**The Atomic Infinite: Aesthetics of the Sublime in
1950s Science Fiction Film**

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Abstract

This thesis undertakes an aesthetic analysis of the sublime in 1950s American science fiction film. Although a number of scholars have analyzed this period of science fiction, little attention has been paid to aesthetics. Scholars have mostly looked at narrative, examining metaphors for nuclear anxiety in these films. I take these readings further, arguing that nuclear anxiety is the basis for a particular aesthetic style, one reflecting the sublime. In making my argument I refer to the discourse of the sublime including theorizing of the atomic bomb as an object of the sublime. I extend this discourse into film, arguing the atomic bomb sublime finds its way into the monster films of 1950s American science fiction. In reconciling the atomic bomb sublime, 1950s American science fiction film develops a particular aesthetic style and in so doing, must mediate the technology of the atomic bomb through film's own technology.

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Introduction

This thesis reconsiders 1950s science fiction (SF) monster films through the genre cycle's focus on the sublime. I argue 1950s SF inherits the aesthetics of the sublime from the 18-19th Century, evident in many of these films' appropriation of landscape painting conventions and travel writing. As the thesis progresses it will become evident these films rehearse 18-19th Century aesthetics as a way of reconciling the atomic bomb sublime with earlier conceptions of the sublime. By performing this analysis, it is my hope to establish a new way of understanding this formative period in SF film.

As I discuss in this introduction, scholarship concerning this genre cycle, with a few notable exceptions, has been limited in scope. The analysis I put forward here is an attempt to engage a body of films left behind by scholars or given only minimal attention with new ideas that prove these films may generate interesting scholarship.

Competing classification of metaphors and narrative expression of these metaphors have been the major scholarly concern with 1950s SF. Categorizing how these films reflect popular anxiety surrounding the atomic bomb (aka the "Bomb") or sometimes communist threats typify most scholarship on SF in this decade. Even scholarship that deviates from this narrowly focused binary categorization of 1950s SF analysis tends to be narrative focused, seeking to tease out what other anxieties brewed under the surface of 1950s America. While these studies may be informative and rigorous, I cannot help but feel that most scholars have stopped at the surface of these films, and that thorough thinking on these films remains in the minority of

scholarship. While scholars have primarily looked at narrative, I turn my focus primarily to aesthetics and the way these films engage with the form of film. In so doing, I uncover the tendency for these films to engage with the sublime, manifesting in representations of landscape and an interaction with film technology in a particular way that speaks to the unique ability of film. This thesis demonstrates that several 1950s SF monster films respond to the phenomenon of the post-war atomic bomb sublime in a way that evokes, both narratively and visually, 18-19th Century aesthetic practices in an attempt to reconcile the sublime of the Bomb within the particular medium of film.

My analysis of these films begins with an observation that may be surprising. Curiously, these films continually engage with the sublime in a tendency to hark as far back as the 18th Century engagement with the concept. This engagement becomes a paradigm, with 1950s SF monster films engaging with tendencies befitting the 18-19th Century. The question of why these films would engage with aesthetics from at least 100 years prior is a motivational factor in writing this thesis. In chapter one I lay out relevant history of the sublime as the concept is a cohesive in my analysis. As I discuss in chapter two, these films place a lot of emphasis on landscape and it is here that the films revert to aesthetics beginning two centuries prior. As I move into the third chapter I discuss film technology and how the technology effectively mediates an aesthetic engagement with the atomic bomb sublime. As these films engage the sublime they reveal a logic for reiterating 18-19th Century aesthetics, why that reiteration is befitting to this genre cycle and how film as a medium may express the sublime. My writing on these films cannot escape the

Bomb and as I argue, it is the technological sublime of the Bomb that is the agent underlying this analysis. In the course of this thesis I argue these films tend towards representations of the natural sublime and the technological sublime of the Bomb. In this tendency, 1950s SF monster films depict a transition between the natural and technological sublime that occurred during the Second World War by rehearsing the aesthetic of the sublime from the 18-19th Century, then moving towards a new sublime that must reconcile the power of the Bomb.

In my study of 1950s SF monster film's appropriation of 18-19th Century aesthetics and their mediation through film technology, I have separated my work into three chapters. Chapter one is a review of the discourse of the sublime from its origins to the fascination it gained in 18th Century Europe to its adoption by America in the 19th Century and its gradually shifting nature once there. Also, I consider notions of temporality and intersection as they continually crop up in the discourse of the sublime. In chapter two I consider the recurring attention to landscape in 1950s SF and relate the portrayal of landscape to 18-19th Century aesthetics and the way the sublime and time are dealt with in that era. In chapter three I examine the role film technology plays in mediating the technology of the Bomb and its particular sublime nature through the medium of film. This study is particular to 1950s SF because of the popular need at the time to come to terms with the sudden appearance of the Bomb shortly before the initiation of this genre cycle. As I propose in chapter one, the Bomb also means a shift in understanding the sublime, as the Bomb challenges prior notions of the concept.

Why Study 1950s SF Monster Films

One reason to study 1950s SF monster films is that this genre cycle is a formative period for modern SF film. While SF film existed prior to the 1950s, the output was somewhat limited and may be considered proto-SF. Many of these films contain elements of SF but are not commonly considered genre films.[1] Also, there is not much scholarly discussion of pre-1950s SF. Some films are plucked out of this relatively uncharted period for study or reference such as *Metropolis* (Friz Lang, 1927), *Things to Come* (William Cameron Menzies, 1936) and of course the Mélies' work from the early days of film such as *A Trip to the Moon* (1902). The *Buck Rogers* serial of the 1930s is still remembered, if no other reason than it partly inspired *Star Wars* (George Lucas, 1977). It was not until 1950 that SF became a cinematic mainstay. The decade is sometimes referred to as Golden Age of SF film because of the sudden outpouring of films in a genre not commonly seen prior. Although scholarly attention to this decade of SF is limited, much scholarship is dedicated to *2001: A Space Odyssey* (Stanley Kubrick, 1968) and *Alien* (Ridley Scott, 1979), two films that rework the conventions familiarized by 1950s SF.[2] The focus of SF scholarship tends to engage the genre sporadically, placing much emphasis on a handful of films and the 1950s is only time period prominently discussed. There is virtually no scholarship on the 1960s[3] except for *2001: A Space Odyssey* and little

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[1] Keith M. Johnston, *Science Fiction Film: A Critical Introduction* (Oxford and New York: Berg, 2011), 70.

[2] On a related note, *2001: A Space Odyssey*, *Alien* and *Blade Runner* (Ridley Scott, 1982) are given substantial attention by SF scholars, invariably being taken up as case studies. While these films are worthy of their attention, genre scholarship could be expanded to a wider range of films.

[3] Ibid., 81.

discussion on the decades before the 1950s. Despite the array of films and their influence, the B-movie status of 1950s SF has perhaps prevented the undertaking of much probing analysis. One hope in writing this thesis is to demonstrate that interesting SF scholarship may be found elsewhere, and why not the foundational genre cycle of the 1950s.

Building a Canon of Films

There are many films to choose from in this genre cycle. John Baxter, writing in 1970 claims 1950-1955 sees the largest output of SF films in the genre's history.[4] It is sometimes reported that an overwhelming 500 SF films were released in the 1950s and early 1960s.[5] I have my doubts about that high of a figure and to my knowledge no one has compiled a thorough list of all SF films released in this period, making all film counts an estimate. There are three major subgenres in this period: monster films, likely making up a majority of releases; space travel; alien invasion/visitation. The space travel films start off the 1950s with *Rocketship X-M* (Kurt Neumann, 1950) and *Destination Moon* (Irving Pichel, 1950). The monster films are popularized by *The Beast from 20,000 Fathoms* (Eugene Lourie, 1953). A steady output of monster films follows throughout the decade. The alien invasion/visitation films are more common to the early part of the decade. *War of the Worlds* (Byron Haskin, 1953) is one popular example, so is *The Day the Earth Stood Still* (Robert Wise, 1951). Space travel films also tended to populate the earlier years of the decade, becoming less common after *Forbidden Planet* (Fred M. Wilcox,

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[4] John Baxter, *Science Fiction in the Cinema* (New York: A.S. Barnes & Co., 1970), 133.
[5] John R. Mathis, "Atomic Cinema in America: Historical and Cultural Analysis of a New Film Genre That Reflected the Nuclear Zeitgeist of the Cold War (1945-1989)" (PhD diss., Salve Regina University, 2013), 98.

1954), although examples can be found as late as 1959. There is also the question of

what years should form the boundaries of my study. As stated in the previous

section, scholars have tended to isolate the 1950s as a period, without extending

their readings into 1960s. Why should 1959 be a boundary? I cannot speak for other

scholars but my primary reason for staying within the 1950s is that my study only

concerns American films. For reasons explained in chapter one this study is partly

based on the American experience of the sublime. The output of American SF starts

to decline in the late 1950s (1957 is my latest case study). 1960s SF is marked by a

rise in European knockoffs that follow conventions established by 1950s SF, often

mixing the subgenres previously noted. My isolation of American SF is also why I do

not discuss Japanese kaiju[6] films that began appearing in the 1950s. As well, I am

not convinced these films strongly influenced American SF within the same decade.

The first kaiju film, and the most famous, *Gojira* (Ishiro Honda, 1954), was not

immediately available to American audiences.[7] The film saw limited release in

America in 1955, primarily attended by Japanese audiences.[8] The American wide-

release came in 1956 after the film was re-edited to suit the tastes of American

audiences and released as *Godzilla, King of the Monsters!* (Hondo and Terry O.

Morse). Christine Cornea claims the American version is highly influential on

American SF after 1955[9] but I consider this evidence dubious. As evidence of

Gojira's influence on American film, Cornea cites similarities between the kaiju film

[6] Translated as strange or mysterious beast.
[7] Christine Cornea, *Science Fiction Cinema: Between Fantasy and Reality* (Edinburgh: Edinburgh University Press, 2007), 58.
[8] Ibid., 58.
[9] Ibid., 58.

and *It Came from Beneath the Sea* (Robert Gordon, 1955). Particular to both films is a radiated sea creature and each monster is similarly killed. She does not mention that *It Came from Beneath the Sea* also closely follows the narrative of the widely seen *The Beast from 20,000 Fathoms*, including the method of destruction of the monster. As well, Cornea makes the point that *Gojira* is not seen in America until 1955 (and then in a limited capacity), a timeline not capable of influencing *It Came from Beneath the Sea*. *The Beast from 20,000 Fathoms*, released about a year prior to *Gojira* is often claimed as the first monster as Bomb film[10] and popularized its conventions and the hit *Them!* (Gordon Douglas, 1954) released one year after solidified those conventions. Opportunities to view *Gojira* did not occur in America until one year later. Not only was *Gojira* not commonly seen at this time, the Americanized *Godzilla, King of the Monsters!* was the only version widely distributed. These factors significantly dilute whatever influence, if any, *Gojira* or subsequent kaiju films may have had on American SF in the 1950s. While comparing the European and Japanese films against the American work might be interesting, it would complicate and lengthen my thesis beyond its scope.

Suffice to say, there are many films in this genre cycle to study. I do not claim to have seen all films within this genre cycle but I have made of habit of keeping track of as many as possible and I have made an effort to see these films. The films that I have not been able to see I have tried to learn about, mostly by searching for information online. In the chapters of this thesis I have chosen to work with films I have seen that are the most illustrative of my argument. While I do not claim that all

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[10] My research indicates it is actually *Lost Continent* (Sam Newfield, 1951) that introduces the monster as Bomb metaphor.

1950s SF monster films films fit into this analysis, I do claim there are tendencies within this genre cycle, expressed by some films more than others. From my viewing I have distilled 10 films that I make reference to and I discuss four films in greater detail. I have chosen this number because I want to ensure a broadly focused study that addresses tendencies across a number of films while still having the ability to discuss aspects of some films in more detail. The numbers could have varied slightly but I decided on an amount of films that allow me a comfortable degree of engagement on both a broad and when necessary, narrow level.

Literary Review

I will briefly review some of the relevant scholarship on my corpus of films to demonstrate the state of current thinking on 1950s SF monster films and to create a contrast with my study. It should be mentioned that literary scholarship has addressed the sublime in SF. Istvan Csicsery-Ronay Jr. has written about the sublime as an essential component of SF literature. "Readers of SF expect it to provide an intense experience of being translated from the mundane to imaginary worlds and ideas that exceed the familiar and the habitual."[11] He names the *technoscientific sublime* specifically, a kind of representation of the sublime characteristic of post-World War II SF.[12] This sublime "entails a sense of awe and dread in response to human technologized projects that exceed the power of their human creators."[13] I will not explore Csicsey-Ronay's topic further, as it pertains to literature, but his study is useful background information. The scholarship concerning 1950s SF film

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[11] Istvan Csicsery-Ronay Jr., *The Seven Beauties of Science Fiction* (Middletown, CT: Wesleyan University Press, 2008), 146.
[12] Ibid., 7.
[13] Ibid., 7.

appears sporadically, beginning in the 1960s and most writing has appeared by the

early 2000s. Many of the studies concern the monster films and classify how these

films engage with the Bomb and it is worth declaring that discerning viewers are

likely to recognize the influence of the Bomb on these films. Some of these films

even reference the Bomb specifically, such as *The Beast from 20,000 Fathoms* where

the monster is frozen in ice and reanimated by a Bomb blast. Other films have thinly

disguised Bomb metaphors and others have no linkage to the Bomb but closely

follow the conventions established by *The Beast from 20,000 Fathoms* and cemented

by later films closely enough to make a link to the Bomb.

Scholarship on 1950s SF begins with Susan Sontag's "The Imagination of

Disaster" (1965). This article serves as a concise introduction to this period of SF,

briefly pointing out tendencies within the films. She sets out three narrative types[14]

that serve to inform later scholars' classifications (even if they do not acknowledge

Sontag). She argues that one purpose of SF film is to show disaster.[15] One purpose of

showcasing disaster in SF is the longing for a 'good war,'[16] although that same

enthusiasm may be channeled into desire for peace where a significant disaster can

unite nations.[17] She claims these films are "strongly moralistic"[18] but ultimately

contain no social criticism.[19] The moralism often comes down to a standard message

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[14] Susan Sontag, "The Imagination of Disaster," in *Liquid Metal: The Science Fiction Film Reader*, ed. Sean Redmond (London and New York: Wallflower Press, 2004), 40.
[15] Ibid., 41.
[16] Ibid., 44.
[17] Ibid., 45.
[18] Ibid., 43.
[19] Ibid., 46.

about the dangers of unchecked science[20] and is so simple that these films resist

social commentary.[21] She does acknowledge nuclear anxiety in these films,[22] a factor

that plays into the anxious nature of these SF films generally.[23] She writes that it is

mostly the Japanese SF films that express "mass trauma" over nuclear weapons and

their potential future use.[24] She also notes the trope of the prehistoric creature as an

obvious metaphor for the Bomb and some films even reference the Bomb

explicitly.[25] In addition to the anxiety of obliteration by the Bomb, obliteration of the

psyche is another anxiety of SF film.[26] This anxiety is the prospect of a person

rendered lifeless and beholden to a group mentality.[27] "No more love, no more

beauty, no more pain" is boasted by such a lifeless human in *Invasion of the Body

Snatchers* (Don Siegel, 1956) in a representative example of this anxiety.[28]

The next major survey of 1950s SF is found in John Baxter's *Science Fiction in

the Cinema* (1970). Baxter divides SF film into two broad categories: loss of

individual identity and the dangers of too much human knowledge.[29] The later

category is centered on the invention of the Bomb[30] and its apocalyptic danger.[31]

The ritual phrase "There Are Some Things That Man is Not Meant to Know"

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[20] Ibid., 43.
[21] Ibid., 45.
[22] Ibid., 44.
[23] Ibid., 47.
[24] Ibid., 44.
[25] Ibid., 44.
[26] Ibid., 45.
[27] Ibid., 45.
[28] Ibid., 45.
[29] Mathis, "Atomic Cinema in America," 55.
[30] Baxter, *Science Fiction in the Cinema*, 155.
[31] Ibid., 156.

embodies the sin of knowledge humankind has committed against nature,[32] and these SF films serve to humble via nature's monsters.[33] Baxter writes that even films that do not directly reference the Bomb are grandfathered in by the narrative and thematic resemblance to *The Beast from 20,000 Fathoms.*[34]

More than a decade later the taxonomy becomes more complicated with Peter Biskind (1983). He divides 1950s SF Bomb films into two political categories: the liberal-corporate film and the conservative film. The conservative film rejects the Bomb and feels untrustworthy towards Big Science.[35] Principle characters in these films are often scientists suggesting that some forms of science are acceptable, such as medicine, but science generally needs to be kept in check.[36] Conversely, the liberal-corporate film downplays technology as the true cause of the monster and generally embraces science.[37] There is a third category named the centrist film where the monster does not stand in for the Bomb (or anything).[38] Instead, nature is simply running amuck in these films.[39] Biskind shrugs off this category by stating these films simply tap into a fear of nature as a general Other.[40]

Similar to Biskind, Patrick Lucanio (1987) identifies two categories of Bomb metaphors. Lucanio spends much of his discussion laying out the narrative of his first category, the "classical text," and I will only reiterate the essential difference

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[32] Ibid., 138.
[33] Ibid., 131.
[34] Ibid., 131.
[35] Peter Biskind, *Seeing is Believing: How Hollywood Taught Us to Stop Worrying and Love the Fifties* (New York: Pantheon Books, 1983), 105.
[36] Ibid., 105.
[37] Ibid., 112.
[38] Ibid., 106.
[39] Ibid., 106.
[40] Ibid., 111.

between his categories. The "classical text" embraces science and the monster is

defeated through the application of analytic thinking and scientific knowledge.[41] The

political motivations in this genre cycle are found in the second category, the

"Prometheus variation."[42] The "Prometheus variation" is narratively very similar to

the "classical text" except sciences' violation of the natural order is emphasized.[43]

These films emphasize the moral rightness above the wrongness of unhinged

science in creating the monster.[44] Instead of analytical thinking bringing the

destruction of the monster, intuition is relied upon by the central characters,

creating a contrast with wrong-headed, over-thinking scientists.[45]

One scholar that has probed this genre cycle a bit more is Vivian Sobchack.

Her book *Screening Space* (1987) engages with a wide range of SF films until the

year of the book's release. For my purposes, I want to draw attention to one

particular section of her book. In chapter two, Sobchack writes about "the alienation

of the familiar," a tendency for SF to photograph space in ways that make common,

unthreatening space seem strange and unfamiliar.[46] In this section, some of her case

studies are 1950s films. She makes a distinction between the big budget films of the

early 1950s that express confidence in traversing alien spaces and subduing the

extraordinary[47] and later films where characters seem isolated from familiar people

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[41] Patrick Lucanio, *Them or Us: Archetypal Interpretations of Fifties Invasion Narratives* (Bloomington: Indiana University Press, 1987), 22.
[42] Ibid., 23.
[43] Ibid., 21.
[44] Ibid., 23.
[45] Ibid., 21.
[46] Vivian Sobchack, *Screening Space: The American Science Fiction Film*, 2nd ed. (New York: The Ungar Publishing Company, 1987), 108.
[47] Ibid., 136.

and from what should be familiar and safe space.[48] Big budget films, tending to be

space travel films, are optimistic and even smug about human ability when

confronting the universe.[49] In these films there is little abstract representation of

unfamiliar space.[50] Instead, "The infinite is introduced and made finite, the unknown

is made familiar."[51] The opposite engagement with space characterizes low budget

SF that populated the latter part of the decade and tend to take place on Earth.[52]

These films are "pulling the ground out from beneath our complacent feet, Man's

previously harmonious marriage to the landscape of our planet ended in divorce."[53]

Sobchack names the work of Jack Arnold, Gordon Douglas and John Sherwood as key

examples of films that alienate us from familiar natural settings.[54] It should be noted

that Sobchack does mention the sublime in the final chapter of her book. The

concept is used in passing to describe special effects, noting the sublime is one "sign-

function" of special effects in SF, along with "joyful intensities" and "euphoria."[55] She

describes 1980s SF revolving around the inner space of electronic culture such as

Tron (Steven Lisberger, 1982) and *WarGames* (John Badham, 1983) as resisting the

technological sublime, occasionally glimpsing it, but preferring to focus on thematic

representation instead.[56] Sobchack's study is one of the closest to my own. She

performs an aesthetic analysis, as I do in this thesis, concentrating on the look and

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[48] Ibid., 137.
[49] Ibid., 110.
[50] Ibid., 110.
[51] Ibid., 110.
[52] Ibid., 112.
[53] Ibid., 112.
[54] Ibid., 112.
[55] Ibid., 283.
[56] Ibid., 258.

feel of SF. Also, some of her analysis of the unfamiliar in 1950s SF notes the use of landscape, as I do. Unlike Sobchack, my study of aesthetics including landscape is concerned with how these films mediate the sublime and how this mediation is a reaction to the Bomb.

The closest study to mine is Scott Bukatman's "The Artificial Infinite: On Special Effects and the Sublime" (1999). He argues "The precise function of science fiction, in many ways, is to create the boundless and infinite stuff of sublime experience, and thus produce a sense of transcendence beyond human finitudes."[57] SF tends to excess and may be visually sublime,[58] especially in instances where there is "an articulation of the tension between anxiety and identification as we strain to assimilate the imagined infinities of technological power."[59] One such tension occurs in the opening scene of *Silent Running* (Douglas Trumbull, 1972) where a lush, seemingly natural forest is gradually revealed to actually exist within a spacecraft.[60] He also provides brief examples from *Blade Runner*, *Close Encounters of the Third Kind* (Steven Spielberg, 1977) and *Star Wars* where overwhelming technological might is displayed. My study is similar to Bukatman's insofar as we both discuss the sublime in SF. While Bukatman introduces us to the possibility of the sublime in SF, and provides a broad overview of tendencies to the sublime in a few films, my study provides a thorough analysis of how and why 1950s SF evoke the sublime. Since my study is concerned with the 1950s, my discussion of the use of

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[57] Scott Bukatman, "The Artificial Infinite: On Special Effects and the Sublime," in *Alien Zone II: The Spaces of Science Fiction*, ed. Annette Kuhn (New York: Verso, 1999), 256.
[58] Ibid., 256.
[59] Ibid., 268.
[60] Ibid., 268.

the sublime in these films may reveal the foundation for any leanings towards the sublime in later SF films. Since I tie the evocation of the sublime to the Bomb, my study seeks to account for why SF takes up the sublime; an analysis that may benefit explanations of the sublime in later films.

The final scholar I mention in my literary review is Cyndy Hendershot. Hendershot wrote extensively on 1950s SF in the late 1990s, her essays appearing in a variety of journals and then compiled into *Paranoia, the Bomb and 1950s Science Fiction Films* (1999). Also, she followed up the anthology with an original book-length study *I Was a Cold War Monster* (2001). She is one of the few scholars to have written extensively on 1950s and to have gone beyond taxonomy. I will not go into detail about much of her work because her concern is largely gender, an analysis not furthered by my study. Hendershot's most relevant articles to my study are "Darwin and the Atom: Evolutionary Devolution Fantasies in 'The Beast from 20,000 Fathoms,' 'Them!,' and 'The Incredible Shrinking Man,' " and "From Trauma to Paranoia: Nuclear Weapons, Science and History." Both articles are studies of post-war American culture, discussing how popular anxieties find their way into 1950s SF. In "From Trauma to Paranoia" she discusses how a nation grappling with the invention of the Bomb turned to mythological metaphors to discuss the Bomb and in so doing provide a convincing reason why these films turn to monsters as Bomb metaphors.[61] "Darwin and the Atom" focuses on a tension between evolution and

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[61] Cyndy Hendershot, "From Trauma to Paranoia: Nuclear Weapons, Science Fiction, and History," *Mosaic: A Journal for the Interdisciplinary Study of Literature* 32.4 (1999): 1.

devolution, a Victorian-era anxiety that reemerges in post-war America.[62] Hendershot argues this tension informs 1950s SF, making her point in the three case studies of the article's subtitle.

After this introduction, "Darwin and the Atom" is the only piece of Film Studies scholarship concerning SF I will make reference to. The article is useful to me because, as I argue in chapter one, temporality is a recurring idea that surrounds the sublime. Accordingly, temporality will become an important part of my study. Since Hendershot is speaking of evolution and devolution in her article (inherently temporal concepts), her insights will prove useful to me later on in this thesis. The work of other film scholars I have highlighted here is not brought up again. Their insights will not prove necessary to me while making my argument. Instead I use historical studies, studies concerning the sublime and its discourse over time and studies of 18-19th Century landscape painting and aesthetics to build my argument. My departure from the canon of SF scholarship speaks to the novel undertaking of my study, one that I hope will prove a useful new way of engaging with 1950s SF. Even Bukatman's study of the sublime in SF is not mentioned again. Despite our mutual observation of the sublime's place in SF, my engagement with the concept has proven sufficiently different from his that Bukatman's study need not be cited. On that note, I will now move to an overview of the sublime, one that will form the basis for my discussions of 1950s SF.

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[62] Cyndy Hendershot, "Darwin and the Atom: Evolutionary Devolution Fantasies in 'The Beast from 20,000 Fathoms,' 'Them!,' and 'The Incredible Shrinking Man,' " *Science Fiction Studies* 25.2 (1998): 319.

Chapter One: The Sublime: From Origin to Atomic Bomb

In my project of demonstrating the way in which some 1950s SF respond to the atomic bomb sublime, a brief history of the sublime from origin to the time concerning my study is an essential entry-point into my research. The sublime, as it is understood today has a lineage to the Age of Enlightenment, at least, where the concept became widespread and permeated philosophy and the arts. As the sublime became engrained in the American pantheon in the early 19th Century it was beginning to envelop human-made structures in addition to natural spaces. In this chapter I discuss the specific relationship between American culture and the sublime, the ideas surrounding this relationship as well as the most important sublime object to my study: the atomic bomb.[63] There are two ideas surrounding the sublime that I am also concerned with: temporality and the intersection of seemingly contradictory things. Both these ideas will become important to my reading of films in chapters two and three.

The Natural Sublime

Beginning approximately in the 18th Century, something was different in the way Americans and Europeans engaged with the natural world and a term was required to encompass this new understanding. The new understanding is called sublime, and as a concept, it is a cornerstone to our understanding of the 18th and 19th Century zeitgeist. The sublime can be traced to a 16th Century essay attributed to Longinus but was largely ignored until the 18th Century where the term was re-

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[63] I do not give a declarative definition of the sublime here or elsewhere but a definition emerges through the perspectives I summarize throughout the chapter as well as the objects the sublime is said to possess. I believe this method is the most accurate way to define this complicated concept.

appropriated to describe certain human encounters with the natural world. Praising the natural world as sublime is not a common occurrence until the 18th Century.[64] In her seminal study *Mountain Gloom and Mountain Glory*, Marjorie Hope Nicolson details how English poets and travel writers reinvented the perception of the Alps as sublime. She notes that until circa 1650 mountains were only thought to be deformities of the world, "warts, blisters," upon the world or perceived as a kind of wasteland.[65] 17th Century poetry that did praise nature celebrated serene, well-ordered spaces like gardens and ignored wild or asymmetrical natural spaces like mountains.[66]

As attitudes towards mountains were changing, a distinction was made between what is beautiful and what is sublime.[67] In *Sacred Theory of the Earth* (1680-89), a cosmological study seeking to re-invent 17th Century attitudes towards nature, Thomas Burnet makes this distinction and declares the well-ordered nature praised by his contemporaries as beautiful.[68] It is the night sky, majestic mountain ranges that produce a sensation of infinity: "They fill and overbear the Mind with their Excess."[69] Mountains were a source of frustration for Burnet because nature is the work of God but how can the "shapeless," "ill-figur'd' " and "confused" form of mountains possibly fit into God's vision?[70] Mountains are an offense to the eyes yet

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[64] David E. Nye, *American Technological Sublime* (Cambridge, MA and London: The MIT Press, 1994), 4.
[65] Marjorie Hope Nicolson, *Mountain Gloom and Mountain Glory: The Development of the Aesthetics of the Infinite* (Ithaca, NY: Cornell University Press, 1959), 62.
[66] Ibid., 37.
[67] Philip Shaw, *The Sublime* (London and New York: Routledge Press, 2006), 30.
[68] Ibid., 30.
[69] Ibid., 30.
[70] Ibid., 30.

they convey divinity.[71] The sublime then, originates in nature, beginning at the points where beauty collapses.[72] Burnet's sublime is, as Philip Shaw summarizes, order vying with chaos, regularity with irregularity and rational with irrational.[73] Burnet's conception of the sublime is essential thinking as his ideas are taken up by later theorists.[74]

Moving into the 18th Century, theorists such as John Dennis conceive of the sublime as emerging when a natural object that is said to be sublime is processed by the mind.[75] The "Extravagancies" of nature are the foundation for sublime experience and mental processes are needed in the observer to comprehend the sublime.[76] The sublime resulting from the process of mental faculties is a starting point for Edmund Burke's and Immanuel Kant's treatises on the subject.

David E. Nye describes Burke's sublime as an "ecstasy of terror."[77] Illustrating this "ecstasy of terror" is an account Burke makes to a friend on witnessing a flood ravage Dublin. Burke writes "It gives me great pleasure to see nature in these great though terrible scenes. It fills the mind with grand ideas, and turns the soul in upon itself."[78] Burke would later distill this experience into the sublime as described in his *Philosophical Enquiry Into the Origins of Our Ideas of the Sublime and the Beautiful* (1757). He further develops the ideas of Burnet and Dennis that the sublime is dependent on both mental faculties and external

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[71] Ibid., 30.
[72] Ibid., 30.
[73] Ibid., 30.
[74] Ibid., 30.
[75] Ibid., 38.
[76] Ibid., 31.
[77] Nye, *American Technological Sublime*, 4.
[78] Ibid., 4.

objects.[79] Burke is an empiricist and reasons that our knowledge of the world is derived entirely from sensory evidence.[80] Thus, unlike his predecessors, Burke gives up God as part of the sublime equation.[81] In substitution of the need for God, Burke instead places emphasis on language being integral to the sublime. He writes,

> It is one thing to make an idea clear, and another to move it affecting to the imagination. If I make a drawing of a palace, or a temple, or a landscape, I present a very clear idea of those objects; but then…my picture can affect only as the palace, temple, or landscape would have affected in the reality. On the other hand, the most lively and spirited verbal description I can give, raises a very obscure and imperfect *idea* of such objects; but then it is in my power to raise a stronger *emotion* by description then I could do by the best painting.[82]

For Burke, a precise verbal description falls short of representing an object the way a quality drawing represents a clear idea of that object.[83] Although language fails in regard to the best available medium of description, it succeeds in "conveying the *affectations* of the mind from one to another."[84] Burke's discard of God and instead his conception of language as necessary to express the experience of the sublime further enforces the link between the sublime and reason. Language is the conduit of reason whereas religious faith is predicated on the absence of reason.

Going from Burke to Kant and to later thinkers, the natural world by itself plays an increasingly smaller role in defining the sublime, and the observer becomes more important in defining the sublime via projections of their inner state onto the

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[79] Shaw, *The Sublime*, 49.
[80] Ibid., 49.
[81] Ibid., 49.
[82] Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and the Beautiful* (Oxford: Basil Blackwell Ltd., 1960), 60.
[83] Shaw, *The Sublime*, 50.
[84] Ibid., 50.

natural world.[85] While Burke's sublime creates humility in humans (the city is ravaged by the flood) Kant's sublime shifts to hubris. For Kant, the sublime must overwhelm the imagination, so the imagination is pushed beyond its limit of interpretation and "gives up," so to speak.[86] The overwhelming of the imagination is true at the level of overall largeness of an object and in an analysis of the smaller parts that comprise it.[87] However, the fact that humans can even conceive nature in this way denotes human superiority over nature.[88] In Kant's words, "Therefore nature is here called sublime merely because it elevates the imagination to a presentation of those cases in which the mind can come to feel the sublimity of its own vocation even over nature."[89] Kant's conception of the sublime residing in human elevation over nature forms a catalyst for the technological sublime. As the definition of a sublime object grows to encompass the human-made, the veneration of the human mind over nature is transposed into the human-made objects that perform the task of subduing the natural world.

The Technological Sublime

Essentially, the technological sublime[90] results when the experience of the sublime moves from natural to human-made objects of grandeur. A sublime

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[85] Nye, *American Technological Sublime*, 8.

[86] Immanuel Kant, *Critique of Judgment* (Oxford and New York: Oxford University Press, 2007), 82.

[87] For a clear explanation of Kant's reasoning, see Douglas Burnham's example of regarding a mountain simultaneously as a massive object and as a unique collection of disparate parts (cliffs, rivers etc.) in Burnham, *An Introduction to Kant's Critique of Judgment*, (Edinburgh: Edinburgh University Press, 2000), 94.

[88] Ibid., 92.

[89] Ibid., 92.

[90] The term is not overly common but is used in Leo Marx's influential *The Machine in the Garden* and the concept was turned into a book length study by David E. Nye.

experience of the Grand Canyon becomes a sublime experience of the factory, with its complex and intricate machinery; the railroad, with its ability to subordinate time and space; the skyscraper and the metropolis that have redesigned the landscape in the human image; and war machinery with its ability for destruction unparalleled by natural forces. Studies of the technological sublime have focused on the USA and according to David E. Nye there is a distinctly American sublime that lends itself to the technological.[91] It is specifically the American technological sublime[92] that I am interested in, since this sublime is taken up by the films I am writing on.

While Kant notes that the human race has come to see the "sublimity of their own vocation" over the natural world, the trajectory of this thinking finds one of America's core ideas about its identity.[93] America in the 18-19th Century sees a great period of exploitation of its landscape. Curiously, in the eyes of 19th Century Americans, the exploitation of landscape is not seen to corrupt or even lessen the natural sublime. Projects such as the construction of the Erie Canal, construction of the railroad, farming of the land and the implementation of the 1785 Land Ordinance that created a grid atop the landscape for road construction and division of farms is not a way of trading the natural sublime for human industrial ambition. Rather, it was the view that these things enhanced nature.[94] The pleasures of the

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[91] Nye, *American Technological Sublime*, 43.

[92] Nye's book is the only major study on the technological sublime and it will largely inform my discussion of the subject.

[93] This observation is a key point for Leo Marx throughout his book. Also, Nye discusses American identity being partly concerned with power over the natural world in chapter two of his book.

[94] Nye, *American Technological Sublime*, 37.

American pastoral was to settle the land, mixing labour with it to create an improvement, orderly in the land's service to human needs and desires.[95] Andrew Jackson echoed this perspective in his second address to Congress that included the sentence "What good man would prefer a country covered with forests and ranged by a few thousand savages to our extensive Republic, studded with cities, towns and prosperous farms…."[96] The ideology subscribes to the notion that nature's will is to be in service of humans and that nature must move beyond the natural and be transformed.[97] The influence of Kant on this line of thinking is found in Leo Marx's quote of an un-sourced 19th Century writer: "What is there yet to be done upon the face of the earth, that cannot be effected by the powers of the human mind…?"[98] The American sublime is the natural sublime, but the sublime is evoked in nature's subservience to humans at the hand of mighty technology. It is this mixing of nature and technology that Nye identifies as characteristic of the American technological sublime.[99]

Leo Marx discusses the ideology that ties American identity to its machines. He writes that America, more than any other country in the 19th Century embraces the machine.[100] He describes the American idea of technological progress as a "birthright," one that elevates America over Europe and enhances democracy and

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[95] Ibid., 37.
[96] Ibid., 37.
[97] Ibid., 38.
[98] Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 1964), 196.
[99] Nye, *American Technological Sublime*, xiv.
[100] Marx, *The Machine in the Garden*, 205.

the pursuit of happiness.[101] He points to one writer's remarks that to look upon a

steamboat is to see the "sublime progress of the race," race meaning human but

more particularly, American.[102] As Marx and later Nye argue, this sublime

technological progress is typically situated within the landscape. Marx, imagining

himself as one of the 19th Century American writers forming his study, writes

> Consider how the spectacle of the machine in a virgin land must have struck
> the mind. Like nothing ever seen under the sun, it appears when needed
> most: When the great west finally is open to massive settlement, when
> democracy is triumphant…as if by design – comes a new power
> commensurate with the golden opportunity of history. Is there any wonder
> that the prospect arouses awe and reverence?[103]

This language of awe and reverence towards machines and by extension, humans

who create and possess machines denotes sublime experience as described by

theorists in the previous section of this chapter.

The trajectory of the technological sublime supports Nye and Marx's

observations. Moving further into the 19th Century and into the 20th, nature is

further subdued or technologized as the technological sublime acquires more

objects.[104] Among Nye's major case studies of technological sublime objects, there

are railroads, skyscrapers and cityscapes, the electrical power grid that crisscrosses

cities and the atomic bomb, perhaps the ultimate technological sublime object.

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[101] Ibid., 205.
[102] Ibid., 197.
[103] Ibid., 206.
[104] In the 19th Century it became common for particular machines to be called
sublime (although the terms technology and sublime would not be combined until
after World War II). See Nye, 45.

Atomic Bomb Sublime

American reactions to the atomic bomb establish it as a typically

technologically sublime object, as defined by Nye. The sheer power of the Bomb

alone suggests its place within the technological sublime. Nothing humans have

created up to that point has rivaled the destructive power of the Bomb. When the

first Bomb test was conducted on July 16, 1945 its force even surpassed all

expectations.[105] Immediately after its detonation, religious quotations were used by

witnesses to describe the Bomb and their reactions to it,[106] a form of rhetoric that

would continue to surround discussions of the Bomb. One witness remarked that he

felt as though he was present at creation, when God said "Let there be light."[107] J.

Robert Oppenheimer, lead scientist on the Manhattan Project, famously quoted

Hindu scripture, saying "I am become Death, destroyer of worlds."[108] These

accounts, conflating the technological sublime of the Bomb with religious feeling,

begin to situate the Bomb within Nye's definition of the American sublime.

Nationalism was also present from the first Bomb test.[109] In a "Top Secret

Memorandum for the Secretary of War," firsthand witness General Leslie Groves

writes that tremendous optimism spread through those present at that first test.[110]

The optimism was not placed in the Bomb's destructive power, it was the realization

of the Bomb's ability to accomplish the ultimate mission of ending the war and

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[105] Leslie Groves' "Top Secret Memorandum for the Secretary of War," quoted in
Hebert Feis, *Between War and Peace: The Postdam Conference* (Princeton, NJ:
Princeton University Press, 1960), 50.
[106] Nye, *American Technological Sublime*, 228.
[107] Ibid., 228.
[108] Ibid., 228.
[109] Ibid., 169.
[110] Ibid., 169.

saving "countless American lives."[111] Nye explains that the American sublime is

associated with particularly American sites, including Niagara Falls. When the test

was complete Groves reports feeling like performance artist Charles Blondin, who

crossed Niagara Falls on a tightrope.[112] He felt as though he and his colleagues at the

Manhattan Project were crossing their own personal tightrope, three years long,

stretched out over the Falls.[113] As Blondin asserted himself over nature by crossing

the Falls on tightrope, Groves feels that he too is making an assertion over nature,

instead of the instruments of rope and rig, it is the science of splitting the atom that

has realized this assertion. In this comparison, Groves is situating the Bomb as an

American sublime object by evoking the natural sublime of the Falls. Groves' remark

also continues the tradition of American nationalism evoked by the dominance of

the natural world. Amalgamating religious rhetoric, awesome power and

nationalism into the Bomb and it becomes typical of Nye's American technological

sublime, as noted in the previous section.

Although Nye's chapter on the sublimity of the Bomb is not the final chapter

of his book, it is the most recent technological invention he identifies as sublime,

denoting a sense of finality appropriate to the Bomb's power. In describing the

Bomb's blast to the Secretary of War, Groves writes:

> The effects could well be called unprecedented, magnificent, beautiful,
> stupendous and terrifying. No man-made phenomenon of such tremendous
> power had ever occurred before. The lightning effects beggared description.
> The whole country was lighted by a searing light with the intensity many
> times that of the midday sun. It was golden, purple, violet, gray and blue. It
> lighted every peak, crevasse and ridge of the nearby mountain range with a

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[111] Ibid., 169.
[112] Ibid., 57.
[113] Ibid., 57.

clarity and beauty that cannot be described but must be seen to be imagined.[114]

Groves' remarkable statement suggests the relationship of the Bomb to its developers has the same appeal as the raging river did for Burke, or the Alps for British travel writers in the 18th Century: it is an irresistible force, safe from a distance, deadly up close. However, the destructive power of a raging river pales in comparison to the power of nuclear weaponry. The Bomb presents, for the first time in human history, a viable threat of global destruction unmatched by any force in nature. Both Burke and Kant note that security of distance is an important element of the sublime, but the sublimity of the Bomb might result in the annihilation of life on Earth. As Nye indicates, there is a shift in the public interaction with the sublime from optimism to pessimism at around this time. Nye's case study prior to the Bomb, the 1939 World's Fair is marked by great optimism and assurance in the utopian possibilities of technology. World's Fairs are a showcase of sublime displays of technology put on by governments and corporations, enchanting fairgoers with possibilities of the future.[115] By the 1939 Fair corporation displays were dominant and the focus was technology as utopian solution to woes of the Great Depression.[116] The technological sublime was on display, but it is the prospect of bouncing back from the depression that is the draw. This mentality is captured in the Fair's theme: "Building the World of Tomorrow with the Tools of Today."[117] However, by 1960, the utopian optimism of the technological sublime as represented by the 1939

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[114] Herbert Feis, *Between War and Peace*, 51.
[115] Nye, *American Technological Sublime*, 200.
[116] Ibid., 204.
[117] Ibid., 206.

World's Fair had given way to profound fear as the realization that the technological

sublime of the Bomb is terror rather than a liberating technology.[118] In the face of

such destructive power it might seem that the sublime as conceived from the 18th

Century onwards is now irrelevant.

However, the terrifying power of the Bomb did not necessarily disqualify its

sublime status. There were plenty of positive responses to the Bomb that imply, at

least for some, that its power is under control. As previously described, scientists

and military personnel present at the first Bomb test regarded it positively. In

covering President Harry Truman's announcement of the bombings of Hiroshima

and Nagasaki, newsman Don Goddard relayed the exciting description that "Allied

scientists have now harnessed the basic power of the universe. They have harnessed

the power of the atom."[119] *Life* magazine, which was able to quickly release an

extensive issue on the Bomb featured mixed perspectives but ended with a positive

editorial, suggesting the publication's generally positive regard for the Bomb: "In

humankind's long struggle to understand and subdue nature…the world should be

grateful that 'Prometheus, the subtle artificer and friend of man, is still an American

citizen.' "[120] Furthermore, there was the sense that the Bomb was ushering in a new

and better age of living, the Age of Atomic Energy.[121] An example of this optimism in

practice is the Atomic Energy Commission, created in the 1950s to propose peaceful

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[118] Ibid., 225.
[119] Paul S. Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York: Pantheon Books, 1985), 4.
[120] Ibid., 9.
[121] Ibid., 169.

uses for atomic energy.[122] Starting in the early 1950s the AEC ran a propaganda campaign to sell the public on "our friend" the atom.[123] There are two recurring ideas in these descriptions that indicate a sublime response to the Bomb that I will now discuss.

The ideas are power and relative safety, elements that have characterized the sublime since Burke, at least. Power is illustrative in the language used to describe the Bomb, both by *Life* and Truman. *Life*'s characterization of the Bomb as recalling humanity's struggle to overcome and control nature and Truman describing the invention of the Bomb as humans harnessing the universe's power is true to theorists' descriptions of the sublime as a realization of human superiority over nature. Likewise, placing the Bomb on the scale of the universe and channeling Prometheus indicates the effect of the incomprehensible power of the Bomb onto the popular mind, another necessity of the sublime. Also, the demystification of the Bomb through AEC's publicity campaign indicates a shift from terror to the assurance of control over atomic energy, safety being another condition of the sublime.[124] However, positive regard for the Bomb, even in its early years was by no means universal. In fact, negative responses to the Bomb are dominant.

David E. Nye and Paul S. Boyer, whose *By the Bomb's Early Light* (1985) is a central text documenting the Bomb's reception in American culture from Truman's announcement to the time of its publication, describe the American public's response to the Bomb as largely negative. As an example, Nye cites Lewis Mumford,

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[122] Nye, 234.
[123] Ibid., 234.
[124] Ibid., 65.

an early, vocal critic of the Bomb.[125] Mumford writes in the *Saturday Morning Review of Literature* in 1946 "We are living among madmen. The chief madmen claim the titles of General, Admiral, Senator, scientist, administrator, Secretary of State, even President."[126] Boyer offers an in-depth survey of the news reports and available public opinion polls as evidence of anxiety over the Bomb in society. Days after the bombings of Japan, the *New York Herald Tribune* writes "[One] forges the effects on Japan, as one senses the foundation of one's own universe trembling."[127] The *New York Times* wrote numerous stories about the dangers that could befall America in the new Atomic Age.[128] Newsman Phelps Adams and *New Republic* both reported a sense of malaise in Washington DC.[129] Phelps reported that many in the American government wished this new knowledge could be "bundled up in a sack and lost in the river like an unwanted kitten."[130] *New Republic* reported that thoughts had turned from America's use of the Bomb to "thoughts of its future use elsewhere and specifically against ourselves or our children."[131] Boyer says, "This awareness and bone-deep fear it engendered are the fundamental psychological realities underlying the broader intellectual and cultural responses of this period."[132] If terror is not accompanied by some sense of control it seems the Bomb does not fit comfortably with the sublime as theorized up to this point. Reconciling

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[125] Nye, *American Technological Sublime*, 231.
[126] Ibid., 231.
[127] Boyer, *By the Bomb's Early Light*, 6.
[128] Ibid., 14.
[129] Ibid., 15.
[130] Ibid., 15.
[131] Ibid., 15.
[132] Ibid., 15. Despite making that sentence, Boyer goes on to cite an array of public opinion polls from 1945 to 1947 indicating positive, negative and apathetic responses to the Bomb.

the potentially uncontrollable power of the Bomb with a continued feeling of the sublime, Raminder Kaur proposes a new conceptualization of the atomic bomb sublime.

Essentially, Kaur has developed a new theory of the sublime in order to incorporate the Bomb, an object that challenges all previous sublime definitions. She performs a cultural study of the popular reception of the Bomb in India after the attacks on Japan. In so doing, she brings attention to the somewhat unsatisfying reconcilement of the atomic bomb sublime with prior definitions of the concept. She takes Kant as her departure point, stating the binary of the Kantian sublime informs other readings of the atomic bomb sublime despite not quite satisfying the sublime impression of the Bomb.[133] Humans created the Bomb so its power is understood, fulfilling Kant's "manage" requirement for sublime experience.[134] Also, the seeming "boundlessness" and "formlessness" of the mushroom cloud meets the Kantian standard.[135] Despite meeting Kantian criteria for sublime experience, the Bomb has a sense of incomprehensibility in that same "boundless" and "formless" power.[136] Kaur writes that the contradiction of the atomic bomb sublime "intercepts and ruptures" the binaries of Kant's theory, instead expressing a "prismatic range of experiences and expressions."[137] She begins her assessment of the atomic bomb sublime based on an impression that the Bomb holds a potential to bifurcate

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[133] Raminder Kaur, "Atomic Schizophrenia: Indian Reception of the Atom Bomb Attacks in Japan, 1945," *Cultural Critique* 84 (2013): 73.
[134] Ibid., 73.
[135] Ibid., 72.
[136] Ibid., 72.
[137] Ibid., 73.

temporal trajectory.[138] As a representative example, she quotes a *Bombay Chronicle* editorial: "What of the future which that bomb has blasted open? It is a discovery or conquest that has two potentialities. It may bring about the end of the species and this earth; it may also mark the beginning of a new world of human progress, prosperity and happiness."[139] She calls the atomic bomb sublime "atomic schizophrenia," inspired by the Lacanian sense of schizophrenia resulting in a breakdown of temporality and language.[140] The language aspect of Kaur's Lacanian analysis is brought in regarding the multiplicities emanating from the Bomb's indeterminate potential.[141] Kaur's direct and elaborate discussion of the Bomb as having temporal significance is a rarity; it is difficult to find direct analysis of the Bomb and temporality.

The profound disruption of linear temporality does seem to surround the Bomb though. Hints can be found in the well-founded fear discussed earlier by Boyer that the Bomb will end life on Earth. Likewise, Nye's description of the Bomb destroying the utopian promise of the technological sublime has connotations of an unfilled future as well as a dystopian one. Talk of temporality around the Bomb can be found elsewhere, usually in passing. One example is Helen Powell's observation that "on the atomic level, there are no certainties…if we cannot predict the behaviour of an atom, then it is impossible to predict the future."[142] Although she does not mention the Bomb explicitly, Powell's reference to the atom and an

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[138] Ibid., 71.
[139] Ibid., 71.
[140] Ibid., 74.
[141] Ibid., 75.
[142] Helen Powell, *Stop the Clocks!: Time and Narrative in Cinema* (London and New York: I.B. Tauris & Co Ltd., 2012), 52.

uncertain future bring to mind nuclear destruction. William L. Laurence, official *New York Times* reporter for the Manhattan Project covered the development of the Bomb and its deployment in Japan. He frequently employs time metaphors to describe the Bomb. He compares the discovery of fission to the "discovery by ancient man of how to produce a spark."[143] He describes the explosion at the Los Alamos test site as a "monstrous prehistoric creature with a ruff around its neck."[144] The fiery explosion preceding the mushroom cloud is a "new species…At one stage of its evolution, covering millions of years in terms of seconds."[145] These metaphors also contain sublime connotations. The inadequacy of language, especially in Burke's theorizing of the concept, is part of the sublime. Where plain language fails to describe the Bomb or fission, metaphor is required. As part of an explanation for the appearance of historical fiction novels revolving around Victorian science in the 1990s, Sally Shuttleworth writes that the "Bomb and potential ecological disasters threaten to end all human measure of temporality."[146] 1950s SF is part of the popular discourse on the Bomb and as I argue in subsequent chapters, these films often associate the Bomb with time, as they associate the sublime with time generally.

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[143] William L. Laurence, *Dawn Over Zero: The Story of the Atomic Bomb*, 2nd ed. (Westport, CT: Greenwood Press, 1972), 38.
[144] Ibid., 238.
[145] Ibid., 237.
[146] Sally Shuttleworth, "Natural History: The Retro-Victorian Novel," in *The Third Culture: Literature and Science*, ed. Elinor S. Shaffer (Berlin and New York: Walter de Gruyter, 1998), 259.

The Sublime Image and Time

Temporality often accompanied the sublime in the 18th and 19th Centuries
and examples of this are found in art, particularly. This period is the vogue of
landscape painting and Barbara Novak, among other scholars, notes landscape
representations in these paintings are often tied to temporality.[147] Following her
comments, a sublime vista in a landscape painting is read as stretching backwards
not only in distance but into time, possibly back to the moment of creation – an idea
that intrigued artists.[148] However, as typical of the discussion of temporality and the
sublime, the two concepts circle one another within the discourse of art history with
little contact. Scholars concerned with landscape painting tend to treat time and the
sublime separately.

Roger Luckhurst, in his article on the technological sublime in photography
goes further than most scholars by specifically tying the sublime to temporality in
the work of some contemporary photographers. He writes that the sublime has an
inherent temporal tension. "The sublime opens on to the future, or hints at different
temporalities within the unified space and singular time of the photograph."[149]
Luckhurst sees this tension especially in the work of Edward Burtynsky, among
some others. He sees Burtynsky's landscape photographs that mix industry with

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[147] This is a fairly common interpretation of landscape painting in the USA and
elsewhere generally. In addition to Novak see Klonk, Mitchell.

[148] Barbara Novak, *Nature and Culture: American Landscape and Painting 1825-1875*,
3rd ed. (Oxford and New York: Oxford University Press, 2007), 130.

[149] Roger Luckhurst, "Contemporary Photography and the Technological Sublime,
or, Can There be a Science Fiction Photography," *Journal of the Fantastic in the Arts*
19.2 (2008): 184.

nature as containing "contradictory temporal trajectories."[150] The images are "elegiac records" of the past "but they also look like the post-catastrophe landscapes of a dystopia future."[151]Luckhurst writes that the sublime in photography like Burtynstky's is aided by the uncertainty of what exactly the viewer is seeing.[152] The sublime is evoked by "uncertainty about the indexical or indeed very ontological status of what it is we are looking at."[153]

Often in the discourse of the sublime, it is argued that contradiction is an element in the affect. For Luckhurst, uncertainty between one temporality and another is the contradiction in Burstynsky's photographs that (at least) aids in evoking the sublime. He writes that the contradictories of the sublime between terror and pleasure and between adequate and inadequate are temporal in nature.[154] He writes "The sublime opens on to the future or hints at different temporalities within the unified space and singular time of the photograph."[155] Luckhurst suggests that the sublime temporal image may be applicable to science fiction generally.[156] This is an idea I want to test and I intend to expand and make specific reference to Luckhurst later on in this thesis.

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[150] Ibid., 190.
[151] Ibid., 190.
[152] Ibid., 192.
[153] Ibid., 192.
[154] Ibid., 184.
[155] Ibid., 184.
[156] Luckhurst considers Burtynsky to be working within the SF genre.

Sublime as Intersection

As Luckhurst notes, temporality within the sublime image is created partly by contradiction and I want to briefly explore the idea that intersections between two or more things are inherent in the sublime. The idea that the sublime functions partly through intersection will be important to my discussion of SF later on. 1950s SF is filled with seemingly contradictory intersections. These intersections include a constructed set placed in the natural world; superimposed images; documentary footage spliced into footage shot for a particular SF film, among other examples. Although theorists do not explicitly address intersection regarding the sublime, the history of the discourse of the sublime, from its inception, often has a component of intersection.

Inherent in Thomas Burnet's sublime is order vying with chaos, regularity with irregularity and rational with irrational.[157] As noted earlier, Burnet's conception of the sublime is influential to later theorists and his thinking that contradictory forces intersecting is carried on through history. John Dennis, who took his inspiration from Burnet formulated that it was not just natural objects that are sublime but the interaction of human mental faculties with those natural objects.[158] The contradiction is that the sublime is said to exist in nature but cannot come into being without the human mind. Burke and Kant further elaborate the intersection of mental faculties with natural objects. For Kant it is this intersection of nature and human thought that produces the critique that humans are superior to nature, the end result of the sublime. Burke's example of the river colliding with the

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[157] Shaw, *The Sublime*, 30.
[158] Ibid., 14.

city, his inspiration for writing on the sublime, is an intersection of a natural force colliding with a human-made force. In a similar vein as Dennis' earlier conception of the sublime, the example of something natural intersecting with something human produces the "ecstasy of terror" that is the central experience of the sublime for Burke. The intersection of something natural and something created is also found in the Bomb. The act of splitting the atom is a human-made, technological process acting on an element of nature (the atom). Recall Marx's description of a 19th Century machine in the landscape evoking "awe and reverence." This example illustrates the sublime effect of landscape meeting technology. There is a trajectory from this 19th Century example to the Bomb. Instead of some agricultural machine making landscape subservient to humans, the atom meeting scientific technology causes nature to be subservient to humans in the form of the Bomb.

Something this chapter demonstrates is the shifting ontology of the sublime throughout history. The concept begins to gain attention no sooner than 1650 and is often associated with the natural world. Eventually, the sublime becomes understood as originating in the mind rather than nature itself. Burke and Kant are largely responsible for this legacy. There is another shift in thinking when the sublime becomes associated with human-made objects and the technological becomes part of the sublime's discourse. Initially, the technological sublime is associated with modifications of the natural world such as the Eerie Canal and the consequences of the Land of Ordinance Act. Subsequent objects of the technological sublime become more sophisticated along with human technology. The Bomb is a special kind of sublime and mostly does not fit comfortably with conceptions of the

sublime up to that point. Kaur provides a new theory of how the Bomb is sublime, what she calls "atomic schizophrenia." Time is a factor in "atomic schizophrenia" and I make the point that time is often associated with the Bomb, even if only on the periphery. Issues of time relating to the Bomb and the sublime generally are relevant factors in the discourse of each subject. Both time and intersection regarding the sublime will become important ideas as I begin to discuss 1950s SF in the subsequent chapters. Now that I have laid out the essential and relevant components of the sublime, I shift my attention to film.

Chapter Two: Sublime Landscapes of 1950s Science Fiction

There are two purposes to this chapter. The first purpose is to argue for the evocation of the idea of the sublime in my corpus of films. The second purpose builds on the first, discussing a specific style employed by these films to evoke the sublime. In this discussion of style I argue these films adopt the aesthetic of the sublime characteristic of 18-19th Century engagement with the concept, particularly found in landscape painting and ideas surrounding travel.

Making the Invisible Visible: Representing the Sublime in Film

Discussion of the sublime in film should begin with a few thoughts on how the concept is represented in this medium. This is especially necessary considering my argument that these SF films transpose the 18-19th Century sublime, as expressed in painting and writing, into film, a different medium, one that did not exist in the 18th Century and only began in the end of the 19th. The underlying problem in representing the sublime across all mediums is that the concept does not physically exist. As demonstrated in the previous chapter, various objects such as mountains and the American railroad are claimed as sublime objects, or more correctly, these objects evoke the experience of the sublime. However, a mountain can simply be a protuberance of the Earth and a train can simply be a large machine with many working parts. As concisely demonstrated in the subtitle of Nicolson's book *The Development of the Aesthetics of the Infinite*, the sublime is a perspective, it is a construction of the natural world. Kant and others who consider the sublime to exist within the human imagination support this theory. It follows that artists

wishing to evoke the sublime must translate an experience of the imagination into art.

The artistic expression of the sublime must conform to the possibilities and constraints of the artist's medium. Since inadequacy of description is evocative of the sublime, the right kind of inadequate description may evoke the concept. It is for this reason that literature likely has the greatest advantage in constructing the sublime. Nowhere is this purposefully inadequate construction more apparent than in H.P. Lovecraft's fiction. Lovecraft uses the sublime's incomprehensibility of language to evoke indescribable horror. The unnamed protagonist of "The Call of Cthulhu" recounts his vision of Cthulhu in the following terms: "If I say that my somewhat extravagant imagination yielded simultaneous pictures of an octopus, a dragon, and a human caricature, I shall not be unfaithful to the spirit of the thing."[159] The sublime horror of the monster is attributed to the breakdown of the imagination to represent it. Working with images, visual artists have to use different criteria to evoke the sublime. 18-19th Century artists famously used a contrast between overwhelming nature, usually in the form of a grand vista and a smaller, more fragile something, usually a human or sometimes a small structure. Although modeling their work from actual locations, artists could and did manipulate the natural world to their benefit.[160] Barbara Novak writes that as the medium of photography became popularized, nature photography mirrored the construction of landscape painting, contrasting an overwhelming vista with a seemingly small

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[159] H.P. Lovecraft, "The Call of Cthulhu." *DagonBytes*, accessed July 17, 2016. http://www.dagonbytes.com/thelibrary/lovecraft/thecallofcthulhu.htm
[160] Novak, *Nature and Culture*, 126.

human.[161] Change in representation of the sublime from painting to photography must factor in the index: objects photographed must actually have existed in front of the camera. In the previous examples, whether in painting or photography the sublime is dependent on the contrast between vista and human. The grandness of nature that overwhelms the human and threatens him is one characteristic of the sublime, finding a reference most closely in Burke. The human however, is capable of overcoming this powerful, natural force by wrapping his head around its existence (an idea enforced by the medium of painting and photography, as the act of creating the image is a way of capturing the sublime it is representing). Likewise, by relying on certain representations associated with the sublime, films may evoke the concept. How mediums represent the sublime will be important in this thesis. I return to the film medium's particular ability to represent the sublime most directly in chapter three. In this chapter I argue that 1950s SF continues the traditions of landscape painting, evoking the idea of the sublime through stylistic choices, then begin to show how these films break away from more traditional portrayals of the sublime up to this point.

Landscape and Science Fiction

All discussion of the sublime and 18-19th Century aesthetics in regards to 1950s SF originates from my observation that this genre cycle is frequently invested in depicting landscape. This investment is partly realized through the desert towns

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[161] Novak, *Nature and Culture,* 154.

or cities surrounding harsh landscapes where many of these films take place.[162]

Giant spider legs poking out from behind a rock bluff in *Tarantula* (Jack Arnold,

1955), the sudden attack of a 20-foot long ant in *Them!* from beyond a sand dune or

the destructive crystal shards growing from the earth in *The Monolith Monsters*

(John Sherwood, 1957) present landscape as a place where threatening and

mysterious confrontations with monsters may occur and where these monsters

seem born out of the landscape itself. Other films not only have characters

confronting these monsters but also feature narratives revolving around traversing

harsh landscapes, such as the extended mountain climbing sequences in *Lost*

Continent and *The Mole People* (Virgil W. Vogel, 1956). Characters may also expound

on the landscapes they occupy and their uneasy relationships to those landscapes.

Not long after the opening credit sequence in *The Beast with a Million Eyes* (David

Kramarsky, 1955), Allan Kelley (Paul Birch) reflects on the desolate desert

landscape surrounding his ranch home as a montage of the area plays:

> "...It has something to do with the feeling you get when you start thinking
> what's out there, just beyond the grove surrounding us. The vast, cruel world,"
> [pause] "Still, dry, deadly. Slowly withering beneath the white heat of that
> desert sun. The perfect place to hatch a brood of horror or of hate. Perhaps it
> began out there, to hate."

The final shot of the montage features human skeleton remains in the sand.

Kelley's voice is accompanied by escalating stringy guitars, which, combined with

the images, emphasize the repulsive nature of the desert landscape. In *Tarantula*,

Dr. Matt Hastings (John Agar) is asked to describe the landscape surrounding the

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[162] A study concerning landscape and SF more generally might prove fruitful since
alien worlds and futuristic cityscapes make up the iconography of the genre.
However, a study of that kind is beyond the scope of this thesis.

town of Desert Rock. Hastings thoughtfully responds to the question: "Oh, like something from another world, quiet, yet strangely evil." At the levels of narrative, visual aesthetic and the personal remarks of characters, these films are decidedly invested in landscape. Landscape is more than a setting in these films, it is internalized into their existence. One result of this chapter is to think through the importance of landscape in this genre cycle and decide what conclusions can be gathered from its importance. One underlying connection between 18-19th Century thought and 1950s SF is the concern with Otherness. As demonstrated in this chapter, landscape in 1950s SF often contains hostile associations. Landscape in these films can be strange and unfamiliar, and may involve encounters with monsters. It is through these portrayals that Otherness of landscape in SF comes across. To me, 18-19th Century landscape painting frequently portrays its vistas, even if they are famous locations, with an otherworldly quality. Perhaps the 18-19th Century American and Western European mindset constructs nature as an Other. Some reference of this mindset can be glimpsed here and there. In his travel memoir *In Wonderland*, Knut Hamsun recounts an 1899 visit to the Caucasus region around Russia. On his impression of Mount Kazbek, Hamsun writes, "A mysterious feeling courses through us – the cliff stands there as if conjured by the other cliffs. We feel as though a being from another world is looking at us."[163] In her discussion of British travel writers' encounters with the Alps, Nicolson writes in passing that 19th Century travelers are like "cosmic voyagers" in modern SF: these other worlds that travelers are encountering "amaze," "puzzle," "astound," "enthrall" "by their very

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[163] Knut Hamsun, *In Wonderland* (New York: Ig Publishing, 2004): 69.

differences from our world."[164] Requiring an aesthetic to portray the Otherness of the world, 1950s SF draws on the 18-19th Century mindset that perceives an Otherness in the natural world, the mindset that contributed to the vogue of landscape painting in this period. From here I want to discuss 18-19th Century aesthetics, especially the treatment of landscape during this period, because these aesthetics reveal a pathway through these films that begins more than 100 years before any one film is made.

Landscape and 18-19th Century Thought

Landscape painting in the 18-19th Centuries is commonly characterized by the sublime, found in the tendency of these paintings to portray dwarfing contrasts between an overwhelming natural vista and small humans. Within this tendency, scholars have found temporal readings of these images. These readings have their origin in the fascination landscape artists have with evolution. Many landscape artists are interested in capturing creation in their paintings.[165] While the desire to capture the moment of creation appears to be a tendency occurring around the world at the time,[166] American artists seemed particularly interested. Novak writes that in the absence of a long history such as that of Europe, American artists began to relate to antiquity instead.[167] This idea of antiquity is characterized by unspoiled wilderness that is, according to Novak, "purer and by implication closer to God."[168] Thomas Cole once wrote that it is the untouched wilderness of America that is the

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[164] Nicholson, *Mountain Gloom and Mountain Glory*, 32.
[165] Klonk, *Science and the Perception of Nature*, 60.
[166] See Klonk for a study of English landscape painters, Mitchell for a study of the Germans and Novak for the Americans.
[167] Novak, *Nature and Culture*, 124.
[168] Ibid., 125.

source of its sublimity[169] and there is a feeling among painters that creation and sublimity fuse together.[170] Thus, the interest in capturing creation is also the sublime for landscape artists. Novak writes that capturing the moment of creation within landscape painting is to "receive attributes of the creator."[171] Marx echoes this interpretation, stating that to the 19th Century American, a well-composed landscape painting might evoke the same feelings when contemplating the grand design of the universe.[172]

Figure 1. Albert Bierstadt, Yosemite Valley, Glacier Point Trail.

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[169] Ibid., 125. Although America was their inspiration, many American landscape painters accompanied scientific expeditions to South America, the Arctic, among other places and created paintings of those landscapes that are in keeping with the ideas discussed here. See Novak chapter seven.
[170] Ibid., 128.
[171] Ibid., 130.
[172] Marx, *The Machine in the Garden*, 96.

Examples of this thinking may be applied to Alfred Bierstadt's *Yosemite Valley, Glacier Point Trail*. The objects of the artist's interest layer time like sediment or an evolutionary ladder, and present us with the sublime grandness of nature or the universe itself. In *Yosemite Valley, Glacier Point Trail*, the vista that dominates the painting not only stretches far into the background but also metaphorically back in time, maybe back to the moment of creation.[173] The travellers (perhaps part of a scientific or other exploratory expedition) at the bottom of the painting are dwarfed by the vista and observe this regress in time back to creation. Since regarding the vista is a temporal experience, the sublime feeling of the travellers may be described, to paraphrase Marx, as a feeling of being overcome by the grand design of the universe.

Although the obsession with creation implies an obsession with the past, there are examples of artists portraying the future as well. Novak notes that Frederic Erwin Church, Alfred Bierstadt and Thomas Moran have found apocalyptic images in their encounters with this "pure" wilderness.[174] Also, Klonk notes that J.M.W. Turner paints based on his observations of the past, present and also the future.[175] Representation of past, present and future are easily evident in Thomas Cole's famous *The Course of the Empire* series of paintings that portray all stages of civilization beginning with *Savage State* (past) and ending with *Desolation* (post-apocalyptic state). *The Course of the Empire* gradually moves from an antiquated past to a future marked by the remnants of human civilization.

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[173] Novak, *Nature and Culture*, 134.
[174] Novak, *Nature and Culture*, 132.
[175] Klonk, *Science and the Perception of Nature*, 87.

Also worth mentioning is the experience of travel by artists to find the inspirations for their paintings. Novak calls this experience the Artists Quest and it is a major 19th Century theme.[176] There is a kind of alliance of artists and scientists in this period, where artists accompany scientific expeditions, allowing them to encounter the natural vistas they would paint, and in turn their sketches are disseminated through scientific reports.[177] Artists made this alliance because, like scientists, they are interested in getting back to the beginning of the world – "Creation."[178] Novak elucidates the artist's quest: "They toiled across the prairies, climbed their mountains, tracked icebergs, and ascended volcanoes – all so that when they were asked: 'What see you when you get there?'" The answer being "Creation…all creation."[179] This thinking suggests there is also a spatialization component to the combination of landscape and time in the 18-19th Century. Johannes Fabian combines these ideas of time, landscape and space in his anthropology study *Time and the Other*.

Fabian investigates the phenomenon of the re-conception of time in the 19th Century where time takes on a spatial quality rather than a succession of events. This kind of thinking likely begins with Charles Lyell's *Principles of Geology* (1830-33),[180] a study that is responsible for formulating specific evolutionary theories.[181] Opposed to the creationist viewpoint that influences the perception of time through

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[176] Novak, *Nature and Culture,* 119.
[177] Ibid., 120.
[178] Ibid., 134.
[179] Ibid., 134.
[180] Scholarship on landscape painting in this same period often makes note of the influence of Lyell's book on artists' thinking.
[181] Johannes Fabian, *Time and the Other: How Anthropology Makes Its Object* (New York: Columbia University Press, 1983): 13.

simultaneous creation or repeat divine intervention, Lyell proposes that Earthly

events happen in uninterrupted succession.[182] Eventually, evolutionary scientists

re-conceived time more closely to the evolutionary "tree" that is frequently used to

illustrate the evolutionary process.[183] In the mind of some 19th Century thinkers,

this secularization of time translates into spatialized time.[184] This spatializing is

well-received by prejudiced Victorians who conceive of their relationship to other

cultures as an "affirmation of difference as *distance*."[185] In this mindset, Victorians

make sense of society through evolutionary stages that are also tied to spaces, with

England conveniently being the most evolved.[186] This thinking leads to a kind of

evolutionary slope, what Fabian describes as a "scheme in terms of which not only

past cultures, but all living societies were irrevocably placed on a temporal slope, a

stream of Time – some upstream, others downstream."[187] As the 19th Century

traveler encounters other cultures, he is making a journey through time.[188] Here,

fascination with the primitive comes into play. Fabian describes the primitive as a

"temporal concept...a category, not an object, of Western thought."[189] 19th Century

fascination with the primitive is not so much a study of primitive cultures as it is a

status to be bestowed. Since travellers may bestow primitive status, this kind of

thinking allows the traveler to remain fixed in his own evolutionary position while

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[182] Ibid., 13.
[183] Ibid., 15.
[184] Ibid., 15.
[185] Ibid., 16.
[186] Ibid., 17.
[187] Ibid., 17.
[188] Bonnie Mann, *Women's Liberation and the Sublime: Feminism, Postmodernism, Environment* (Oxford Scholarship Online, 2006): 1.
[189] Fabian, *Time and the Other*, 18.

traveling back in time.[190] Keeping in mind the 18-19th Century ideas I have just outlined regarding landscape painting and travel, we may revisit 1950s SF with a renewed perspective.

Science Fiction and 18-19th Century Thought

The relationship between time, landscape and space is evident throughout 1950s SF, but especially so in a cohort of films that emphasize travel. Films such as *Creature from the Black Lagoon* (Jack Arnold, 1954), *The Land Unknown* (Virgil W. Vogel, 1957) and *The Mole People* revolve around scientific expeditions or a combination of scientific and military expedition requiring characters to travel great distances to explore a piece of land, or, in the case of *Lost Continent*, to recover a powerful weapon (a thinly disguised Bomb metaphor). These portrayals are all done in extended travel sequences where the process of getting from one location to another is rigorously portrayed.

These journeys ostensibly have little importance to the narrative but consume much runtime. In *Lost Continent*, a military-scientific expedition takes place to retrieve a fallen US atomic-powered rocket that has crash-landed on a remote, tropical island in the South Pacific. The team has to climb a mountain to reach a plateau where the rocket has crashed. The climbing scene is quite extended, with approximately 20 minutes of the film's 83 minute runtime depicting climbing the mountain. Adding to this devotion to rock-climbing scenes is the film's climax where the team has to hurriedly climb back down the mountain before the island descends into the ocean. *The Mole People* likewise depicts an overlong mountain

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[190] Mann, *Women's Liberation and the Sublime*, 1.

climbing scene, however not nearly to the degree of *Lost Continent*. In *The Land Unknown*, characters travel across Antarctica from a US Naval ship by helicopter in an extended travel scene marked by small passages of dialogue by characters pointing out penguins and seals down below. The film cuts between this dialogue inside the helicopter and stock footage of (presumably) the Antarctic landscape. *Creature from the Black Lagoon* features marine biologists and a boat captain traveling down the Amazon and unlike the other films is characterized by important dialogue and character development, as the film has stronger production values than most films in this genre cycle. Although conspicuous in length, these travel sequences serve little purpose to the films' narratives, except maybe in the case of *Creature from the Black Lagoon*. However, these scenes have important connotations for my study.

Characters in these films, in traveling to their destinations, encounter creatures and environments from the distant past. In *Lost Continent*, when the travelers reach the top of the mountain they realize they have crossed into a land with a radically different atmosphere, denoted by dialogue and a green tint that suddenly mediates the image. As they move further along the plateau, they discover dinosaurs populate it. In *The Mole People*, protagonists climb a mountain in hopes of finding artifacts from a Sumerian civilization buried there. They discover ruins from a structure and an opening in the rock. They descend through the opening and discover an expansive network of caves, where the Sumerian civilization has retreated. They also encounter a primitive race of humanoids vaguely resembling moles that are slaves to the Sumerians and live under the earth of the Sumerian

world. In *The Land Unknown* characters travel across the Antarctic landscape by helicopter, and much is made of their observations of seals and penguins out the windows. Eventually a fog enshrouds their view and a pterosaur crashes into the helicopter forcing them to land. They descend into dense fog and humidity until unknown to them they have landed at the bottom of Mount Erebus. When the fog clears they realize this space is a self-contained Mesozoic world with tropical wildlife, dinosaurs, giant lizards and a carnivorous plant. In *Creature from the Black Lagoon*, the protagonists travel down the Amazon by boat looking for the buried remains of the Gill Man (Ricou Browning and Ben Chapman), a proto-human creature from the Devonian era, described by one character as the bridge between the amphibian world and land-based species. They encounter the titular creature living in the far reaches of the Amazon River. What is common to these films is that travel is associated with regression.

In each of these films, the protagonists begin in the contemporary world, encounter less sophisticated species as they travel and eventually encounter prehistoric ones. For example, in *The Land Unknown* the protagonists are not only traveling through space to reach the interior of the volcano, they are traveling through time to a much earlier period in Earth's history. In the depiction of travel, these films infuse time with landscape so that traveling through space is also a kind of time travel. These films map time onto the landscape itself, where landscape is not only physical space but also a kind of evolutionary slope, where humans can observe earlier worlds while their bodies remain fixed in contemporary time.

Treatment of time and space in *Lost Continent*, *Creature from the Black Lagoon*, *The Mole People* and *The Land Unknown* resemble the mindset described in Fabian's study. These films all spatialize time, with characters traveling backwards in time as they travel through space. Despite traveling to earlier periods in Earth's history, the film's characters do not physically devolve as might be expected. As the travelers in Fabian's study, characters in these films remain fixed in their contemporary time despite moving down the "evolutionary slope." As they move down the "slope" characters encounter dinosaurs in *Lost Continent* and *The Land Unknown*, a more primitive culture in *The Mole People* as well as the mole-like humanoids of the film and the amphibian humanoid of *Creature from the Black Lagoon*. As other cultures and other spaces are seen as primitive in Fabian's study, characters in these films likewise encounter the primitive in their travels. Fascination with the primitive in the films is seen in the recurring element of the primitive in the nature of the monsters and in *The Mole People*, the Sumerians encountered by the characters. As well, the scientific nature of the exhibitions in these films and the general fascination the characters have with studying the primitive (they are typically scientists who are fascinated with the encounters they are having) gives these films a slightly anthropological feel. While the films I have described so far in this section spend a lot time on the spatialization of time, many other films in this genre cycle have glimpses of the spatizaliation of time previously described. In many of these films the initial encounters with the monster occurs in nature and characters must travel to have the encounter. The ant colony in *Them!* is located in the desert outside Los Angeles, the insect liar in *The Black Scorpion*

(Edward Ludwig, 1957) is within a volcano outside a Mexican village and

Tarantula's (Jack Arnold, 1955) arachnid emerges from an isolated lab in the desert

before making its way to a nearby town, to give a few brief examples. The difference

between *Creature from the Black Lagoon*, *The Land Unknown*, *Lost Continent* and *The*

Mole People is the rigor of the travel scenes. Other films skip over this process

entirely or simply do not give much attention to the process of traveling.

Landscape Painting and Science Fiction

In the spatialization of time in this SF genre cycle, some films do so largely in

single shots. SF in this genre cycle tends towards the images seen in Figure 2 to

greater or lesser degree, particularly in films released after 1953. In Figure 2, a still

from *The Land Unknown*, the humans may go unnoticed at first. The characters

appear at the bottom right of the frame, while two monsters (regular sized lizards

standing in for giant lizards) fight, occupying almost the entire frame. The lizards

substantially dwarf the characters. They are inferior in size to such a degree that the

monsters' destruction of these people might not be much more pronounced than a

human stepping on a small bug without noticing.

Figure 2. Characters (bottom right) encounter giant lizards in The Land Unknown*.*

It is in this image from *The Land Unknown* and many other films in this cycle that

tend to these same conventions of staging where the relationship between 1950s SF

and landscape painting is apparent. These images return to the conventions of

landscape painting previously discussed. The contrast between overwhelming

background and humans or occasionally a small structure in the foreground that

partly characterizes 18-19th Century landscape painting are re-staged in these SF

images. The major difference in convention in 1950s SF is the absence of a natural

vista that characterizes landscape painting. In these films, one or more monsters

replace the vista seen in landscape painting. Instead of being overwhelmed by a

sublime vista, characters in these films are overwhelmed by the sudden

confrontation with a sublime monster. Upon examination of these images relative to

narrative, these overwhelming monsters thematically resemble the vistas in

landscape painting. As discussed, time is important to landscape painting where the vista may "layer" time like sediment or stretch backwards in time. While the monster does not have the expansive regress of vistas in some paintings like *Yosemite Valley*, the monster's existence is associated with a regression in time. In *The Land Unknown* the monsters all originate from the Mesozoic era meaning that regarding these monsters is to look back in time to that period. The regression in time while viewing these images is reminiscent of the 19th Century fascination with the primitive. As discussed earlier, landscape artists desire to capture creation in their painting. While the image of the monsters in the films previously discussed may not regress back to creation, they certainly are antiquated and primitive, qualities that landscape artists wished to flush out in their search for the moment of creation. This regression to a specific period is seen in *Lost Continent* where characters encounter a plateau where the Mesozoic world is preserved.

Another way these images evoke temporality is through the staging of the split between foreground and background. The split between humans in the foreground and monsters in the background creates a contrast between the characters and the monsters they regard. This contrast is further enforced by the staging technique: these images are typically two images fused together. Images of the monsters and images of humans are filmed separately and superimposed to create one image. The two images combined into one creates a sense that although humans are encountering these monsters within one space and time period there is a distinction between the species. Humans occupying one image create a sense they exist in one time period. In order to create the unified image, directors' had to edit

together separately shot footage. Monsters occupy another image, shot at a different time from the image containing the humans, suggesting both sets of figures exist in different time periods. This separation exists both at the thematic level and at the level of production. During superimposition, these images combine, creating the effect that two temporalities are combining into one. I will continue to explore these kinds of images in chapter three.

Although this basic image and its construction are retained throughout the genre cycle, regression in time is treated somewhat differently in films such as *The Monolith Monsters* and the "big bug" films such as *Beginning of the End* (Bert I. Gordon, 1957)*, The Black Scorpion*, *The Deadly Mantis* (Nathan Juran, 1957), *Tarantula*, and *Them!*. These films represent time in terms of the primitive as a temporal concept rather than tying the monster to a specific time period. Whether there is truly a difference between the treatment of time in *The Monolith Monsters* and the "big bug" films I discussed prior might be understood as a matter of degree than kind. Nonetheless, these distinctions are worth mentioning because *The Monolith Monsters* and "big bug" films are not travel narratives and these films place their monsters in different contexts. These films revolve around a threat to a specific populated area, usually a town, although *Beginning of the End, The Deadly Mantis* and *Them!* eventually have the monster threaten a major American city. In all of these films, the monster originate from the natural world and it is initially encountered there. Similar to the travel narratives discussed in the previous section, characters must move from civilization into nature to encounter primitive monsters from earlier times, however, the process of traveling is not emphasized and distance

traveled is not immense. The "big bug" films are closer to Fabian's primitive as a "temporal concept" in the sense that the monster is not tied to a specific period of history such as the dinosaur films. The giant ants of *Them!* or the titular monster in *The Deadly Mantis* are fissures in the landscape, they seem to come from the Carboniferous Period or some other early age of the Earth where such creatures may have lived (obviously being exaggerated in these films). In *Beginning of the End, The Deadly Mantis* and *Them!* where the monsters eventually reach the city for the climax of each film, there is a sense that the primitive is intruding into the contemporary, as opposed to the travelogue films where contemporary humans are intruding into the past. Both narrative styles have a breakdown between two temporal planes, the difference is that the breakdown occurs in different directions. Also, the distinction in *The Monolith Monsters* and the "big bug" films is that the primitive is treated more generally. *The Beast from 20,000 Fathoms*, *The Land Unknown* and *Lost Continent* feature monsters identifiable to specific time periods. *The Monolith Monsters* feature the greatest regress in time of perhaps any film in this cycle. The film is unique in the sense that its monsters are not living beings. The monsters of the film appear as rocks that originate from a meteor that crashes into Earth. The rocks are actually crystal shards that react to water, growing in size to become giant crystal monoliths that demolish whatever is in their path, eventually crumble under their own weight, and new ones spring up from the ruble. Unless stopped, these crystals presumably will continue to grow, reshaping Earth into an uninhabitable landscape of extraterrestrial crystals. The film opens with a pseudo-documentary preface featuring a view of the Earth from space and voice over

narration informing us that asteroids have been traveling through space since time immemorial and that asteroids contain the mysteries of space. When the crystals are discovered as originating from an asteroid a character reiterates the opening voice over verbatim stating that the asteroid has been carrying the mysteries of space. The origin of the crystals in time immemorial and the reference of mystery to the asteroid associate the crystals and the asteroid they come from with the antiquated and primitive. Their status as belonging in the distant past places the crystals in the temporal category of primitive as Fabian describes. Regarding these crystals in the landscape as well as the monsters in the "big bug" films recalls the fascination landscape painters have with the primitive. The regression of time that takes place when regarding monsters in the landscape in these films is to go even further back than in the dinosaur films.

Although these films associate the past with the primitive and present a collapse between past and present, this collapse often has implications for the future as well. In *Lost Continent*, when the characters enter the space that is the suspended Mesozoic era, one character remarks that if the Bomb goes off, the world will be thrown back into this era. This statement is echoed in *The Land Unknown* when Commander Roberts (Jock Mahoney) remarks that if Mount Erebus erupts, the whole world will live in the Mesozoic era again.[191] There is a hint of future tense in *The Monolith Monsters* as well in the sense that if not stopped, the crystal monoliths

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[191] In the film Mount Erebus serves as a Bomb metaphor. Erebus, like the Bomb, contains an explosive power that can reshape the world. Considering the release year and that many films in this cycle mention the Bomb explicitly in similar fashion, by extension a Bomb metaphor can be read here.

will eventually remake the Earth as a giant crystal patch. The crystals may become the Earth's future.

Also, the presence of the monster in these films hints at a potential future. Although these films associate monsters with the past, they also associate monsters with the Bomb. Monsters are created by Bomb blasts in many of these films and as the dialogue in *Lost Continent* and *The Land Unknown* indicate, nuclear war will return the Earth to eras of the past where the kinds of monsters characters are currently encountering reigned. If atomic radiation from Bomb blasts creates monsters or if the world will return to the time of monsters, then these monsters are a glimpse of a potential future as well as a glimpse of the past. All of these films discussed so far take place in the present, involve a journey to the past, most explicitly in the travelogue style films and less explicitly in others, and this discovery of the past's persistence in present tense also contains hints of future tense as well.

A particularly illustrative mixing of three tenses is two scenes from *Creature from the Black Lagoon*. Two times in the film scientists David (Richard Carlson) and Mark (Richard Denning) gear up in scuba diving equipment and enter the lagoon. In the water their appearance is slightly distorted by the somewhat murky water and growth of seaweed. The distortion has a trifurcating effect where the image may exist in different tenses: the use of fins combined with the oxygen tank allows David and Mark to swim easily and quickly as well as stay under water for long periods. The fins resemble the webbed feat of the Gill Man, the ability to breath under water and the easy maneuverability under water artificially mimics the Gill Man's abilities. As well, the goggles David and Mark use to see underwater distort their faces and

mildly give them a monstrous appearance, not unlike the Gill Man. In their

resemblance to the Gill Man under water there is a sense that David and Mark have

devolved into their primitive ancestor. However, the function of David and Mark's

appearance under water also hints at a future tense. The breathing apparatus and

goggles resemble astronauts moving through space. As well, the slight distortion

allows the mechanical apparatus to appear less distinct from their bodies, giving the

divers a slightly cyborg look. This reading is advanced by an earlier remark by David

that research into marine biology will play a role in enabling humans to adapt to life

on other planets.

Figure 3. Pat exploring the ant colony in Them!*.*

A similar scene occurs in *Them!* where Pat (Joan Welden), Ben (James

Whitmore) and Robert (James Arness) explore the giant ant colony. The colony has

previously been saturated with phosphorus grenades and each person requires

special suits, goggles and oxygen tank with breathing apparatus to enter the colony.

Wearing goggles and breathing apparatus, the characters vaguely resemble giant

ants, especially in close-up shots of their faces. However, their equipment coupled

with the strange landscape of the giant ant colony causes these people to resemble

cyborgs or astronauts exploring the terrain of a strange and unfamiliar planet.

Similar to David and Mark in *Creature from the Black Lagoon*, as Pat, Ben and Robert

enter the ant colony in *Them!*, a sense that these people are traveling into the past is

created, and in appearance the characters devolve into primitive creatures.

However, these people are also traveling into the future, resembling the cyborg

bodies of future humans or astronauts exploring other worlds. In terms of a

reference point to 18-19th Century thought, capturing past, present and future in

sublime nature is a characteristic of J.M.W. Turner's paintings[192] and Frederic Erwin

Church, Alfred Bierstadt and Thomas Moran all found hints of the apocalypse in

their painterly subjects.[193] These portrayals do not seem to be the norm though, as

the scenes from *Creature from the Black Lagoon* and *Them!* are not represented in

other films. These three scenes portray past, present and future, and other films

such as *The Land Unknown* and *Lost Continent* have hints of future tense (albeit

replicating the past). It is fair to say these films mimic the mentality of Fabian's

study to an extent and are prepared to break away, most evidently in *Creature from*

the Black Lagoon and *Them!* but there are tendencies in other films such as *Lost*

Continent and *The Land Unknown*.

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[192] Klonk, *Science and the Perception of Nature*, 87.
[193] Novak, *Nature and Culture*, 132.

As discussed in the paragraphs above, many films in this genre cycle collapse past, present and at least two films collapse future as well. I wish to reconcile this collapse of temporal registers with the sublime in these films. If we are willing to entertain Luckhurst's proposition that the "Sublime opens on to the future, or hints at different temporalities within the unified space and singular time of the photograph"[194] then the sublime may be the mechanism by which temporality is collapsed in these SF films. As discussed earlier, the SF images resembling landscape painting deal with the sublime and also with time. Returning to the example from Figure 1, the humans regard the monster in a sublime experience. Also, the image trifurcates time by simultaneously representing the past (the monsters), the present (the human observers) and the future (a post-Bomb vision of the world filled with primitive monsters or, in the cases of *Creature from the Black Lagoon* and *Them!*, human exploration of space or cyborg existence). Reading Figure 1 and similar images from this genre cycle against Luckhurst, the inherent temporal tension within the sublime enacts the image to trifurcate time, "within the unified space and singular time of the photograph" or, in this case, the film image. Luckhurst describes that in Burtynsky's photography, the "contradictory temporal trajectories" are evoked by an ontological uncertainty. This uncertainty is what creates the temporal trajectories of the previously described scenes in *Creature from the Black Lagoon* and *Them!*. There is enough ambiguity to associate the images with the past and future, in addition to the narrative continuity assuring the scene is taking place in the present. What is the significance of the sublime opening up multiple temporal

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[194] Roger Luckhurst, "Contemporary Photography and the Technological Sublime," 184.

registers in these films? The answer is complicated and will be taken up in the next chapter.

Over the course of this chapter time has been an important factor underlying much of the analysis. It is my intention to continue a temporal analysis in the next chapter as I begin to shift my consideration away from 18-19th Century aesthetics and 1950s SF. Both periods are concerned with landscape, the 18-19th Century is the vogue of landscape painting and the sudden outpouring SF films in the 1950s is often concerned with landscape as well. 18-19th Century landscape painting has an otherworldly quality to it and that might be why the conventions of these paintings are revisited in 1950s SF. These films adapt the 18-19th Century sublime commonly found in painting to film, creating similar images, but with some differences. Characters encounter monsters while traveling as opposed to sublime vistas and the process of superimposition of two images adds a uniquely filmic portrayal to sublime images. Similar to landscape painting, there are temporal readings to be found in 1950s SF images. This portrayal of temporality is typically centered on a regression into the past. Supporting the images is narrative similarity to the mindset described in Johannes Fabian's *Time and the Other*. *Creature from the Black Lagoon* and *Them!* are more concerned with portraying future tenses than other films, and contain ambiguity in representing past, present and future. I continue my analysis of these two films in chapter three, where my analysis concentrates on film technology.

Chapter Three: The Film Machine and Atomic Bomb Sublime

Until this point, this thesis has been concerned with the relationship between the aesthetic of the 18-19th Century and 1950s SF. This chapter adds another layer to the relationship of 1950s SF to the sublime, by discussing technology, both the technological sublime of the Bomb as well as the technology of film. I elaborate on the examples I discuss in chapter two, this time making technology the entry point of my analysis. In this analysis, I discuss the way film technology is able to mediate the technology of the Bomb through film's own particular technology. In so doing, this chapter will demonstrate how 1950s SF portrays the technological sublime of the Bomb through the particular ontology of film. I end by reconsidering some of the analysis discussed in chapters one and two, and discussing how these films deal with the relationship they present between the natural and technological sublime.

Schizophrenia, the Bomb and SF Film

In chapter two I discuss the two scuba diving scenes from *Creature from the Black Lagoon* and the desert ant colony scene from *Them!*. As discussed, in these three scenes, we are presented with the temporal registers of past, present and future. Past and future are hinted at, suggesting the image has the potential to digress into the past or progress into the future. I cite Luckhurst, who argues that the sublime has the ability to collapse temporalities. Here, I want to elaborate the idea of sublime and temporal collapse and connect it with the Bomb. As discussed in chapter one, Kaur proposes that the atomic bomb sublime is characterized by a schizophrenic prism refracting past, present and future so that the three tenses are

blurred together.[195] This same blurring of tenses is what I have been analyzing in regards to the aforementioned scenes from *Creature from the Black Lagoon* and *Them!*. In the lagoon and inside the ant colony, the temporal status of the human characters appear to be simultaneously regressed to the primitive, progressed to an advanced, technologized existence, while remaining in present time. Instead of multiple temporalities existing at the same time, as seen in the narratives where characters travel to the past while their bodies remain fixed in contemporary time, these scenes portray three temporalities together but mixed instead of separate, as if the images are being refracted through a prism showing a myriad of possibilities, some associated with the past, some present, others future.

The images of temporal confusion in the three scenes from *Creature from the Black Lagoon* and *Them!* have parallels to Kaur's description of the atomic bomb sublime in the sense that the images have just enough ambiguity to create the effect of co-existing temporalities. This blurring of tenses is not unlike the "prismatic range of experiences and expressions"[196] associated with Kaur's atomic bomb sublime. In chapter two I demonstrate the tendencies of 1950s SF to replicate 18-19th Century aesthetics in various images and narrative tendencies. While I do not discount the role of the Bomb in those examples, the scenes from *Creature from the Black Lagoon* and *Them!* I have been discussing reflect Kaur's theory of "atomic schizophrenia," a theory of the technological sublime particular to the Bomb. This sublime is characteristic of the atomic bomb sublime, rather than a replaying of the technological sublime evoked by the presence of the Bomb. I will discuss the

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[195] Kaur, "Atomic Schizophrenia," 74.
[196] Ibid., 73.

distinctions these films make between representations of the sublime later on in this chapter.

There is a dystopian implication in Kaur's atomic bomb sublime by the sudden change in the nature of the sublime, previously involving terror yes, but also control. The atomic bomb sublime, for Kaur, keeps the terror but loses the control.[197] Nye who states that the atomic bomb sublime extinguishes the utopian promise of the technological sublime echoes this conception of the atomic bomb sublime.[198] This dystopian shift in the technological sublime finds its way into the scenes I have been discussing in this chapter so far. The prismatic temporal possibilities contained within these scenes, activated by the atomic bomb sublime create a dystopia seen within the physicality of the characters. An illustrative moment of what I'm describing occurs in the moment the Gill Man grabs Mark's leg and pulls him down to the bottom of the lagoon, intending to drown him. As they descend, the Gill Man and Mark wrestle, twisting downwards and becoming a shape that rotates between the animalistic qualities of the Gill Man, the human qualities of Mark, and his technological apparatus. The resemblance of Mark and David to the Gill Man as well as to cyborgs or astronauts while in the water is discussed in chapter two, as is the resemblance of Ben, Pat and Robert to ants and to cyborgs or astronauts in *Them!*. In the schizophrenic prism the characters can be animals, humans or cyborgs without fully embracing any one identity. As time is blurred between past, present and future these characters are not so much torn between multiple identities as they exist in an interstitial state of animal-human-technology.

[197] Ibid., 72.
[198] Nye, *American Technological Sublime*, 225.

This amalgamated identity is further complicated by the realization that the cyborg potentiality of the characters looks a lot like the primitive beings. If humans, in their technological apparatus' resemble giant ants or a Devonian creature, then future tense, technologized humans, are evolved as well as devolved into something resembling primitive species.

Another noteworthy case of animal-human-technology mixing occurs in *Attack of the Crab Monsters.* In this film the villain is a scientist whose consciousness is fused with the body of a giant crab. As typical to the travel-based films discussed in chapter two, *Attack of the Crab Monsters* takes place within a particular natural space that rightly belongs to an earlier time of the Earth.[199] The film takes place on an uninhabited island where scientists have travelled to continue undisclosed research after the previous researchers disappeared. Once there, the scientists are horrified to discover a population of giant, malevolent crabs living in the caves of the island. The head crab, if you will, is revealed to possess the consciousness of one of the scientists who disappeared from the island. The island has been a test site for Bomb explosions and the subsequent radiation (somehow) fuses the scientist with a crab made giant by the radiation. In the figure of the crab-scientist we have a literal fusion of animal and human. Technology is brought into this amalgamation as the force fusing the scientist to the crab and by the crab's growth, occurring during a Bomb explosion. *Attack of the Crab Monsters* creates a dystopian world where

[199] I did not make this film a case study in chapter two where I discuss travelogue type films because *Attack of the Crab Monsters* does not depict the process of travel the way *Creature from the Black Lagoon*, *The Land Unknown*, *Lost Continent* and *The Mole People* do. Rather, the film begins at the completion of a journey to the film's setting.

human, animal and technology are grotesquely fused together. *Creature from the Black Lagoon* and *Them!* also present this world, however it is presented as a possibility, glimpsed through the prism Kaur writes about. Although I evoke "atomic schizophrenia," the translation to film adds a layer of analysis not taken up by Kaur. She is largely concerned with time, overlooking that Lacanian schizophrenia involves identity and even as an apparatus for understanding the atomic bomb sublime, there is an inherent identity issue in evoking Lacan's schizophrenic mixing of time and language. This realization can likewise be seen in the scenes from *Attack of the Crab Monsters*, *Creature from the Black Lagoon* and *Them!* I have been discussing. These films present "atomic schizophrenia" as a mixing of animal-human-technology as an identity issue in the present as much as temporal trajectories. I will return to the discussion of time later on in this chapter.

In Kaur's citation of the *Bombay Chronicle* there is an either/or mentality surrounding the Bomb, that it may end the world or it may bring about a "new world of human progress, prosperity and happiness."[200] Cyndy Hendershot points to this same either/or mentality in the American media shortly after the bombings in Japan.[201] She identifies this binary as a tension between evolution and devolution.[202] As a representative example she cites a 1946 pamphlet by Aaron Levenstein stating "for the first time in man's long journey out of the dark cave in which he started, the bright sun awaits him. It will not take much now to send him scurrying back to the

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[200] Kaur, "Atomic Schizophrenia," 71.
[201] Hendershot, "Darwin and the Atom," 319.
[202] Ibid., 319.

cave."[203] She writes about the tendency for post-war America to discuss atomic

power in Darwinian terms, with humans evolving to a utopian society or devolving

to an animalistic existence.[204] The evolution/devolution anxiety showing itself in

film is most clearly translated in *Creature from the Black Lagoon* because the Gill

Man is a human ancestor. In *Attack of the Crab Monsters* and *Them!* the devolution to

ants or crabs does not make the same sense. *Them!* is a case study for Hendershot.

She writes that the giant ants are a metaphor for the USSR or a potential totalitarian

USA in the style of the former or a fear of femininity (ants are matriarchal).[205] In this

thinking, the totalitarian regime of the USSR or a feminized society would be a

devolution from the democratic, patriarchal USA.[206] She makes the metaphorical

connections by pointing out that evolution/devolution is a Victorian tension,

reoccurring in the popular imagination in post-war America.[207] The Victorians

considered the non-European savage and the decadent European devolved (and a

feminine threat to society).[208] Here we have traces of Fabian's "evolutionary ladder"

where the non-European is devolved and, manifested in *Them!*, giant ants are the

devolved Russians. If the devolution portion of the tension is thinking in terms of

the primitive, as Fabian discusses in his study, and is metaphorical, as Hendershot

describes, then a regression from human to an animal is not so much a devolution in

the sense of reversing Darwin; it is a regression to the primitive. It is in this context,

the regression to ants or crabs in *Attack of the Crab Monsters* and *Them!* is possible.

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[203] Ibid., 319.
[204] Ibid., 319.
[205] Ibid., 326.
[206] Ibid., 326.
[207] Ibid., 319.
[208] Ibid., 326.

While Hendershot does not specifically refer to a crisis of identity in the evolution/devolution tension she points out, the animal-human-technology mixing I have been discussing in 1950s SF indicates a crisis of identity because of the extreme changes the characters have the potential to embody.

It is worth mentioning this animal-human-technology melding calls forth Donna J. Haraway's "A Manifesto for Cyborgs." Her manifesto hopes that in a postmodern world, the figure of the cyborg may represent a utopian horizon for humans. She writes that by the late twentieth Century humans are "fabricated of machine and organism," cyborgs in other words.[209] In this same time period, the boundary between human and animal is made unconvincing.[210] In this chimera, there is a pleasure in boundary confusion[211] and the cyborg may be a "creature in a post-gender world."[212] The "cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints."[213] Much of what is described in Haraway's manifesto is true of the scenes I have been discussing in *Creature from the Black Lagoon*, *Them!* and of the amalgamated villain in *Attack of the Crab Monsters*. The difference is that the equitable utopia that Haraway describes that may exist is inversed in 1950s SF. Instead of liberation, the animal-human-technology amalgamation is monstrous. In

[209] Donna J. Haraway, "A Manifesto for Cyborgs: Science, Technology and Socialist Feminism in the 1980s," in *Liquid Metal: The Science Fiction Film Reader*, ed. Sean Redmond (London and New York: Wallflower Press, 2004), 158.
[210] Ibid., 159.
[211] Ibid., 158.
[212] Ibid., 159.
[213] Ibid., 161.

framing 1950s SF's evolution/devolution tension, the utopian vision of Haraway is inverted into a dystopia.

At this point I want to return to time because the identity crisis I have been discussing inherently has a temporal dimension. The terms evolution and devolution imply temporal change. While evolution takes millions of years, *Attack of the Crab Monsters* and *Them!* substantially speed up the process. As Laurence writes, the Bomb is like a new species that plays out millions of years of evolution in a few seconds.[214] In terms of the Bomb, Kaur writes, destructive time is sped up to the amount of time it takes to manipulate switchboards[215] and Shuttleworth writes that the Bomb ends all measure of temporality[216] and Powell writes that the behaviour of the atom is unpredictable and so is the resulting future.[217] What is offered by the films I have been discussing is an identity crisis but also a temporal one. Temporality can be a part of identity because position in time determines a person's status. In *Attack of the Crab Monsters*, *Creature from the Black Lagoon* and *Them!,* position in time reflects identity: characters may be evolved to a new human identity or devolved into an animalistic one. These films begin to move away from the Victorian spatializing of time discussed in chapter two. Time is associated with space in these three films, and travel results in encounters with primitive species. However, there are instances where certain characters are not just encountering the primitive, they become part of the temporal shift, one where they evolve and devolve at once. Here is the effect of "atomic schizophrenia," where temporal

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[214] Laurence, *Dawn Over Zero*, 237.
[215] Kaur, "Atomic Schizophrenia," 72.
[216] Shuttleworth, "Natural History," 259.
[217] Powell, *Stops the Clocks!*, 52.

registers are blurred and as a result, so is identity. I want to shift from a discussion

of images and theme to a discussion of technology. Representations of identity and

temporality in these films find their way into the usage of film technology as well.

The Film Machine as Mediator of the Atomic Bomb Sublime

In every context in which I have discussed the films of this thesis, there has

been one underlying issue that I begin to discuss here: the issue of film technology

and the role it plays in mediating the sublime in 1950s SF. This issue is especially

interesting considering that these films not only represent the sublime but also the

technological sublime of the Bomb, meaning the technology of film must mediate the

technology of the Bomb and find ways of representing its particular sublimity.

In chapter two I discuss the use of superimposition to spatialize time across

the foreground and background of the shot. I want to return to these shots and

further elaborate on what the film machine is doing. The "big bug" films feature bugs

or arachnids relatively benign to humans that become massive monsters once

exposed to atomic radiation. Typically, the monsters of this genre cycle are realized

through puppets, brought to life through stop motion animation. This process is

discernable in the representation of the giant ants in *Them!* among other films. I will

return to the use of puppets later on in this chapter. However, some films use actual

animals to stand in for "big bugs." The arachnid in *Tarantula* is a real animal, so are

the grasshoppers in *Beginning of the End*. Also, *The Land Unknown* uses lizards to

portray two of the film's monsters as well as stock footage of seals, penguins and a

Loris (standing in for a Tarsier). In the 1950s it was hypothesized (although not

seriously) that atomic radiation can cause major growth of species,[218] a concept that informs the "big bug" films.[219] More so than in the films using puppets as monsters, this paranoia is realized in *Beginning of the End*, *The Land Unknown* and *Tarantula* by creating images of actual animals enlarged to a massive scale. Only film has the power to realize this Bomb fantasy and create "monsters" out of relatively non-threatening animals and place them in the same space as humans. Through this process, film is able to mediate the technological fantasy of the Bomb causing terrifying animal growth through film's own technological apparatus, creating a representation unique to the medium.

Upon examining the puppet monsters, this analysis becomes more complicated. Most monster films in this genre cycle use puppets and many have some degree of interplay between puppets and animals. In my viewing, *The Land Unknown* has the greatest amount of interplay between puppets and animals. The T-Rex, pterosaur, water monster and plant monsters are all puppets, but the giant lizards and the found footage animals are imported from the real world. Some films have a tendency to present found footage of actual animals in a context resembling an educational documentary. This style of presentation is found in *The Land Unknown* as Commander Roberts narrates over found footage scenes. Found footage

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[218] Cyndy Hendershot, *Paranoia, the Bomb, and 1950s Science Fiction Films* (Bowling Green, OH: Bowling Green State University Popular Press, 1999), 109. Also, this is another example of rapid evolution across many films.
[219] As testament to the hypothesis that atomic radiation may grow animals, some critics believed the premise of *Them!* may be possible. Arthur Knight and Moira Walsh express fears about the potential for real world giant ants in their reviews. In a similar vein, *The Commonwealth* writes that the film sends the audience away with "some somber food for thought." All cited in Hendershot, "Darwin and the Atom," 333.

is used similarly in *Tarantula* and *Them!*. At one point in *Them!* Dr. Medford screens

found footage of ants on 16mm for a high level military group. Dr. Medford narrates

the footage, describing ants' mating habits and other taxonomic information. The

camera alternates from Dr. Medford narrating behind the projector and the reverse

angle capturing the 16mm film and the backs of the heads of the officers as they

watch. A similar scene occurs in *Tarantula* when Matt Hastings travels to Phoenix

for a consultation about the mysterious pool of powder found outside Desert Rock.

A scientist informs Hastings that the substance is tarantula venom. Nearing the end

of their consultation, the scientist's assistant sets up a 16mm projector and film in

the lab. The scientist proceeds to show the film, the camera cutting between the

16mm film and Hastings and the scientist watching, while the scientist narrates. The

film depicts tarantulas and the scientist essentially gives Hastings a lesson. These

two scenes fit uncomfortably in each film, as the narrative proper is put on hold to

show these films, and give characters, and the audience a science lesson.

Furthermore, the information learned from the 16mm films is not deployed in

fighting the giant animals in either film. However, the use of the 16mm films in

Tarantula and *Them!* and the found footage in *The Land Unknown*, among other

films, as well as the placement of animals made giant and superimposed into the

films, demonstrates these films are comfortable switching back and forth between

actual and artificial, organic and inorganic representations of animals.

      This mixing of natural and artificial is seen again in the set design and the

placement of the puppets in actual locations. Two giant ants in *Them!* first appear

from behind an actual sand dune. *The Beast from 20,000 Fathoms* opens with found

footage of military operations in a wintery landscape. A narrator informs us that we are watching preparations for "X Day," a secret US military operation in the Arctic. The stock footage cuts to a scene staged for the film where "X Day" is discussed a little more. The film cuts to found footage of the Bomb tests – here revealed to be the purpose of "X Day." After the Bomb test, a group of scientists drive into the Arctic landscape to recover data from various lockboxes surrounding the blast radius. Unlike the found footage previously seen, this landscape is entirely built sets. The use of built sets to represent the natural world is also seen in many other films in this genre cycle, to greater or lesser extent, including *Creature from the Black Lagoon*, *The Land Unknown*, *Lost Continent*, *The Mole People, The Monolith Monsters* and *Them!.* In *Creature from the Black Lagoon*, the above water portion of the lagoon is shot on location and underwater is a set. As the characters move from the boat into the water they are in the natural world. As soon as they descend underwater, they swim in a built environment. In *The Land Unknown*, the entire interior of the volcano is a set, the natural world being visible again only as the giant lizards are shown and during the cutaway to the Loris. In *Lost Continent*, the rock climbing scenes take place on sets representing the surface of the mountain. Much of the film takes place on the plateau above the rock face and this is filmed on location. During the mountain climbing sequence in *The Mole People*, long shots (likely a mixture of found footage and footage shot specifically for the film) depict the natural world whereas medium shots where the actors' faces are shown are sets standing in for the natural world.

This interchange of natural and artificial monsters in combination with artificial portrayals of nature simultaneously seem to be at odds with one another while blending together, as if there is no substantial difference. The natural and artificial are easily discernable and in the scenes where the narrative is put on hold to show 16mm films further emphasize a shift from one to the other. Yet, natural and artificial are often sewn together through smooth editing.

Here, the distinctions between natural and artificial bring to mind the classical film theory debate between constructivism and realism. The two schools of thought have often been given classificatory divide throughout the history of theory.[220] Constructivists such as Sergei Eisenstein and Rudolf Arnheim call attention to the constructed nature of film through techniques such as montage and framing.[221] In his contribution to constructivism, Arnheim advocates that film should create its own reality and not imitate life.[222] Eisenstein famously experimented with different forms of montage and theorized about its use. As a component of montage he disregarded the Western tendency of staging for the camera and advocated for the Japanese method of choosing one detail from a whole, so the director is, to paraphrase Eisenstein "cutting out a piece of reality by means of the lens."[223] Deleuze identifies four schools of montage[224] including the German

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[220] Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses*, 2nd ed. (London and New York: Routledge Press, 2010), 16.
[221] Ibid., 16.
[222] Ibid., 29.
[223] Ibid., 16.
[224] The other schools are American, Soviet and the pre-war French school.

Expressionist school, characterized by "*The non-organic life of things*"[225] where "Shadows of houses pursue the man running along the street."[226] We can consider the constructivism in 1950s SF along somewhat similar lines. The completely constructed world of German Expressionist films such as *The Cabinet of Dr. Caligari* (Robert Wiene, 1920) have some parallel in 1950s SF in the sense that some films take constructivism to its extreme, portraying the entire natural world as artificial. Conversely, realists like Bazin advocate that film faithfully reproduce time and space.[227] He believed that if the camera is placed in the right space in the right position it may reveal the world as it was in that moment.[228] Perhaps aiding the perceived need to separate the two schools, Bazin opposes constructivism with sentences such as "It would be absurd to deny that montage had added considerably to the progress of film language, but this has happened at the cost of other values, no less definitively cinematic."[229] As evidence he cites the greatness of the seal hunting scene from *Nanook of the North* (Robert J. Flaherty, 1922) where in one shot the camera patiently waits, depicting the length of the hunt, "the very substance of the image, its true object."[230] Montage could be used here to create a sense of time

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[225] Gilles Deleuze, *Cinema 1: The Movement-Image*, trans. Hugh Tomlinson (Minneapolis: University of Minnesota Press, 1983), 50.
[226] Ibid., 51.
[227] André Bazin, "The Ontology of the Photographic Image," in *Film Theory and Criticism: Introductory Readings,* eds. Leo Braudy and Marshall Cohen, 7th ed. (New York and Oxford: Oxford University Press, 2009), 162.
[228] Elsaesser and Hagener, *Film Theory*, 29.
[229] André Bazin, "The Evolution of the Language of Cinema," in *Film Theory and Criticism: Introductory Readings*, eds. Leo Braudy and Marshall Cohen, 7th ed. (New York and Oxford: Oxford University Press, 2009), 49.
[230] Ibid., 45.

involved in the hunt but the shot would not be as moving.[231] The opposition of natural and artificial in 1950s SF are divided in the same way the dialogues of film theory have positioned constructivism and realism as diametrically opposed. What is artificial in these films is a language of film that seems opposed to the language of the natural. The two languages of representation, artificial and natural, are seemingly opposed in 1950s SF, but the films readily mix them together.

As demonstrated in the ant colony scene in *Them!* and the scuba diving scenes in *Creature from the Black Lagoon*, the mixing of artificial and natural have schizophrenic tendencies in line with Kaur's discussion of the Bomb and the sublime. In the exchange between natural and artificial sets, animals and puppets, these films display another variety of schizophrenia. I have already discussed the breakdown of time in this genre cycle and its relationship with schizophrenia in the previous section. The other breakdown occurring in Lacan's schizophrenia is language. While Lacan is referring to spoken language, as a system of communication, film possesses a visual language. The mixing of the natural world with artificial representations that I discuss in these SF films is a breakdown of filmic language where the binary of natural and artificial beings, objects and spaces, are mixed up together within the construct of these filmic worlds. Here again, is the prismatic schizophrenia affected by the Bomb that Kaur writes about. While this schizophrenic representation of film language is not a metaphor for the Bomb as the monsters are, this schizophrenia in 1950s SF demonstrates the affect of the Bomb is

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[231] Ibid., 45.

internalized into the very structure of these films, creating a specific aesthetic in this genre cycle.

This aesthetic style is befitting to film as a technology. Michelle Langford writes that film technology may be "monstrous." "By this I mean the uncanny ability for cinema to record and reproduce organic life photographically at the same time as it harbours the capacity to animate the non-organic at times collapsing the distinction between the two."[232] Langford's idea of film technology as "monstrous" is evocative of the real and artificial mixing in 1950s SF that I have been describing. The use of this mixing in 1950s SF in representing monsters literalizes Langford's designation of "monstrous" to this process. For me, the mixing of real and artificial in 1950s SF is not indistinguishable. Most of the time, it is obvious to me what I am looking at on screen, and I can distinguish between set, location, puppet and organic being. However, the films alternate between real and artificial smoothly as if to assert there is no real difference between the two, or that the differences do not matter. On one level, the noticeable differences between organic and inorganic are attributable to poor production values. However, the animation of inorganic life is a testament to the uncanny ability of film that Langford describes.

The "monstrous" animation of the inorganic not only occurs on the level of production, there are narrative parallels to this process. In *The Beast from 20,000 Fathoms*, the dinosaur that terrorizes Canada and the US is initially, unknown to all, frozen deep beneath the Arctic. It is the "X Day" Bomb test that uncovers and

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[232] Michelle Langford, "Lola and the Vampire: Technologies of Time and Movement in German Cinema," in *Cinema and Technology: Cultures, Theories, Practices*, ed. Bruce Bennett et al. (Houndmills, Basingstoke and New York: Palgrave Macmillan, 2008): 196.

reanimates the dinosaur. Not only is the dinosaur reanimated, at the level of production the dinosaur is a puppet, animated by special effects. The parallel of the Bomb's (fictitious) ability to animate and animation at the production level can be extended to *The Land Unknown* and *Lost Continent* also. In these films, a Bomb metaphor is the catalyst operating beneath the explanation for why dinosaurs and other prehistoric monsters are roaming around. As noted in chapter two, Mount Erebus is the Bomb metaphor in *The Land Unknown*. In *Lost Continent*, it is the high concentration of uranium on the plateau that serves as the metaphor and is connected to the dinosaurs and the Bomb through a couple lines of dialogue. Preceding this genre cycle there is no shortage of metaphors comparing the Bomb to monsters, Laurence's metaphor of the Bomb as a prehistoric beast returning from the primitive world, is one example. Representing the Bomb as monster parallels this popular descriptor. This combination of organic and inorganic, in whatever instance is a perversion of the promise of photography as an index. These SF films, with their undisguised movement between organic and inorganic, the confusion of time and the spatialization of time is a clear imitation of space and time, violating what is believed to be the promise of the photograph.

I argue it is precisely the indexicality of the photographic image and its potential for artificiality that allows film to be the ideal medium to represent the atomic bomb sublime. My claim is bolstered by Sean Cubitt's discussion of the possibility for special effects to be sublime. He writes that film special effects participates in an illusion where the special effect appears to exceed the limits of the

medium.[233] The sublime in film special effects, "in transcending the medium through

the medium's own resources, has the appearance of speaking the ineffable."[234] In

chapter two I discussed the ways 1950s SF resembles 18-19th Century aesthetics

and in this chapter I seemingly depart from that analysis, centering my attention on

film technology. Film technology is the cohesive that connects the ideas between

chapters. As demonstrated throughout this thesis, questions of temporality often

accompany the sublime. As discussed in chapter two, the 18-19th Century sublime

aesthetic often involves a regression in time. However, it is the technological

sublime that subordinates time and space, seen in various examples Nye discusses.

Upon development of the Bomb, this subordination of time and space takes on a

different quality, what Kaur calls schizophrenia, channeling Lacan. The

subordination of time and space is inherent in film as the medium captures and

reproduces whatever the camera sees, giving the camera operator a kind of control

over that box of time and space. Of course this replication of time and space is also

the source of the faux-realism of the index. In 1950s SF, the simultaneous portrayal

of inorganic and organic and the movement between the two simultaneously

captures time and space while drawing attention to film's ability to construct the

world rather than replicate it. This subordination of time and space that is film's

construction of the world allows film to move back in time, in 1950s SF, replicating

the aesthetic of landscape painting to show a visual regression in time and the

spatializing of time through the travelogue narratives, both discussed in chapter

[233] Sean Cubitt, "Introduction. Le réel, c'est l'impossible: the Sublime Time of Special Effects," *Screen* 40.2 (1999): 129. Cubitt's case studies are largely disaster films of the mid-late 1990s. However, his writing rings true to my corpus of films.
[234] Ibid., 129.

two. Film may also allow the portrayal of future tense. The schizophrenic melding of
temporalities I discuss in this chapter demonstrates film's ability to present the
future as well as comfortably move from the future to the past and to the present.
Within the index, we also find an idea common to the sublime and the American
sublime, more particularly. In chapter one I discussed how the subordination of
nature is part of America's nationalism. Also, I discussed the tendency of the sublime
to exist at an intersection and the intersection of the atom and machine inherent in
the atomic bomb sublime. The film image is an intersection of nature and technology
and this ontology doubles in 1950s SF as the images present us with intersections of
nature and technology. This intersection of nature and technology in these films is
the creeping in of the atomic bomb sublime and the same intersection inherent in
the medium of film makes for an ideal conduit for this manifestation of the sublime.

In this chapter I have demonstrated how film technology mediates the
technological sublime of the Bomb. Film's ability to subordinate time is deployed in
the ant colony scene in *Them!* and scuba diving scenes in *Creature from the Black
Lagoon* where characters take on interstitial identities associated with the past,
present and future. The abilities of film are also put to use in mixing the real with
the artificial. Real animals are used as monsters in a variety of films while others use
puppets or a combination of real and artificial. Likewise, some films use locations
while others use sets and the two are used interchangeably. This combination of
real and artificial is part of the reverberation of the Bomb throughout these films. As
Kaur theorizes, the sublime of the Bomb may be thought of as "atomic
schizophrenia" wherein time and language are mixed up. In the mixing of time and

the language of film, 1950s SF accomplishes a representation of the technological

sublime of the Bomb in a way no other medium is capable of doing.

Conclusion

The goal of this thesis has been to undertake a new aesthetic analysis of 1950s SF monster films. My intervention into this genre cycle has been to identify an aesthetic couched in the sublime. The sudden appearance of the Bomb is the wellspring for the aesthetic of 1950s SF monster films, one that tends towards engagement with the sublime dating from the 18th Century to a new atomic bomb sublime. I argue these films represent the sublime as a way of dealing with the Bomb. Since the Bomb is an object of the technological sublime, these films naturally incorporate the sublime. In so doing, an aesthetic paradigm is established. Since the Bomb is part of the technological sublime, 1950s SF must not only mediate the sublime but also find ways of mediating the technological sublime of the Bomb through its own particular technology.

In this thesis, I have undertaken to tease out the workings of that aesthetic, organizing my thoughts into three chapters. Chapter one discusses the discourse of the sublime and highlights how the concept has changed over time. One of the most relevant points I make about the sublime is the new engagement with the natural world as a result of popularization of the concept. One expression of the sublime is in the form of landscape painting, where expansive vistas are supposed to express the sublime experience of nature's grandness. In America, this perspective is an underlying cause for a viewpoint that nature must be in service to America. This quest to dominate the natural world gives way to the technological sublime where humans can marvel as their own machines remake the world. The Bomb is perhaps the most powerful technologically sublime object. The Bomb's sudden appearance

in 1945 is received very negatively, thus reshaping the nature of the technological sublime. Kaur formulates the theory of "atomic schizophrenia" to explain the particular nature of the Bomb's sublime power. Also, I make the points that the sublime is often accompanied by a temporal dimension and a tendency for the sublime to emerge from an intersection of contradictions. This chapter lays the foundation for the rest of the thesis, as I discuss the way 1950s SF monster films engage with the sublime.

In chapter two I illustrate the ways 1950s SF monster films inherit aesthetics of the sublime. There is a tendency for these films to pick up the 18-19th Century sublime aesthetic. I acknowledge these films' fascination with landscape and point out the tendency to replicate the conventions of 18-19th Century landscape painting. This replication is seen visually and incorporates the same temporal regression found in painting. Also, I discuss the tendency of these films to spatialize time, where characters move through time and space by travelling to exotic locations. I note this spatialzation of time is a particularly 19th Century engagement with the world. As the sublime often involves a temporal dimension, it stands to reason this spatialization is a factor in these films' fixation on the sublime. These films also incorporate the Bomb, using monsters as metaphors. While these films portray a return to the past, in the form of travel but also in the form of monsters that stand in for the Bomb. The Bomb seems to represent the past but also contains a threat that the future will look a lot like a primitive past.

In chapter three I deal with the technological sublime of the Bomb and how film mediates it through film's own technology. I return to Kaur's "atomic

schizophrenia" to demonstrate the influence of the Bomb's sublime in mixing up time and language. As case studies, I discuss two scenes from *Creature from the Black Lagoon* and one from *Them!* that illustrate a mixing of temporality where past, present and future are intermingled. Since this mixing of temporalities is seen through the portrayal of characters, how human identity changes based on temporal register, there is also an issue of identity in play. This identity disruption follows an evolution/devolution tension these films inherent from the 19th Century. In the three scenes I discuss, this identity tension ultimately results in a fusion of animal-human-technology that is a dystopian consequence of the Bomb.

I go on to discuss the ways these films mix up language in accordance to Kaur's theory of the atomic bomb sublime. In some cases these films rely on animals and natural locations to portray monsters and settings and other times rely on puppets and sets depicting the natural world. The differences are conspicuous and appear as opposites. This opposition is reminiscent of the classical film theory debate between constructivism and realism where the two ideologies are framed as opposites. Although these films present the natural and the constructed as opposites, they proceed to mix them up together. This mixing of film language is akin to the mixing of language described by Kaur as an effect of the atomic bomb sublime. These influences originating from the Bomb make for a particular aesthetic in 1950s SF monster films.

It is my hope this thesis has provided a new approach to 1950s SF. One that may serve to influence future discussion of this genre cycle and perhaps influence the aesthetic reading of later SF films as well.

Bibliography

Baxter, John. *Science Fiction in the Cinema*. New York: A.S. Barnes & Co., 1970.

Bazin, Andre. "The Evolution of Film Language." In *Film Theory and*

Criticism: Introductory Readings, edited by Leo Braudy and Marshall Cohen, 7th

edition, 41-53. New York and Oxford: Oxford University Press, 2009.

Bazin, Andre. "The Ontology of the Photographic Image." In *Film Theory and*

Criticism: Introductory Readings, edited by Leo Braudy and Marshall Cohen, 7th

edition, 159-162. New York and Oxford: Oxford University Press, 2009.

Biskind, Peter. *Seeing is Believing: How Hollywood Taught Us to Stop Worrying and*

Love the Fifties. New York: Pantheon Books, 1983.

Boyer, Paul S. *By the Bomb's Early Light: American Thought and Culture at the Dawn*

of the Atomic Age. New York: Pantheon Books, 1985.

Bukatman, Scott. "The Artificial Infinite: On Special Effects and the Sublime." In *Alien*

Zone II: The Spaces of Science Fiction, edited by Annette Kuhn, 249-275. New York:

Verso, 1999.

Burke, Edmund. *A Philosophical Enquiry into the Origin of Our Ideas of the*

Sublime and the Beautiful. Oxford: Basil Blackwell Ltd., 1960.

Burnham, Douglas. *An Introduction to Kant's Critique of Judgment*. Edinburgh:

Edinburgh University Press, 2000.

Cornea, Christine. *Science Fiction Cinema: Between Fantasy and Reality*. Edinburgh:

Edinburgh University Press, 2007.

Csicsery-Ronay Jr., Istvan. *The Seven Beauties of Science Fiction*. Middletown, CT:

Wesleyan University Press, 2008.

Cubitt, Sean. "Introduction. Le réel, c'est l'impossible: the Sublime Time of Special Effects." *Screen* 40.2 (1999): 123-130.

Deleuze, Gilles. *Cinema 1: The Movement-Image*. Translated by Hugh Tomlinson. Minneapolis: University of Minnesota Press, 1983.

Elsaesser, Thomas and Malte Hagener. *Film Theory: An Introduction Through the Senses*, 2nd edition. London and New York: Routledge Press, 2010.

Fabian, Johannes. *Time and the Other: How Anthropology Makes Its Object*. New York: Columbia University Press, 1983.

Feis, Herbert. *Between War and Peace: The Postdam Conference*. Princeton, NJ: Princeton University Press, 1960.

Hamsun, Knut. *In Wonderland*. New York: Ig Publishing, 2004.

Haraway, Donna J. "A Manifesto for Cyborgs: Science, Technology and Socialist Feminism in the 1980s." In *Liquid Metal: The Science Fiction Film Reader*, edited by Sean Redmond, 158-181. London and New York: Wallflower Press, 2004.

Hendershot, Cyndy. "Darwin and the Atom: Evolutionary Devolution Fantasies in 'The Beast from 20,000 Fathoms,' 'Them!,' and 'The Incredible Shrinking Man.' " *Science Fiction Studies* 25.2 (1998): 319-335.

Hendershot, Cyndy. "From Trauma to Paranoia: Nuclear Weapons, Science Fiction, and History." *Mosaic: A Journal for the Interdisciplinary Study of Literature* 32.4 (1999): 73-90.

Hendershot, Cyndy. *Paranoia, the Bomb, and 1950s Science Fiction Films*. Bowling Green, OH: Bowling Green State University Popular Press, 1999.

Johnston, Keith M. *Science Fiction Film: A Critical Introduction*. Oxford and New York: Berg, 2011.

Kant, Immanuel. *Critique of Judgment*. Oxford and New York: Oxford University Press, 2007.

Kaur, Raminder. "Atomic Schizophrenia: Indian Reception of the Atom Bomb Attacks in Japan, 1945." *Cultural Critique* 84 (2013): 70-100.

Klonk, Charlotte. *Science and the Perception of Nature: British Landscape in the Late Eighteenth and Early Nineteenth Centuries.* New Haven and London: Yale University Press, 1996.

Langford, Michelle. "Lola and the Vampire: Technologies of Time and Movement in German Cinema." In *Cinema and Technology: Cultures, Theories, Practices*, edited by Bruce Bennett, Marc Furstenau, and Adrian Mackenzie, 187-200. Houndmills, Basingstoke and New York: Palgrave Macmillan, 2008.

Laurence, William L. *Dawn Over Zero: The Story of the Atomic Bomb*, 2nd edition. Westport, CT: Greenwood Press, 1972.

Lovecraft, H.P. "The Call of Cthulhu." *DagonBytes*, accessed July 17, 2016. http://www.dagonbytes.com/thelibrary/lovecraft/thecallofcthulhu.htm.

Lucanio, Patrick. *Them or Us: Archetypal Interpretations of Fifties Invasion Narratives*. Bloomington: Indiana University Press, 1987.

Luckhurst, Roger. "Contemporary Photography and the Technological Sublime, or, Can There be a Science Fiction Photography." *Journal of the Fantastic in the Arts* 19.2 (2008): 181-195.

Mann, Bonnie. *Women's Liberation and the Sublime: Feminism, Postmodernism,*

Environment. Oxford Online Scholarship, 2006.

Marx, Leo. *The Machine in the Garden: Technology and the Pastoral Ideal in America.* New York: Oxford University, 1964.

Mathis, John R. "Atomic Cinema in America: Historical and Cultural Analysis of a New Film Genre That Reflected the Nuclear Zeitgeist of the Cold War (1945-1989)." PhD diss., Salve Regina University, 2013.

Mitchell, Timothy. *Art and Science in German Landscape Painting, 1770-1840*. New York: Oxford University Press, 1993.

Nicolson, Marjorie Hope. *Mountain Gloom and Mountain Glory: The Development of the Aesthetics of the Infinite*. Ithaca, NY: Cornell University Press, 1959.

Novak, Barbara. *Nature and Culture: American Landscape Painting 1825-1875*. 3rd edition. Oxford and New York: Oxford University Press, 2007.

Nye, David E. *American Technological Sublime.* Cambridge, MA and London: The MIT Press, 1994.

Powell, Helen. *Stop the Clocks!: Time and Narrative in Cinema*. London and New York: I.B. Tauris & Co Ltd., 2012.

Shaw, Philip. *The Sublime*. London and New York: Routledge Press, 2006.

Shuttleworth, Sally. "Natural History: The Retro-Victorian Novel." In *The Third Culture: Literature and Science*, edited by Elinor S. Shaffer, 253-268. Berlin and New York: Walter de Gruyter, 1998.

Sobchack, Vivian. *Screening Space: The American Science Fiction Film*. 2nd edition. New York: The Ungar Publishing Company, 1987.

Sontag, Susan. "The Imagination of Disaster." In *Liquid Metal: The Science Fiction*

    Film Reader, edited by Sean Redmond, 40-47. London and New York: Wallflower

    Press, 2004.