the spacesuits. This means that the diegetic elements heard by the viewer include dialogue through communications radio, breathing, some body movement, occasional suit impacts, the various beeps and sounds of the technology within the suits, and Kowalski's music. The aural track created by these sounds serve to immerse the viewer in the world of the film. By hearing everything from within the suit, it becomes easier to align with Stone and process the events from her perspective. Accompanying the diegetic elements of the soundtrack at various points throughout the film is Steven Price's score, which helps to emphasize important emotional beats and sequences of action. Price's score is highly modernist and possesses an unusual aural quality. For the most part, the score is synthesized, creating a noticeably unnatural tone that cannot be attributed to traditional instruments. In this way, it is reminiscent of the music accompanying the star gate sequence in *2001*. For *Gravity*, this style of music gives space a distinct sound separate from anything on Earth and emphasizes its danger. Ominous whooshing sounds contribute to the isolation one experiences in space while loud swells of synthesized bass communicate space's impressive, destructive power. Up-

tempo, synthesized droning strings generate tension through aural counterpoint and function as a reminder of the debris' lethal force.

The sound design of the film is uncharacteristic of the genre as there are sounds made in space that originate from actions performed within a vacuum and it is unclear if these sounds are effects in the score à la "Mickey Mousing," if they are supposed to only be audible within the suits, or if these are inaccurate sound effects. Either way, these subtle sounds sprinkled across the film lend a sense of tactility to the built environment of the space stations. Hearing the gentle bump of Stone grabbing or hitting the side of a shuttle communicates the weight and materiality of that object without being so ostentatious that it lifts the viewer out of the hypothetical environment that Cuarón has crafted. The destruction of ISS showcases how the layering of these different soundtracks is used to create an engaging and emotional viewing experience. At the beginning of the sequence, Stone is unhooking the parachute cords from the Soyuz. During this time, we can hear the sounds of her interacting with the material while the drone of the score grows louder and faster, charging the scene with suspense. Hearing the sounds of Stone's interaction with the Soyuz gives the viewer an aural counterpoint to the score that strengthens the tension it generates. We get a sense of time and action through the muffled sound effects in space. It allows the viewer to follow along with Stone's process of unhooking the Soyuz. Without this sense of process and time, the swelling of the score wouldn't be as meaningful. When the debris cloud arrives, whooshing sound effects are introduced to the soundtrack that highlight the debris' speed and motion. Attributing a sonic quality to the debris adds to the sequence's generation of fear. By hearing and

seeing the threat, it becomes more tactile and perceivable, allowing the viewer to actively imagine its destructive potential. While Stone is finishing detaching the parachute cords, the audience hears the musical score, the sounds of the debris, and Stone breathing all at the same time. The score and debris sounds craft a sensory and hostile environment while Stone's breathing gives us an emotional stake in that environment. Once Stone and the Soyuz are sent spinning, the score continues to highlight aspects of motion, creating emotional verisimilitude and visual spectacle. Large arcs in the Soyuz's motion are accompanied by loud, low swells in the score. This "Mickey Mousing" of the Soyuz emphasizes the violent nature of the situation and evokes a visceral response from the audience. It gives the viewer a way to gauge and experience the fear and peril felt by Stone in these moments while contributing to a complex soundscape of tension. As Stone spins around the wreckage, we continue to hear whooshes from various debris, but primarily from the debris that flies close to her. The whooshing becomes a subjective technique where the impact of the object is understood and experienced without having to cut away from the continuous line of action. Sound design in this sequence increases the kineticism and subjective experience of the action by giving motion in space a distinct sonic quality. At the end of the sequence when Stone passes by the wing of the ISS, we fully hear the sounds of the wing being destroyed as the Soyuz rips through it. Cuarón is extremely particular about which sound effects are explicitly brought up in the soundtrack, using them sparingly to heighten the impact of the action. When the Soyuz tears through the wing, Stone is positioned up against the action. Hearing the sounds of destruction helps the film establish her proximity to death in this sequence. The viewer forgoes

their sense of realism and accuracy in order to see, hear, and feel the danger up close. It is additionally the most viscerally violent moment of action within the destruction sequence due to its sudden nature and close positioning to the camera. Given that it is the final and most violent element of the sequence, having it break the rules of realism is an unexpected surprise. This break in the rules of realism goes unnoticed because it amplifies the moment, allowing the viewer to more easily assimilate into Stone's psychology.

Explicit sound in space is pervasive throughout the film, prioritizing sensory experience and aural movement over adherence to accuracy. One of the most easily identifiable inaccurate sound effects come from the fire extinguisher that Stone uses to reach the Tiangong. The thrusting sounds of the fire extinguisher are audible despite being inaudible from Stone's perspective. Like the previous uses of sound in space, the sounds from the extinguisher give a sense of physical movement through a sensory rendering of action. Each burst from the extinguisher feels significant because we can hear it being used and anticipate it running empty. Interestingly, Kowalski's propulsion pack doesn't make any sound when it's used earlier in the film. Because we don't hear his pack, Kowalski's movement is communicated as more graceful and less dramatic than Stone's. When Kowalski propels through space, he does it with ease and precision. When Stone propels through space, we are given a more sensory experience that heightens the audience's connection to her character overcoming adversity. Cuarón uses sound in space to appeal to our senses and emotions instead of accuracy.

Just as Cuarón is selective about when we hear explicit sound effects in space, he is also particular about when we experience the silence of space. The first instance of total silence is a short one, but it demonstrates how the silence affects our experience of the image. It occurs when Stone disconnects the Soyuz from the ISS, as the close-up of the Soyuz undocking is rendered without sound. This moment is the first step in Stone's solo journey home and occurs almost exactly halfway through the film. It marks the beginning of new challenges that she will have to face alone, as after this moment she encounters the debris cloud for a second time and subsequently runs out of fuel. The beat of realism provided by this small shot calls forward the inhospitality of space, giving the viewer a hint of the violence and carnage to come. It invokes a feeling of caution, as calling forward the natural elements of space also calls forward the fragility of technology and humanity in space. Additionally, it's important that the viewer is given a sense of realism just before the destruction sequence. Experiencing a slow, pensive moment of realism in space emphasizes the contrast of the cacophony of sounds in space that immediately follows. The second usage of silence comes when hallucination Kowalski enters the Soyuz. In the scene, the audience is positioned with Stone, so the use of realism in this instance helps the viewer further align with her by presenting her aural perspective. At the same time, the audience, like Stone, feels a mixture of disbelief and relief to see Kowalski again. The impossibility of the situation is masked by the realism of the image. The silence during this moment makes the emotions linger, as the absence of sound means that there are no interruptions to the viewer's emotional response.

In addition to the sound design, the music of the film guides the viewer's emotional response to the story, the environment, and the characters. Within *Gravity*, there are two kinds of music: the non-diegetic score and Kowalski's playing of Hank Williams Jr.'s "Angels Are Hard to Find." The score within the film plays a traditional role in guiding the audience's response to both the narrative and the environment of space. But one untraditional quality of the score is its lack of melody. In this way, it is reminiscent of *2001*'s modernist score where tempo and timbre take the lead in shaping the listener's emotional response. When Kowalski is musing over the beauty of the Earth, the score takes on an ethereal tone with sustained, synthesized notes and lends a sense of heavenly wonder to the Earth. When Stone is stranded in the Soyuz with no fuel, the score becomes somber and evokes sadness. During scenes with the debris cloud, the music grows faster and denser, creating suspense and drama. During Stone's re-entry, the music is triumphant and glorious. The score reaches higher notes and incorporates elements of voice, giving Stone's re-entry a sense of emotionally uplifting tone. In each of these moments, the tone and quality of the music reflect the characters' relationship to space. As Kowalski marvels at the beauty of Earth, music transforms space into a place of meditative reflection on beauty. While we see the Explorer and the ISS get blown to bits, music transforms space into a place of destructive, cruel, indifferent violence as the viewer's wonder turns to fear and anxiety. The triumphant music that accompanies Stone's re-entry lets the viewer know that Stone has mastered her environment and is being reborn through her adversity. The score communicates that the adversity is behind Stone as she prepares to start her life anew on Earth. Like the orchestral pieces in *2001: A*

Space Odyssey, the use of score in *Gravity* tells the audience exactly how to feel towards space at any given moment in the film. The use of diegetic music, and its ties to Kowalski, is a much more unusual method of realizing the film's emotional goals.

There are three sequences within *Gravity* that feature Kowalski's music: The opening scene, the spacewalk from the Explorer to the ISS, and Kowalski's goodbye. In the opening scene, our introduction to the song comes at the same time as our first visual of Kowalski. As a result, Kowalski's relaxed attitude and personality are projected onto the environment as he moves around the Explorer. The music makes us view the film from the perspective of character psychology and personality. When the aural environment reflects individual character psychology, we view the image with special attention to emotion and more easily align with the characters. We view these characters as individuals before we see them as astronauts, it's their personal qualities that are foregrounded on the narrative and aural levels of the film. This results in our experience of the environment changing depending on how we listen to the song. The second time we hear the song, it's used to elaborate on the differences between Stone and Kowalski. It plays as the two of them spacewalk to the ISS and Kowalski attempts to connect with Stone. His charismatic nature is highlighted by the song just as Stone's reservation and sadness are highlighted by it. Kowalski uses the song as an icebreaker, the folksy tone of Hank Williams, Jr.'s voice reflects Kowalski's charisma and ability to relate to people. For Kowalski, the song makes space an environment of peace, relaxation, beauty, and leisure. On the other hand, the same folksy tone evokes the trauma of Stone's past and her family. For her, the song reflects the loneliness and internal refuge that space offers. The music becomes a

litmus test for the psychology of the characters within their environment. Kowalski stays ever the optimist while Stone can only think of her loss.

The big emotional payoff of this song comes when Kowalski sacrifices himself for Stone. He floats off into the reaches of space and marvels at its beauty before turning on the music one last time. Only this time, the music plays at the same time as the nondiegetic score. The score, with its weeping strings, communicates Stone's pain at losing Kowalski. It cues the audience to Stone's psychology and engages our own feelings. The layering of music gives Kowalski's song a new meaning for the audience. Instead of illustrating how people make the environment of space personal, the song signals the loss of humanity to space. Although we can no longer see Kowalski in detail, his song brings him to the front of Stone's psychology and experience, evoking a strong emotional response from the audience. It's nostalgic, using sound without image to access feeling without a source. The mixing of his song with the score also associates Kowalski with deep space, erasing any hope for his rescue. Throughout the film, the score is used when the nature of space is brought forward in the narrative. Associating Kowalski's music with the score then makes him a part of space, beyond the influence of Stone. Additionally, mixing diegetic with non-diegetic music is an especially expressive technique because the experience of hearing it is tailored exclusively towards the viewer. Stone is meant to hear Kowalski's music, but the score is only meant for us to hear. Furthermore, the song has a simple melody and restrained instrumentation. Williams, Jr.'s voice and reflects a quaint personality through its drawl and yearning. It appeals to the individual emotional experience through its construction as a folk singer-songwriter

piece. This sensibility heightens the song's attachment to Kowalski and Stone's emotions by inserting a third individual voice into the film. When the song is mixed with the melodramatic score, the sounds of humanity are intertwined with the sounds of loss, making the emotional impact of the scene more severe. This pushes us past simply aligning with Stone and allows each viewer to have their own personal reaction to the image in addition to the pathos derived from Stone's experience. Cuarón's unorthodox dichotomy of music demonstrates how the genre can access the psychology of its characters and apply specific emotion to outer space.

Among the aesthetic sensibilities that *Gravity* picks up from previous hypothetical space film is the special differentiation between slow and fast motion in space. As with most hypothetical space films, slow motion through space connotes a calm sense of steady progress and the caution one must use when navigating this hostile and dangerous environment. Fast motion through space is rarer in the genre. It is used to show a higher level of violence, danger, and drama as circumstances change. The largest and most obvious use of this technique in *Gravity* is the differentiation between the movement of the character and the movement of the debris cloud. Since most of the film takes place in a spacewalk, the characters are constantly moving within the frame. They turn and spin and glide through space, maintaining a fragile balance while navigating the environment. The debris cloud behaves in a nearly opposite manner. Each piece of debris zooms through the frame at extremely high velocity. Additionally, the motion of most of the debris follows the same pattern: lateral movement across the background of the frame. We never follow a single piece of debris, we instead watch as innumerable pieces rip through the

frame, each entry and exit contributing to the visual juxtaposition of motion. The viewer is never able to tell when or where the next piece of debris is going to come from, and just like Stone they become trapped in the unpredictable, violent, and invasive storm. Trends in the debris cloud's motion put it in direct opposition to the characters within the film, and part of their horror is that they push the characters into greater speed. What doesn't kill you exerts a greater velocity on you, which can later kill you. When the Explorer is first hit, Stone is brought from a stationary position into a rapidly accelerating spin. This isn't to say that Stone was safer when she was stationary, but her push into motion uses the nature of outer space in order to visualize her increasing danger. When the arm is detached from Explorer the increasing motion is experienced differently. Stone starts spinning towards the camera and once she gets close enough, the camera follows her as she moves. From this point until she detaches, and then again when the film cuts back to her in free-fall, the camera stays on Stone's face. She is stable in the frame while images of Earth in the background and the changing light over her body are the visual cues that tell us she's spinning. In these moments, we are given a subjective treatment of her motion with the distance implied by how many times the light rotates around her. Like Stone, we have no idea where she's going. Tension is generated because we only know that she is moving fast but not where or how far. Additionally, because we are in space, we know that there's nothing stopping her from spinning like this indefinitely. Stone's sudden shift from no to fast motion triggers anxiety, disorientation, fear, and tension in the viewer, emotions that are suppressed when we see her gliding slowly through space.

Although these rules of slow and fast motion apply to the middle of the film when the ISS is destroyed, Cuarón inverts the roles during Stone's re-entry. Here, we experience motion alongside the fragments of the Tiangong and speed through space. What separates this instance of fast kineticism is that Stone's motion within the capsule is relatively controlled and directional compared to her fast motion in outer space. Instead of spinning rapidly with no sense of orientation, Stone is speeding forward in a straight, linear path towards Earth. It speaks to the degree to which she has mastered the environment that she is able to move at this level of speed and evoke excitement instead of fear.

Manipulating the Heavens

The cinematography of space in *Gravity* is unlike any space film that came before it. Cuarón both elevates the role of celestial bodies within the environment to an expressive height that is yet to be paralleled and incorporates the POV shot into the genre's aesthetic toolbox. Two scenes stand out as the expressive pinnacles of these innovations: the shot of Stone spinning in free fall after the Explorer is destroyed, and the scene where Stone reveals the death of her daughter to Kowalski. Stone's free fall charges outer space with danger and existential terror through the subjective experience of POV cinematography and expressive manipulation the decor of space. There is little narrative action in the four minutes and fifty-eight seconds of the shot. Stone is sent spinning into space, fails to contact Kowalski, and then is reunited just when all hope seems lost. Characters are only active during two parts of the shot: Stone's calls for contact and her reunification with Kowalski. The rest of the

shot's runtime is devoted to using innovative cinematography to expressing the emotional terror of Stone's experience in space.

The shot begins with a large view of Earth in the background as Stone spins away towards the foreground. Until Stone reaches the end of the frame, the camera hovers but remains relatively static. As soon as Stone flies by, the camera quickly pans to follow and spin with her. We are now physically closer to Stone and visually tracking her movement, further aligning the audience with her. This is where Cuarón begins to use the expressive potential of Earth and the stars. Earth swipes quickly across the frame as Stone spins while the light from the Sun repeatedly passes over her like a cosmic spotlight. The panicked rhythm of Stone's spinning is visually juxtaposed with the rhythm of the Earth and the rhythm of the Sun. Our perception of space is morphed to match Stone's physical and psychological experience, communicating her terror to the viewer. From here, the camera moves closer to Stone, tracking inward from a view of her whole body to a view of her face. At this point, Cuarón increases the visual urgency and sense of danger by synchronizing an increase in visual cacophony with increased access to Stone's emotions. During this sequence, we are able to see Stone's face through her visor, giving the viewer access to her current emotional state and cementing their alignment with her. Within the frame, the Earth moves behind Stone in the background while its reflection moves across her visor in the foreground. The Sun and an accompanying lens flare dart across the background while a reflection of the Sun moves across her eyeball and the lighting on her figure changes. The physical decor of space becomes expressive visual elements that surround and engulf Stone. Their motion is strongly kinetic and without

consistent direction, making the viewer feel the disorientation and terror of the environment. The sound during this sequence also heightens the sense of peril, as the audience hears both Stone's exasperated breathing and the score. Stone's breathing inspires fear and anxiety by aurally communicating Stone's terror and foregrounding the deadly effect of this environment on human life. The score acts more cerebrally, using fast tempo and synthesized bass swells to augment the danger and panic. All of these elements work on the viewer to generate a sense of Stone's terror, growing towards a subjective experience of her terror when the camera moves inside Stone's helmet as she tries to communicate with Kowalski.

Once the camera crosses the threshold of Stone's visor, the score is reduced on the soundtrack and the sounds of her spacesuit are introduced. This sonic shift immediately positions the viewer more internally with Stone. The audience is invited to perceive the environment as Stone does, shaping the relationship between Stone and space into a visceral experience that solidifies their emotional alignment to Stone. We hear her relaying her position to Kowalski over the radio while watching Earth and the stars fly in front of our eyes. The visor provides a slightly less clear view of space than the external camera, creating a sense of existential peril by matching the audience's knowledge of the environment with Stone's. This existential dread is compounded by the appearance of Stone's vitals on her visor. Technology is brought forward at this moment to reinforce the danger of the environment and foreground the physical difficulty of Stone's ordeal. At this point, the camera switches out of POV and pans back onto Stone's face before slowly pulling back out of the helmet. The viewer is put in the suit with Stone when she tries to accomplish the task of

communicating with Kowalski and is pulled back out when she fails. POV is positioned within this sequence to synchronize with Stone being active in her environment, thus giving the viewer a more active subjective experience in space. As we pull out of the suit, Cuarón modulates the rendering of the star and Earth to illustrate Stone's shift from panic to despair.

As both time has passed and Stone's position has changed, the Sun and Earth take on a different visual quality at the tail end of the scene. The Sun sets behind Earth, giving the light a redder quality and making the Earth appear as a distant, curved sunset vista. Here, Cuarón introduces a new method of incorporating affective realism into the hypothetical space film. By changing the quality of light to match the relative positions of the Earth and Sun, Cuarón finds expression in the accurate portrayal of celestial motion. Earth, now a sea of darkness crowned by an abstract crescent of red, yellow, and blue light, sweeps behind Stone and is reflected in her visor. The same motion from earlier in the sequence is repeated but the rendering is modified to emphasize Stone's diminishing hope. Her body is bathed in bright red light that fades into green as the star disappears behind Earth and the camera pulls back. Celestial bodies evoke the despair and melodrama of the moment with an expressive swell of color. With all hope seemingly lost, Stone is positioned far back in the frame with only the faint green light of her helmet visible against the dark nebula and starfield behind her. When Kowalski comes to rescue her, they are positioned back in front of Earth, which is now covered by a blanket of darkness and clouds. Cuarón's manipulation of Earth and the Sun throughout this shot exemplifies a crucial aspect of *Gravity's* innovation in making space expressive.

Like the shot of Stone's distressing somersaults, the scene where she reveals the death of her daughter makes expressive use of celestial bodies and the decor of space. The scene functions as emotional and character development. It begins with Kowalski talking about the sunset and asking Stone about home and becomes a monologue as Stone tells Kowalski about the tragic death of her daughter and the effect it has had on her. During the scene, both the Earth and evocative lens flares underscore the vulnerability, isolation, and loss brought out by the conversation. The shot begins with Kowalski and Stone floating in front of the Earth as the Sun begins to rise. On a literal level, the sunrise can be interpreted as the characters' new beginning following the destruction of Explorer, but functions as a lead-in to the conversation about home. It is the first time in the film that we start to dig into Stone's interior emotions. Stone's budding vulnerability is expressed by the warm glow of sunlight and Earth behind the characters. The Sun creates large and noticeable lens flares on the screen when it appears in the background of their conversation. The lens flares disappear and reappear as the scene cuts between Kowalski and Stone, reacting whenever the characters or the tether passes in front of it. These blinking flares underscore the emotional development of the characters by attaching a tender rhythm of light to their scenes together.

When Kowalski asks if Stone has anyone waiting on Earth for her, the position of the Sun changes. It is positioned out of sight behind Kowalski and changes the appearance of Earth within the scene. The quality of light shifts from a gold color to a more reddish hue, underscoring the revelation of Stone's past and emotional development with an external change in the environment. In the next shot,

Stone replies “I had a daughter” and Earth, while mostly off-frame, is reflected in her visor. Here, the reflection of Earth superimposed on her face expresses Stone’s self-imposed isolation from humanity. The reaction shot that follows is quite striking. Kowalski’s position has changed, uncovering the Sun and creating a large lens flare that is situated between him and Stone. Kowalski is upside-down in the foreground, bisecting the frame down this middle. On the left are Earth and the Sun, loading that half of the frame with warm yellow light and bright, reflective blue. On the right, Stone floats in the midground against the dark abyss of space, her loneliness and loss are expressed in the deep sapphire and emerald hues of the lens flare. Kowalski rotates and the lens flare flickers before being covered up for good by his head. The brief flicker underscores the tenderness of the scene, exploiting the capturing of celestial bodies to heighten its emotional impact. Kowalski looks at his wrist as the shot concludes and the next shot matches on action to his wrist mirror. In the mirror, Stone appears as a tiny anonymous astronaut within a dark and dusty box. The mirror is in the foreground of the shot. Its darkness and small size in direct opposition to the large stream of lights on Earth below, visually suggesting Stone’s isolation from life, community, and happiness. When Stone delivers the penultimate lines of her monologue, “I just drive,” Earth and lens flares are brought to an expressive climax. The camera is close to a dimly lit Stone as she delivers this line, her horizontal orientation taking up nearly all of the frame. Stone then looks out over Earth and the camera pans left as her body rotation brings Earth into the frame. This fluid transition from darkness to light is followed by a steady pan over Earth’s surface. The color palette of Earth is complex and evocative, containing a vibrant contrast between dark

shades of black and blue and a spectrum of warm hues of gold and red. This design appeals to feelings of isolation, loss, and warmth as it offers an external projection of Stone's interior that is just as complex as her emotional development. As Stone's helmet ducks out of view, a rainbow lens flare flashes on screen for a second. This fleeting but evocative element contributes to the environment's construction of external emotion through abstract visions of light and color in space. Soon, Stone's tether floats into the frame in front of Earth, creating a cruel visual reminder of Stone's situation that augments the sorrow of the scene. At the end of the shot, which is also the end of the scene, the camera pulls back to show both Stone and Kowalski floating to the back left of the frame with a dark Earth on the right. Earth's shift from golden sunrise to vast darkness over the scene's duration acts as a visual coda to the scene's emotional progression. The decor of space visually tracks the emotional shift from vulnerability to isolation and sorrow, showcasing the ability of celestial bodies to make space expressive. When the film cuts to the next scene, which is focused on narrative action and plot progression, Earth is given a traditional view. This further elaborates the connection between visual expression and character emotion.

Throughout *Gravity*, POV and manipulation of celestial bodies work in this way to make the environment expressive and give the viewer access to Stone's emotional and psychological interior. Near the conclusion of the film's second act, when Stone realizes there is no fuel left in the Soyuz, the shot of Earth with the aurora borealis expresses Stone's emotional arc from anger to resignation. The shot begins after the film cuts from Stone thrashing and screaming inside the Soyuz. Her anger is still communicated through the muffled sounds of her grunts and the small image we

see of her through the Soyuz window. Stone quickly shifts into a position of exasperation and defeat as the camera pulls back. The Soyuz is backlit with a thin lining of light around its top edge and we hear Stone's blind radio calls to mission control. The setting Sun comes into view as the camera pulls back even farther. At this point, the Earth is almost completely dark except for its shining edge. The Soyuz is similarly dark and the window grows smaller, dwarfing Stone in the looming presence of the dark Earth. As the camera pulls back even *farther*, the Sun sinks lower behind the Earth, diminishing the light on the Soyuz as the aurora borealis comes into view. We see and hear less of Stone as her window shrinks to a pale pinhole against a giant Earth. At the end of the shot, she is positioned between the faint crescent of the setting Sun and the aurora's vibrant green web. The arrangement of the sunset with the aurora alludes to death and the heavens, suggesting that Stone is resigned to her fate. Additionally, the visual splendor of the aurora and sunset over Earth underscores the emotional weight of this moment. The image externalizes Stone's waning will and her readiness to accept her own demise. Cuarón gives the planet an active role in communicating emotion, demonstrating the wide expressive potential of celestial bodies within the environment of space.

While the planets provide an expressive canvas for Cuarón to shape the emotional arc of the story, POV cinematography provides the viewer with a more subjective and perceptual experience in space. Near the halfway point of the film, Stone has to climb to the airlock of the ISS while her tank is out of oxygen. This sequence uses POV framing of Stone's experience to convey the peril of space to the viewer. Re-mastery of technology becomes a terrifying ordeal in this sequence

because we are positioned within the action, making the audience feel Stone's exhaustion and hardship. The beginning of the shot is blurry, suggesting Stone's tenuous grasp on consciousness. By foregrounding the danger and urgency of the situation through Stone's vision, Cuarón immediately puts the viewer into her mindset. Like the earlier POV shot of Stone spinning, this shot further aligns us with Stone by limiting our knowledge of the environment to what Stone can see. Cuarón elaborates on this range of narration by introducing the airlock as a physical goal. From the beginning of the shot, we can see the airlock in the back of the frame. It is positioned in the background out of focus. The airlock tracks our progress throughout the shot by becoming more visually clear as Stone approaches it. Introducing the airlock as a goal increases the tension of the sequence by giving the viewer something onto which they can project their desires. We get nervous when we can't see the airlock and excited when we can. Every time Stone leaps from one part of the structure to the next, we feel the energy of her jump and anxiously wait for her to grab hold of something. The terror and experience of space become real to us when we are given something we can lose. We are more closely linked to Stone's psychology through the rendering of the airlock. Additionally, the use of POV here is accompanied by shaky camera movement. While the more erratic motion of the camera helps to convey the realism of Stone's movement, it also expresses the volatile nature of the environment. A dangerous and hostile relationship between Stone and space is communicated through the camera motion. Not only are we given direct access to Stone's psychological state in this sequence, we are also given a subjective and expressive experience of the dangers and terror of space travel.

This POV sequence has a major formal element in common with the spinning POV shot: they are both single takes. *Gravity* is a remarkable film in that it possesses an abnormally high proportion of long takes in its 90-minute runtime. The extensive use of long takes within the film gives the viewer an unbroken exploration of the beauty and danger of space akin to what the characters are feeling and uses constant motion to foreground the instability of the environment. Long takes give the viewer the illusion of continuous time and space within the film. Like POV, this technique makes it easier for the audience to align with the characters, as they are both experiencing the environment of the film at the same rate. Continuous space and time make the scene appear more realistic while giving easier access to character psychology in moments where the film lingers on and shifts between beauty and danger. The destruction of the ISS is captured in a single shot and demonstrates how long takes achieve these expressive goals. The destruction occurs in real time, making it impossible for the viewer to see everything at once and giving them the chance to visually pour over the scene. Cutting between different shots of destruction would have to be motivated by a level of significance ascribed to each shot. There is no such reason to individually focus on certain moments of destruction. It is more effective to give the audience the whole image as the continuous, uninterrupted barrage is exactly what Stone is experiencing. The camera is attached to the Soyuz during this shot and moves closer to Stone near the end. We are able to focus on any part of the carnage we choose, but it is always through the lens of Stone's proximity to this violence. As the camera moves closer towards Stone, we feel more aligned with her sense of danger due to our reduced view of the destruction. Then, once the debris cloud

passes, we are given a meditative view of the ISS's remains, carefully maneuvering feelings of tension and danger into awe and relief. Throughout the film, we come to recognize cuts as a formal element that punctuates important beats or tonally separates two scenes. The cut out of Stone's POV to the open airlock door when she climbs into the ISS is an example of the former. Cutting at that precise moment visually emphasizes the significance and emotional release of having finished that leg of the journey. The cut at the end of Stone's monologue about her daughter is an example of a cut that tonally separates two scenes. At that moment, we go from an emotionally charged view of Stone and Kowalski against a dark Earth to narrative action and plot progression. When the film cuts, Earth reverts back to a traditional view and Kowalski begins narrative exposition. Both of these cutting methods utilize the cut as a margin of safety for the audience by disrupting the continuous flow of action. By withholding cuts from the audience, Cuarón's long takes whittle at the audience's feelings of safety and forces them to, like the characters, adapt and react to the fickle nature of space in real time.

These novel aesthetic techniques contribute to *Gravity*'s role in illuminating the potential of the hypothetical space film to move beyond the cold and impersonal narratives often constructed within its conventions. By modulating the role of conventions central to the genre, Cuarón charges the film emotion that is often absent from hypothetical space film. In *Gravity*, all of the typical hypothetical space film conventions point inward towards Stone's emotional journey, illustrating the potential of the genre's language to tell different kinds of stories. Cuarón's method of accessing the human heart of his story revolves around stripping away and

repurposing technology, but this is not the only way to rework the genre. The scene of Kowalski's ghost demonstrates how protocol can communicate emotion. Stone's re-mastery of technology develops with her struggle to regain control over her life.

Despite being set in space, no genre convention exists in a vacuum. All the elements of the film work together in order to unify the external space journey with the internal psychological journey. Beyond reinventing formula, *Gravity* also succeeds in laying the foundation for expressive aesthetics in space. When individual journey and emotion becomes the center of a space film, the genre bends to meet those demands. Subjective and kinetic POV shots express a distinct relationship between character and space that strongly impacts the audience. Expressive sound design that balances realism, action-oriented tactility, and emotionally evocative music guides the listener through the painful trials of an individual. Projection of character psychology onto the visual environment gives us new and meaningful ways of experiencing space. For these reasons, *Gravity* is a landmark film in the development of the hypothetical space genre: it explores previously uncharted narrative territory. Hopefully, filmmakers of the future learn from Cuarón and continue to innovate within the genre.

Conclusion

Like Ryan Stone crashing through the atmosphere in a ball of fire, we are at the end of our journey through space. The hypothetical space film is relatively young compared to other popular genres, but its history is among the most influential in all of cinema. Where would we be if Méliès never shot a bullet into the moon's eye, or Bowman never went through the star gate? Ultimately, the hypothetical space film is a genre that celebrates the achievement of humanity. In no other genre, except perhaps the WWII combat film, is there as strong an emphasis on people achieving a goal through deliberate and precise teamwork. *Destination Moon* (1950) set the stage for a cinematic tradition unlike any other. What started as an attempt to bring science and accuracy to the silver screen grew into a celebration of scientific exploration and enlightenment. Pal's film laid out the generic structure and elements of the genre: a team of people is called on a mission that takes them beyond the boundaries of their current relationship to space. Over the course of this mission, they follow protocol and overcome technical failures. The team comes to represent humanity as a whole, and their human ingenuity is shown through moments of improvisation and irrationality across the journey. They come face-to-face with the unknown, experiencing both the impressive beauty of space and its prevalent danger. Through this journey, the team re-masters technology, often simultaneously resolving their technical problems and personal dramas. Their experience with the unknown triggers a transcendence of the human scope of perception, elevating humanity and enlightening both the audience and the characters. Ever since *Destination Moon*, each

generation of film has interpreted this model to bring viewers to the edge of human perception.

The end of the 1960s saw rapid expansion and mainstream dissemination of the genre with films such as *Countdown* (1968) and *2001: A Space Odyssey* (1968). These films both reworked and added to the conventions set by *Destination Moon*, shaping the elements of outer space to fit the dramatic needs of their stories. *Countdown* taught us how protocol and procedure, in particular, can be molded into a weapon that underscores character drama. *2001* stands out as one of the genre's most influential and formative films, embracing and subverting the sterility of space travel to bring it to expressive heights. From here, the genre quickly moved into early revision with the production of *Silent Running* (1972). This film subverts the role of humanity within the genre, lending inhuman qualities to humanity at large and commenting on the nature of transcendence and enlightenment through the actions of its protagonist. Following *Silent Running* is *2010: The Year We Make Contact* (1984), which follows the genre's more traditional structure laid out in *Destination Moon* with a stronger focus on contemporary politics and national anxieties. Positioning the story within a time frame relative to the time of production is an important aspect of the genre, *2010* demonstrates how contemporary framing can contribute to the genre's goals of transcendence and elevation.

From the 1990s to today, the genre experienced a period of experimentation and resurgence. *Armageddon* (1998) blends the hypothetical space film with the action film, bringing conventional elements of both genres together. Bay's use of hypothetical space film conventions within an action film framework contributes to

the film's melodrama and emotionally charged character development. In this way, *Armageddon* is a precursor to Cuarón's innovative reworking of the genre. *Apollo 13* (1995) dramatically and emotionally renders historical events through the genre's conventions. There has been a relatively rapid pace of hypothetical space production over the last few years. *Gravity* (2013), *Interstellar* (2014), and *The Martian* (2015) were all large-budget hypothetical space blockbusters released in quick succession. This swath of films demonstrates how today, filmmakers are both adhering to the genre's traditions and finding new stories within them. *Interstellar* takes a conventional approach to the genre's structure, following precedents set by *Destination Moon* and *2001* while *The Martian* incorporates different planets into the genre's setting and narrative. The evolution of the genre from 1950 to now was not limited to story structure and elements; the genre's aesthetic also evolved greatly as filmmakers discovered new ways of expressing the emotional and psychological aspects of space through realism and attention to accuracy.

Though narrative concerns of realism and accuracy began with *Destination Moon*, *2001: A Space Odyssey* most thoroughly explored expression through innovative realist aesthetics. Kubrick's attention to sound design, speed of movement, and composition laid the foundations for making space expressive. Additionally, *2001* introduced the perceptual and kinetic visual language of the unknown, which highly influenced the role of spectacle and transcendence throughout the genre's development. These concerns and aesthetics of realism, though in heavy contrast to the aesthetics of fantastical space film, influenced outer space films beyond the hypothetical as seen in *Star Trek* (2009). Making space expressive is at the crux of the

genre's aesthetic and narrative choices. Through the expressive rendering of the environment, the audience is given a stronger feeling of elevation and transcendence in the theater and emotionally connects to the wonder and danger of space. However, no hypothetical space film has yet to reach the expressive heights of *Gravity*, which transforms the hypothetical space film's conventional narrative and introduces several aesthetic innovations to the genre's toolbox.

Gravity revolutionizes the hypothetical space film by using the genre's premise and language to tell the story of an individual's emotional and psychological journey. Throughout the film, Stone's external journey through space reveals her internal emotions. Both arcs underscore each other and unfold simultaneously, deepening the potential of the hypothetical space film to tell new kinds of stories with a more melodramatic focus. Likewise, the aesthetic choices Cuarón makes in his film charge space with an unparalleled level of emotion and expression. The sound design bends the limits of realism, balancing between expressive accuracy and dramatic appeals to emotion. The cinematography captures the position and movement of celestial bodies and decor of space to charge the environment with emotion and express character psychology. This film provides a model of the genre's expressive capabilities for future filmmakers by seamlessly incorporating an individual's personal story into the language and conventions of hypothetical space film.

From this study, I have learned how the tools of cinema can more thoroughly exploit the collective experience of an audience. The hypothetical space film celebrates the achievements of humanity at large, giving the viewer a personal emotional experience predicated on their collective and interpersonal sensibilities. We

are given a personal feeling of transcendence and elevation through these films, but only by appealing to our ideas of collective effort and human cooperation. In order to achieve these feelings, the genre turns to the dichotomous nature of outer space. Space provides the perfect environment for this emotional experience as its wonder captures the collective imagination of humanity while its dangers speak to our deepest and darkest fears. Our emotional responses to space are made stronger by the hypothetical space film's realist style and attention to accuracy. The genre activates our ideas and preconceived notions of space to access certain emotional impulses, teaching us how cinema can integrate the environment of a narrative into its emotional arc. But the inquiry into space film doesn't end here, as I've only scratched the surface of what this tradition can tell us about visual storytelling.

This thesis has covered a narrow slice of what we consider to be outer space film. I chose to focus on the development of the hypothetical space film because it is a clearly defined tradition of filmmaking that raises questions about the role of space in film. From here, the next step in the study of outer space film is to chart the progression of fantastical space film. This would paint a clearer picture of exactly how the two modes of space filmmaking interact with and learn from each other. The hypothetical and fantastical, since 1950, have existed in constant dialogue. An extensive probe into the evolution of fantastical aesthetics would provide more insight into how these two modes of filmmaking use space to create distinct emotional experiences. In particular, a study of recent hypothetical and fantastical space films would illuminate the degree to which the two modes learn from each other. Turnock's study of special effects concludes with a discussion of *Avatar* (2009)

as the “apex” of current 3D filmmaking.⁵³ The next step is to move further and study the special effects filmmaking of later films such as *Gravity*, *Interstellar*, and the rebooted *Star Wars* films of 2015 and beyond. *Gravity*, in particular, is a landmark of 3D filmmaking and it would be worthwhile to track how later fantastical films have learned from it. Fantastical space films typically follow an action/adventure or horror formula. From the serial adventures of *Flash Gordon* (1936) to the superhero antics of *Guardians of the Galaxy* (2014), fantasy space and adventure is a prevalent and effective pairing. If the hypothetical space film expresses both the wonder and danger of space, perhaps the fantastical space film chooses a narrative based on either wonder or danger. Fantastical filmmakers who invoke the danger of space create horror films such as *Alien* (1979), *Pandorum* (2009), and *Apollo 18* (2011). Like the hypothetical, fantastical space films use environment and setting to emotionally express thematic and narrative elements.

Now that I’ve laid out the tools for constructing an effective hypothetical space film, we should consider what other genres can pick up from these traditions. We’ve already seen how the action film can integrate the ideas of transcendence and elevation through collective achievement in *Armageddon*. Additionally, the nightmare sequence in *Apollo 13* shows a strong influence from the horror genre. These two films illustrate how specific elements of the hypothetical space film can be picked up into other genres in order to more effectively achieve their specific goals. Confinement, alienation, and the fragility of life in space can easily be translated into horror or noir. Mastery of technology fits into the action or adventure film. These other genres can also learn how to give the audience a cinematic experience that

⁵³ Turnock, *Plastic Reality*, 272.

leaves them feeling enlightened. This can be done by adopting the shift of perspective, a central conventional element of the hypothetical space film. A shift in perspective can function as a major beat in character development, which can take place in nearly all genres.

The future of hypothetical space film is uncertain, yet exciting. With the growing popularity and esteem of TV programming, one can wonder how the genre will adapt to the small screen. As shown by the lasting influence of the *Star Trek* (1966) series, the immense scope and wonder of space are well-suited for episodic storytelling. The challenge for showrunners hoping to produce a hypothetical space show lies in determining how to convey the genre's sense of transcendence across the arc of a season or series. Beyond television, space is well-suited to the budding medium of VR storytelling. The sensory and immersive experience provided by VR could result in quite expressive and evocative uses of space. Possible precursors to the type of experience VR would provide to viewers include the star gate sequence in *2001* and the use of POV in *Gravity*. But no matter where the representation of space comes from, its usage and experience, determined by the hypothetical space film, remains constant. There may be big changes in the technology of space film in the future,⁵⁴ but the hypothetical space film acts as a guide for creators. We can predict that the beautiful danger of space will continue to inspire film production that pushes us beyond our current relationship with it.

⁵⁴ Personally, I am looking forward to the day we can shoot films on location in space.

Filmography

Features and Short Films

- Méliès, G. (1902). *Le Voyage dans la Lune (A Trip to the Moon)*, Star Film Company: 18 min.
- Booth, W. R. (1906). *The '?' Motorist*, Paul's Animatograph Works: 2 min. 22 seconds.
- Velle, G. (1906). *Voyage Autour d'une Étoile (A Voyage Around a Star)*, Pathé Frères: 8 min.
- Neumann, K. (1950). *Rocketship X-M*, Lippert Pictures: 78 min.
- Pichel, I. (1950). *Destination Moon*, Eagle-Lion Classics Inc.: 91 min.
- Haskin, B. (1953). *The War of the Worlds*, Paramount Pictures: 85 min.
- Wilcox, F. M. (1956). *Forbidden Planet*, Metro-Goldwyn-Mayer: 98 min.
- Altman, R. (1968). *Countdown*, Warner Bros.-Seven Arts: 101 min.
- Kubrick, S. (1968). *2001: A Space Odyssey*, Metro-Goldwyn-Mayer: 161 min.
- Sturges, J. (1969). *Marooned*, Columbia Pictures: 134 min.
- Trumbull, D. (1972). *Silent Running*, Universal Pictures: 89 min.
- Lucas, G. (1977). *Star Wars*, 20th Century Fox: 121 min.
- Spielberg, S. (1977). *Close Encounters of the Third Kind*, Columbia Pictures: 135 min.
- Cozzi, L. (1978). *Starcrash*, New World Pictures: 94 min.
- Scott, R. (1979). *Alien*, 20th Century Fox: 117 min.
- Wise, R. (1979). *Star Trek: The Motion Picture*, Paramount Pictures: 132 min.
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- Kershner, I. (1980). *The Empire Strikes Back*, 20th Century Fox: 124 min.

- Hodges, M. (1980). *Flash Gordon*, Universal Pictures: 114 min.
- Marquand, R. (1983). *Return of the Jedi*, 20th Century Fox: 132 min.
- Castle, N. (1984). *The Last Starfighter*, Universal Pictures: 101 min.
- Hyams, P. (1984). *2010: The Year We Make Contact*, Metro-Goldwyn-Mayer: 116 min.
- Lynch, D. (1984). *Dune*, Universal Pictures: 136 min.
- Cameron, J. (1986). *Aliens*, 20th Century Fox: 137 min.
- Howard, R. (1995). *Apollo 13*, Universal Pictures: 140 min.
- Zemeckis, R. (1997). *Contact*, Warner Bros.: 149 min.
- Bay, M. (1998). *Armageddon*, Buena Vista Pictures: 150 min.
- Lucas, G. (1999). *The Phantom Menace*, 20th Century Fox: 133 min.
- Lucas, G. (2002). *Attack of the Clones*, 20th Century Fox: 142 min.
- Soderbergh, S. (2002). *Solaris*, 20th Century Fox: 98 min.
- Lucas, G. (2005). *Revenge of the Sith*, 20th Century Fox: 140 min.
- Abrams, J.J. (2009). *Star Trek*, Paramount Pictures: 127 min.
- Jones, D. (2009). *Moon*, Sony Pictures Classics: 97 min.
- Alvart, C. (2009). *Pandorum*, Overture Films: 108 min.
- López-Gallego, G. (2011). *Apollo 18*, Dimension Films: 86 min.
- Cordero, S., (2013). *Europa Report*, Magnet Releasing Magnolia Pictures: 89 min.
- Cuarón, A. (2013). *Gravity*, Warner Bros. Pictures: 91 min.
- Gunn, J. (2014). *Guardians of the Galaxy*, Walt Disney Studios Motion Pictures: 122 min.
- Nolan, C. (2014). *Interstellar*, Paramount Pictures: 169 min.
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Abrams, J.J. (2015). *The Force Awakens*, Walt Disney Studios Motion Pictures: 135 min.

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Johnson, R. (2017). *The Last Jedi*, Walt Disney Studios Motion Pictures: 152 min.

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