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Nuclear nightmares: representations of nuclear anxiety in American Cold War visual culture

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Nuclear Nightmares

Representations of Nuclear Anxiety in American Cold War Visual Culture

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This dissertation is submitted in part fulfillment of the Master of History by Research Degree at Sheffield Hallam University. The dissertation is the result of my own work. Material from the published or unpublished work of other scholars used in the dissertation is credited to the author in the footnote references.

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Abstract

This dissertation is a discussion of representations and misrepresentations of US public nuclear anxiety in nuclear apocalyptic popular culture and civil defence initiatives, respectively. Focusing on particular peaks in nuclear anxiety during the 1950s, early 1960s and 1980s, this thesis analyses the ways in which visual nuclear apocalyptic popular culture, in film and video games, consistently reflected contextual American nuclear anxieties and can be seen to represent shifting anxieties across the Cold War. In turn, by comparing such representations with civil defence initiatives this study will investigate the means by which the popular, post-Cold War nuclear apocalyptic video game series *Fallout* can be seen to create a caricature of government propaganda seen during the Cold War and eventually move away from the contextually representative norms of previous nuclear apocalyptic culture. This work's contribution to knowledge in the subject of history is the study of nuclear anxieties as reflected and represented by nuclear apocalyptic culture over the course of Cold War. Furthermore, the comparative analysis of nuclear apocalyptic culture and civil defence initiatives is intended to bring to light the proliferation of the misrepresentation of nuclear anxieties and civil defence initiatives that now exist primarily in contemporary nuclear apocalyptic video game culture, as epitomised by the *Fallout* franchise.

Abbreviations

ABC - American Broadcasting Company
ABM - Anti-Ballistic Missile
AIPO - American Institute of Public Opinion
ARC - Ames Research Centre
CA - California (US State)
CBS - Columbia Broadcasting System
CGW - *Computer Gaming World* (Magazine)
FCDA - Federal Civil Defense Administration
FEMA - Federal Emergency Management Agency
GURPS - Generic Universal Role Playing System
HUAC - House of Un-American Activities Committee
ICBM - Intercontinental Ballistic Missile
IGN - *Imagine Games Network* (Video games Media Company)
KAL - Korean Airliner
LA - Los Angeles
MAD - Mutually Assured Destruction
MD - Maryland (US State)
MIRV - Multiple Independently Targetable Re-entry Vehicle
NATO - North Atlantic Treaty Organisation
NSRB - National Security Resources Board
PC - Personal Computer
RPG - Role Playing Game
SAG - Screen Actors Guild
SALT - Strategic Arms Limitation Treaty
SDI - Strategic Defense Initiative
SLBM - Submarine Launched Ballistic Missiles
UK - United Kingdom
US / USA - United States of America
USSR - Union of Soviet Socialist Republics (Soviet Union)
WWII - World War Two

Introduction

For fans of the post-apocalyptic video game franchise, *Fallout*, the phrase "War. War never changes" is well-known.¹ In fact, it is the first thing players hear when starting a new adventure in any *Fallout* game and has arguably become a defining feature of the series. Yet its use relies heavily on the players' acceptance of the unchanging nature of war. When the nature of war is analysed in regards to the games' primary influence of US nuclear anxiety during the Cold War, the term becomes questionable. After all, for the American public in the second half of the twentieth century, war had most certainly changed. With the end of World War II had come the atomic bomb, and as an atomic monopoly kept the United States in a position of nearly unquestionable power the US public experienced a period of national optimism.² Soon, however, this optimism descended into uncertainty and pessimism as the power of the atomic bomb became apparent and the public feared another war.³ On September 23 1949, after US airborne sampling flights detected signs of radiation in the deserts of Kazakhstan, President Harry S. Truman announced to the public that the Soviet Union had developed its own atomic bomb.

With their atomic monopoly gone, fears among the US public that American cities would soon be bombed by the USSR dramatically increased. Such fears were made worse still, when on August 12 1953, the Soviets succeeded in testing the first ever hydrogen bomb.⁴ As the 1950s wore on, public nuclear anxieties increased to infect almost every facet of American life. With levels of nuclear fear varying over the course of the Cold War it can be seen to have impacted large swathes of US culture and society. From magazines to films to video games, representations of nuclear anxiety can be seen throughout US culture in the Cold War, with particular emphasis on the 1950s, early 1960s and 1980s.

However, with the Cold War at an end and these same fears largely defunct, the *Fallout* series has now become the most successful and most popular representation of

¹ *Fallout: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, 1997.

² William L. O'Neill, *American High: The Years of Confidence, 1945-1960*, (Free Press, 1986), p.7.

³ Kenneth D. Rose, *One Nation Underground: The Fallout Shelter in American Culture*, (New York University Press, 2001), pp.14-17.

⁴ *Ibid.*, p.18.

these extreme anxieties.⁵ Beginning in 1997, *Fallout* is a popular video game franchise that allows players to explore the fascinatingly macabre wastelands of a futuristic, post-apocalyptic USA, heavily inspired by the culture surrounding nuclear anxieties throughout the second half of the twentieth century. It remains a staple of video games and nuclear apocalyptic culture today, with its latest iteration, *Fallout 4* (2015), being the most commercially successful release in the series to date.⁶ Yet the series' influences stem largely from civil defence initiatives, which will be seen to be predominantly unrepresentative of nuclear anxieties during the Cold War. As well as this, such propagandistic initiatives fail to represent the manner in which these anxieties altered over the course of the conflict. When the games' primary, historical influences are considered in regards to their ability to represent the reality of contextual nuclear anxieties, the phrase "War never changes", a phrase which the *Fallout* production companies might favour, is merely a conceit around which the game is constructed, and presents a caricature of nuclear anxiety and civil defence initiative.

This thesis therefore explores representations and misrepresentations of nuclear anxiety via the medium of contextually contemporary popular culture, a term explained below. It ascertains the elements of civil defence initiatives and nuclear apocalyptic culture that persisted throughout the conflict during particularly high levels of nuclear anxiety among the US public in the 1950s, early 1960s and 1980s. This informs an analysis of their representations in the apocalyptic video game series, *Fallout*; a game franchise whose thematic basis is influenced almost exclusively by these representations and misrepresentations of nuclear anxiety. This thesis argues that propagandistic representations of nuclear war have led to the creation of the caricature of civil defence initiatives and nuclear anxiety in *Fallout* leading to the development of a contemporary commentary that fails to recognise the reality of its influences. While both film and video games can be seen as merely entertainment, it must be recognised that no matter the cultural medium any representation of history or reflection of either reality or real concerns must be viewed with a critical eye. As this thesis will demonstrate, culture assists us in

⁵ Marcus Schulke, 'Refighting the Cold War: Video Games and Speculative History', in Matthews Wilhelm Kapell and Andrew B.R. Elliott, ed., *Playing With the Past: Digital Games and the Simulation of History*, (Bloomsbury, 2013), pp.266-267.

⁶ 'Fallout 4', *VGChartz*, <http://bit.ly/2azk1c7>, last accessed 05 Aug 2016.

developing a greater understanding of a period or idea, therefore it is ignorant to suggest that something should be overlooked or disregarded merely because societal opinion deems that films and, in particular, video games can be nothing more than entertainment.

By analysing filmic and video game case studies from each of the aforementioned periods, we will see that while certain elements of civil defence and nuclear apocalyptic culture persisted during the Cold War, those in the 1950s, 1960s and 1980s consisted of remarkably different perspectives of nuclear war, despite appearing similar when viewed through the lens of civil defence initiatives. It must be noted that the switch of medium from film to video games in the thesis is done to establish the expressions of contemporary popular culture in each of the periods under consideration. This allows for a greater understanding of the influences that carried over from the 1950s into the *Fallout* franchise. These analyses inform what can be seen in the original *Fallout*'s representation of its cultural influences to form a game that continued the trend among nuclear apocalyptic culture of representing contextual nuclear anxieties. However, this contextual representation is formed despite its primary influences of civil defence initiatives being predominantly unrepresentative of their own contextual anxieties. The results of this research are intended to bring to light the caricatures and misrepresentation of civil defence initiatives and nuclear anxiety in the *Fallout* franchise, an extremely popular game series that has come to be regarded as an important representation of perspectives of nuclear war in the Cold War.

This thesis is divided into five analytical sections. Chapter one analyses the realities of nuclear anxiety in the 1950s in relation to their differing representation in civil defence initiatives and nuclear apocalyptic culture seen in speculative magazine articles, such as *Collier's* 'Hiroshima U.S.A.'. The chapter then charts and assesses the manner in which nuclear anxieties shifted in the early 1960s during the fallout shelter controversy and compares the shift with unaltered civil defence initiatives. With the disparity between civil defence initiatives and the shifting realities of nuclear anxiety highlighted, chapter two focuses on two filmic case studies. *Five* (1951) is the first direct depiction of a post-nuclear apocalypse seen in film and effectively represents pessimistic feelings and anxieties felt towards solitude and radiation in a post-nuclear world. *Panic in Year Zero* (1962) on the other hand represents the moral ambiguity surrounding survival during the fallout shelter debates. This chapter analyses each film as representations of the shift in nuclear anxieties

established in chapter one to form a greater understanding of how nuclear apocalyptic culture succeeds in reflecting shifting public anxieties.

Chapter three assesses the shift in nuclear anxieties during the 1980s in relation to Ronald Reagan's arms build-up and the resurgence of civil defence. It analyses the manner in which nuclear anxieties had once again changed since the early 1960s while highlighting elements of civil defence that persisted from the earlier decades to create similar misrepresentations of nuclear anxiety. In a similar vein to chapter two, chapter four analyses nuclear apocalyptic culture from the 1980s to assess the manner in which cultural representations of nuclear anxiety remain effective in reflecting reality. Just as nuclear apocalyptic film was the most popular contemporary cultural medium in the 1950s, the 1980s witnessed the popularisation of video games. Therefore, this chapter analyses the games *Missile Command* (1980) and *Wasteland* (1988), which can likewise be seen to represent a shift in anxieties absent in civil defence initiatives. In the final chapter, an analysis of *Fallout* (1997) and its popular sequel *Fallout 3* (2008) will be conducted in an effort to ascertain the extent to which the series' representation of its civil defence influences are unrepresentative of real nuclear anxieties. Furthermore, it discusses the extent to which *Fallout's* once contextually representative caricature has since been reshaped to create a franchise of nuclear apocalyptic fiction that no longer represents the contextual realities of nuclear anxiety and can to some extent be seen as a misrepresentation of history.

Literature Review

In order to understand the formulation of American nuclear anxieties we must first understand the field of study surrounding representations of nuclear anxiety, which are most often found in works on US civil defence. One of the first studies into such ideas is Kenneth D. Rose's *One Nation Underground*, in which he analyses the prevalence of the fallout shelter in US culture. This provides an overview of civil defence initiatives and nuclear apocalyptic culture in relation to their role in forming public nuclear anxiety during the early Cold War, leading up to the fallout shelter debates. These debates of the early 1960s witnessed a period of public confusion, bordering on hysteria, regarding the uncertainty surrounding the need and effectiveness of fallout shelters, largely fuelled by the disparity of expert opinions. Appropriately for this study, Rose contends that nuclear apocalyptic culture "spoke to a generation that saw the Final Days not as biblical abstraction, but as a concrete, immediate, even probable reality."¹ However, a major problem is the approach taken by Rose, in that his discourse is overwhelmingly top-down; focusing on how government elites propagandised nuclear war through civil defence initiatives. This thesis addresses this shortcoming by building upon Rose's approach and the topic from a cultural standpoint in an attempt to assess representations of the anxieties of the public juxtaposed against propagandistic government initiatives rather than viewing such propaganda as responsible for such anxieties.

This issue in early civil defence research is addressed by later works, such as David Monteyne's *Fallout Shelter*, which approaches the study of civil defence from an architectural standpoint, to view initiatives focused on designating and building fallout shelters as representative of the society's fearful state and the implications of technological advancement during the decade following 1962. He states that "the partnership between architecture and civil defence produced a discourse about shelters and national security that both guided professional practice and laid a framework for interpreting the cultural meanings of public buildings."² Monteyne's argument therefore focuses heavily on public nuclear anxiety represented by architecture, building upon Rose's top-down view to present

¹ Rose, *One Nation Underground*, p.77.

² David Monteyne, *Fallout Shelter: Designing for Civil Defense in the Cold War*, (University of Minnesota Press, 2011), p.xxi.

a fuller image of society in the period. Given the subject of his study, Monteyne's work is necessarily limited in scope; picking up where Monteyne's work ends, this thesis considers these same fears, but through the lens of cultural representations.

While researchers have discussed the impact of civil defence initiatives on culture, architecture and society, a broader analysis of how representations of nuclear anxiety relate to civil defence is required. Melvin E. Matthews' analysis of images of civil defence in film and television fills in areas previously left open by Rose and Monteyne. Matthews, in his discussion of early Cold War cinema, argues that "Hollywood filmmakers exploited nuclear fears as a way to entertain audiences in film."³ This argument aligns with Rose's assertion regarding nuclear apocalyptic culture reflecting public perceptions of the "Final Days" to build upon the notion of representative culture and while this thesis will not focus on the notion of exploitation in cinema, Matthews' argument remains relevant to the cultural approach taken by this study. However, Matthews elects to focus on the impact of civil defence initiatives in shaping perceptions of nuclear war as seen in culture, as opposed to approaching the study of nuclear apocalyptic culture as reflective of existing anxieties. While Matthews approach is more grounded in the anxieties of the public rather than taking a top-down perspective like Rose, his argument nonetheless fails to recognise the capacity of nuclear apocalyptic culture as a representation of anxieties, an area this thesis builds upon.

Spencer R. Weart's more direct approach to nuclear anxieties in his work *Rise of Nuclear Fear* provides an excellent dialogue into fear as an inherent aspect of nuclear discourse, arguing that the potential of nuclear energy tapped into deep-rooted myths of power and weakness among humans. Furthermore, he points to nuclear fear as an influence on government policy as guards against hypothetical, unproven dangers resulted in extreme safety measures, such as protection against nuclear reactor meltdowns. While Weart's focus is far more related to nuclear fear and anxiety as an almost inherent part of the nuclear age, his discourse is predominantly focused on critiquing the manner in which nuclear fear has hindered the advancement of the nuclear energy industry and the focus such fears took away from concerns about climate change. While Weart elects to focus on supporting his beliefs about climate change in relation to nuclear anxiety, his analysis of nuclear fear during the Cold War is built upon in this thesis to better understand representations of such

³ Melvin E. Matthews, *Duck and Cover: Civil Defense Images in Film and Television from the Cold War to 9/11*, (McFarland & Company, Inc., 2012), p.34.

notions in culture. However, what each of these arguments lack is a critical analysis of why nuclear apocalyptic culture representative of contextual nuclear anxieties remains impactful on contemporary, post-Cold War culture considering that nuclear anxieties have subsided to the point where exploiting them for entertainment is practically implausible. This thesis therefore asks, why do current games such as *Fallout* continue to represent nuclear anxieties despite the fact that these anxieties have largely subsided in the present? By exploring this question, this thesis sheds new light on our contemporary culture and its relationship with twentieth century history

The study of cinema, especially science-fiction cinema, in the 1950s/60s is a well-documented area of study, with crucial attention paid to subtle reflections of nuclear anxiety, particularly regarding radiation, seen in more nuanced films like *The Day the Earth Stood Still* (1951), *Them!* (1954) and *The Blob* (1958). However, less attention, especially from a historical perspective, has been paid to more direct depictions of nuclear war and apocalypse. The two films discussed in this dissertation are *Five* (1951) and *Panic in Year Zero* (1962). In analysing *Five*, Bob Stephens contends that the film is representative of the pessimistic tone that pervaded the early 1950s, which aligns with Matthews' argument of exploitative cinema.⁴ However, Stephens goes onto discuss the film's use of religious allegory to present its audience with a moral code in such a bleak and desolate world. What is lacking here is the manner in which this similarly reflects elements of nuclear anxiety. Instead, Stephens focuses on the direct biblical allegories as opposed to the contextual relations of such allegory to the film's nuclear apocalyptic depictions. On the other hand, Bill Warren, in his discussion of *Panic in Year Zero* contends that the film "dodges many of the issues implied by the subject matter".⁵ While this can indeed be seen, what Warren fails to note about the film is the contextual reflection of its depiction, as erroneous information means little to reflections of public nuclear anxiety. Unlike Stephens, who notes the films pessimistic and thus reflective tone, Warren neglects to approach the film from a contextual standpoint, instead merely critiquing it for its lack of factual accuracy. In this regard, this thesis remedies the gap in cultural knowledge by approaching each film in the manner of its context and build upon these arguments.

⁴ Bob Stephens, "'D' is for Doomsday: *Five*", in Gregg Rickman, ed., *The Science Fiction Film Reader*, (2004: Limelight Editions, 2009), p.119.

⁵ Bill Warren, *Keep Watching the Skies!: Vol. II*, (McFarland & Company, Inc., 1986), p.678.

While representations of nuclear anxiety in images of civil defence and nuclear apocalyptic culture have been analysed extensively in the last two decades, the impact of these perceptions of nuclear anxiety have been less regarded in relation to video games, within which we have witnessed a surge in popularity of the nuclear apocalyptic genre. William Knoblauch's discourse about the role of video games in forming a better public understanding of Ronald Reagan's Strategic Defence Initiative (SDI) is one such area, as he contends that video games that involved depictions or mechanics closely related to SDI were "the closest the public ever came to assessing, firsthand, and for themselves, SDI."⁶ This argument is prevalent in regards to the representational capabilities of video games as it shows the manner in which games can help in forming a greater understanding of an aspect of history that would otherwise remain unknown. However, Knoblauch's limited discussion of nuclear anxieties in regards to *Missile Command* and similarly reflective games is an area better discoursed by Joseph A. November. In his discussion of the video game series, *Fallout*, he compares the game's fictional timeline with reality's as each diverged from their shared pre-1945 history to differ dramatically. He contends that *Fallout* offers players a chance to explore the dichotomy "between American liberal, democratic ideals and Americans' aspirations to develop the technologies of their dreams."⁷ In his discussion he addresses the manner in which *Fallout* represents the futuristic views of the 1950s to form a fictional society based around totalitarianism. However, while this argument briefly discusses the game's representation of nuclear anxiety, it largely glosses over the manner in which it utilises representations of nuclear anxiety. This thesis will remedy this by utilising November's argument to indicate *Fallout's* representational capacity. It must be noted, however, that November's main argument is beyond the scope of this project. Similarly, Marcus Schulke presents arguments surrounding the representation of the Cold War in post-apocalyptic video games, suggesting they provide insight into the mentality of the Cold War.⁸ Like November, Shulke's illuminating study is nonetheless limited in scope; his analysis of the *Fallout* series' Cold War anxieties indeed fails to fully consider their evolution

⁶ William M. Knoblauch, 'Strategic Digital Defense: Video Games and Reagan's "Star Wars" Program, 1980-1987', in Kapell and Elliott, ed., *Playing With the Past*, p.291.

⁷ Joseph A. November, '*Fallout* and Yesterday's Impossible Tomorrow', in Kapell and Elliott, ed., *Playing With the Past*, p.309.

⁸ Schulke, 'Refighting the Cold War: Video Games and Speculative History', in Kapell and Elliott, ed., *Playing With the Past*, p.267.

over the course of the conflict. By considering the ways in which nuclear anxieties shifted over the course of the Cold War, this thesis contributes to a more nuanced understanding of the legacies of the conflict in a series like *Fallout*.

Methodology

This study has been conducted as a means of better understanding representations and misrepresentations of public nuclear anxiety in the United States over the course of the Cold War in order to establish the manner in which nuclear apocalyptic culture and civil defence initiatives reflected public sentiment towards nuclear war during the conflict. This is done by comparing and contrasting multiple forms of contextually contemporary nuclear apocalyptic culture with their civil defence counterparts during three peaks in public nuclear anxiety - the 1950s, early 1960s and 1980s. This cross-medium study of representations of Cold War nuclear anxiety informs our understanding of the influences behind contemporary nuclear apocalyptic popular culture and why such culture can now be seen as unrepresentative of its historical influences as well as being non-reflective of its contextual reality in a contemporary sense.

This thesis utilises contextually contemporary nuclear apocalyptic culture to assess representations of nuclear anxiety in an effort to better display the manner in which video games can be viewed as historical artefacts, capable of representations like any other established medium. This is done using two films and two video games. *Five* (1951) and *Panic in Year Zero* (1962) represent forms of contextually contemporary nuclear apocalyptic culture, as films only began to incorporate themes of nuclear war previously seen in books and magazines at the start of the 1950s. *Missile Command* (1980) and *Wasteland* (1988) represent their context as the popularisation of video games in the 1970s led to themes of nuclear war entering the medium. Furthermore, as nuclear apocalyptic culture continues to be popular almost exclusively in video games today, this study will bridge the gap between contextually representational popular culture and contemporary popular culture influenced by said representations. The *Fallout* series can be seen to be a continuation of contemporary nuclear apocalyptic culture, representing the advancement of technology as video games became capable of greater graphical fidelity and therefore better visual representation.

Visual representation is the primary focus of this study as it remains a consistent element of the nuclear apocalyptic culture analysed. Although video games offer a unique element of interactivity that amplifies their representational capabilities, the scope of this thesis limits the cross-medium possibilities thereby forcing other elements of Game Studies,

such as gameplay or mechanics, to be disregarded for the sake of consistency. Instead, persistent visual elements of filmic nuclear apocalyptic culture and civil defence initiatives are highlighted in the video game case studies.

Nonetheless, this study adds to the growing field of historical game studies by considering nuclear apocalyptic video games as a representation of contextual nuclear anxieties. The approach taken to analysing the video games in relation to the context of their releases is done using Alexander R. Galloway's argument regarding social realism in video games, which builds upon social realism in film. Galloway's definition of social realism is applied to this study's primary games in order to determine their reflections of reality, as well as the analyses of film to allow for a consistent definition of contextual representation. Completely separate from ideas of historical realism which will not be discussed, social realism can be defined using renowned film theorist André Bazin's definition – a "technique [in film] to approximate the basic phenomenological qualities of the real world", or in Galloway's words, social realism reflects "real life in all its dirty details, hopeful desires and abysmal defeats".¹ Galloway contends that, as well as this, in order to determine whether a film or game is socially realist it must be considered in its context otherwise it cannot be considered realist. For example, an American military shooting video game, such as *America's Army* (2002), can be described as 'realistic' in its portrayal of combat or weaponry but not realist, as to the American public it represents a scenario outside of their context. Nuclear apocalyptic films and games, while inherently fantastical, can utilise multiple elements to create realism, such as *Missile Command's* use of real-world weaponry to represent real nuclear anxieties and *Wasteland's* real-world inspired geo-political backstory. Galloway's definition of realism will therefore be used to analyse the extent to which *Five, Panic, Missile Command* and *Wasteland* accurately reflect the contextual social-realism of nuclear anxiety in their representations of nuclear war and apocalypse. This offers insight and assists in highlighting the elements of civil defence that persisted and caused it to remain stagnant while nuclear apocalyptic culture continually and effectively reflected shifting nuclear anxieties. Ultimately, Galloway's definition of social realism indicates the

¹ Cited in Alexander R. Galloway, 'Social Realism in Gaming', *Game Studies*, (Vol 4, No.1, 2004), <http://bit.ly/1p5yEGm>, last accessed 08 Sept 2016; Galloway, 'Social Realism in Gaming', *Game Studies*, (Vol 4, No.1, 2004), <http://bit.ly/1p5yEGm>, last accessed 08 Sept 2016.

progression of reflective and thus representational qualities in each film and game to then better understand the reasons behind the caricature of civil defence seen in *Fallout*.

Before proceeding, some terms must first be defined. 'Nuclear apocalyptic' culture is a term borrowed from Kenneth D. Rose in his book *One Nation Underground: The Fallout Shelter in American Culture*. Here, Rose defines the term as culture "based on anxieties about nuclear war and its aftermath".² This term is used throughout this thesis in reference to this definition. Secondly, the term 'contextually contemporary culture' is used in various forms throughout this study. This phrase is best defined from a Cultural Studies perspective and is implemented in the approach to this study's cultural artefacts in relation to "the social relations of production, distribution, consumption and use out of which they emerge."³ For example, *Five* is analysed in the context of its 1951 release to assess the extent to which it reflects the nuclear anxieties of that period. Furthermore, it must be noted that the terms 'atomic', 'hydrogen' and 'nuclear' are used often in this study in reference to weaponry. It is important to highlight that the word 'nuclear' is an umbrella term under which 'atomic' and 'hydrogen' fall. Atomic bombs, otherwise known as fission bombs, and hydrogen bombs, otherwise known as thermonuclear bombs, are both types of nuclear weapons.⁴

² Rose, *One Nation Underground*, p.38.

³ Douglas Kellner, 'Toward a Critical Media/ Cultural Studies', in Rhonda Hammer & Douglas Kellner, ed., *Media/ Cultural Studies*, (Peter Lang Publishing, 2009), p.20.

⁴ Stephanie Pappas, 'Hydrogen Bomb vs Atomic Bomb: What's the Difference?', *Live Science*, <http://bit.ly/1Rgp8iy>, last accessed 31 Aug 2016.

Chapter One

Civil Defence & the Shelter Debates

This chapter analyses the dichotomy between real fears and propagandistic optimism in nuclear anxieties among the American public during the civil defence and fallout shelter debates of the 1950s and early 1960s. By comparing government propaganda and nuclear apocalyptic culture as seen in the press, it assesses the extent to which these formats effectively represent the reality of nuclear anxiety during the period and how far they attempted to pacify the American population. This chapter also highlights the persistent elements of civil defence initiatives that continued into the early 1960s in order to better establish the manner in which civil defence failed to change with the times and thus remained unrepresentative of contextual nuclear anxieties.

The 1950s

After 324 days of the US airlifting in supplies to circumvent Stalin's blockade of Berlin from 24 June 1948 to 12 May 1949, Moscow finally conceded. Throughout the incident the Soviets still possessed no atomic bomb, yet many Americans believed that war had become inevitable and that the use of nuclear weapons was a certainty.¹ These concerns were soon realised when the Soviets developed their own bomb. The US, having lost its atomic monopoly, was intimidated by this parity.² While this moment catalysed US-Soviet political tensions throughout the following four decades, in the 1950s and early 1960s its psychological impact was felt by the American public. More so than ever before, the prospect of a war in which nuclear weapons would be used now loomed over the nation. Fears among the US public that the Soviet Union would attack American cities with atomic weapons began to increase and throughout the 1950s polls returned results that found public anxiety towards such weapons to be on the rise.³ However, while expectations of a nuclear war increased, preparedness did not, and by 1961 and the peak of the Berlin Crisis,

¹ Martin McCauley, *Russia, America and the Cold War, 1949-1991*, (Pearson Longman, 2004), p.35

² John Lewis Gaddis, *The Cold War*, (2005; Penguin Books, 2007), p.35.

³ Hazel Gaudet Erskine, 'The Polls: Atomic Weapons and Nuclear Energy', *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.157.

an overwhelming majority of Americans had not considered making the preparations thought necessary to survive such an event.⁴

This lack of preparation became increasingly obvious during the flashpoints of conflict, such as the Korean War which began in June 1950 and ravaged the North-east Asian peninsula for three years. While the war provided no definitive outcome, what it produced was a precedent; that a 'hot' war could take place, with the countries wielding atomic weapons without said arms being used.⁵ But most tellingly during the conflict, 76 percent of the American public believed another World War would take place in the next five years, and following it, anxieties regarding war and nuclear war changed little until the early 1960s.⁶ These early fears were reflected in a *Collier's* magazine article entitled 'Hiroshima U.S.A.'. Published in August 1950, the article theorised the impact of the same atomic bomb that was dropped on Hiroshima hitting New York City. Inspired by John Hersey's *Hiroshima*, a narrative re-creation of the atomic attack using the stories of survivors, 'Hiroshima U.S.A.' and similar speculative articles that followed were more extravagant treatments of such ideas. These articles were written, as Monteyne argues, in an attempt to "naturalize the dangers of nuclear war", to make it seem as "inevitable, temporary and survivable" as any natural disaster.⁷ This idea was reinforced not only due to the use of Hersey's *Hiroshima* account, but thanks to the author's utilisation of "Incidents ... related in circumstances identical with or extremely close to those which really happened elsewhere in World War II."⁸ Readers in the 1950s, familiar with descriptions and images of bombings in World War II would have thus associated the destruction described in speculative atomic attack articles with their understandings of destruction in WWII, and particularly the devastation of Hiroshima, that had been so heavily publicised.⁹ However, the authors' varying attitudes towards atomic war would result in either a story that tells of the slow death of its main characters or the rebirth of society, which would often see the

⁴ Rose, *One Nation Underground*, p.18.

⁵ Gaddis, *The Cold War*, p.50.

⁶ Tom W. Smith, 'Trends: The Cuban Missile Crisis and U.S. Public Opinion' in *The Public Opinion Quarterly*, (Vol.67, No.2, 2003), p.267.

⁷ Monteyne, *Fallout Shelter*, pp.1-2.

⁸ John Lear, 'The Story of this Story', *Collier's*, (August 5 1950), p.11.

⁹ Monteyne, *Fallout Shelter*, p.3: 'Atomic Age', *Time*, (Aug 20 1945), pp.29-36.

world purged of the unworthy, a persistent element in earlier nuclear apocalyptic culture.¹⁰ Regardless, articles that attempted to naturalise nuclear war were nonetheless based in reality; reflecting the anxieties of the time - that atomic war with the Soviet Union was inevitable and would be devastating, even if its victims were to survive.¹¹

But despite their intended message or accurate representation, these narratives were inspired more by “sensationalism and propaganda” than genuine factual analysis.¹² When we consider that US civil defence planners implemented the articles’ “serious, if flawed, projections of human and structural behaviour in the aftermath of attack” as the primary basis for official government survival guidance, civil defence initiatives were therefore formed around sensationalism, even utilising the notions of a biblical purge or judgement to inspire preparedness among the public.¹³ In doing so, civil defence planning attempted to naturalise war just as speculative magazine articles had, to make it seem inevitable yet survivable. But instead, attempts to use sensationalism as official advice can be seen to go beyond the images portrayed in *Collier’s* to present misguided and overly optimistic perceptions of nuclear war.

Survival Under Atomic Attack (1950) was the first attempt by the Office of Civil Defense, the agency in charge of civilian care in the case of a military attack on the US, to educate the US public about the dangers of nuclear war. On its first page, in bold print, the manual offered readers reassurance that “You Can SURVIVE. You can live through an atom bomb raid and you won’t have to have a Geiger counter, protective clothing, or special training in order to do it.”¹⁴ From the outset, *Survival* can be seen to exaggerate the likelihood of survival during nuclear war even more so than *Collier’s*. For example, ‘Hiroshima U.S.A.’ described high levels of destruction and the horrors of radiation burns, expressing that “Some were burned so badly their skin came off in shreds. Others were vomiting.”¹⁵ *Survival*, on the other hand, reassured readers that there is little to fear from radiation as it “is not new or mysterious”; after all, “all of us have been continually

¹⁰ Monteyne, *Fallout Shelter*, p.5

¹¹ Rose, *One Nation Underground*, p.56.

¹² Cited in Monteyne, *Fallout Shelter*, p.5.

¹³ Monteyne, *Fallout Shelter*, p.5

¹⁴ *Survival Under Atomic Attack*, (United States Government Printing Office, 1950), p.3: Cited in Rose, *One Nation Underground*, p.23.

¹⁵ John Lear, ‘Hiroshima U.S.A.’, *Collier’s*, (August 5 1950), p.13.

bombarded by radiation every hour and day of our lives.”¹⁶ Optimistic and misguided reassurances such as this are key aspects of civil defence and remain persistent over the course of the conflict. But in reality, public opinion regarding the threat of nuclear war aligned far more with the morbidity of speculative articles than with such propagandistic civil defence initiatives, which failed to represent the reality of public nuclear anxiety.

Public opinion polls in August 1950 found that of the 73 percent of people who believed the Soviet Union possessed an atomic bomb, 91 percent agreed that it was likely they would use them on American cities.¹⁷ Despite the fact that the Soviets would not develop a hydrogen bomb for another three years, the same poll also found that of the 85 percent of people who had heard of the hydrogen bomb, 80 percent believed the USSR would use it against the US.¹⁸ Reminiscing about the period, one person noted that “I never knew much about the bomb, but it was something to be afraid of. It was something to kill off a bunch of people ... the most greatest dangerous thing in the world.” Another defined what they believed to be the bomb’s power – “Destruction, just plain everything is burning up, everything is dead. It was just going to kill off everything”.¹⁹ Speculations about the likelihood and consequences of nuclear war among the US public were seemingly rampant. While magazine articles mirrored these concerns, portraying famous American cities and landmarks destroyed by atomic fire and the people scalded by radiation, early civil defence initiatives, as epitomised by *Survival*, failed to tackle such anxieties.

Speculative nuclear attacks exemplified the 1950s as the public developed a morbid fascination with them, leading to their widespread publication in national, state and local newspapers. For example, The *Syracuse Herald-American* published an article in November 1950 entitled “Mythical Foe Tells How City Was Bombed”; an article that described the destruction of Syracuse, New York from the perspective of the Soviet soldier who bombed the city.²⁰ Meanwhile, *Collier’s* in its October 1951 issue, entitled “Preview of the War We Do Not Want” described the impacts of World War III. Articles like this continued to appear

¹⁶ *Survival Under Atomic Attack*, (United States Government Printing Office, 1950), p.8.

¹⁷ Hazel Gaudet Erskine, ‘The Polls: Atomic Weapons and Nuclear Energy’, *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.157.

¹⁸ *Ibid.*, p.157.

¹⁹ Michael J Carey, ‘Psychological fallout’, in *Bulletin of Atomic Scientists*, (Vol.38, No.1, 1982), p.21.

²⁰ ‘Mythical Foe Tells How City Was Bombed’, *Syracuse Herald-American*, (November 12 1950), <http://bit.ly/2bZ03q3>, last accessed 05 Sept 2016.

across the country throughout the 1950s and into the early 1960s, with more and more adventurous and graphic descriptions. Rose cites two examples of such articles that encapsulate the way in which such stories were seeping into popular culture in diverse ways. *Good Housekeeping's* out of character destruction of St. Louis in 1958 and the *Los Angeles Times's* devastation of their own city in 1961, (rarely the subject of such attacks due to its sprawling nature) illustrate the increased popularity of such stories.²¹ By the mid-1950s even the civil defence planners began to take advantage of them.

Following World War II, the Office of Civil Defense was under the authority of the National Security Resources Board (NSRB). In 1950 the NSRB produced bulletins that provided civil defence guidance to individual states; however, they were met with extreme criticism. In particular, the Mayor of San Francisco, Elmer E. Robinson, complained that the attitude towards nuclear war presented by the bulletins was to merely accept the inevitable.²² In the interest of developing more informative guidelines, executive action brought about the creation of the Federal Civil Defense Administration (FCDA), established in 1950. Every year following its formation the FCDA conducted its yearly "Operation Alert" exercise; a programme designed to test the preparedness of the American public. However, in 1956, Operation Alert saw official civil defence planners encouraging the publication of speculative nuclear apocalyptic articles. Intended to test the preparedness of US cities, the FCDA created newspaper special editions that many feared would stand to scare more people than educate them.²³ The edition of the *Buffalo Evening News* from July 20 1956 is a prime example of this as the headline read "125,000 Known Dead, Downtown In Ruins".²⁴ The story told of the devastation in Buffalo, New York, stating that "Unknown thousands of Buffalonians are presumed dead". "The Buffalo skyline has disappeared" and "Nothing distinguishable remains" with "The entire Niagara Frontier ... under a state of emergency."²⁵ One might be forgiven for thinking that such devastation is reminiscent of the horrors described in other similar articles. However, the FCDA's Operation Alert also saw other

²¹ Cited in Rose, *One Nation Underground*, pp.56-61.

²² Robinson quoted in Harry B. Yoshpe, *Our Missing Shield: The U.S. Civil Defense Program in Historical Perspective*, (Federal Emergency Management Agency, 1981), p.115: Cited in Rose, *One Nation Underground*, p.23.

²³ Rose, *One Nation Underground*, (2001), p.62.

²⁴ '125,000 Known Dead, Downtown In Ruins', in *Buffalo Evening News*, (July 20 1956), p.1.

²⁵ *Ibid.*

special edition newspaper stories that pushed the organisation's own propagandistic agenda.²⁶

The *Grand Rapids Herald's* Operation Alert story, similarly titled "16,200 Die as H-Bomb Levels Grand Rapids" had a very similar tone to Buffalo's imagined attack, however here readers were told that the FCDA had successfully evacuated the city, saving the lives of 136,000 people. Readers were also presented with an illustration titled "Deadly Path of H-Bomb Fallout" that showed the radiation from a mushroom cloud spreading outward.²⁷ The FCDA pushed their own propagandistic notions of nuclear war survival, reflecting the same optimism seen in *Survival* juxtaposed against the representative morbidity of speculative attack articles. This strange melding of the tone of otherwise competing media was not seen again in official civil defence planning, as the public's fascination with such articles waned following the Cuban Missile Crisis. However, some depictions of nuclear war and anxiety, unintentionally reminiscent of Operation Alert, will be seen. For example, the manner in which morbidity and reassurance are combined here to form a confused meaning can be seen in the civil defence guide *Fallout Protection* (1961), discussed below, which presented its own disorderly perception of nuclear war survival.

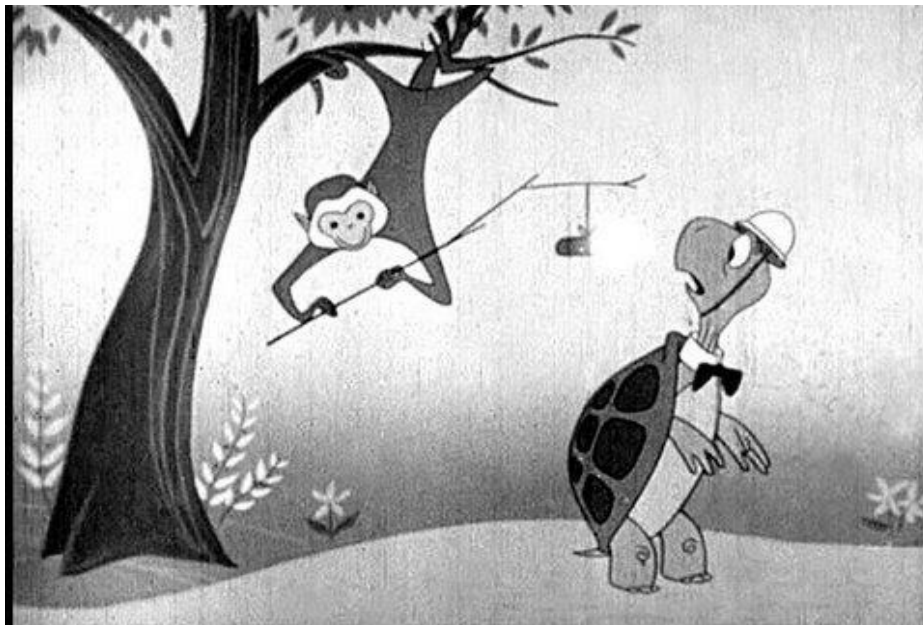


Figure 1 - Screenshot from *Duck and Cover*, Dir. Anthony Rizzo, (Archer Productions, Federal Civil Defense Agency, 1951), Film., accessed via 'Duck And Cover (1951) Bert The Turtle'. Online Video Clip. Youtube. Accessed 06 April 2016. <<http://bit.ly/MeAWC9>>.

²⁶ Rose, *One Nation Underground*, (2001), p.62.

²⁷ '16,200 Die as H-Bomb Levels Grand Rapids', *Grand Rapids Herald*, (July 21 1956), p.1.

But even before the FCDA's Operation Alert initiatives saw a fictional crossing over of fear and reassurance, they had created multiple forms of preparatory advice. A different form of muddled guidance can be seen clearly in their 1951 *Duck and Cover* instructional survival video. This information regarding nuclear attack preparations was designed to educate school children with comic books and films using the character Bert the Turtle to teach them how to 'duck and cover'.²⁸ These light-hearted depictions of civil defence preparation were intended to "defang" the idea of nuclear attack and reassure children that knowing how to respond to atomic attack was half the battle. Figure one demonstrates such imagery. But in reality, just like *Survival*, they did little to relieve fear and failed as a representation of anxiety in the early 1950s.²⁹

The *Duck and Cover* instructional video contains official advice from the FCDA to provide children with the then necessary guidance on how to respond to an atomic attack. The cartoon character of Bert the Turtle is used to ease children into the idea of being prepared, but the bulk of the film grounds itself in reality by using live action footage. Paul and Patty know that being ready "means we will all have to be able to take care of ourselves." They know they must duck and cover if a nuclear bomb explodes without warning and, as the video shows, they do so. As they walk down a pavement with no protection other than a brick wall, seen in figure two, Paul and Patty duck and cover and are commended on their speed and precision in doing so. Meanwhile, on his way to a cub scout meeting, Tony sees a flash and, following the instructions of *Duck and Cover* jumps off his bike to curl up next to a small piece of concrete in the road. "Tony knows that it helps to get to any kind of cover" and "he stays down until he is sure the danger is over." At the same time, while barbecuing on holiday, a family sees the flash of a nuclear explosion. Instantly, they press themselves to the ground and hide beneath the picnic blanket. The family "knows what to do, just as your own family should."³⁰ It cannot be denied that in each of these scenarios there is little else that can be done for protection, and perhaps the given instructions provided a sense of reassurance regardless of how flawed it may have been.

²⁸ United States Federal Civil Defense Administration, *Bert the Turtle says Duck and Cover*, (U.S. Government Printing Office, 1951).

²⁹ Rose, *One Nation Underground*, (2001), pp.128-131.

³⁰ *Duck and Cover*, Dir. Anthony Rizzo, (Archer Productions, Federal Civil Defense Agency, 1951), Film., accessed via 'Duck And Cover (1951) Bert The Turtle'. Online Video Clip. Youtube. Accessed 06 April 2016. <<http://bit.ly/MeAWC9>>.

However, the film is undeniably more concerned with making people feel safe as opposed to actually keeping them safe; after all, without providing any in-depth understanding of what the flash or heat of a nuclear attack could do to you, the film tells us that “Even a newspaper can save you from a bad burn.”³¹

As Rose states, this was the one theme that encapsulated civil defence education: the insistence that nuclear war be presented to its audience in the most routine way possible.³² But in an attempt to reassure children of their safety using the thin veil of cartoon characters, simple slogans and easy to follow instructions, these videos did in fact make the experience of regular, in-school air raid drills, conducted in roughly one quarter of all schools by 1951, all the more terrifying.³³ In interviews conducted by journalist Michael J. Carey printed in the *Bulletin of Atomic Scientists*, adults reminisced about their time as children during the 1950s. One stated that he knew “No desk is going to stop me from getting completely wiped out, and the people they sent around from Civil Defense to lecture us confirmed my worst doubts.” Even Carey himself noted that “The mushroom cloud, which I had seen in newsreels and newspapers, visited my dreams. I knew that if the bomb



Figure 2 - Screenshot from Duck and Cover, Dir. Anthony Rizzo, (Archer Productions, Federal Civil Defense Agency, 1951), Film., accessed via 'Duck And Cover (1951) Bert The Turtle'. Online Video Clip. Youtube. Accessed 06 April 2016. <<http://bit.ly/MeAWC9>>.

³¹ *Ibid.*

³² Rose, *One Nation Underground*, (2001), p.130.

³³ Matthews Jr., *Duck and Cover*, p.13.

were dropped, I would be a victim.”³⁴ Children were given little sense of ease by these images, let alone were such possibilities naturalised or defanged for them.

After all, the images seen in school, supported by air raid drills that consistently forced children to cower in the basement with no indication of whether it was in fact a drill or the real thing, were strengthened by media. Films like *Them* (1954) and *It Came from Beneath the Sea* (1955) consistently reminded children of their closeness to nuclear attack and radioactive dangers.³⁵ In fact, in the same interviews with Michael Carey, one person noted of nuclear weapons that radiation “would kind of mutate people and kind of make them something like lepers.” Another noted that “they [atomic weapons] were creators of something really monstrous”. Carey, in his contextual understanding, finishes the man’s statement claiming these creations to be “radiation mutants”.³⁶ Film critic Bob Stephens, noted of the film *Five* (1951), watching it in the cinema as a child, that he “was very receptive to *Five*’s spirit of pessimism” and that “the film really scared” him.³⁷ While *Five* will be discussed below, from this it can be seen that multiple cultural influences meant that the normalisation of nuclear war among children seemingly failed despite propagandistic reassurances. Historian Doris Kearns Goodwin summarises this anxiety, noting of her own childhood that despite being bombarded with instructional imagery, “the Cold War was not an abstraction. It was the air-raid drills in school, the call for bomb shelters, and exposure to the deliberately unsettling horror of civil-defense films.”³⁸

While most forms of civil defence propaganda in the 1950s can be seen to fail as a representation of the anxieties, it is more important to note that the same attempts at normalisation, seen somewhat in *Survival* but clearly in *Duck and Cover*, remain prevalent in both the early 1960s and 1980s. Despite shifting perceptions of nuclear war and general nuclear anxieties, civil defence did little to change with the times while nuclear apocalyptic

³⁴ Michael J Carey, ‘Psychological fallout’, in *Bulletin of Atomic Scientists*, (Vol.38, No.1, 1982), p.20: p.22.

³⁵ Matthews, *Duck and Cover*, p.14: Bo Jacobs, ‘Atomic Kids: *Duck and Cover* and *Atomic Alert* Teach American Children How to Survive Atomic Attack’, *Film & History*, (Vol.40, No.1, 2010), p.34.

³⁶ Michael J Carey, ‘Psychological fallout’, in *Bulletin of Atomic Scientists*, (Vol.38, No.1, 1982), p.22.

³⁷ Stephens, ‘D is for Doomsday: *Five*’, in Rickman, ed., *The Science Fiction Film Reader*, p.120.

³⁸ Doris Kearns Goodwin, *Wait Till Next Year*, (1997: Simon & Schuster, 1998), p.158.

culture adapted to represent the moral ambiguities that arose with the fallout shelter debates of the early 1960s, as discussed below.

The 1960s

Throughout the 1950s the American public experienced a rather fatalist view of the Cold War. Pessimism pervaded the air as many believed that their chances of survival were next to none, so there was little use preparing.³⁹ But in 1961, a less than friendly meeting between John F. Kennedy and Nikita Khrushchev set in motion events that would cause debates regarding the survivability of nuclear war to become headline news. The June 1961 Vienna summit saw the Soviet leader express his wish to renegotiate access routes across East Germany to West Berlin, stating that “if there is any attempt by the West to interfere, there will be war.” Khrushchev’s proclamation, soon to be realised by the public in a less than reassuring national speech by the President, was met by Kennedy’s response – “Then there will be war, Mr. Chairman. It’s going to be a very cold winter.”⁴⁰

On July 25 1961, Kennedy told the American public of the Soviet threat in Berlin, calling for a \$3.24 billion budget increase for the military and a \$207 million fund for civil defence, stating “We have another sober responsibility: to recognize the possibilities of nuclear war in the missile age, without our citizens knowing what they should do and where they should go if bombs begin to fall, would be a failure of responsibility.”⁴¹ But Kennedy was unwilling to ask for the multibillion dollar civil defence programme experts recommended to prove that the US remained strong in the face of Soviet threats.⁴² Instead he called for American families to build their own bomb shelters so they “can still be saved”.⁴³ He ended the speech with a bleak summary of the times, reminding the US public that “in a thermonuclear age, any misjudgement on either side about the intentions of the other could rain more devastation in several hours than has been wrought in all the wars of

³⁹ Rose, *One Nation Underground*, (2001), p.188.

⁴⁰ Cited in Dean Rusk, *As I Saw It*, (W.W. Norton & Company, 1990), p.221.

⁴¹ John F. Kennedy, ‘Kennedy Special Address on the Berlin Crisis’, (Washington D.C., USA, July 25 1961), <http://bit.ly/2bDOKus>, last accessed 16 Aug 2016.

⁴² Spencer R. Weart, *The Rise of Nuclear Fear*, (Harvard University Press, 2012), p.148.

⁴³ John F. Kennedy, ‘Kennedy Special Address on the Berlin Crisis’, (Washington D.C., USA, July 25 1961), <http://bit.ly/2bDOKus>, last accessed 16 Aug 2016.

human history.”⁴⁴ As Rose contends, Kennedy’s speech indicated what many had feared; that the American home had been moved to the frontlines of the Cold War.⁴⁵ But regardless, motivation for the US to construct shelters to protect against what Kennedy indicated to be a likely nuclear war was lacking despite being given ample reason.

Kennedy’s attempt to fulfil his responsibility of educating the public came in December 1961, in the form of a government survival pamphlet entitled *Fallout Protection: What to Know and Do about Nuclear Attack*. Endorsed primarily by Kennedy and Secretary of Defence Robert McNamara, this peculiar publication suffered from a similar problem as previous civil defence initiatives. By portraying to its readers the seriousness of nuclear war while also reassuring them that they could survive, *Fallout Protection* positioned itself in a self-contradictory position. The manual starts by discussing the severity of a nuclear war, stating “The areas of blast and fire would be scenes of havoc, devastation, and death ... it would be a time of extraordinary hardship – both for the Nation and for the individual” who “would be prey to strange rumours and fears.”⁴⁶ It cannot seem to emphasize strongly enough how awful such an event would be, before then conflictly stating that “if effective precautions have been taken in advance, it need not be a time of despair.”⁴⁷ The contrast in message is reminiscent of the Operation Alert newspaper articles that adopted depressingly realist outlooks of nuclear war that mirrored public anxiety while contrasting them with optimistic information that attempted to reassure. Crucially, *Fallout Protection* clearly resembles 1951’s *Survival* in its use of reassuring optimism. Despite the fact that its information regarding the effects nuclear war is updated to match the period, the façade of optimism and normalisation presented to readers remains much the same. As a result of these mixed messages, the pamphlet was panned by critics for its limited scope and lack of effective advice for use outside of the very specific parameters of its five megaton blast standard. After all, such a standard was an obsolete consideration as the Soviets had

⁴⁴ John F. Kennedy, ‘Kennedy Special Address on the Berlin Crisis’, (Washington D.C., USA, July 25 1961), <http://bit.ly/2bDOKus>, last accessed 16 Aug 2016.

⁴⁵ Rose, *One Nation Underground*, (2001), p.4.

⁴⁶ *Fallout Protection: What to Know and Do About Nuclear Attack*, (Department of Defense, Office of Civil Defense, 1961), p.6.

⁴⁷ *Ibid.*

developed a hydrogen bomb with a yield of roughly fifty-eight megatons in that same year.⁴⁸

This confusion in message is illustrative of a trend which extended beyond the scope of this pamphlet alone. A survey conducted in November 1961 found that of 1,474 respondents, only 0.4 percent, equal to six families, had taken precautionary measures in case of nuclear attack.⁴⁹ So while the government and the media urged people to prepare, few listened. While notions of fatalism in the face of nuclear war were partially to blame, with one person stating “If it happens, it happens”, the cost of such shelters had a major impact. Surveys revealed that of the families who had constructed shelters, half belonged to those with an income of \$15,000 or more, which is just below \$10,000 more than the average household income at the time.⁵⁰ But it was people’s perceptions of fallout after a nuclear attack that seemingly contributed to a lack of family shelter construction, as surveys found that 27 percent of those without shelters were confused about the effects of fallout while 25 percent had either the wrong information or knew nothing about it whatsoever. In fact, of those who owned shelters, the figures were similar with 25 percent of people being confused and 21 percent possessing incorrect or no information.⁵¹ This was not helped when businessmen, eager to capitalise on these fears, subsequently declared themselves experts in the fallout shelter business, as their television adverts encouraged anxieties and confusion.⁵² Ultimately, public opinion was largely shaped by the media who had arguably incited the shelter debates with the misinformation they had been provided with by experts who hotly debated the effectiveness of a fallout shelter programme.⁵³

Fallout shelters now became the hot topic for magazines and newspapers. While the popularity of shelters as a topic of discussion had seeped into magazines to create reflections of Operation Alert’s crossover of civil defence and media, *Life* went one step too

⁴⁸ 'The Soviet Response', *Atomic Archive*, <http://bit.ly/2bTF4GI>, last accessed 09 Sept 2016.

⁴⁹ F. K. Berrien, Carol Schulman and Marianne Amarel, 'The Fallout-Shelter Owners: A Study of Attitude Formation', *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.207.

⁵⁰ *Ibid.*, p.208: 'Average Income of Families Up Slightly in 1960', *Current Population Reports: Consumer Income*, (U.S. Department of Commerce, Bureau of the Census, Washington D.C., 1961), p.1.

⁵¹ F. K. Berrien, Carol Schulman and Marianne Amarel, 'The Fallout-Shelter Owners: A Study of Attitude Formation', *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.209.

⁵² Weart, *The Rise of Nuclear Fear*, p.148.

⁵³ Sidney Kraus, Reuben Mehling and Elaine El-Assal, 'Mass Media and the Fallout Controversy', *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.191.

far, making claims that caused the vilification of home fallout shelters among the US public.⁵⁴ In an issue of *Life* published in September 1961, the magazine laid out guidance and plans for homemade fallout shelters along with a page dedicated to a supportive message from President Kennedy.⁵⁵ In weighty, realistically presented articles, *Life* showcased the “Simple Room in Basement Built with Concrete Blocks”, the “Big Pipe in the Backyard under Three Feet of Earth” and “A Double-walled Bunker for Safety above Ground”.⁵⁶ All three of these sections discussed the pros and cons of each construction, each with a sense of morbid optimism – “Except for the concrete floor, the shelter could be built by any enterprising do-it-yourself family.”⁵⁷

Declaring that shelters could save 97 percent of the population in the event of nuclear attack in September 1961, by January the following year they had retracted the claim.⁵⁸ Instead, *Life* was now less certain, insisting that while “shelters would somewhat increase the chances of survival”, they now only “might save millions of lives”.⁵⁹ But the updated advice still failed to create a consensus on home fallout shelters. After all, in December 1961 it was reported by a Kennedy aide “that shelters had become the chief domestic concern” and the confusion surrounding their effectiveness was “a fad verging on hysteria.”⁶⁰ Confusion gripped the nation even further as a lack of agreed guidance from the government, scientists and other experts confused the information provided by *Life* and thus worsened understandings of nuclear attack, fallout and fallout shelters for the public. *Life*’s shifting perceptions represent a different sense of nuclear anxiety than that of the 1950s seen in speculative articles, as the debates regarding fallout shelters saw a divided public, confused by the disparity of expert opinions. These *Life* articles therefore effectively represent the shifting paradigms of public anxiety more so than the civil defence initiatives of the early 1960s which continued to attempt normalisation.

Due to this confusion, rather than being told that shelters were the effective course of action, it was instead left up to the individual to decide whether they constructed their

⁵⁴ Rose, *One Nation Underground*, p.81.

⁵⁵ Kennedy, John, F., ‘A Message to You from The President’, *Life*, (September 15 1961).

⁵⁶ ‘Fallout Shelters’, *Life*, (Sept 15 1961), pp.98-103.

⁵⁷ ‘A Double-walled Bunker for Safety above Ground’, *Life*, (Sept 15 1961), p.102.

⁵⁸ ‘A New Urgency, Bug Things to Do – and What You Must Learn’, *Life*, (Sept 15 1961), pp.96-97.

⁵⁹ ‘Use and Limit of Shelter’, *Life*, (Jan 12 1962), p.4.

⁶⁰ Weart, *The Rise of Nuclear Fear*, p.148.

own shelter or whether they should “trust in luck and government” to get by.⁶¹ The public were thus forced to consider the question that “when the scientists and experts so hotly disagree over matters of fact, which side should he believe?”⁶² This lack of guidance surrounding the issue shifted nuclear anxiety to match the confusion seen in the shelter debates. In December 1961, 49 percent of people believed that their chances of surviving a nuclear attack were either 50-50 or below, while 43 percent believed they had a very good chance of survival. When compared to levels of anxiety in the UK and Canada, where chances of survival were believed to be 50-50 or below by just 34 and 36 percent respectively, public sentiment in the US is effectively reflected by the dramatic shift portrayed in *Life*. In comparison, the strange dichotomy of morbidity and optimism seen in the Kennedy administration's *Fallout Protection* fails as a representation of reality.⁶³ In *Life*'s January 1962 issue in which they retracted their claims about fallout shelters, members of the public expressed their opinions, clearly indicating the disparity of public opinion. One man claimed that “Life has to go on. For that shelters must be big enough for hundreds ... they should be built under federal or state programs”. Others claimed that “the country should be made so strong no one would dare attack us, and we wouldn't need shelters at all.”⁶⁴ Regardless of their stance, the likelihood of nuclear war, brought about by the shelter debates, was a leading topic of discussion. As these public quotations further demonstrate, *Life* had shifted their own perception on the fallout shelter debates to closely resemble the public sentiment of confusion. Therefore, *Life*'s initial articles regarding fallout shelters can be seen to reflect the misinformed civil defence initiatives of the 1950s while its retraction in 1962 represents the shifting public perceptions of nuclear war.

The American public were never convinced of their need to retreat underground, but the period saw a great debate perpetuated by propagandistic civil defence initiatives that failed to reflect nuclear anxieties in an attempt to alleviate them. Instead, civil defence initiatives persisted down a route of normalising nuclear war. On the other hand, *Life* magazine shifted their own perceptions to offer at least some insight into the reality of public anxieties. Kennedy's acceptance of his responsibility to protect the American people

⁶¹ Warren R. Young, ‘Group Shelters are a Start-’, *Life*, (Jan 12 1962), p.38.

⁶² *Ibid.*

⁶³ Hazel Gaudet Erskine, ‘The Polls: Atomic Weapons and Nuclear Energy’, *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.158.

⁶⁴ ‘Everybody's Talking About Shelters’, *Life*, (Jan 12 1962), p.37.

incited the shelter debates through fears over Soviet action in Berlin and the likelihood of nuclear war as an outcome. However, the nuclear anxiety witnessed in the period can be seen to stem from the presence of misinformation and optimism seen in civil defence propaganda throughout the 1950s that seemingly infected the shelter debates.

Conclusion

While speculative nuclear attack articles can be seen to represent elements of misinformation, they were based on understandings of war and destruction witnessed during World War II and did not endeavour to educate but merely to naturalise. This allowed for the stories to be imbued with realistic portrayals of destruction and can therefore be seen to effectively represent the realities of public nuclear anxiety. However, nuclear survival propaganda utilised reassurance and optimism to try and further normalise and educate the public about the same events seen in *Collier's* and other publications. Such attempts tried overly hard to reassure readers and can be seen to fail in their representation of actual anxieties when used as an analytical window into the period. Furthermore, civil defence propaganda in the form of Bert the Turtle and the *Duck and Cover* initiative cannot be said to reflect the anxieties of children either, as their fears were bolstered by attempts to normalise nuclear war through regular air raid drills. Therefore, speculative magazine articles that satiated the audience's appetite for macabre depictions of nuclear attack are more representative of genuine nuclear anxiety in the 1950s.

However, the former separation of civil defence and nuclear speculation which collided in the Operation Alert special edition newspapers saw the blending of both the morbidity that reflected real anxieties and the reassuring optimism that did not. While it cannot be said that the shelter debates witnessed a direct development of this fusion, insofar as they were influenced by media and informed by disparate expert opinion, magazines nevertheless became crucial in determining the trajectory of public anxiety due to their contrasting, misinformed and generally confused advice. Therefore, while speculative articles can be seen to represent early nuclear anxieties, civil defence initiatives did not, with the FCDA's Operation Alert articles drawing together both to incite a uniquely misguided and contradictory attempt at normalising nuclear war.

Much like *Survival*, *Fallout Protection* consisted largely of these attempts to normalise nuclear war through reassurance, an aspect of civil defence that failed to

disappear throughout this period or with the resurgence of civil defence in the 1980s. On the other hand, while *Life* magazine articles presented fallout shelters in a manner that incited confusion, their retraction of such information can in fact be seen to represent the public perception of shelters and the confusion surrounding them. This is indicative of the shift away from nuclear fear in the 1950s towards the anxious confusion of the early 1960s. As the Kennedy administration attempted to fulfil the President's promised responsibility to protect the nation, the debates that ensued caused confusion among the public. While this was worsened by the disparity between experts, civil defence changed little with these shifting perceptions of nuclear war, making such initiatives unrepresentative of the public's nuclear anxieties in both the 1950s and early 1960s.

The following chapter will analyse the manner in which direct depictions of nuclear war and apocalypse in film can be seen to represent the realities of shifting perceptions of nuclear war, so as to understand later representations and inform the analysis of post-Cold War nuclear apocalyptic culture as seen in the video game *Fallout* (1997).

Chapter Two

Nuclear Apocalyptic Films

Following the employment of Hollywood by the US government and Committee of Public Information to spread patriotism invoking propaganda during World War II, the American film industry dominated the international cinema market. Therefore, upon returning to its regular output after the war, Hollywood became a world entertainer and, as a result, “a major propagandizer for the American way of life.”¹ While science fiction magazines had been the first to tap into early nuclear tensions prior to the development of the Soviet bomb, the 1950s, as we have seen, saw a surge in nuclear apocalyptic fiction across a broad spectrum of mediums.² As well as magazines, books were a popular and powerful means of telling nuclear apocalyptic stories. *On the Beach* (1957) offered audiences a glimpse into the depressing futility of survival, *A Canticle for Lebowitz* (1959) chronicled the fictional purging of intellectuals in the aftermath of a nuclear apocalypse and *Level 7* (1959) placed humanity’s survival in the hands of residents and personnel of an underground shelter. But cinema, as a visual medium, more capably tapped into the public’s anxieties, portraying the end of the world, the loneliness of a holocaust and hopes for the future. But while some films might be regarded as propagandistic of “the American way of life”, nuclear apocalyptic films reflected public anxieties, representing an aspect of reality rather than the perception of it which civil defence initiatives can be seen to do.

The first film to directly depict a nuclear apocalypse on screen was Arch Oboler’s *Five* (1951). A deconstruction of public anxieties surrounding radiation and societal renewal, *Five* presents us with multiple representations of nuclear war and apocalypse that represent anxieties of the period. While it contains elements of misinformation regarding the effects of nuclear war and circumstances of a post-nuclear world, the film presents a pessimistic and overall bleak tone that resembles the nature of speculative newspaper articles. While Ray Milland’s *Panic in Year Zero* (1962) is reminiscent of propagandistic attempts to reassure the public and normalise nuclear war, its messy interpretation of moral turmoil in the face of post-apocalyptic survival encapsulates the same confusion seen in media during

¹ Garth S. Jowett, ‘Hollywood, Propaganda and the Bomb: Nuclear Images in Post World War II Films’, *Film & History*, (Vol.18, No.2, 1988), p.30.

² Rose, *One Nation Underground*, (2001), p.41.

the shelter debates. As we have seen, speculative nuclear apocalyptic magazine fiction is an effective tool by which to assess the reality of nuclear anxiety in the 1950s, with the turmoil of the early 1960s reflected in flip-flopping magazine articles. However, propagandistic civil defence guides and education failed to reflect public anxieties or the shifting perceptions of nuclear war throughout the 1950s and into the 1960s. When we compare *Five* and *Panic* with the representations of anxiety previously discussed, to what extent can each film be seen as an effective representation of nuclear anxiety during the period?

The 1950s – Five (1951)

Survival Under Atomic Attack sold itself as a means by which people could learn “the bomb’s true dangers.” *Survival*’s committed optimistic reassurances regarding radiation told the public that “In spite of the huge quantities of lingering radioactivity loosed by atomic explosions, people fortunately are not likely to be exposed to dangerous amounts”.³ But as we have seen, public anxieties did not match the attitudes towards nuclear war that *Survival* suggested. *Five* plays heavily on the fears and anxieties similarly seen in speculative articles, particularly those surrounding the effects of fallout, which, while retrospectively erroneous, can be seen to reflect public anxieties, propped up by same notions of idyllic societal rebirth previously mentioned.

Plot Summary

We are first introduced to Rosanne (Susan Douglas), as she frantically ventures through the mountains and various small towns looking for signs of life. Soon she comes across a house and inside, a man named Michael (William Phipps). Michael tells Rosanne that he survived the deadly, radioactive clouds of nuclear war quite implausibly in an elevator at the top of the Empire State Building. A pregnant Rosanne confesses she was in hospital protected by a lead-lined x-ray room. Soon, Charles (Charles Lampkin) and Mr Barnstaple (Earl Lee) arrive. Both are bank workers who survived by hiding in the bank’s vault. Barnstaple, sick with radiation poisoning, then asks to be taken to the beach. Soon after they arrive, he dies, but not before Eric (James Anderson), the final member of the group, washes up on shore. In the most ludicrous tale of all, Eric recounts how he survived

³ *Survival Under Atomic Attack*, (United States Government Printing Office, 1950), p.3: p.21

the holocaust atop Mount Everest. Convinced the group are all immune to the dust clouds, Eric believes they should go to the city to find more people, while Michael and Charles disagree. Rosanne goes with Eric to the city in search of her husband and when leaving, Eric kills the suspicious Charles. In the city the pair find numerous bodies, one of which belongs to Rosanne's spouse. As Eric changes face, aggressively forcing Rosanne to stay with him, he notices the same boil-like marks on his chest that killed Barnstaple. He runs away and Rosanne walks back to the mountains. But while en-route her new-born baby dies. She eventually finds Michael and the two are left to evidently rebuild the world anew.

Nuclear Depiction

As the film opens, peaceful clouds drift by before giving way to a large nuclear explosion. Superimposed lettering fills the screen as the mushroom cloud expands, informing the audience that this will be "a story about the day after tomorrow". As a second nuclear explosion is seen, another superimposed paragraph appears, further assuring us of the impending fate of humanity: "The deadly wind passeth over it/ And it is gone; And the place thereof/ Shall know it no more..."⁴ Nuclear gases surround famous landmarks in places like Paris, Moscow and New York before an air raid siren can be heard alongside the agonising screams of a dying world.

We are provided with very little sense as to the scale of physical destruction caused by the nuclear attack at the start of *Five* other than that it has killed everyone. Initially, it must be noted that the 1950s saw a large amount of uncertainty regarding the size, scale and side-effects of a nuclear explosion and because of this, Stephens argues, *Five* is able to take many artistic liberties.⁵ These can be seen clearly in the manner in which both Michael and Eric survived. The implausibility of both circumstances detract from the seriousness of the situation by today's standards, but in context they act as believable possibilities considering limited factual understandings at the time. This especially is prevalent when considering that *Survival Under Atomic Attack*, consistently suggests that to "Fall flat on your face" offers a better chance of survival and that the spreading radiation "would be

⁴ *Five*, Dir. Arch Oboler, (Columbia Pictures, 1951), Film: Stephens, 'D is for Doomsday: Five', in Rickman, ed., *The Science Fiction Film Reader*, p.120.

⁵ Stephens, 'D is for Doomsday: Five', in Rickman, ed., *The Science Fiction Film Reader*, p.129.

blocked by the ground or by buildings.”⁶ The same absurdity can be said for all the circumstances under which the group survived as none offer any assurance of protection in reality.⁷ However, Oboler does well to highlight legitimate notions of lingering radiation as Michael stresses that “It’s the cities themselves, where the bombs fell the radiation’s thickest.”⁸ Much like how speculative magazine and newspaper articles were based more around sensationalism, as previously mentioned, *Five* can be seen to contain similar misconceptions of the effects of nuclear war and radiation. But much like such articles, this does not stop *Five* from representing nuclear anxieties in its use of tone. Rather than the effects of radiation being the prevalent issue, it is the character’s fear of radiation in the cities that reflects reality, thereby creating an accurate representation of anxiety.

While the liberties taken by Oboler might call into question the film’s quality by more modern standards, the film’s intention was to be a cautionary and dramatic message.⁹ Due to this, instead of considering its misperceptions of nuclear effects, its reception in



Figure 3 - Screenshot from *Five*, Dir. Arch Oboler, (Columbia Pictures, 1951), Film.

⁶ *Survival Under Atomic Attack*, (United States Government Printing Office, 1950), pp.6-10.

⁷ Stephens, ‘D is for Doomsday: Five’, in Rickman, ed., *The Science Fiction Film Reader*, p.129.

⁸ Perf. William Phipps, *Five*, Dir. Oboler, Film.

⁹ Bill Warren, *Keep Watching the Skies!: American Science Fiction Movies of the Fifties, Vol. I*, (McFarland & Company, Inc., 1982), p.30: Stephens, ‘D is for Doomsday: Five’, in Rickman, ed., *The Science Fiction Film Reader*, p.129.

1951 must be considered by the standards of both its cautionary intent and its reflection of nuclear anxiety. As Stephens rightly points out, “it is contaminated by anxieties that were prevalent in the year of its making”, encapsulating “The fear of the Great Fire and death-by-radiation” that runs “in its bones.”¹⁰ For these reasons it must be contended that the film’s factually liberal depiction of nuclear war, while possibly damaging to the audiences’ understandings of the topic, reflected public sentiment towards the possibility of an atomic holocaust, as specified in chapter one. But this is just one crucial aspect of Oboler’s representation of this setting.

Another key feature used by Oboler in depicting the apocalypse is the overwhelming sense of emptiness, as shown in figure three. Rather than the attempt to portray frantic paranoia and fear like Ray Milland does in *Panic in Year Zero*, Oboler elected for the opposite. But this presents an altogether unique issue. The notion that a nuclear disaster could wipe out all life, sparing only five people, is “an overstatement”, Ernest Martin contends, that serves to create “misconceptions about potential nuclear warfare.”¹¹ But while these misconceptions were worsening as a result of public confusion and fear invoked by a lack of information and helplessness, it cannot be said that *Five* perpetuated such notions among the public. An American Institute of Public Opinion (AIPO) poll from June 1950 shows that 19 percent of those interviewed agreed that another world war could mean the end of mankind. A second poll in September 1955 shows an increase, as 27 percent of people now believed that a war between the US and Russia would mean the end of mankind.¹² While this cannot prove or disprove Martin’s concern that *Five* perpetuated misconceptions, it shows that regardless, *Five* reflected a shift in nuclear anxieties and gradually worsening perceptions of nuclear war between 1950 and 1955, even if that shift is only minor.

However, as Warren rightfully states, the film’s focus on a solemn world and its “moralizing tone” act only to “hinder appreciation” of it.¹³ While this is true, it is also a

¹⁰ Stephens, ‘D is for Doomsday: Five’, in Rickman, ed., *The Science Fiction Film Reader*, p.129.

¹¹ Ernest Martin, ‘Five’, in Jack Shaheen, ed., *Nuclear War Films*, (Southern Illinois Press, 1978), p.12-15.

¹² Hazel Gaudet Erskine, ‘The Polls: Atomic Weapons and Nuclear Energy’, *Public Opinion Quarterly*, (Vol.27, No.2, 1963), p.162.

¹³ Warren, *Keep Watching the Skies! Vol. I*, p.29.

critical element of the film's representative capabilities. While today, *Five* can be seen as bleak and dry, when considered in the context of its release period, its serious subject matter and downbeat tone tackled "a theme that was on everyone's mind in the early 1950s."¹⁴ Therefore, its release, which at the time was met with generally favourable reviews, "typified the nuclear war film".¹⁵ In doing so, *Five's* theme of nuclear attack and holocaust were popularised in American cinema, later to be seen in films like *The World, the Flesh and the Devil* (1959), *On the Beach* (1959) and *Panic in Year Zero* (1962). However, more can be said for its other, often more dominating themes. These predominantly concerned the notions of a biblical societal rebirth, reminiscent of the biblical purges seen in speculative articles and used to incite misguided preparedness by the Office of Civil Defense.¹⁶ This focus was also well in-step with the mood of helplessness that pervaded American society in the mid-century.¹⁷

Societal Renewal

To understand the film's representation of a societal rebirth, we must first look at the disparity between the characters. Eric, a totalitarian racist who believes himself to be of Aryan descent, enters the small community only to abruptly and selfishly tear it apart. He threatens the group and thus Michael's idyllic ideas of a new and better world, which is yet another prolific theme of the genre, popularised by *Five*.¹⁸ Both Michael and Charles are decent, likeable men, made relatable by each one's general dissatisfaction with life. Charles is held back by his skin colour while Michael never attained the success he believes his university degree afforded him. Eric, on the other hand, is arrogant and successful. In ignoring Michael's role as the accepted societal leader and in his impersonal treatment of Charles as a black man, Eric's deceitful and despicable actions serve as an allegory for the violence and hatred that tore apart the previous society.¹⁹ Indicative of what would come of society with the allowance of such malicious ways, the audience is taught to hate Eric as the

¹⁴ Warren, *Keep Watching the Skies! Vol. I*, p.30.

¹⁵ Cited in Warren, *Keep Watching the Skies! Vol. I*, p.30: Martin, 'Five', in Shaheen, ed., *Nuclear War Films*, p.14.

¹⁶ Warren, *Keep Watching the Skies! Vol. I*, p.120.

¹⁷ Stephens, 'D is for Doomsday: Five', in Rickman, ed., *The Science Fiction Film Reader*, p.119.

¹⁸ Warren, *Keep Watching the Skies! Vol. I*, p.119.

¹⁹ *Ibid.*, p.124.

“ordinary” human as he represents the corruption and sin that consumed the pre-apocalyptic world. As a result, the film suggests that a new world is indeed attainable through the destruction of the old, but only through the eradication of all that made the old world collapse. The racially motivated murder of Charles is representative of this attitude as his role as the only black character exists predominantly to prove Eric as the symbol of racism and corruption. When this is compared to some later notions of race in survivalist fiction, as shown by *The World the Flesh and the Devil*, in which “Race became meaningless when compared to the survival of humanity itself”, it is apparent that the survival of non-white people takes a backseat in Oboler’s post-apocalypse.²⁰

While the links between a biblical judgment and nuclear war can be seen in speculative magazine articles, they find their roots elsewhere. The first test of the atom bomb saw Robert Oppenheimer express his solemnity in a quote from Vishnu in *The Bhagavad Gita* (1885), declaring that “I am become Death, destroyer of worlds”.²¹ While



Figure 4 - Screenshot from *Five*, Dir. Arch Oboler, (Columbia Pictures, 1951), Film.

²⁰ Warren, *Keep Watching the Skies!: Vol. II*, p.375.

²¹ Robert Oppenheimer, quoting from *The Bhagavad Gita*, July 12 1945, <http://www.sacred-texts.com/hin/gita/>, last accessed 24 Jun 2016; M.M. Lisboa, *The End of the World: Apocalypse and its Aftermath in Western Culture*, (Open Book Publishers, 2011), p.21: Accessed via 'J. Robert Oppenheimer "I am become death, the destroyer of worlds."' Online Video Clip. Youtube. Accessed 11 Sept 2016, <http://bit.ly/2cmITTF>.

this has been removed from its intended context, the notion of man becoming god-like in his destructive abilities is apt in relation to *Five* as an early depiction of such concerns: as previously mentioned, the emptiness and solitude seen in the film taps into anxieties relating to nuclear war being the end of mankind. However, what this quote shows us is that prior to the invention of the atomic bomb and the creation of culture surrounding it, mankind's closest sense of worldwide cataclysm came from religious text, with only natural disasters being the closest tangible means of disaster.²² After all, Western narratives, starting with the Old and New testaments, have focused on a moral conclusion in the face of the end of the world heralding a new beginning, such as the destruction of Garden of Eden.²³ It therefore seems logical that in an age of uncertainty and helplessness in the face of this destructive creation, people would look to traditional narratives to provide these moral messages. While *Five* does not necessarily concern itself with godlike notions of destruction beyond its depiction of emptiness, the world created by such an event is one which has an allegorical resemblance to the Book of Revelation.

Such similarities are depicted in Michael's continual and unimpeded working of the land which not only presents the audience with an idyllic notion of the end of the world, but also provides a more biblical perspective, setting up Eric to represent the remaining evils of the old world as he tries to hinder Michael's efforts. Furthermore, consider that from the side of the house flows a spring, as seen in figure four, much like "the river of the water of life, bright and crystal, flowing from the throne of God and of the Lamb", as described in the Book of Revelation.²⁴ It is as if everyone but Eric was led to their protective land after the evils of the old world were seemingly gone. Stephens even contends that the death of Rosanne's child can be seen as an act by a "cruel God", punishing "her for returning to a "forbidden", or poisoned city" as her dreams of family cannot exist in this world and "her destiny is unavoidably tied to the proliferation of her kind, the reproduction of many for the common good."²⁵ God purges Rosanne of her attachment to the old world as she represents the hopes for the future. With these aspects of a biblical apocalypse in place, the film's ending, which sees Michael and Rosanne left alone to restart society after Eric's societal evil

²² Monteyne, *Fallout Shelter*, pp.17-18.

²³ Lisboa, *The End of the World*, pp.8-9.

²⁴ Revelation 22:1, *The Holy Bible*, English Standard Version, (Crossway, 2011), p.673.

²⁵ Stephens, 'D is for Doomsday: Five', in Rickman, ed., *The Science Fiction Film Reader*, pp.125-126.

is removed, is set up to represent the idyllic world that was toyed with in speculative nuclear attack articles, used by civil defence planners and summarised in *Five* by Michael –

... it's like the world was starting all over again. We've got a new chance. To make the world that everyone used to talk about. We've got that chance, let's make the most of it. Let's not make the mistakes they did, the millions of them. Let's not be at each other's throats. Let's work together, live together, like friends.²⁶

Here, Michael encapsulates the hopes of the audience that the world will get better, thereby similarly reflecting an aspect of nuclear anxiety. Meanwhile the bleak tone of the film separates it from unrepresentative civil defence propaganda as the ending presents a new beginning at the expense of everyone except Michael and Rosanne.

The helplessness of the American public is conveyed by the bleak depiction of an empty, lonely and deadly world, and traditional religious narratives succeed in imbuing the film with a resounding representational appeal. While the film is undeniably replete with misconceptions regarding the effects of nuclear war, as we have seen in chapter one, public anxieties related more to pessimistic perceptions of such possibilities. Even if those perceptions ended with the rebirth of society, they would more often than not present destruction and misery before such an event took place. *Five* can be seen to do much the same, therefore offering, much like *Collier's 'Hiroshima U.S.A.'*, an accurate representation of nuclear anxieties in the 1950s.

The 1960s – Panic in Year Zero (1962)

Just as *Five* represented the nuclear anxieties of the early 1950s, *Panic* can be seen to represent the confusion of its own period as induced by the shelter debates. However, rather than creating the reflective representation intentionally, *Panic* is a mess of narrative ideas that accidentally mirror the era of its release. The notion of biblical purging and societal rebirth are absent here; instead, *Panic's* focus shifts in line with the changes in anxieties during the shelter debates to represent moralistic concerns primarily regarding the survival of family. The film has a number of continuity issues in regards to the writing and

²⁶ Perf. William Phipps, *Five*, Dir. Oboler, Film.

directing that make it difficult to successfully analyse its muddled representations of radiation and individual survival, therefore, instead, this section will focus on the film's portrayal of morals in regards to family.

Plot Summary

The film opens with the Baldwin family packing their car to go on a camping trip. Harry Baldwin (Ray Milland), his wife Ann (Jean Hagen) and their two children Rick (Frankie Avalon) and Karen (May Mitchell) are soon on their way out of Los Angeles. After travelling for a short while the family see a bright flash. Assuming it to be the worst, they tune into the radio and hear nothing. Instead, they see a mushroom cloud rising from the LA skyline. As the family attempt to return to LA to save Ann's mother they quickly change track when they begin to witness the disintegration of society. Instead of returning to LA, Harry decides that the family should seek refuge in the mountains until civilisation returns. They stop in a nearby town, as yet untouched by the turmoil of nuclear war, to buy supplies. Harry lacks the money to pay the hardware store owner, Ed Johnson (Richard Garland), and instead robs him at gun point, promising to pay him back. The Baldwins leave, only to soon be accosted by three young men on the road. Rick scares them off and the family continue. Eventually the Baldwins reach their destination. After living peacefully for a short while, they discover that the store owner, Johnson and his wife are living nearby. But soon after, Harry discovers the Johnsons dead – killed by the young men from before. Later, Karen is raped by these same men before Ann drives them off. Once they hear about it, Harry and Rick track down the youths to a local house where the men have taken a girl named Marilyn (Joan Freeman) captive and killed her parents. Harry proceeds to kill them and save Marilyn, but the third youth, Carl (Richard Bakalyan), is absent. Soon Carl shows up at the family camp and shoots Rick. Marilyn exacts her revenge, killing Carl immediately afterwards. The family rush Rick to a nearby doctor who tells them to seek help with the army. As they arrive at the army outpost they are told that the radiation from the attack is receding and civilisation returning, marking the end of the film.

'Gun-Thy-Neighbor?'

While *Five* presented an apocalypse in which survival was possible but extremely unlikely, what differentiates *Panic* is the notion that surviving nuclear war is more likely but is only a possibility if certain morals are abandoned and others adopted. While this moral commentary is largely formed by the film's own inability to decide on a specific moral message it nonetheless exemplifies the shift in nuclear anxieties since *Five*. Primarily, the moral questions posed by *Panic* are seen in regards to an all-American family from suburban Los Angeles, which serves to ground the extreme circumstances and makes the film approachable for the viewing audience. This is especially prevalent as the opening scene of the film, in which the family are loading the car for their vacation, is reminiscent of family-based, American television, situation comedies of the time, such as *Father Knows Best* (1954-60) and *Leave it to Beaver* (1957-63).²⁷ While *Panic* was released after both *Five* and *The World, the Flesh and the Devil* it does even less to associate itself with matters of race as non-white characters are completely disregarded. Instead we see that survival in *Panic* is only for suburban families – fifty-percent male, fifty-percent female and one hundred-percent white.

Harry Baldwin takes the role of all-knowing patriarch, Ann is the loving yet worrisome mother, Rick is the steadfast, "Son Who Grows Up" and Karen is the damsel-like, ignorant teenage daughter, similar to Frederick Kohner's *Gidget* book series.²⁸ Upon seeing the flashes of nuclear attack, Harry, all too suddenly begins his role as the all-knowing, family defender by correcting Ann's optimism that the light may have come from Las Vegas. They each see the mushroom cloud and Rick spurs his father into action by morbidly stating "We've had it Dad, haven't we?"²⁹ From here the film introduces its focus of survival in the nuclear world. However, it predominantly represents Harry's need to protect the family. An exchange between Ann and Harry early on in the film neatly sums up Harry's newfound, post-nuclear values –

²⁷ 'Panic in Year Zero', *Conelrad*, <http://bit.ly/28BR4Eg>, last accessed 14 June 2016: Warren, *Keep Watching the Skies!: Vol. II*, p.681.

²⁸ Warren, *Keep Watching the Skies!: Vol. II*, p.684.

²⁹ Perf. Frankie Avalon, *Panic in Year Zero*, Dir. Ray Milland, (American International Pictures, 1962), Film.

Harry: Look sweetheart, for the next few weeks, survival is going to be on an individual basis. At the moment, we have to have food, a way to protect it and a way to get more when it's gone.

Ann: What do you want to do? Write off the rest of the world?

Harry: When civilization gets civilized again, I'll re-join.³⁰

In this moment, the audience is placed on Harry's side as he tries to protect the family. But soon, Harry's choices make his moral character questionable and extremely relevant to the period. The fallout shelter debates were heavily embedded with this sense of moral ambiguity towards how one should treat other survivors. In an article in *Time* magazine entitled 'Gun Thy Neighbor?', a member of the public stated that once he had constructed his shelter he would "mount a machine gun at the hatch to keep the neighbours out if the bombs fall."³¹ This is one of the most frequently cited articles of the fallout shelter controversy and was a crucial aspect of editorial discussions and arguments, to the point where the topic became known as the gun-thy-neighbour debates.³² Many spoke out against this stance, claiming that "they plan to take in as many neighbours as possible in addition to their own families."³³ The political journalist, Norman Cousins, believed that "The individual



Figure 5 - Screenshot from *Panic in Year Zero*, Dir. Ray Milland, (American International Pictures, 1962), Film.

³⁰ Perf. Ray Milland and Jean Hagen, *Panic in Year Zero*, Dir. Ray Milland, (American International Pictures, 1962), Film.

³¹ 'Gun Thy Neighbor?', *Time*, (August 18 1961), p.58.

³² Rose, *One Nation Underground*, pp.93-94

³³ 'Gun Thy Neighbor?', *Time*, (August 18 1961), p.58.

must make up his own mind based on his own best understanding of the range of probabilities in a nuclear war and his own philosophy of life” as the Office of Civil Defense held no official stance on the matter.³⁴

This moral ambiguity is witnessed on screen as Harry is initially cautious and cagey towards others. He shows extreme distrust towards strangers, as figure five demonstrates, for the sake of protecting his family until the film’s climax. At this point Ann’s near-constant, never changing moralistic reminders towards Harry eventually and quite unbelievably cause him to lose almost all scepticism towards strangers. He quickly and with little debate agrees to invite the hardware store owner, Ed Johnson, back to their camp, despite him being one of the few characters with a genuine reason to dislike Harry. While this presents a strange change of mind, it portrays both sides to gun-thy-neighbour debates as Harry can be seen to finally see the moral light. In terms of quality, this is poorly written and executed as a plot point, but in terms of its representation, *Panic* can here be seen to match the changing attitude of *Life* magazine that quickly changed their stance towards fallout shelters following criticisms arising from disparate public and expert opinion.

The gun-thy-neighbour debates are further represented when Ann is given a moment of moral change when she fires upon two men assaulting Karen. Here the film attempts to depict Ann as human and thus capable of violence despite questioning Harry’s actions throughout the film. Ann’s violence is an act of defence – a call to arms without time to consider. This is representative of the gun-thy-neighbour debates which saw people claim that “If you allow a tramp to take the place of your children in your shelter, you are in error.”³⁵ Ann can be seen to be enacting one side of the moral ambiguities of the period as she shoots at the two men to defend Karen. Harry on the other hand represents another aspect of these moral questions as his tumultuous moral journey comes to a head when he kills the two men who raped his daughter.

After committing this act, Harry solemnly states “I look for the worst in others and I found it in myself.”³⁶ While this character transition is poorly written, it nonetheless represents elements of the gun-thy-neighbour debates. Arguably, Harry’s actions are

³⁴ Norman Cousins, ‘Shelters, Survival, and Common Sense’, *Saturday Review*, (October 21 1961), p.66: Rose, *One Nation Underground*, p.98.

³⁵ “Gun Thy Neighbor?”, *Time*, (August 18 1961), p.58.

³⁶ Perf. Ray Milland, *Panic in Year Zero*, Dir. Ray Milland, (American International Pictures, 1962), Film.

warranted under the beliefs of many as “The family unit is assumed to be the most important single element of civilization” and thus “morality is a function of family survival” meaning that “anything done to keep the family intact is judged to be moral”.³⁷ This is where the film presents an unintentionally, particularly confused, yet representative depiction of the period. Despite Harry’s inclination that he has gone too far, the film contradicts its protagonist by deeming it an act of defence to protect the family. Harry’s actions creates questions among the film’s audience, who themselves were split in regards to the shelter debates in general, as discussed in chapter one. Warren contends that this supports the notion that to survive the collapse of civilisation one must “be ruthless, brutal, violent – and be those things *first*” before anyway beats you to it.³⁸ The message presented here poses several questions to the audience as to whether Harry was right in his actions, and what they mean for civilisation. But arguably, his actions are unintentionally representative of a pro-gun-thy-neighbour stance, as the family’s survival suggests that Harry has done well. Despite Ann’s moralistic conflict with Harry and Harry’s regret over killing, initially Harry wins and the audience can see his actions as fruitful.

While the film’s reflection of such moral questions can often struggle to pick a definitive side due to continuity errors in the film's plot, they nonetheless represent the reality of the shelter debates through its decision to adopt a pro-gun-thy-neighbour stance for the sake of protecting one’s family. While this cannot be said to reflect the period in its entirety, it is clearly indicative of the shift in nuclear anxieties towards a focus on survival in fallout shelters and moral values towards other people.

Conclusion

Over the course of the 1950s and into the 1960s, nuclear anxieties shifted dramatically, with the Berlin Crisis and the shelter debates causing the greatest change to public perceptions. While chapter one discussed the reflection of public anxieties in speculative attack articles, here we can see that nuclear apocalyptic film are a continuation of such representations, depicting with greater fidelity the same concerns that the US public had.

³⁷ Warren, *Keep Watching the Skies!: Vol. II*, p.682.

³⁸ *Ibid.*, p.681.

Five's creation of a bleak and depressing post-apocalypse was the first time such a situation had been witnessed on screen. The film successfully reflects the sense of pessimism that the public largely felt towards nuclear war. In relation to concerns regarding fallout and total destruction that could be caused by nuclear war, *Five* succinctly represents the anxieties previously discussed. As well as this, it heavily implies a sense of hope behind its pessimistic tone, as its morbid attitude collides with religious perceptions of societal rebirth to mirror speculative magazine articles further. This juxtaposes any sense of reassurance seen in civil defence initiatives as the general morbidity of the film means its biblical allegory creates a commentary on the world before nuclear annihilation rather than presenting the apocalypse as a survivable situation. *Five* can therefore be seen as an accurate representation of anxieties in the period as well as opposing the messages presented by civil defence initiatives.

Panic effectively reflects the public anxieties and confusion invoked by the fallout shelter debates. While there are multiple meanings to *Panic* that have not been discussed here, but what we can see is that the film initially asks its audience to align itself with a moral perspective. While Harry represents the survivalist willing to do anything to protect his family, Ann is the moral constant. Poor writing and direction cause the film to prematurely abandon these questions in favour of a pro-gun-thy-neighbour stance, but the film's reflection of the early 1960s stands, allowing for an accurate representation of the period in regards to the moral ambiguities of the fallout shelter debates.

Each film clearly demonstrates shifting anxieties over the course of the period, and when compared with civil defence initiatives discussed in chapter one can be considered accurate representations of such sentiment. However, the representational disparity between nuclear apocalyptic culture and civil defence initiatives analysed in these first two chapters continue in to the 1980s, and will be seen to heavily influence *Fallout's* own representational capacity, as the game utilises these representations and misrepresentations extensively.

Chapter Three

Ronald Reagan & the Strategic Defence Initiative

This chapter will analyse several aspects of President Ronald Reagan's attitudes and actions towards the Soviet Union during the early and mid-1980s in order to assess the reasons for the revival of nuclear anxiety in the US, as reflective nuclear apocalyptic culture will be seen to tap into specific characteristics of the period. This resurgence of nuclear anxiety followed a period of greater public understanding of nuclear war. People no longer looked to pessimistic fantasies for answers but instead towards their national leaders, as since 1963 and the Partial Test Ban Treaty, diplomacy was offering the nation and the world progressive steps towards nuclear peace.¹ It is therefore the case that the speculative magazine culture of the 1950s/60s was no longer a prevalent medium reflective of public anxieties, so representations of such anxiety are better seen elsewhere. While chapter four will analyse competing representations in the video games *Missile Command* (1980) and *Wasteland* (1988), two contextually contemporary cultural representations of nuclear anxiety, this chapter will directly assess nuclear anxieties in relation to persistently unchanging civil defence initiatives. This will be done to evaluate the manner in which such initiatives once again failed to align with contextual perceptions of nuclear war, upon which chapter four will form its analyses.

The Early 1980s

In its second issue of 1980, *Time* magazine astutely noted that "It was as though a time warp had plunged the world back into an earlier and more dangerous era."² While the Cuban Missile Crisis of 1962 had arguably been the height of the nuclear anxiety, in the years following, the US and USSR found themselves on smoother diplomatic ground. In order to reduce the chances of an incident like the Cuban Missile Crisis happening again, a direct hotline between Washington D.C. and Moscow was installed, allowing each leader to more easily communicate with the other. With this set up, the two nations were able to strive towards an easing of tensions, exemplified by the Partial Test Ban Treaty in August 1963, the Outer Space Treaty in January 1967 and the Nuclear Non-proliferation Treaty in July

¹ Weart, *The Rise of Nuclear Fear*, p.228.

² "'My Opinion of the Russians Has Changed Most Drastically...'", *Time*, (Jan 14 1980), p.10.

1968. Each of these treaties shaped the building blocks on which détente was formed. As Moscow sought talks to limit strategic arms for the sake of security in Europe, the Nixon administration agreed, resulting in the signing of the Strategic Arms Limitation Treaty (SALT) in 1972. While new weapon developments quickly made SALT outdated, talks regarding SALT II started in 1972, but after years of negotiating difficulties, the talks collapsed following the Soviet invasion of Afghanistan on December 24 1979.

President Ronald Reagan took office on January 20 1981, following a tumultuous end to Jimmy Carter's presidency, the ending of which is characterised by his dramatic increase of the defence budget.³ Reagan expanded on this spending, presenting a strong and aggressive front to the Soviets, who he believed to be ahead of the US in the nuclear arms race. This aggression is of key importance as it sets in motion a resurgence of nuclear anxiety and a return to civil defence initiatives. As the Reagan administration increased arms spending and reintroduced civil defence planning that reflected the initiatives of the 1950s/60s, they were able to convert many of their political critics to support them, eventually and practically justifying the President's aggressive stance towards the Soviets to the US public and critics of the administration by spinning their political rhetoric to be perceived as heroic.

For much of his life, Ronald Reagan had painted the Soviets as "almost all black", while, in his inaccurately noble view of American history, the US was "white".⁴ But for Reagan this vision meant more than accepting the status quo of the Cold War like several of his political contemporaries – e.g. George H. Bush – were inclined to do. Instead, he sought to "break the stalemate" using communication.⁵ His overly simplistic view of politics and his ability to eloquently convey these opinions is perhaps the reason that polling data from the 1980 and 1984 general elections show the public to be consistently more supportive of Reagan's personality than of his policies.⁶ But this did not mean that support for his policies was absent. After years of being told that the stalemate of US-Soviet relations was simply a fact of life, Reagan's decisive tone inspired new found optimism for the Soviet Union's

³ "My Opinion of the Russians Has Changed Most Drastically...", *Time* (January 14 1980), pp.10-11.

⁴ Betty Glad, 'Black-and-White Thinking: Ronald Reagan's Approach to Foreign Policy', *Political Psychology*, (Vol.4, No.1, 1983), p.44.

⁵ Gaddis, *The Cold War*, p.218.

⁶ Cited in Dan Thomas and Larry R. Baas, 'Ronald Reagan in the Public Mind', *Political Psychology*, (Vol.14, No.1, 1993), p.56.

demise.⁷ It was this attitude of aggression towards the Soviet Union that greatly contributed to nuclear anxiety in the period.

Ronald Reagan had spent a large portion of his early career as a Hollywood actor. Attaining moderate success as an actor prior to WWII, Reagan had become the president of the Screen Actors Guild during the communist purges of the late 1940s and 1950s, as a part of which he assisted in House of Un-American Activities Committee (HUAC) hearings as a witness to supposed communist actions in Hollywood.⁸ As such, Reagan's view of the Soviets was one formed by Hollywood - Communists were the villains and the West was the heroic saviour.⁹ This opinion was portrayed on June 8 1982 when Reagan gave a speech to the British Parliament in which he reaffirmed his stance towards the USSR, boosted by Communist action in Poland against Lech Walesa, strongly stating that the communist nation "runs against the tide of history" and that "The decay of Soviet experiment should come as no surprise."¹⁰ But this attitude was best exemplified less than one year later, when on March 8 1983, in a speech delivered to the National Association of Evangelicals, Reagan infamously referred to Soviet policy as the "aggressive impulses of an evil empire".¹¹

However, this attitude of aggression was signposted far earlier. Ronald Reagan won a landslide presidential victory, allowed for by his "jaunty self-confidence" that ably instilled public trust in him.¹² This was also partially thanks to the poor public opinion of Carter, whose approval ratings, while never particularly consistent, plummeted to a near all-time low in late 1980. Carter, who alienated his support base with a resurgence of arms expansion, left Reagan with an inheritance of a foreign policy that suited his aspirations. What Carter started as mere covert military aid to the resistance movement in Afghanistan, Reagan transformed into a refined effort to train Mujahidin fighters, supply them with arms

⁷ Gaddis, *The Cold War*, p.223.

⁸ 'House Un-American Activities Committee Testimony, Ronald Reagan', (Oct 23 1947), <http://bit.ly/2cAX8qd>, last accessed 11 Sept 2016: 'Screen Actors Guild Presidents, Ronald Reagan, 1947-1952, 1959-1960', *SAG History*, <http://bit.ly/2cvApgy>, last accessed 11 Sept 2016.

⁹ Matthews Jr., *Duck and Cover*, pp.160-161.

¹⁰ Ronald Reagan, 'Address to Members of the British Parliament', (Palace of Westminster, London, UK, June 8 1982), <http://bit.ly/2c7vTVm>, last accessed 02 Aug 2016.

¹¹ Ronald Reagan, 'Remarks at the Annual Convention of the National Association of Evangelicals in Orlando, Florida', (Sheraton Twin Towers Hotel, Orlando, Florida, USA, March 8 1983), <http://bit.ly/2c7wAhn>, last accessed 02 Aug 2016.

¹² Gaddis, *The Cold War*, p.218.

and generally fund all anti-Soviet operations in the region.¹³ Reagan's ability to adeptly communicate and justify actions such as these to the public gained him support. Regularly, *Time* magazine's opinion column printed public letters in support of the President's aggressive policies - "History proves that white men with guns kill, those without arms or with inferior weapons die. Common sense dictates that we and our allies stay well armed."¹⁴ With his approval rating rising to 68 points in May 1981, Reagan set about the continuation of Carter's arms build-up, instigating a five-year defence plan, which increased the budget to \$1.6 trillion.¹⁵ With this increased budget, Reagan introduced new guidance directives which advocated the creation of plans to fight a nuclear war with the Soviet Union, a stance that convinced many of his willingness to fight in one.¹⁶ He urged that in such an event, the "nuclear decapitation" of the USSR's political and military leadership should be the focus, stressing that America must "prevail".¹⁷

While his approval ratings steadily declined in the second half of 1981, the majority continued to support this decision.¹⁸ Seeing Carter's administration as too soft, they were satisfied with Reagan's attitude, and the previously favourable US public opinion of the Soviet Union seen in the early 1970s waned throughout the decade to match Reagan's stance.¹⁹ This aggressive posture saw the Reagan administration increase spending on nuclear weapons by 40 percent in an attempt to achieve Reagan's ambitions of winning a nuclear war. This push to increase arms brought with it new life for programmes of US civil defence.²⁰ Deputy Under Secretary of Defence T. K. Jones, in a 1981 interview with the *Los Angeles Times*, stated that the American public could withstand and even survive a nuclear attack. In a manner mirroring the propagandistic optimism of the 1950s, he said "Dig a hole,

¹³ 'Towards an International History of the War in Afghanistan, 1979-89', *The Woodrow Wilson International Centre for Scholars*, <http://bit.ly/1Wspwgq>, (April 29 2002), last accessed 28 May 2016.

¹⁴ 'Letters: Selling Arms', *Time*, (November 16 1981), p.12.

¹⁵ 'Presidential Job Approval: F. Roosevelt (1941) – Obama', *The American Presidency Project*, <http://bit.ly/2aUbsNc>, last accessed 14 Aug 2016.

¹⁶ Matthews Jr., *Duck and Cover*, p.161; Weart, *The Rise of Nuclear Fear*, p.231.

¹⁷ Jeremy Isaacs and Taylor Downing, *Cold War: An Illustrated History*, (Little, Brown and Company, 1998), pp.333-334: Cited in Matthews, *Duck and Cover*, p.161.

¹⁸ 'Presidential Job Approval: F. Roosevelt (1941) – Obama', *The American Presidency Project*, <http://bit.ly/2aUbsNc>, last accessed 14 Aug 2016.

¹⁹ Tom W. Smith, 'The Polls: American Attitudes Toward the Soviet Union and Communism', *Public Opinion Quarterly*, (Vo.47, No.2, 1983), p.277.

²⁰ Matthews Jr., *Duck and Cover*, p.162.

cover it with a couple of doors and then throw three feet of dirt on top ... It's the dirt that does it ... If there are enough shovels to go around, everybody's going to make it."²¹ The Joint Chiefs of Staff and Office of Management and Budget rejected such notions, but the administration chose to endorse a new programme of civil defence.²²

In 1979 the Federal Emergency Management Agency (FEMA) had been established. It consolidated numerous disaster relief based agencies, including the Department of Defense's Defense Civil Preparedness Agency, who were previously responsible for civil defence. Following the Reagan administration's backing of a civil defence budget, FEMA initiated a seven-year plan estimated to cost \$4.2 billion. The new civil defence plans included the mass evacuation of millions of civilians to the countryside, with people irrationally believing that a warning of nuclear attack would allow them a week to prepare.²³ FEMA acknowledged the messy absurdity of such a plan, but accepted it on the grounds of there being little other choice than to roll over and accept fate. The administration also toyed with the possibility of building shelters but rejected the idea as the project was estimated to cost \$70 billion. Instead, FEMA elected for temporary shelters to be constructed in rural areas by evacuees. On top of this, government officials prepared instructions for sustaining the economy after a nuclear attack.²⁴

But FEMA's survival guidance was met with confusion from critics who found the advice in the organisation's multitude of pamphlets to evoke a familiar sense of reassurance and optimism with their "calm, chatty descriptions of how to survive nuclear war", as columnist Ellen Goodman described them. She went on to say that "It's not surprising that the Reagan administration, which talks increasingly of nuclear-war-fighting as another option, is in favour of beefing up civil defense planning."²⁵ Congressman Edward Markey told the House of Representatives that no matter the level of planning, civil defence is merely "a band-aid over the holocaust", while other critics agreed, as they had in previous decades, that civil defence would never effectively protect the nation from nuclear war.²⁶

²¹ Cited in Allan M. Winkler, *Life Under a Cloud: American Anxiety about the Atom*, (1993: University of Illinois Press, 1999), p.133.

²² Matthews, *Duck and Cover*, p.163.

²³ Winkler, *Life Under a Cloud*, p.133.

²⁴ Matthews, *Duck and Cover*, p.163.

²⁵ Ellen Goodman, 'Ellen Goodman', in *Lawrence Journal-World*, (Feb 2 1982), p.5.

²⁶ Winkler, *Life Under a Cloud*, p.133.

While FEMA created survival guides that matched contextually contemporary understandings of the effects of nuclear war, which included succinct descriptions of fallout and other aspects of nuclear attack, they nonetheless fell afoul of the same reassuring optimism that can be seen to persist since 1950's *Survival Under Atomic Attack*. In fact, in their slightly later 1984 guide, *Protection in the Nuclear Age*, FEMA even said of evacuation that one should keep informed, claiming that "Any attack on the United States probably would be preceded by a period of growing international tension" meaning that "you would have time to take a few preparedness measures which would make evacuation easier".²⁷ This perception of the chances of evacuation remained reminiscent of the optimism seen in the 1950s and 1960s as it attempted to normalise and reassure the public of the same survivability seen in both *Survival* and *Fallout Protection*.

Prior to this resurgence under Reagan, civil defence planning had all but disappeared except in the form of non-official information guides. While there were several, the best example is Cresson Kearny's *Nuclear War Survival Skills* (1979), which provides the most detailed account of survival tips. However, backhandedly complimenting Kearny's book, the *Bulletin of Atomic Scientists* stated that while it presents "elaborate diagrams for building shelters; testing for radiation with a homemade meter; providing for ventilation, filtration of water and sanitation", it deals "only with short term survival, two weeks or so until the radiation subsides."²⁸ Bruce D. Clayton's *Life After Doomsday: A Survivalist Guide to Nuclear War and Other Major Disasters* (1980) borrowed heavily from Kearny's guide, but still lacked advice about long-term survival. Summarising both books, the same *Bulletin of Atomic Scientists* review recommended that "the best and certainly most honest publication is probably *The Official Government Nuclear Survivors Manual: Everything that is Known about Effective Procedures in Case of Nuclear Attack*", a guide in which each of its 192 pages are blank.²⁹ As Bill Adler, the guide's publisher said of it, "We thought the American public should be brought up to date on everything the Government is doing on its behalf. In our opinion, that knowledge may well be America's only hope for survival."³⁰ Published in 1982,

²⁷ *Protection in the Nuclear Age*, (FEMA, U.S. Government Printing Office 1984), pp.12-13.

²⁸ Gaddis Smith, 'Reviews: Gaddis Smith reviews', *Bulletin of Atomic Scientists*, (Vol.39, No.6, 1983), p.29.

²⁹ *ibid.*, p.29.

³⁰ Phil Gailey and Warren Weaver Jr., 'Briefing', *The New York Times*, (Dec 20 1983), <http://nyti.ms/2aMpOtR>, last accessed 07 Aug 2016.

the book's ironic take on government advice remains representative of civil defence planning during the decade, as FEMA continued to publish guides of questionable expertise throughout the 1980s, even releasing the *Guide for Increasing Local Government Civil Defense Readiness During Periods of Crisis* as late as 1990.

While Reagan built up arms and implemented civil defence initiatives to compensate for his insistence on a US victory in the nuclear war he predicted, his stance was met with unparalleled levels of anti-nuclear sentiment that would eventually go on to attract the attention of Reagan's supporters. The resurgence of anti-nuclear groups in the late-1970s brought with it a call for disarmament. This was considered by prominent peace activists Helen Caldicott and Randall Forsberg, as well as numerous church leaders, to be achieved most efficiently by each superpower placing a "freeze" on their stockpiles as this would allow for a halt to the arms race while maintaining a nuclear deterrent.³¹ But the movement gained a small amount of support from the American Roman Catholic Church who, defying their close connections to the Reagan administration, declared that to use nuclear weapons except in response to nuclear attack was immoral. Declaring nuclear weapons to be of paramount moral importance for humanity, many people who had previously ignored social activism now involved themselves with the freeze movement.

In March 1982, *Time* magazine printed an article concerned with the "Rising fears about the dangers of nuclear war", stating that "Americans are not only thinking about the unthinkable, they are opening a national dialogue on ways to control and reduce the awesome and frightening nuclear arsenal of the superpowers."³² This coincided with a substantial drop in Reagan's approval ratings, which had been steadily declining since late-1981 and continued to do so, finally reaching just 35 points in January 1983.³³ The freeze movement attained massive backing, with roughly one million people gathering in Central Park, New York City, to support the movement in June 1982.³⁴ This short period has been cited as a peak of anxieties surrounding the "Likelihood of war". A poll conducted throughout the 1980s revealed that while more general nuclear anxieties would peak in 1983, 52 percent of those asked believed World War III was more likely in 1982 than had

³¹ Matthews, *Duck and Cover*, p.164.

³² 'Thinking About The Unthinkable', *Time*, (March 29 1982), p.10.

³³ 'Presidential Job Approval: F. Roosevelt (1941) – Obama', *The American Presidency Project*, <http://bit.ly/2aUbsNc>, last accessed 14 Aug 2016.

³⁴ Matthews, *Duck and Cover*, p.165.

been the previous year.³⁵ This can be seen as the precursor to the events of 1983 which would see a dramatic rise in US-Soviet tensions and one final peak in nuclear anxiety.

Reagan's aggression towards the Soviet Union not only reinvigorated a campaign of civil defence that very closely mirrored that of the 1950s and 60s, but also brought with it an arms build-up that instilled in the public a sense of fear capable of uniting large swathes of Reagan supporters and critics under the nuclear freeze movement's banner. Expanding upon the movement's typical members like students, housewives and intellectuals, new members now filtered in from "respected elites", like mayors, statesmen and military officers.³⁶ Reinvigorated civil defence programmes saw national leaders implicitly accept the myth that they could survive a nuclear war while also seeming reluctant to dedicate themselves to plans for expensive protection that they also recognised could be useless.³⁷ However, while the administration hesitated to implement civil defence initiatives that could further incite nuclear anxiety, Reagan maintained his course of potentially volatile nuclear arms spending which resulted in increased nuclear anxiety among the public regardless of the civil defence planning that continued to mirror the normalising attempts seen previously.

The Mid-1980s

The fresh faced nuclear freeze movement did not concern themselves with the horrors of bomb tests or the effects of fallout. Instead, attacking the Reagan administration's foreign policy, they fought against the arms race.³⁸ Ronald Reagan and his chief advisors did not respond well to the growing nuclear freeze movement. Instead, the President charged that it was the "sincere, honest people" who were being manipulated by "some who want the weakening of America".³⁹ Reagan claimed to support the idea of a freeze to nuclear weapons but only under the circumstances of nuclear parity. After all, his justification for the arms build-up had been that America was severely falling behind the

³⁵ Tom W. Smith, 'Poll Report: Nuclear Anxiety', in *Public Opinion Quarterly*, (Vo.52, No.4, 1988), p.559: p.567.

³⁶ Weart, *The Rise of Nuclear Fear*, p.232.

³⁷ Winkler, *Life Under a Cloud*, p.135.

³⁸ Weart, *The Rise of Nuclear Fear*, p.232.

³⁹ 'President Says Foes of U.S. Have Duped Arms Freeze Group', *New York Times*, (Oct 5 1982), <http://nyti.ms/2aPqiil>, last accessed 08 Aug 2016.

USSR in their nuclear capacity. But polls indicated that most Americans refuted this, believing the differences in nuclear stockpile sizes to be inconsequential.⁴⁰ But on March 23 1983, Ronald Reagan gave a public address to the people of America. In his speech he addressed numerous aspects of his administration's belief in Soviet military superiority, also noting that "a freeze now would make us less, not more, secure and would raise, not reduce, the risks of war." As the speech drew to a close, Reagan called upon "the scientific community" to assist in creating a technological "means of rendering these nuclear weapons impotent and obsolete."⁴¹ This now infamous speech was the first time the world heard about Reagan's Strategic Defence Initiative (SDI).

Among the scientific community that Reagan had so earnestly called upon, most saw his idea of space defence system "as an expensive fantasy".⁴² Considering the technological limitations of the period, this was a correct assessment. Reagan hoped that what critics had come to call 'Star Wars' would be capable of shooting down nuclear missiles on a trajectory with the US or its allies with the use of laser technology. But this fantasy was far more real for officials in Moscow. The concept of SDI broke the conventions of Mutually Assured Destruction (MAD) not to mention calling into question the Anti-Ballistic Missile Treaty of 1972 that severely limited the implementation of such systems.⁴³ Regardless of its perceived impossibility among the US scientific community, for the Soviets, SDI posed a direct threat to nuclear parity. Reagan had already established himself as an aggressive opposing leader and believing his speech to symbolise SDI's genuine implementation, the Soviets feared that it would allow for greater American superiority and new found first strike capabilities with the potential to negate any Soviet attempt to retaliate against a nuclear attack.⁴⁴ Furthermore, the possibility of starting an arms race in space was not a comforting thought for a nation that believed that since 1982 the Reagan administration had been pursuing a strategy of military superiority in an attempt to externally debilitate the Soviet socio-

⁴⁰ Matthews, *Duck and Cover*, p.165.

⁴¹ Ronald Reagan, 'Address to the Nation on Defense and National Security', (Washington D.C., USA, March 23 1983), <http://bit.ly/2aH02t7>, last accessed 08 Aug 2016.

⁴² Michael L. Dockrill and Michael F. Hopkins, *The Cold War, 1945-1991*, (2nd Ed, Palgrave MacMillan, 2006), p.139.

⁴³ Wolfgang K. H. Panofsky, 'The Strategic Defense Initiative: Perceptions vs reality', (*Physics Today*, June 1985), in David Hafemeister, ed., *Physics and Nuclear Arms Today*, (American Institute of Physics, 1991), pp.142-143: p.145.

⁴⁴ Gaddis, *The Cold War*, p.227.

economic system.⁴⁵ In fact, the USSR, believing Reagan to be unpredictable, became anxious that a US nuclear strike was imminent.⁴⁶

In the US, the public responded to SDI. While some supported the expert belief of SDI as a “fantasy”, the *Washington Post*-ABC News Poll conducted in April 1983 saw 54 percent of people who had heard of SDI favour its development. Furthermore, in a *New York Times*-CBS Poll from the same month, 67 percent of people said that such a defence system ‘Should’ be developed. However, while people’s belief in Reagan’s initiative was not lacking in the weeks and months after his speech, concerns persisted about the possibility of further technological development worsening the already burgeoning arms race. In the same *Washington Post*-ABC poll people were asked how the development of SDI would affect the rate of the US-Soviet arms race, to which 57 percent of people believed it would cause it to ‘Increase’.⁴⁷ In the public comments section of *Time* magazine people expressed varying levels of support for the initiative, with some believing Reagan’s idea to be a “shrewd military strategy” while others were calling it “a false road for peace.”⁴⁸ While the US public seemed split on the idea of space defence with a small majority in support of the idea, Reagan’s plan allowed him to take “on the role of the peace-loving nuclear critic”, a stance that went beyond the nuclear freeze movement’s call to stop the nuclear arms race. He successfully co-opted the morality of his anti-nuclear critics, promising to make nuclear missiles “impotent and obsolete” while maintaining that the US should uphold its nuclear deterrent until such a defence system could be implemented.⁴⁹ This was met with a dramatic increase in the President’s approval ratings which rose from 35 points prior to the SDI announcement to 40 following it. By the end of 1983, Reagan’s approval rating sat at a healthy 53 points and continued to rise.⁵⁰ However, while Reagan had seemingly quenched the anxiety of the nuclear freeze movement by appealing to their moral sensibilities, he had

⁴⁵ David Holloway, ‘The Strategic Defense Initiative and the Soviet Union’, *Daedalus*, (Vol.114, No.3, 1985), p.265.

⁴⁶ Gaddis, *The Cold War*, (2007), p.227.

⁴⁷ Thomas W. Graham and Bernard M. Kramer, ‘The Polls: ABM and Star Wars: Attitudes Toward Nuclear Defense, 1945-1985’, *The Public Opinion Quarterly*, (Vol.50, No.1, 1986), p.130.

⁴⁸ ‘Letters: High-Tech War’, *Time*, (April 25 1983), p.6.

⁴⁹ Joseph Brown, *Ronald Reagan, SDI, and the Nuclear Freeze: Reordering the Ethics of Mass Destruction*, (Masters Thesis, Brandeis University, 2008), p.84: p.5.

⁵⁰ ‘Presidential Job Approval: F. Roosevelt (1941) – Obama’, *The American Presidency Project*, <http://bit.ly/2aUbsNc>, last accessed 14 Aug 2016.

in fact initiated a political rhetoric that ran against the morals of those who now supported him. SDI was a sign of peace for the US, but Moscow recognised it as a threat, prompting increased levels of paranoia.

On September 1 1983, Soviet military authorities on high alert shot down a South Korean civilian airliner, KAL-007, that strayed in to their airspace, killing 269 people, 63 of whom were American. Refusing to admit the mistake, the Kremlin maintained that the plane had been a US attempt to provoke the USSR.⁵¹ Reagan, however, confounded by the “act of barbarism”, called it “a crime against humanity” that “must never be forgotten”.⁵² But the attack arguably came in response to what the Soviets perceived as a threat that stemmed from Reagan’s hawkish and aggressive attitude towards an increasingly frightened USSR.⁵³ In the US the incident was reported with inflammatory and dramatic fervour.

Time magazine echoed Reagan’s outcry stating, “it was clear that the Soviets had committed a brutally provocative act, one that demanded an unambiguous U.S. response.” Attributing Reagan’s SDI programme with the same peace-seeking commendation as the nuclear freeze movement, *Time* also stated that “Reagan had been signalling a relaxation of tensions on the American side”, portraying him as a reasonable diplomat.⁵⁴ Arguably, as the press so readily adopted Reagan’s stance towards the Soviets, they disseminated “the fabulous contextuality of nuclear war” for which Reagan had already expressed his preparedness for.⁵⁵ This can be seen in opinion polls regarding the likelihood of nuclear war, as over the course of 1983 the number of people believing nuclear war with the Soviet Union to be at least somewhat likely increased from 37 percent to 43 percent.⁵⁶ DeGroot notes that society cannot effectively function by living in constant fear; as such, few were

⁵¹ Raymond Garthoff, *The Great Transition: American-Soviet Relations and the End of the Cold War*, (The Brookings Institution, 1994), pp.120-121.

⁵² Ronald Reagan, ‘Address to the Nation on the Soviet Attack on Korean Civilian Airliner’, (Washington D.C., September 5 1983), <http://bit.ly/2bZ4xAB>, last accessed 02 Aug 2016.

⁵³ Beth A. Fischer, ‘US Foreign Policy under Reagan and Bush’, in *The Cambridge History of the Cold War, Volume III: Endings*, (Cambridge, 2011), p.269; Gaddis, *The Cold War*, (2007), p.228.

⁵⁴ ‘Atrocity In the Skies’, *Time*, (September 12 1983), pp.10-11.

⁵⁵ Richard Klein and William B. Warner, ‘Review: Nuclear Coincidence and the Koran Airline Disaster’, *Diacritics*, (Vol.16, No.1, 1986), p.7.

⁵⁶ Tom W. Smith, ‘Poll Report: Nuclear Anxiety’, in *Public Opinion Quarterly*, (Vo.52, No.4, 1988)., p.568.

totally consumed by it, a notion that these statistics are indicative of.⁵⁷ Nonetheless, they also indicate an undeniable rise in levels nuclear anxiety, and while the spike is not as dramatic as the 1950s, it shows how Reagan and his administration's aggressive attitude and impressive political rhetoric were able to shift public opinion in his favour and against the Soviets.

It cannot be said that Reagan was entirely responsible for an increase in perceived Soviet aggression through his own aggressive actions, but his attempts to end the arms race using SDI while simultaneously maintaining it gained him the support of his biggest critical group. These seemingly peaceful actions allowed him to seem like the heroic, "white" American supporting peace against the now seemingly violent, "black" Soviets, whose actions now justified Reagan's aggression. This sign of Soviet aggression had a hand in increasing nuclear anxiety, and while levels did not peak when compared to those seen in chapter one, it is still regarded by contemporary historians as the closest the two nations came to nuclear war since the Cuban Missile Crisis.⁵⁸

Conclusion

Ronald Reagan had entered the Presidency with a simple political goal – to break the stalemate and defeat the Soviet Union. To accomplish his goal, he set out on a path of aggression and preparedness in an attempt to create a strong America capable of squaring off with the Soviets and winning an all-out nuclear war. This mind-set created a major divide in the country. Following the mass alienation of Carter's support base thanks in part to his foreign policy making, Reagan was able to enter the White House with major support for his decisive and simple politics. However, as he set about increasing arms spending to match what he perceived to be a superior Soviet Union, he reintroduced Civil Defence initiatives. In a return to the general belief among the administration that America could not only win a nuclear war but that its people could survive one, civil defence initiatives returned with the same persistent elements of reassurance and misguided optimism seen in the 1950s/60s.

Reagan's early aggression caused the nuclear freeze movement of the late 1970s to return with renewed fervour and support from large portions of the public that had initially supported Reagan's aggressive stance. However, in his now infamous SDI speech in 1983, he

⁵⁷ Gerard DeGroot, *The Bomb: A Life*, (2004; Vintage Digital, 2011), p.320.

⁵⁸ Gaddis, *The Cold War*, p.228.

claimed his support for a nuclear freeze, but insisted that it must be done under the right circumstances. These circumstances allowed him to introduce SDI. While this garnered much criticism, it convinced the nuclear freeze movement of Reagan's seemingly legitimate struggle for peace while the Soviets reacted with what appeared to be aggression. The KAL-007 incident had in fact stemmed from the paranoid Soviet view of Reagan's SDI announcement but was successfully spun by Reagan, his administration and large portions of the US press to appear as Soviet aggression. With those previously against him now in support of Reagan's anti-Soviet attitudes, US-Soviet tensions descended into turmoil as 1983 marked a less substantial but nonetheless important second peak in nuclear anxieties.

While these anxieties never rose to match the levels seen in previous decades, they represent a return to a similar state of affairs. The US-Soviet tensions seen in the 1980s relaxed as Reagan opened negotiations in 1984 with the Soviet leader Mikhail Gorbachev, but regardless, they heavily impacted on popular culture and the growing medium of video games similarly to how public anxiety in the 1950s/60s impacted on the new medium of science-fiction feature films. As will be seen, the video games that took inspiration from the events of the early and mid-1980s astutely reflected the renewed nuclear anxiety brought about by the Reagan administration's aggressive yet convincing political rhetoric.

Chapter Four

Nuclear Apocalyptic Video Games

Missile Command (1980) and *Wasteland* (1988) are two of the most influential and renowned video games of their time, with *Missile Command* being the first video game to depict nuclear war and *Wasteland* being the first detailed representation of a nuclear post-apocalypse in video games. In a similar fashion to chapter two, this chapter will analyse nuclear apocalyptic culture in relation to the period's civil defence initiatives and nuclear anxieties to assess the extent to which *Missile Command* and *Wasteland* effectively reflect the shifting perceptions of nuclear war between the 1950s and 1960s and throughout the early to mid-1980s. This chapter will build upon the previous chapter's thematic analysis, utilising the established understandings of genuine nuclear anxieties versus unrepresentative civil defence initiatives in the period to inform the extent to which *Missile Command* and *Wasteland* are reflections of contextual nuclear anxieties.

By 1980, video arcades were well established in the US. Previously, they had been filled with electromechanical games, such as the ever-popular pinball, but the introduction of video games into arcades came in 1971 with the release of *Computer Space*. The following year saw the release of Atari's *PONG*, the world's first hit video game.¹ The success of *PONG* was eventually brought into homes on the Odyssey Magnavox console, but as development for home consoles became easier and easier the market was flooded with games, many of which were of sub-standard quality. In 1977, the console market crashed, but thanks to an investment from Atari in the form of a \$6 million advertising campaign, by 1978 sales had recovered. Soon, the burgeoning home console market competed against video arcades. While this competition would inevitably lead to a change in the video game industry and the eventual 1983 video game market crash, the period between 1980 and 1982 seemed like a golden age as companies like Atari brought in billions of dollars in arcades and on home consoles.² It was during this period that *Missile Command* was released to great success. But within the decade, long-play adventures and role-playing games became the new industry favourite for most 'serious' gamers, and as such quick play,

¹ Mark J.P. Wolf, ed., *The Video Game Explosion: A History from PONG to PlayStation and Beyond*, (Greenwood Press, 2007), pp.35-36

² *Ibid.*, pp.104-105.

arcade-esque games became less popular. While most of these took direct inspiration from J.R.R. Tolkien's *The Lord of the Rings* (1954-55), *Wasteland* (1988) offered a narrative fundamentally based in reality.³

The Early 1980s - *Missile Command* (1980)

Missile Command's premise is a simple one – defend your six cities from atomic annihilation. Players must do this against an array of missiles and nuclear weapons using an anti-ballistic missile system (ABM) to shoot them out of the sky. Once the player has shot down all the incoming threats, successfully protecting their cities, they move on to the next level. The game gets continually harder until the player is defeated. Possibly its biggest credit is its refined scope as it depicted an accurate and detailed representation of the Cold War and nuclear warfare.⁴ Considering the game's comparatively minimalist design by today's standards, it can be seen to effectively reflect nuclear anxieties brought about by Carter's arms build-up and is also representative of perceptions of nuclear war invoked by Reagan's aggressive foreign policy. However, due to this minimalism it must be noted that the game's 8-bit pixel design and limited colour palette restrict direct visual representations of reality. Instead, the specified weaponry the player must defend against will be assessed alongside their limited visual depiction and considered in relation to their historical and contextual representation.

The game was published by Atari in 1980 and developed by David Theurer. The idea originated after Theurer's boss, Steve Calfee, was given the clippings from a magazine article about satellites from Atari's head of coin-operated arcades, Gene Lipkin.⁵ Immediately, Theurer set out to create a Cold War game, capable of making people aware of the horrors of nuclear war.⁶ While developing *Missile Command*, Theurer had lived near the Ames Research Centre (ARC) in Mountain View, California. Here, he would hear the sound of U-2

³ William M. Knoblauch, 'Game Over?: A Cold War Kid Reflects on Apocalyptic Video Games', in Daniel Goldberg and Linus Larsson, ed., *The State of Play: Creators and Critics on Video Games Culture*, (Seven Stories Press, 2015), p.193.

⁴ *Ibid.*, p.185.

⁵ Alex Rubens, 'The Creation of Missile Command and the Haunting of its Creator, Dave Theurer', *Polygon*, <http://bit.ly/1GFgH8S>, last accessed 04 July 2016.

⁶ Knoblauch, 'Game Over?', in Goldberg and Larsson, ed., *The State of Play*, p.184.

plane tests, which he would see “go straight up and sound like an atomic bomb exploding.”⁷ In fact, Theurer was so affected by the entire creation of *Missile Command* that he had nightmares once a month for a year after the game’s development.⁸ The combination of Theurer’s heavy emotional investment in the development of the game, his intended message and the direct inspiration from the ARC combined to make *Missile Command* not just a landmark in nuclear apocalyptic fiction, but a landmark in both history and video games as well.

Missile Command has garnered massive critical acclaim throughout the years as well as high levels of popularity. In fact, its revolutionary and addictive gameplay had made it popular even before its release: the Atari consumer division was located in the same building as the *Missile Command* team and Theurer noted that a couple of employees from the other office would often spend all day playing the game. As well as this, when the game went to Atari’s testing labs, Ed Rotberg, an Atari designer, was surprised that some testers “would literally have to worship that game for hours at a time. Their hands were sweating, and it was a definite adrenaline rush.”⁹ Its popularity spawned a re-release on the Atari 2600 home console in 1981 and prompted the development of a two-player sequel, *Missile Command 2*, in 1982. Unfortunately, this never made it past the prototype stage. Beyond that, however, *Missile Command* has seen multiple iterations including, *Missile Command 3D* (1995) for the Atari Jaguar, *Missile Command* (1999) for the PlayStation and PC and *Missile Command* (2007) for the Xbox 360. As well as this, the game has been published by multiple other companies for release on their own consoles throughout the years, including Sega and Nintendo. Clearly, there is little doubting *Missile Command*’s popularity. In fact, it remains a relevant example of nuclear apocalyptic culture in contemporary video game culture, as seen in *Fallout 4*’s (2015) in-game, playable parody, ‘Atomic Command’.¹⁰ This popularity is unsurprising considering that the morbidity of nuclear apocalyptic culture has enticed audiences in times of particularly high nuclear anxiety, as we have seen. Here,

⁷ ‘Blowing Things Up’, *Dreamsteep*, (scanned from *Morph’s Outpost and the Digital Frontier*, May 1994), <http://bit.ly/29lqLv9>, last accessed 04 July 2016.

⁸ *Ibid.*

⁹ ‘*Missile Command*, The Arcade Video Game by Atari, Inc.’, *Gaming History*, <http://bit.ly/29jbmOi>, last accessed 05 July 2016.

¹⁰ *Fallout 4*, Rockville, MD: Bethesda Softworks, Bethesda Game Studios, 2015.

however, players experienced the interactivity of trying to stop an unstoppable nuclear war, thereby building upon the representations of nuclear anxieties seen previously.

Despite the technological limitations of the early 1980s, *Missile Command* utilises a plethora of accurate representations of weaponry. As Theurer wanted a realistic depiction of nuclear war these representations include intercontinental ballistic missiles (ICBMs) and multiple independently targetable re-entry vehicles (MIRVs) as well as the ABM system used by players to defeat these incoming warheads. While there are several other weapons accurately depicted, ICBMs, MIRVs and ABM are the clearest representations.

Firstly, the control system of *Missile Command* is based on anti-ballistic missile systems, otherwise known as ABMs, which caused much contention during the 1960s. In a *Life* magazine article, Defence Secretary Robert McNamara explained “the logic behind the ABM system”, which was first seen in a similar capacity in 1953, in the form of the Nike Zeus anti-aircraft missile system – the basis for operational ABM systems.¹¹ McNamara championed ABM as a response to the nuclear advancement of China, as their lack of nuclear development meant the ABM system “will be effective and remain effective for many years to come.” Selling it as a “Defense Fantasy” against China, McNamara responded positively to a question regarding whether the system “assures that we will not be devastated by a Chinese attack”, stating that “That is correct” but that “it in no way threatens the Soviet ability to deter an American attack.”¹² Nonetheless, most strategic analysts warned that the deployment of any significant ABM system could compel the Kremlin to act.¹³ Even the public expressed concern with 50 percent agreeing that an ABM system would cause people to believe a Soviet attack was likely.¹⁴ The Soviet doctrine therefore called for the development of an ABM system to maintain parity with the US. The SALT I treaty saw the signing of the ABM Treaty in 1972 which limited each nation to two systems each – one for the defence of the capital city and other for ICBM missile silos.

¹¹ Scott Ritter, *Dangerous Ground: America's Failed Arms Control Policy, from FDR to Obama*, (Nation Books, 2010), p.148.

¹² ‘Defense Fantasy Now Come True’, *Life*, (Sept 29 1967), pp.28A-28C.

¹³ Steve Weber, *Cooperation and Discord in U.S.-Soviet Arms Control*, (Princeton University Press, 1991), p.100.

¹⁴ Graham and Kramer, ‘The Polls: ABM and Star Wars: Attitudes Toward Nuclear Defense, 1945-1985’, *The Public Opinion Quarterly*, (Vol.50, No.1, 1986), p.128.

With articles discussing SALT I filling magazines throughout the early 1970s, ABM became a common feature of arms control in the period.¹⁵ While it cannot be said that *Missile Command* reflected concerns with ABM systems present in 1980, it certainly confronted the misunderstandings of the “Defense Fantasy” that had existed previously, as it depicted a flawed system that never allowed the player to win the virtual nuclear war. This strengthens the representation of destruction caused by the ICBMs and MIRVs. Unlike *Five* and *Panic*, this aspect of *Missile Command* reflects public anxieties established far earlier in the Cold War rather than contextual perceptions. This is understandable considering Theurer's intentions for the game as it builds upon established perceptions of nuclear war to strengthen his intended meaning.

While the use of ABM as a control system in *Missile Command* related to anxieties of previous years, it nonetheless represents a contextual reality if not contextual nuclear anxieties. John Berton, a computer expert involved with the Ohio Supercomputer Graphics Project, was commissioned by the American Museum of the Moving Image to write descriptive texts for its 1989-90 exhibition, *Hot Circuits: A Video Arcade*. The exhibition comprised a wide selection of video game arcade cabinets intended to show the rapid success, artistry and overall importance of video games as a medium within the realm of moving images.¹⁶ Rochelle Slovin, the exhibition's director, said of Berton's contribution, that the descriptive texts for the arcade games highlighted the features that “made each game unique, as both a digital medium and cultural artifact.” Of *Missile Command* Berton noted how it was the only game of the time to implement a separate control for aiming – the trackball.¹⁷ This control system not only attributed the game with a more fluid and finessed gameplay, but was noted by a military recruiter in 1982 to be “pretty close to the system I use for air defense”.¹⁸ In this regard, *Missile Command*, while representative of a previous era's nuclear anxieties nonetheless remained realistic in regards to its ABM control system. Considering this, it can be argued that the game prefigured future anxieties, as

¹⁵ Erin R. Mahan, ed., *Foreign Relations of the United States: 1969-1976, Volum XXXII, Salt I, 1969-1972*, (Department of State, United States Government Printing Office, 2010), pp.8-9.

¹⁶ Rochelle Slovin, ‘Hot Circuits’, in J.P. Wolf, ed., *The Medium of the Video Game*, (University of Texas Press, 2001), pp.139-140.

¹⁷ *Ibid.*, p.149.

¹⁸ Cited in Knoblauch, ‘Strategic Digital Defense’, in Kapell and Elliott, ed., *Playing With the Past*, p.283.

Reagan's SDI programme, which was essentially intended to be a modernised form of ABM, impacted such sentiment following 1983.

While ABM is the defence system used by players, ICBMs are the most common threat to the player's cities as they explode on impact, producing a pixelated mushroom cloud, "the symbol of atomic destruction."¹⁹ However, similarly to its portrayal of ABM, anxieties surrounding ICBMs date back well before 1980. The first successful test of an ICBM was conducted on 21 August 1957 by the Soviet Union, but the notion of missiles with such destructive power and range had been known of since the use of the German V-2 missile during WWII. In fact, the V-2 missile technology had become available to US missile and rocket development programmes following WWII, which they used to develop their ICBMs.²⁰ *Life* magazine, in an article about the successful Soviet satellite launch, Sputnik, reported in October 1957 that "getting their satellite up meant that Russia had developed a more powerful rocket than any the U.S. had yet fired" and doing so "had solved important problems of guidance necessary to aim missiles at U.S. targets."²¹ Even President Dwight D. Eisenhower was cited expressing concern that "the Russians had probably gained political advantage."²² In fact, with the planned deployment of the Pershing II missiles in central Europe, a *Time* magazine article in December 1979 showed how conventional the discussion of such weapons had become, referring to the missiles as a "new bargaining chip" to be used in negotiations with the Soviets rather than specifying their destructive capabilities.²³ Beyond the manned bombing aircraft of previous years, ICBMs had symbolised destruction since their first instance therefore allowing *Missile Command* to reflect anxieties beyond the context of 1980 to mirror fears from throughout the previous twenty-three years and even beyond. Therefore, we can see the manner in which the game draws from the reality of the Cold War as a whole to strengthen its representation of nuclear anxiety in general. Drawing upon influences from a previous era is a persistent aspect of *Fallout* (1997), used to create a

¹⁹ Knoblauch, 'Strategic Digital Defense', in Kapell and Elliott, ed., *Playing With the Past*, p.283.

²⁰ J.D. Hunley, *The Development of Propulsion Technology for U.S. Space-Launch Vehicles, 1926-1991*, (Texas A&M University Press, 2007), p.14: p.25.

²¹ 'Russia's Satellite, a Dazzling New Sight in the Heavens: The Feat that Shook the Earth', *Life*, (21 Oct 1957), p.24.

²² *Ibid.*, p.25.

²³ 'A Damned Near-Run Thing', *Time*, (Dec 24 1979), pp.30-31.

contemporary commentary in a similar vein to Theurer's intended message for *Missile Command*.

MIRVs, on the other hand, are a more modern technological form of ICBMs, meaning that their portrayal in-game represents contextual nuclear-anxieties more effectively than the depictions of the ABM system or ICBMs. The world's first MIRV was the US Minuteman III missile, the development of which began in 1966 and, following major contention in the US government, was completed in June 1970. What set this apart from the Minuteman I and II missiles, both of which were more typical ICBMs, was its ability to target three separate locations simultaneously, which was considered to dramatically increase the first strike opportunities of the US in an effort to reduce economic expenditure while maintaining a weapons system capable of ensuring penetrability against "the threat of Soviet ABM systems".²⁴ MIRVs were therefore considered to be the perfect modern weapons system due to their ability to overwhelm ABM defences.²⁵

In the same *Life* article that explained ABM, McNamara briefly stated that the MIRV system would allow a "redesign of our strategic forces" permitting the US to "exhaust their [the USSR's] defences and at the same time better match the size of weapons to the targets

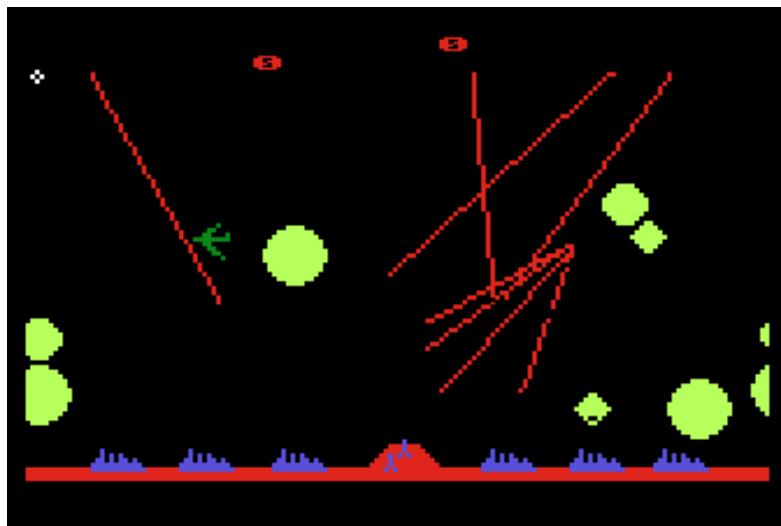


Figure 6 - Screenshot from *Missile Command*, Sunnyvale, CA: David Theurer, programmer, Atari, 1980.

²⁴ Daniel Ruchonnet, 'MIRV: A Brief History of Minutemen and Multiple Reentry Vehicles', (National Security Archive, Defense Department, 1976), pp.8-9: Weber, *Cooperation and Discord*, p.154.

²⁵ Scott Ritter, *Dangerous Ground: America's Failed Arms Control Policy, from FDR to Obama*, (Nation Books, 2010), p.151.

to be destroyed.”²⁶ McNamara’s public announcement did not immediately distract the public from the contention surrounding ABM systems at the time, but it managed to garner criticism from newspaper correspondents and scientists.²⁷ What brought this to the public’s attention was the Strategic Arms Limitation Talks II (SALT II). SALT II began in 1972 with the aim of curtailing the manufacture of strategic nuclear weapons, such as MIRVs. Henry Kissinger attempted to set an overall aggregate cap on ICBMs and submarine launched ballistic missiles (SLBMs) in an attempt to limit the number of missiles the Soviet Union would be able to attach to their in-development MIRVs. Meanwhile, the US would be able to deploy as many MIRVs as it wanted as they were already a part of their ICBM forces.²⁸ However, this ploy failed and the Soviets were able to maintain the previous aggregate. In 1974, the Soviets deployed their first MIRV, the SS-19 missile and as SALT II dragged on, only to eventually fail, magazines like *Time* continually reported on arms limitation talks, which now included the need to limit MIRVs on both sides.²⁹ With this in mind, *Missile Command*’s representation of MIRVs is therefore a reflection of the previous decade of contentious arms limitation talks which were consistently presented to the public. Furthermore, the game presents an accurate visual depiction of MIRVs’ multiple warheads, as incoming missiles split in to multiple rockets, as seen in figure six, that can often overwhelm the player’s ABM control system, just as they were realistically intended to do.

While each of these elements are needed to create functional gameplay in *Missile Command*, each can be seen to represent an aspect of nuclear anxieties from different periods of the Cold War. While its influences are therefore non-contextual, their persistent prevalence in the Cold War negates the need for direct contextual relation and thereby strengthens the game’s overall representation of nuclear anxieties. For example, while ABM systems were not of critical importance in 1980, such systems were to come back into the public eye in 1983 thanks to Reagan’s SDI programme, therefore extending *Missile Command*’s ability to represent nuclear anxieties. Obviously, *Missile Command* is severely limited in what aspects of nuclear war it can represent due to the technological limitations of 1980, but when we consider how successfully it represents the elements it focuses upon

²⁶ ‘Defense Fantasy Now Come True’, *Life*, (Sept 29 1967), p.28B.

²⁷ Weber, *Cooperation and Discord*, p.154.

²⁸ Scott Ritter, *Dangerous Ground: America’s Failed Arms Control Policy, from FDR to Obama*, (Nation Books, 2010), pp.202-203.

²⁹ ‘The Third Summit: A Time of Testing’, *Time*, (July 1 1974), pp.20-22.

it can be seen to effectively summarise both the political tensions and public anxieties of the 1980s and previous decades. For this reason, *Missile Command* capably represents shifting nuclear anxieties in its use of weapons technology while also indicating a trend among nuclear apocalyptic video games in its use of non-contextualised perceptions of nuclear war to create a contextually reflective depiction of nuclear war, as similarly seen in *Fallout* (1997).

The Mid-1980s - *Wasteland* (1988)

While *Missile Command* had a fairly simple premise, *Wasteland* is a far more complex video game. Released in 1988, published by Electronic Arts, developed by Interplay Entertainment and directed by Brian Fargo, *Wasteland* was the first detailed depiction of a post-apocalypse scenario in a video game.³⁰ This depiction not only involved a post-apocalyptic setting in which the player must survive, but the backstory grounds itself in genuine geo-political tensions to form clear similarities to real-life circumstances, similar *Missile Command's* representation of weapons technology.

The nuclear war of *Wasteland* takes place in 1998, ten years in the future from the game's release date. Geo-political tensions were on the rise as the US "Citadel Starstation" neared completion. The Soviets contended that the Citadel was in fact a "military launching platform", causing the "right wing governments in the South and Central Americas" to ally with the US. Two weeks before the Citadel's operational debut, it transmitted a distress signal, knocking out all satellites. With "the great powers blind" they each released 90 percent of their nuclear arsenals in a mass panic. Somewhere in the "inhospitable" southwestern deserts of America, a group of army engineers survived the nuclear attacks by seeking refuge in a prison after evicting all the inmates into the desert. The engineers soon built an outpost in the prison with "nearby survivalist communities" and renamed it the "Ranger Center". Initially believing themselves the only survivors, they eventually discovered others. "Because they had such success in constructing a new community, they felt compelled to help other survivors rebuild and live in peace." From this, "the Desert Rangers ... were born." The year is 2087 and the player must embark into the desert to

³⁰ Knoblauch, 'Game Over?', in Goldberg and Larsson, ed., *The State of Play*, p.193.

“investigate a series of disturbances”.³¹ Due to the game’s extensive depth, this analysis will explore the clearest representational aspect of this backstory, Citadel Starstation, in relation to its context to assess the game’s representation of nuclear anxieties and the shift in perceptions seen since the early 1980s.

Much like *Missile Command*, *Wasteland* has garnered much critical acclaim throughout the years and is considered to be the spiritual predecessor to the *Fallout* series by both Brian Fargo and *Fallout*'s director Tim Cain.³² *Computer Gaming World (CGW)*, one of the most popular computer and adventure gaming magazines throughout the 1980s, described *Wasteland* prior to its release “as a potential Mad Max type adventure game”, but previews of the game in early 1988 found that “the game is certainly superior to the original concept” with “a unique plotline all of its own.”³³ By the time of its release, *CGW*'s review deemed *Wasteland* to be a “one of the best games” they’d “ever played”, even noting it to be a simulation game with “sophistication” and the winner of their “Adventure Game of the Year” for 1988.³⁴ In fact, *CGW* reviewed the game extremely favourably again in 1991 and 1993, stating that it remained “the only decently-designed post-nuclear game on the market.”³⁵ Quite appropriately, however, prolific science fiction author Orson Scott Card noted in *Compute!* magazine that while “the real-life element” of the game’s villages and settlements was commendable, “jokes like mutant bunnies” that attack the players throughout the game “can get boring”.³⁶ But regardless of some minor qualms, Card enjoyed the game, as did most others. In 1996, *CGW* ranked it as the ninth best game of all-time and in 2000, gaming website *IGN*, ranked it the twenty-fourth best PC game ever.³⁷ In

³¹ Interplay Entertainment, *Wasteland: Manual*, (Electronic Arts, 1988), pp.1-2.

³² ‘Matt Chat 90: Wasteland and Fallout with Brian Fargo’. Online Video Clip. YouTube. Accessed 09 July 2016. <http://bit.ly/29JRMnj>; Tim Cain. ‘Matt Chat 67: Fallout with Tim Cain Pt. 2’. Online Video Clip. YouTube. Accessed 02 Aug 2016. <http://bit.ly/2aCsqyX>.

³³ ‘Top Circulating Magazines’, *Media Distribution Services*, <http://bit.ly/29K9xt7>, last accessed 09 July 2016; ‘Sneak Preview: Wasteland’, *Computer Gaming World*, (March, 1988), p.26.

³⁴ William Kritzen, ‘Wasted in the Wasteland’, *Computer Gaming World*, (May, 1988), p.29

³⁵ Scorpia, ‘C*R*P*G*S: Computer Role-Playing Game Survey’, *Computer Gaming World*, (Oct 1991), p.16; ‘Scorpia’s Magic Scroll of Games: A Survey of Computer Role-Playing Games’, *Computer Gaming World*, (Oct, 1993), p.44.

³⁶ Orson Scott Card, ‘Light-Years and Lasers: Science Fiction Inside Your Computer’, *Compute!*, (June, 1989), p.33.

³⁷ ‘150 Best Games of All Time’, *Computer Gaming World*, (Nov, 1996), p.65; ‘The Top 25 PC Games of All Time: #21-25’, *IGN*, <http://bit.ly/29G6AY4>, last accessed 09 July 2016.

fact, as recently as 2012, the gaming website *Eurogamer* stated that “even now, it offers a unique RPG world and experience”.³⁸ Clearly then, *Wasteland* is no stranger to acclaim, and as such its standing as the first post-apocalyptic video game along with its popularity make it an important source for analysis as a representation of shifting nuclear anxieties.

Wasteland's backstory is limited in its depth but rich in its usage of genuine geopolitical tensions and events. Knoblauch speculates that this is due to the likelihood that the audience would have had at least some understanding of Cold War tensions and nuclear arms race dangers.³⁹ Regardless, the backstory attempts to ground an otherwise fantastical game in the socio-political context of 1983-1988, which Fargo himself has stated marks the five years of the game's lengthy development.⁴⁰ While the manual states that the game took two years to develop, we will be using Fargo's timescale as it provides a clearer picture of influences and comparisons. This is important to note, as most aspects of the game's backstory relate to real-world events within this timeframe as opposed to the events of 1988, meaning that it must be assessed in terms of its representation of the mid-1980s.

Citadel Starstation, which is considered by the in-game Soviets to be a threat, appears in the opening cutscene of the game to be an SDI-like ABM system. While we have previously seen that the scientific community's response to Reagan's SDI programme was less than what was hoped for when Reagan called upon them for insight and assistance, *Time* magazine's report on Reagan's SDI announcement outlined the programme, flaws and all. This was the first time since the ABM Treaty of 1972 that attempts to defend against nuclear attack were actively considered, and *Time* were not fully convinced.⁴¹ Candidly, the article stated that “Reagan's video-game vision of satellites ... might some day zap enemy missiles with lasers ... But if his space-age plan proceeds, or even if the suggestion of a shift in strategy is taken seriously, the implications are staggering.”⁴² These staggering implications came in the form of a Soviet response that was less than pleased. Similar to the impact of MIRVs on ABM systems, the Soviets feared that a defence system such as SDI

³⁸ Richard Cobbett, 'Retrospective: *Wasteland*', *Eurogamer*, <http://bit.ly/29r6DUY>, last accessed 09 July 2016.

³⁹ Knoblauch, 'Game Over?', in Goldberg and Larsson, ed., *The State of Play*, p.194.

⁴⁰ 'Matt Chat 90: *Wasteland* and *Fallout* with Brian Fargo'. Online Video Clip. YouTube. Accessed 09 July 2016. <http://bit.ly/29Jrmnj>.

⁴¹ 'Reagan for the Defense', *Time*, (April 4 1983), p.9.

⁴² *Ibid.*

could not only provide the US with improved first strike capabilities but could also create an arms race in space. While in reality the Soviet's panicked response was characterised by them shooting down KAL 007, in-game, the result of this anxiety goes beyond mere worries about the idea of SDI. Instead, satellites are knocked from the sky in a military panic as both the US and USSR "each sent 90 percent of the nuclear arsenals skyward."⁴³ In reality, while public belief in the system may have been mostly positive, as seen in the polls discussed previously, this did not stop fears from surfacing. In 1985, 75 percent of people agreed that building such a defensive system would cause the Soviets to "go all-out to develop new kinds of nuclear and other weapons we couldn't defend against."⁴⁴ *Wasteland* represents such concerns in its opening cutscene as Citadel Starstation is effectively destroyed by what are presented as Soviet weapons. Therefore, to some extent, this represents genuine nuclear anxieties and the shift from concerns regarding ABM in the 1960s, as portrayed in part in *Missile Command*. This differs from *Missile Command* as it reflects contextual perceptions of nuclear war, rather than utilising perceptions from previous decades. In this regard *Wasteland*, unlike *Missile Command* and *Fallout*, constructs its themes upon contextual concerns in order to represent reality.



Figure 7 - Screenshot from *Wasteland*, Redwood City, CA: Electronic Arts, Interplay Entertainment, 1988.

⁴³ Interplay Entertainment, *Wasteland: Manual*, (Electronic Arts, 1988), pp.1-2.

⁴⁴ Graham and Kramer, 'The Polls: ABM and Star Wars: Attitudes Toward Nuclear Defense, 1945-1985', *The Public Opinion Quarterly*, (Vol.50, No.1, 1986), p.132.

While the manual provides a small amount of detail as to what 'Citadel Starstation' is, the game's opening cinematic fills in some blanks. The first thing we see is the earth hanging in space as the words "Computer defense initiative activated" appear on screen to the sound of an air-raid siren. We are then told that "Diplomatic solutions to the world's problems fail and war erupts as some madmen press ahead with their insane dreams." Soon missiles are launched around the planet as Citadel Starstation attempts to shoot them down before it is destroyed.⁴⁵ Citadel Starstation can be seen to the right of the Earth, shooting down missiles in figure seven. While it cannot be said that in the alternate reality of *Wasteland* that the Soviets definitely developed new weapons to combat Citadel Starstation, it certainly depicts the destruction of it in one way or another, accurately representing concerns about Soviet defences if SDI were to be fully developed and deployed.

While SDI remained an undeveloped programme in 1988, its representation in the opening of *Wasteland* is, like *Missile Command*, one of the few instances in which audiences could have seen such a defence system in action. In fact, as Knoblauch contends, there is a selection of games, including *Missile Command*, *Strategic Defense Initiative* (1987) and *High Frontier* (1987) that represents the workings of SDI for audiences that would otherwise have no inclination of its feasibility.⁴⁶ It can be argued that *Wasteland* also achieves this, if only in a more limited sense. When Knoblauch's view of SDI-based video games is applied to *Wasteland* it can be seen as a representation of the understanding of SDI that audiences would have garnered from these games prior to 1988. Therefore, this representation in the opening cutscene grounds the game in the anxieties of the period as opposed to non-contextual anxieties.

While *Wasteland's* backstory is limited in depth, the information that it does provide can be seen to be reflective of the socio-political context surrounding nuclear war anxieties, and while this study's scope limits the representational aspects that can be analysed, the backstory of *Wasteland* nonetheless consists of accurate representations of contextual geo-

⁴⁵ *Wasteland*, Redwood City, CA: Electronic Arts, Interplay Entertainment, 1988: 'Wasteland Intro'. Online Video Clip. YouTube. Accessed 09 July 2016. <http://bit.ly/29Xx1HD>.

⁴⁶ Knoblauch, 'Strategic Digital Defense', in Kapell and Elliott, ed., *Playing With the Past*, pp.290-291.

political tensions.⁴⁷ Regardless, in reality, SDI threw the Soviet Union into a state of tremendous unease, characterised by the shooting down of KAL 007, whereas *Wasteland* represents this disquiet with the worst case scenario. While extreme, *Wasteland* can undoubtedly be seen to ground its fictional nuclear war in the Soviet anxiety that followed the announcement of SDI. Furthermore, just as *Missile Command* and other such missile defence games had depicted accurate representations of the fallibility of an ABM system, *Wasteland* represented the same notion in regards to SDI as scepticism towards the system was prevalent even if it was not resounding. Therefore, *Wasteland's* representation of the political climate induced by the threat of SDI in the mid-1980s successfully contributes to its reflection of nuclear anxieties.

Conclusion

Missile Command's contextual technological limitations forced the game to depict only a small aspect of nuclear war. Nonetheless, it achieved major success in its representation of nuclear anxieties through the use of established, understood and genuinely threatening nuclear technology. The representation of Cold War weaponry thus contributes to its representation of shifting nuclear anxieties. However, in utilising weapons technology representative of previous anxieties, *Missile Command* can be seen to ground itself somewhat in the reality of non-contextual nuclear anxieties, a notion that *Fallout* will be seen to adopt far more liberally to form a contemporary commentary.

On the other hand, *Wasteland* represents the technological progression of video games and as such is able to depict a far more detailed world. Indeed, while there are elements of the backstory not discussed here due to their limited relation to nuclear anxieties, we can see that it nonetheless grounds itself in reality with its mirroring of SDI as the cause of panic that incites nuclear war. The backstory is therefore representative of contextual nuclear anxieties despite the fantastical qualities of game's predominant post-apocalyptic focus.

It must be noted that the difference between representations of nuclear anxiety in *Missile Command* and *Wasteland* are largely due to their technological scope. Nonetheless, both succeed in representing contextual anxieties as well as the shifting perceptions of

⁴⁷ Knoblauch, 'Game Over?', in Goldberg and Larsson, ed., *The State of Play*, p.194.

nuclear war since the 1960s and throughout the early and mid-1980s, thereby continuing the trend of contextual representation seen previously in nuclear apocalyptic culture. *Fallout*, on the other hand, presents a far more detailed depiction of its themes yet fails to adequately represent its direct influences, and as a result misrepresents its foundation of nuclear anxiety, which will be discussed in the following chapter.

Chapter Five

The *Fallout* Franchise

As we have seen so far, nuclear apocalyptic culture has conveyed nuclear anxieties in a multitude of ways that often more accurately reflected the reality of such sentiment, while civil defence initiatives persistently portrayed guidance unrepresentative of reality. It is therefore interesting that following the end of the Cold War, while nuclear apocalyptic culture continued to gain popularity, a comparative lack of nuclear anxiety allowed for the misrepresentation of previously existing and particularly prevalent perceptions.

Such misrepresentations can be seen in *Fallout* (1997), which is a watershed game marking the mass popularisation of the nuclear apocalyptic genre in video games. We have seen so far that nuclear apocalyptic culture can be regarded as representative of nuclear anxieties throughout the second half of the twentieth century. *Fallout*, however, presents a departure from this trend. In a similar vein to *Missile Command*'s utilisation of non-contextual elements to represent nuclear anxieties, *Fallout* can also be seen to draw upon influences from throughout the conflict. However, as opposed to public perceptions being at the centre of its thematic focus, *Fallout*'s influences are in fact the civil defence initiatives and nuclear apocalyptic culture we have analysed, which it utilises in order to form a contemporary commentary on deceitful governments and overly greedy, destructive capitalists.¹ While the game successfully forms this commentary, it does so by focusing primarily on the perceptions of nuclear war we have seen to be of genuine nuclear anxiety: civil defence initiatives. This chapter will therefore assess *Fallout*'s backstory and manual, similarly to the previous chapter, as a means of investigating the game's representation of its influences and the extent to which the series' utilisation of such influences create a contemporary commentary that misrepresents not only civil defence propaganda but also exploits it to form a caricature of genuine nuclear anxieties from during the Cold War.

Over the past two decades we have witnessed a surge in the popularity of the nuclear apocalyptic genre in video games, yet the manner in which historical perceptions of nuclear war have influenced these games has been given little consideration. The representation of history in video games is an area of study that has been growing

¹ Tim Cain. 'Matt Chat 67: Fallout with Tim Cain Pt. 2'. Online Video Clip. YouTube. Accessed 02 Aug 2016. <http://bit.ly/2aCsqyX>.

exponentially over the last few years as video games exit their infancy to stand alongside more established media, such as film. Kapell and Elliott exemplify this effectively, stating that “on one hand we have the study of the past as a series of facts and movements, and on the other we have a concept of the past considered as whole, in which those facts, movements, and events have combined in a certain way to lead us to the present day.”² The *Fallout* series can be seen to embody this notion as it attempts to represent the past in order to create a divergent, fantastical timeline to form a contemporary commentary dealing with government propaganda and trust. In Kapell and Elliott’s edited work, Schulke discusses the *Fallout* series, stating that the games’ “setting and narrative are replete with misconceptions and stereotypes that dominated American popular culture during the Cold War”, which serve to reinforce the lessons of the Cold War “by showing the dystopian world that might have existed if different decisions were made at important junctures.”³ However, it can be argued that while Schulke is not wrong, *Fallout*’s primary intention is as a contemporary commentary created by “communicating”, what November calls, “complex ideas about the mid-twentieth-century United States.”⁴ In creating this commentary, *Fallout* can indeed be seen to utilise “misconceptions and stereotypes” from the Cold War, but in doing so creates a caricature that prevents it from effectively representing the combination of “facts, movements, and events” that have “lead us to the present day.”⁵

Backstory & Cinematic

Tim Cain, the creator of the *Fallout* series, said of the first game that it “is very much the spiritual successor to *Wasteland*” as Brian Fargo’s own 1988 post-apocalyptic video game “had everything in it that we wanted to have in the *Fallout*”.⁶ Fargo, who was the director of Interplay Entertainment during *Fallout*’s development, said that upon receiving the game’s

² Kapell and Elliott, ed., *Playing With the Past*, p.5.

³ Schulke, ‘Refighting the Cold War: Video Games and Speculative History’, in Kapell and Elliott, ed., *Playing With the Past*, p.266: p.267.

⁴ November, ‘*Fallout* and Yesterday’s Impossible Tomorrow’, in Kapell and Elliott, ed., *Playing With the Past*, p.298.

⁵ Kapell and Elliott, ed., *Playing With the Past*, p.5.

⁶ Tim Cain, ‘Fallout Classic Revisited’. Online Video Clip. YouTube. Accessed 01 Aug 2016. <http://bit.ly/2aqjFpm>.

“vision document” he realised that “six out of ten things were right out of *Wasteland*.”⁷ The major difference with *Fallout*’s world is that near the end of the 1940s “our world and the world portrayed in *Fallout* each began to go in its own direction.”⁸ In *Fallout* fan lore, this is known as the “Divergence”. Despite the Divergence, the 1950s seen in *Fallout*’s world differed very little from our own.⁹ Eventually, the Divergence led to a “future as envisioned by American popular media between the late 1930s and the early 1960s” as society remained in a cultural stasis until 2077. In a world filled with nuclear powered cars and ‘Mr. Handy’ personal robots designed to complete household chores, the divergent timeline thrust the world into an eventual energy crisis that resulted in worldwide nuclear war, otherwise known as the “Great War”.¹⁰ The majority of this information is covered in the introduction which provides us with a brief backstory and some crucial imagery in assessing *Fallout*’s representation of nuclear anxieties.



Figure 8 - Screenshot from Opening Cinematic, *Fallout: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, 1997.

⁷ Brian Fargo, ‘Matt Chat 90: Wasteland and Fallout with Brian Fargo’. Online Video Clip. YouTube. Accessed 011 Aug 2016. <http://bit.ly/29Jrmnj>.

⁸ November, ‘Fallout and Yesterday’s Impossible Tomorrow’, in Kapell and Elliott, ed., *Playing With the Past*, p.298.

⁹ ‘Divergence’, *Nukapedia: Fallout Wiki*, <http://bit.ly/2aTq7rf>, last accessed 04 Aug 2016: Cited in November, ‘Fallout and Yesterday’s Impossible Tomorrow’, in Kapell and Elliott, ed., *Playing With the Past*, p.298.

¹⁰ Fallout, Interplay Entertainment, 1997: ‘Great War’, *Nukapedia: Fallout Wiki*, <http://bit.ly/2aTHWq7>, last accessed 04 Aug 2016.

“War. War never changes.” These words ring out as the opening cinematic begins. From its opening moments, *Fallout* relies on the player's acceptance of this statement. As we have seen, if one were to view civil defence initiatives as representational of nuclear anxieties regarding war then this statement holds true as throughout this thesis it has been demonstrated that civil defence initiatives changed their perception of nuclear war very little, if at all. As such, in regards to the game's predominant influences of civil defence, discussed in relation to the manual below, this statement can be seen to support Tim Cain's commentary on deceitful governments that, in his vision, purposefully maintained misperceptions of war to propagate its unchanging nature.

After some preliminary examples of war throughout history, we are told that “In the 21st century, war was still waged over the resources that could be acquired.” This caused China to invade Alaska, the US to annex Canada and the “European Commonwealth to dissolve into quarrelling, bickering nation-states, bent on controlling the remaining resources on Earth.”¹¹ The similarities between this and *Wasteland* are immediately apparent. Using geo-political tensions following a shortage of resources, *Fallout* creates the structure in which its nuclear war occurs. But the vagueness of *Fallout's* story provides us with little contextual representation beyond concerns regarding the US dependence on foreign oil during the 1990s.¹² Knoblauch highlights that while the backstory's focus on an energy crisis can be seen to resemble the energy crisis of the 1970s, *Fallout* ignores the ideological struggles of the Cold War in favour of an energy crisis, effectively tailoring “its narrative to gamers unfamiliar with Cold War dangers.”¹³ While this notion of familiarity of Cold War knowledge will be discussed below, it is for this reason that merely assessing the backstory, similarly to that of *Wasteland's*, provides us with few analytical avenues. Instead, the visual depiction of nuclear anxieties represented in the opening cinematic provides better analytical comparisons to help understand *Fallout's* representation of nuclear anxiety in the 1950s.

¹¹ *Fallout: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, 1997.

¹² Paul L. Joskow, 'U.S. Energy Policy During the 1990s', *National Bureau of Economic Research*, (Cambridge, MA, 2001), p.13: p.27.

¹³ Knoblauch, 'Game Over?', in Goldberg and Larsson, ed., *The State of Play*, p.199.

The opening cinematic is a pre-rendered cutscene and is thus capable of portraying a far more detailed depiction of nuclear destruction than is possible in the 2D, isometric plane on which gameplay takes place, effectively summarising the themes and motifs present throughout the game.¹⁴ While destruction is conveyed with far more fidelity than was possible in *Wasteland's* nuclear apocalypse, the best depiction comes at the start, as figure eight shows. As the camera pans out from a still-broadcasting television we see a futuristic rendition of Bakersfield, CA. As the television flickers, running pre-Great War adverts and news segments, in the background we see grey and brown buildings still standing, yet almost totally decimated by a nuclear explosion that clearly took place long before. As can be seen in figure eight, the decimation portrayed in the *Fallout* opening is similar to the design of destruction seen in both *Collier's* 'Hiroshima U.S.A.' and alike speculative articles, such as *Pageant* magazine's 'Two A-Bombs Blast U.S. City', as seen in figures nine and ten. The similarities between these images not only represent the game's satirical attitude towards the depiction of nuclear war in the 1950s, but more importantly, these references

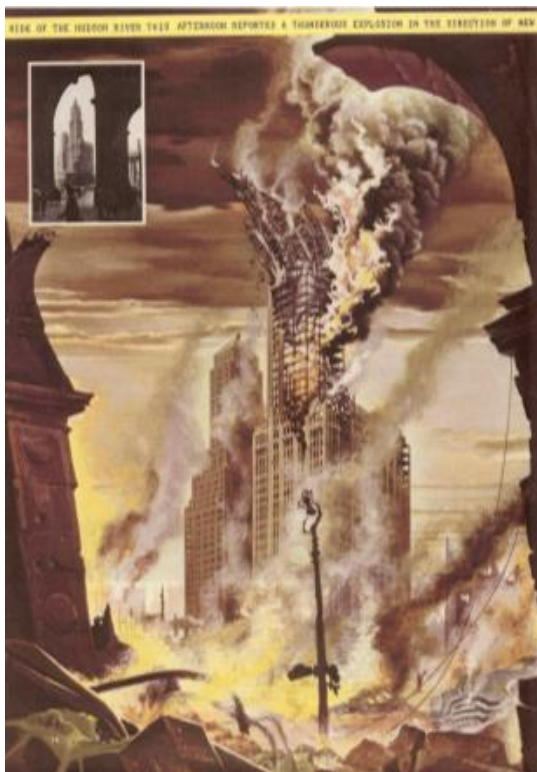


Figure 9 - 'Side of the Hudson River this afternoon reported a thunderous explosion in the direction of New York', John Lear, 'Hiroshima U.S.A.', *Collier's*, (August 5 1950), p.14.



Figure 10 - Quentin Reynolds, 'Two A-Bombs Blast U.S. City', *Pageant Magazine*, (Feb 1951), p.12.

¹⁴ 'A Thorough Look At Fallout'. Online Video Clip. YouTube. Accessed 05 Aug 2016. <http://bit.ly/13Ttfuu>.



Figure 11 - Screenshot from Opening Cinematic, *Fallout: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, 1997.



Figure 12 – Ford Nucleon concept drawing, 1958.

to other imaginations of disaster ground the game in reality, beyond the mere portrayal of destruction resembling a believable nuclear war.

In this regard, the *Fallout* opening cinematic portrays an accurate image of destruction, drawing from the articles that effectively mirrored both the reality of nuclear anxiety in the 1950s and the actuality of an atomic blast. Just as ‘Hiroshima U.S.A.’ drew on imagery of World War II, describing property damage “as it occurred in Hiroshima and Nagasaki”, it can be seen that *Fallout* employs these established depictions for its own nuclear holocaust.¹⁵ Therefore, here *Fallout* portrays a realistic version of nuclear depictions that once mirrored nuclear anxieties to establish itself as a representation of such culture. As well as this, the opening's bleak emptiness is reminiscent of the solitude seen in *Five*.

The introduction video also highlights some products of *Fallout's* pre-Great War world. *Fallout* depicts a world that never stopped experiencing the “American High”, as O’Neill terms the post-war public consensus that society was good and anything could be accomplished with enough effort.¹⁶ For this reason, the products advertised on the television in the opening cinematic embody the futuristic visions of the 1950s thereby strengthening the representation of anxieties by grounding it in the period's futuristic imaginings. The Mr Handy robot is an effective reflection of 1950s science-fiction stories, as seen in *Forbidden Planet* (1956), which Tim Cain cites as one of the biggest influences for

¹⁵ John Lear, ‘The Story of this Story’, *Collier's*, (August 5 1950), p.11.

¹⁶ O’Neill, *American High*, p.7.

the design of robot technology.¹⁷ While the depiction of such technology is as fictional now as it was in the 1950s, it nonetheless realistically represents visions of the future from the period to construct a satirical yet grounded and believable historical representation. This is similar to how *Missile Command* utilised weaponry from across the Cold War period to help strengthen the game's reflection of anxieties.

Mr. Handy can be seen to represent more intentionally fictional motifs of the period, but the second pre-war advert strengthens its representation further by using a conceptual design intended to be real once the technology became available. The advert depicts a 'Chryslus Corvega' car, as seen in figure eleven. The Corvega is an atomic powered automobile inspired by Ford's 1958 design prototype for a nuclear powered vehicle called the Ford Nucleon, shown in figure twelve.¹⁸ This was Ford's vision of the future as they hoped nuclear reactors would one day decrease in size allowing them to power individual appliances that could be fuelled at recharging stations. Ford even hoped such stations would replace petrol stations.¹⁹ As November highlights, while absent in *Fallout*, these recharging stations found their way into the series in the form of *Fallout 3's* (2008) 'Red Rocket' fuelling stations, although due a significant lack of historical representation in *Fallout 3*, as discussed below, this fails to capture the same representation of the era.

While these visions of the future from the perspective of the 1950s do little to represent contextual nuclear anxieties, by utilising visions of the future the game successfully grounds itself in the past allowing for a more believable representation of 1950s nuclear anxieties that can be seen above in the imagery of the opening cinematic. However, while the opening cutscene drew from reflective cultural influences, the game's intended commentary is structured around civil defence initiatives of the 1950s which are most succinctly represented in the manual.

¹⁷ Tim Cain. 'Matt Chat 67: Fallout with Tim Cain Pt. 2'. Online Video Clip. YouTube. Accessed 02 Aug 2016. <http://bit.ly/2aCsqyX>: *Forbidden Planet*, Dir. Fred M. Wilcox, (Metro-Goldwyn-Mayer, 1956), Film.

¹⁸ November, 'Fallout and Yesterday's Impossible Tomorrow', in Kapell and Elliott, ed., *Playing With the Past*, p.303: 'Chryslus Corvega', *Nukapedia: Fallout Wiki*, <http://bit.ly/2aJTx6W>, last accessed 05 Aug 2016.

¹⁹ Alan Bellows, 'The Atomic Automobile', *Damn Interesting*, <http://bit.ly/2aFZb9D>, last accessed 05 Aug 2016.

Manual

As with *Wasteland*, the *Fallout* manual, appropriately named the *Vault Dweller's Survival Guide*, offers insight into the game's representation of civil defence initiatives used in forming *Fallout's* commentary. The manual is designed to resemble a nuclear war survival guide from the 1950s, while also utilising elements of the 'Duck and Cover' propaganda and other overly optimistic imagery. This is a succinct representation of the same "Cold War propaganda that litters the wasteland" in *Fallout*, thus making it a more accessible method of analysis without delving into the deeper themes the game has to offer.²⁰ This section will not analyse all themes within the *Fallout* game-world, but by refining the focus we gain better insight into the extent to which *Fallout*, for the purposes of social commentary, inaccurately reflects the same levels of nuclear anxiety depicted in 1950s propagandistic civil defence, as were seen in chapter one to be unrepresentative of actual anxieties.

The *Vault Dweller's Survival Guide* is designed to reflect the propagandistic "misconceptions and stereotypes" of 1950s American nuclear culture, present throughout the game.²¹ The representation of these cultural misconceptions can be seen largely to reflect civil defence initiatives in order to form a commentary. As Cain stated, "A big part of



Figure 13 – Image from Chris Taylor, *Vault Dweller's Survival Guide*, (Interplay Entertainment, 1997), p.'1 – 3'

²⁰ Schulke, 'Refighting the Cold War', in Kapell and Elliott, ed., *Playing With the Past*, p.266.

²¹ *Ibid.*

Fallout was you don't trust your own government. We made it quite clear that the government was lying to you."²² However, in order to accomplish this, the representation of nuclear apocalyptic culture representative of nuclear anxieties seen in the opening cinematic is dropped. Instead, the manual reflects elements reminiscent of what we have seen to be persistently unrepresentative civil defence initiatives, exaggerating the reality of nuclear anxieties and misrepresenting large parts of history as a result. For example, Cain said that the manual even "had a page describing other manuals you could buy from Vault-Tec which made light of all the horrible things that could happen after nuclear war."²³ Survival information, as we have seen, did not make light of nuclear war. While nuclear survival guides and videos often contained erroneous and overly optimistic misinformation, they were intended to help, even if only through reassurance. But government guidance lacked stringent organisation and as such it was rare that audiences were compelled to believe them. After all, as we have seen in chapter one, *Duck and Cover* contributed to a greater sense of fear rather than reassurance among children. When we compare the *Vault Dweller's Survival Guide* with other such guides and propaganda, Tim Cain's intended contemporary commentary is clearly visible. However, in forming a narrative basis for a game that grounds itself in a period of genuine nuclear anxiety by using civil defence initiatives that cannot be seen to represent real nuclear anxieties, we are presented with an incomplete and unrepresentative portrayal of history in this regard.

The best example of this can be seen in the use of *Fallout's* brand icon, 'Fallout Boy', sometimes known as 'Vault Boy'. In multiple images throughout the manual, Fallout Boy can be seen to reflect the artistry seen in nuclear war survival propaganda from the early Cold War as shown in figure thirteen. Fallout boy is most recognisably similar to the *Duck and Cover* propaganda films that utilised cartoons to influence nuclear understandings among children. However, due to its early publication, 1950's *Survival Under Atomic Attack* sees the most appropriate comparison of this propaganda as it can be seen to present a similar sense of misinformation that the *Fallout* manual strives for. As previously discussed, *Survival* adopts a tone of reassuring optimism, stating that even if one were injured by radioactivity "Your chances of making a complete recovery are much the same as for everyday

²² Tim Cain. 'Matt Chat 67: Fallout with Tim Cain Pt. 2'. Online Video Clip. YouTube. Accessed 02 Aug 2016. <http://bit.ly/2aCsqyX>.

²³ *Ibid.*

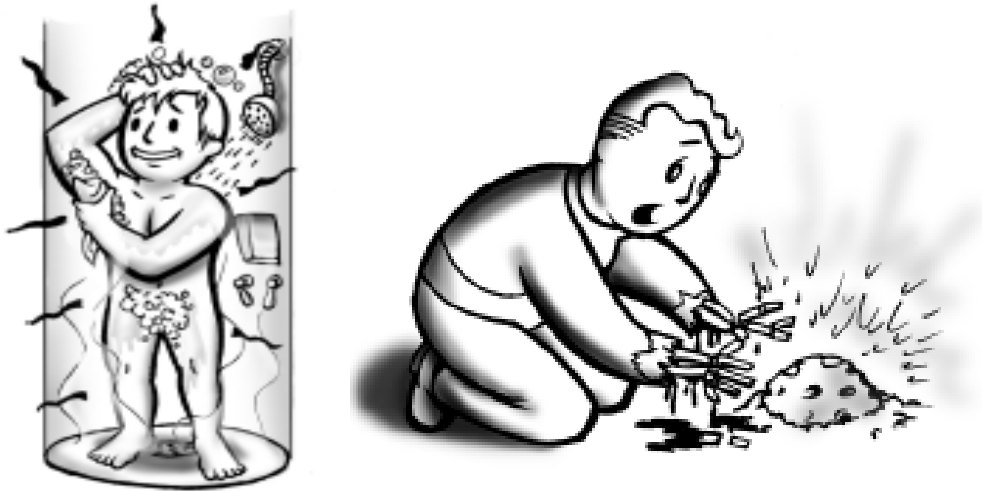


Figure 14 - Images from Chris Taylor, *Vault Dweller's Survival Guide*, (Interplay Entertainment, 1997), p.'3 15': p.'4 – 2'

accidents.”²⁴ The *Fallout* manual essentially attempts to reflect this style by juxtaposing in-depth information, such as how a nuclear blast causes “heat from fusion and fission” which “instantaneously raises the surrounding air to 10 million degrees C”, with quirky images of Fallout Boy, such as him showering to scrub away the effects of radiation. This picture’s caption reads that “In the event of exposure to radiation, you must shower with a large amount of water as soon as possible. Lather, rinse and repeat.”²⁵ Meanwhile, the information provided is reminiscent of the only element of civil defence initiatives that we have seen to change with the times: their presentation of contextual understandings about the effects of nuclear war.

What this juxtaposition fails to capture is the sense of reassurance and optimism found in such initiatives, even when compared to FEMA's *Protection in the Nuclear Age*. Instead, the information provided about nuclear war offers facts more in line with modern understandings of nuclear attack without providing the same reassuring advice.²⁶ While this is indeed indicative of civil defence's persistent representation of developing nuclear knowledge, it means that the manual fails to reflect the reassuring tone of civil defence initiatives from any period of the Cold War. Rather than portray the same optimism in the manual’s factual guidance, the Fallout Boy cartoons are the only real offering of reassurance, presented similarly to the *Duck and Cover* public film. The issue here is that these images go beyond the childishness of Bert the Turtle hiding from a stick of dynamite

²⁴ *Survival Under Atomic Attack*, (United States Government Printing Office, 1950), p.5.

²⁵ Chris Taylor, *Vault Dweller's Survival Guide*, (Interplay Entertainment, 1997), p.'1 – 3': p.'4 – 2'.

²⁶ 'Nuclear Weapon Thermal Effects', *Federation of American Scientists*, <http://bit.ly/2afrxM5>, last accessed 02 Aug 2016.

or a man protecting his neck from a nuclear blast with a newspaper.²⁷ For example, figure fourteen shows Fallout Boy leaning over a glowing object that has just melted the skin from his hands. The caption for this childish states “If an object has enough illuminosity to read at night, do not touch.”²⁸ Tim Cain noted that after he watched the *Duck and Cover* film that his perception of the era was that nuclear war and radiation was “going to be much, much worse than this movie is letting on. So we kind of adopted Fallout Boy as our mascot.”²⁹ But when viewing this film now, it is itself retrospectively inane beyond its reassuring intent. Furthermore, when compared with the portrayal of Fallout Boy in the manual, it shows Interplay’s mascot to be a caricature of such initiatives. As figure fifteen shows, even the Bert the Turtle children’s comic depicted a more accurate depiction of severity and fear than *Fallout* even attempted. It must not be forgotten that the purpose of this juxtaposition, as Tim Cain said, is to exaggerate in order to “raise the consciousness of the players” to make “them look at their own governments and their own society just a little more critically.”³⁰ But the use of Fallout Boy takes the perception of nuclear war seen in civil defence initiatives beyond the reality of its erroneousness. In doing so, this evokes a far more absurd and jovial misrepresentation of history oddly juxtaposed with real facts.

Therefore, the game’s attempted representation of nuclear anxieties is done

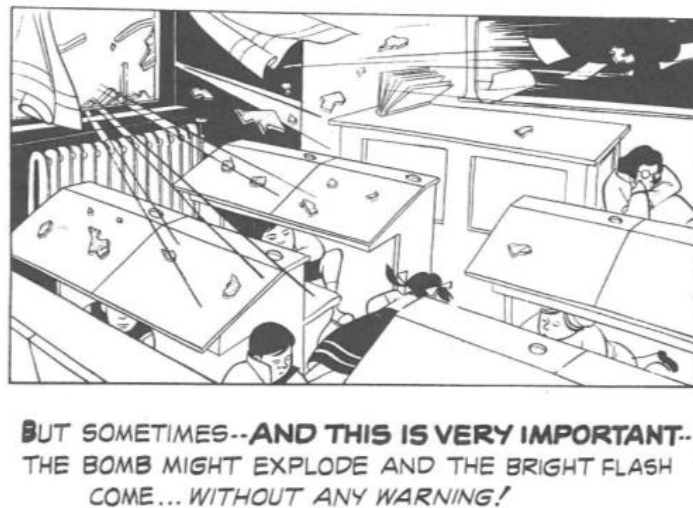


Figure 15 - Federal Civil Defense Administration, *Bert the Turtle Says Duck and Cover*, 1951.

²⁷ United States Federal Civil Defense Administration, *Bert the Turtle says Duck and Cover*, (U.S. Government Printing Office, 1951).

²⁸ Chris Taylor, *Vault Dweller’s Survival Guide*, (Interplay Entertainment, 1997), p.’3 – 15’.

²⁹ Tim Cain. ‘Matt Chat 67: Fallout with Tim Cain Pt. 2’. Online Video Clip. YouTube. Accessed 02 Aug 2016. <http://bit.ly/2aCsqyX>.

³⁰ *Ibid.*

through the juxtaposition of the manual's misrepresentation of reassuring civil defence initiatives and comical cartoons to create an intentionally dark yet comic tone, summarised in the game's vision statement - "Life is cheap and violence is all that there is".³¹ Of course, this comical tone is perfectly acceptable in parody, but it misrepresents civil defence initiatives to make them seem almost villainously deceitful rather than merely unrepresentative of anxieties in the period. However, the reflection of civil defence seen here reinforces the game's insistence that "War never changes". After all, viewing history exclusively through the lens of persistent civil defence planning over the course of the conflict suggests this notion to be true. This thereby strengthens Cain's commentary on deceitful governments as the politicians of the *Fallout* universe intentionally presented war as unchanging for the sake of the same normalisation we have seen in civil defence throughout this study. In this regard, *Fallout* can be seen as a continuation of nuclear apocalyptic culture representative of contextual nuclear anxieties as seen throughout this thesis, as its comic tone reflects the lack of public anxiety regarding nuclear war that came with the end of the Cold War.³² Although, while it is not for this study to say that any representative failure detracts from the game's intended commentary on the aspects of American life that Tim Cain had sought to question, it does combine its unrepresentative influences to create a caricature of actual nuclear anxieties. Therefore, in attempting to form Cain's commentary, *Fallout* exaggerates the reality of civil defence initiatives, themselves unrepresentative of nuclear anxieties in the Cold War, to such an extent as to effectively be seen as a misrepresentation of the game's historical influences.

Legacy

Fallout's historical misrepresentation would be of little concern if the game had not been the success it became and continues to be. After all, the legacy of *Fallout* is one of popularity. Despite continued uncertainty from Interplay and two near cancellations, the first game was a major success and *Fallout 2* (1998) was released just one year later.³³ The

³¹ Chris Taylor, *Fallout: A GURPS Post Nuclear Adventure – Vision Statement (or why this game is damn cool)*, (Interplay Entertainment, 1996), p.1.

³² Robert T. Schatz and Susan T. Fiske, 'International Reactions to the Threat of Nuclear War: The Rise and Fall of Concern in the Eighties', *Political Psychology*, (Vol.13, No.1, 1992), p.7.

³³ 'Fallout Classic Revisited'. Online Video Clip. YouTube. Accessed 06 Aug 2016. <http://bit.ly/2aqjFpm>.

new team responsible for the development of the sequel was a subsidiary of Interplay Entertainment, Black Isle Studios, who expanded dramatically on the lore of the *Fallout* universe. However, *Fallout 2* provided fewer specifics about the pre-war world. A wasteland wanderer's explanation of it goes thus – "I know little about the war, but it doesn't really matter. A lot of people died when a lot of atomic bombs went off and nearly destroyed the world."³⁴ But since the release of *Fallout 2* and the spinoff game *Fallout Tactics*, the popularity of the franchise grew, helped considerably by Bethesda Softworks who acquired the *Fallout* license from Interplay Entertainment in 2004 following some less successful *Fallout* spinoffs, such as *Fallout: Brotherhood of Steel* (2004). The game development sector of Bethesda Softworks, Bethesda Game Studios released *Fallout 3* on October 28 2008 to critical and commercial acclaim, selling almost 10 million copies.³⁵ Since then the *Fallout* series has seen huge success, with *Fallout: New Vegas* (2010) selling in excess of 8 million copies and *Fallout 4* (2015) selling almost 12 million.³⁶ But Bethesda did not please fans of the first two games. The originals had been developed in line with the PC market of 1997 to create games for "Older, methodical role-playing enthusiasts with roots in pen and paper role playing." *Fallout 3* needed to sell to younger, contemporary gamers.³⁷ As such, Bethesda shifted the player's view from an isometric plain to a first-person perspective that modernised the game dramatically. This change necessitated the inclusion of a greater degree of fidelity and detail in the game's portrayal of the post-apocalypse as players could now come face-to-face the wasteland itself, rather than viewing it from a distance.

While the original *Fallout* stands as the watershed moment of the nuclear apocalyptic genre in video games, *Fallout 3*'s dramatic change of style and sub-genre, shifting it from a role-playing strategy game to a role-playing, first-person, action game, allowed for a second watershed in popularity. "Bethesda understood what was [monetarily] valuable ... about the *Fallout* series was its visual iconography. The pip-boy, the crushed

³⁴ *Fallout 2: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, Black Isle Studios, 1998.

³⁵ 'Fallout 3', *Metacritic*, <http://bit.ly/2aKjUts>, last accessed 05 Aug 2016: 'Fallout 3', *VGChartz*, <http://bit.ly/2arsxrZ>, last accessed 05 Aug 2016.

³⁶ 'Fallout: New Vegas', *VGChartz*, <http://bit.ly/2aTV4Ky>, last accessed 05 Aug 2016: 'Fallout 4', *VGChartz*, <http://bit.ly/2azk1c7>, last accessed 05 Aug 2016.

³⁷ 'A Thorough Look At Fallout'. Online Video Clip. YouTube. Accessed 01 Aug 2016. <http://bit.ly/13Ttfuu>.

optimism of the setting, the dark humour, the unsettling gothic architecture.”³⁸ However, in doing so, *Fallout 3* not only left behind many fans of the original format but also large elements that grounded the original *Fallout*'s nuclear apocalyptic influences, seen in the opening cinematic, in the reality of the 1950s.

Take for example *Fallout 3*'s opening cinematic. It is extremely similar to the original, but instead of being provided with the same backstory about the energy crisis that plunged the world into distrust and eventual devastation, we are merely told that “after millennia of armed conflict, the destructive nature of man could sustain itself no longer.”³⁹ This opening instead focuses on the vaults that saved a small number of the population. The camera similarly zooms out at the start of the game's opening cutscene, but this time from a bus radio. Here we are shown a poster advertising the military that states “Enlist Today!” and another for the Vault-Tec vaults that reads “A Brighter Future Underground!” Both of these can be seen in figure sixteen. This however is the closest equivalent to the world building



Figure 16 - Screenshot from *Fallout 3*, Rockville, MD: Bethesda Softworks, Bethesda Game Studios, 2008.

³⁸ 'A Thorough Look At Fallout'. Online Video Clip. YouTube. Accessed 01 Aug 2016. <http://bit.ly/13Ttfuu>.

³⁹ *Fallout: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, 1997: 'Fallout 3 Intro [Full / HD]'. Online Video Clip. YouTube. Accessed 05 Aug 2016. <http://bit.ly/2aWD43q>.

seen in the original *Fallout* that we are provided with, and while this can be seen to minimally reflect advertisements for fallout shelter seen in the early 1960s, there is little visual evidence in this single poster to inform the audience of the game's intended commentary.⁴⁰ The prevalent aspect that remains from the original is the same depiction of total destruction and bleak emptiness, as well as the opening line, "War. War never changes."⁴¹

It has been stated by contemporary critics, in reference to *Fallout 3*, that the "disparity of destruction and reality is what drives the humour of *Fallout*."⁴² But humour overpowers fact in this regard as very little remains of the original game's limited links to reality. But perhaps Cutterman's view, that *Fallout 3* "relies and plays on already internalized historical knowledge, tropes" and "allusions", assists in understanding this?⁴³ If we view it as a sequel, then the lack of historical grounding makes slightly more sense, as its predecessors established their audience's knowledge of *Fallout*'s themes. But when viewing *Fallout 3* as a seminal moment not just for the *Fallout* franchise but for the nuclear apocalyptic genre in video games as a whole then the opposite becomes true. As *Fallout 3* relied heavily on the contemporary video game market to sell, it seems plain that a large portion of its audience would lack this internalised knowledge. Therefore, rather than reiterate the original backstory, "Bethesda was able to tap into a pre-existing lexicon of motifs that make brand recognition for *Fallout* almost immediate", effectively negating the need to tackle the same themes as the original despite attempting to utilise them.⁴⁴

We can see from this that the removal of historical grounding in the introductory cinematic relieves the game of the same commentary previously inspired by civil defence initiatives. Furthermore, the continued use of the franchise's motto - "War. War never changes"- can be seen as another factor of this expected internalised knowledge.⁴⁵ As the original game based itself around civil defence initiatives that can be seen to persist in their

⁴⁰ 'Fallout Shelters', *Life*, (Sept 15 1961), pp.98-103.

⁴¹ *Fallout 3*, Rockville, MD: Bethesda Softworks, Bethesda Game Studios, 2008.

⁴² 'The Philosophy of Fallout – Wisecrack Edition'. Online Video Clip. YouTube. Accessed 01 Aug 2016. <http://bit.ly/1QhBmlz>.

⁴³ Tom Cutterman, 'Irony and American Historical Consciousness in *Fallout 3*', in Kapell and Elliott, ed., *Playing With the Past*, p.321.

⁴⁴ 'A Thorough Look At Fallout'. Online Video Clip. YouTube. Accessed 01 Aug 2016. <http://bit.ly/13Ttfuu>.

⁴⁵ *Fallout 3*, Rockville, MD: Bethesda Softworks, Bethesda Game Studios, 2008.

misrepresentation of nuclear anxiety, the motto reinforced a perception of the unchanging nature of war and by extension the commentary on deceitful governments. However, its use in *Fallout 3* attempts to adhere to this aspect of the original game's social commentary as it presents the same imagery of government propaganda in its introduction (as well as in the manual, which is discussed below) without grounding it in the historical reality of civil defence. Instead, it utilises reminiscent imagery to build its own world and create the humour the series is known for rather than connect its world with the same historical context as the original game.

The game therefore expects a certain degree of internalised knowledge from its audience, utilising the same historical representation and juxtaposition to promote its humour above its commentary, essentially further misrepresenting the nuclear anxieties that the franchise is built upon. Furthermore, in removing this commentary the game does not reflect contextual nuclear anxieties, and thereby fails to represent the shifting perceptions of nuclear war that we have seen to be a persistent element of nuclear apocalyptic culture. This is especially prevalent considering the manner in which nuclear anxieties returned in a limited sense since 1997 thanks to nuclear weapons testing in North Korea, as 60 percent of people agreed North Korea's nuclear programme to be a "Major



Figure 17 – Image from *Vault Dweller's Survival Guide*, (Bethesda Softworks, 2008), p.9.

threat" in 2006.⁴⁶

In regards to the manual, this visual brand recognition, in the form of Fallout Boy, is almost instantaneous, but the same expectations of internalised knowledge can also be seen here. *Fallout 3's* manual, also called the *Vault Dweller's Survival Guide*, does not utilise the representation of civil defence initiatives to the same effect as the original. In fact, what remains of these images are now presented as advice merely about surviving in the post-apocalyptic world, rather than preparing for nuclear war itself, as seen in figure seventeen. This can be seen to fail in its reflection of civil defence initiatives as at no point throughout this thesis have we found civil defence guidance to offer advice on living in the post-apocalyptic world, merely surviving the initial war. Even Fallout Boy lost what resemblance he had to Bert the Turtle: no longer depicting survival propaganda; he can instead be seen in various comical poses that relate to unlockable player skills in the game, as shown by figure eighteen. Even the Fallout Boy seen in the hazmat suit is merely a device to depict the game's irreverent sense of humour.

Furthermore, the manual no longer resembles a survival guide despite being called one. Firstly, there is a complete lack of information reflective of any era of civil defence beyond the satirical imagery seen in figure eighteen. Secondly, in the place of this information we find the game's backstory. This removes the manual and thus the game from its historical origins even further. While it could be said that the removal of this from the opening cinematic is once again an expectation of internalised knowledge, its inclusion here practically negates this notion, as well as acting as a replacement for the limited historical representation seen in the original's caricature. Furthermore, this section of the manual, which initially presents itself as a narrative, also refers to the game of *Fallout 3* itself, something the original never did. Here we can see remarks about the game's promotion of freedom and choice, which state that "That's really the most important thing to remember about *Fallout 3* – it's your game, so play it the way you want."⁴⁷ Whereas the original manual attempted to represent the game as a legitimate world and setting, *Fallout 3* not only removes large aspects of representative imagery and information, but also breaks the player's immersion in this fictional world by reminding them that it is just that. This

⁴⁶ Jibum Kim, Carl Gershenson, Jaeki Jeong and Tom W. Smith, 'Trends: How Americans Think about North Korea: 2000 - 2007', *Public Opinion Quarterly*, (Vol.72, No.4, 2008), p.813.

⁴⁷ Bethesda Softworks, *Vault Dweller's Survival Guide*, (Bethesda Softworks, 2008), p.3.



Figure 18 – Images from *Vault Dweller's Survival Guide*, (Bethesda Softworks, 2008), p.7: p.33: p.35.

breaks the conventions the nuclear apocalyptic culture previously analysed, as in each case, the film or game's representation of nuclear perceptions can be seen to treat the subject matter as a legitimate aspect of their fiction rather than outwardly admitting its fictitious nature.

While it can be argued that the game's backstory and historical routes are internalised thanks to its predecessors, the game represents a new beginning for the franchise, reliant on new audiences. While this lack of grounding in history in no way hinders one's experience of the game, it certainly misconstrues what experienced *Fallout* players could call 'internalised knowledge' about both the game-world and reality. Therefore, even considering the first game's misrepresentation of its historical influences and therefore the history of nuclear anxieties generally, *Fallout 3* distances itself even more from its original thematic basis. Because of this, *Fallout 3* lacks the same commentary as Tim Cain's original, causing it to fail in its reflection of shifting nuclear anxieties, an intrinsic aspect of previous nuclear apocalyptic culture. This means that one of the most popular video games in recent history has the potential to propagate misrepresentations of nuclear anxiety during the Cold War and in its own contextual period.

Conclusion

"We may laugh at this ironic play of elements, but we can also view it as a criticism of government propaganda."⁴⁸ From its broader representation of government policy and military action, *Fallout* (1997) can indeed be seen as a wider commentary on such notions

⁴⁸ 'The Philosophy of Fallout – Wisecrack Edition'. Online Video Clip. YouTube. Accessed 01 Aug 2016. <http://bit.ly/1QhBmlz>.

and therefore a continuation of nuclear apocalyptic culture representing contextual nuclear anxieties, which in *Fallout's* context are predominantly absent. Because of this absence, the game utilises nuclear apocalyptic culture and civil defence initiatives to influence its commentary. However, when we take the game as a representation of history, which is unavoidable given that its influences can be seen to represent public and state perceptions of nuclear war in the second half of the twentieth century, it fails to appropriately represent the past. Reflections of representative nuclear apocalyptic culture can be seen in the opening cinematic, but predominantly *Fallout* draws from civil defence initiatives which we have seen to be unrepresentative of nuclear anxieties. In forming Cain's commentary on deceitful governments, it creates a unrepresentative caricature of these initiatives. While the juxtaposition of optimistic propaganda and a bleak existence represent to some extent the absurd nature of civil defence initiatives, such as *Duck and Cover*, overall the game lacks any representation of nuclear anxiety that had proliferated society and culture, exploiting its influences without representing them.

The *Fallout* series has gone on to gain unprecedented levels of popularity thanks to the humour created by the juxtaposition of destruction and optimism that was established by the original. But the expectation of internalised knowledge from its audience, despite dramatically altering the representation of the series' themes, detaches *Fallout 3* from its historical origins. While the quality of the game itself remains unaffected by this, audiences new to the series or new to nuclear apocalyptic culture in general, would lack this internalised knowledge. Furthermore, while the original game can be seen as a continuation of nuclear apocalyptic culture representative of nuclear anxieties, *Fallout 3* bucks the trend by removing elements that reflected civil defence initiatives, merely utilising the brand recognition of the original, therefore failing to form a contemporary commentary that reflects contextually shifting nuclear anxieties. As Bethesda set out to alter the style of the series for contemporary audiences, it is foolish to expect that any internalised knowledge should be present. Instead, the same juxtaposition seen in the original *Fallout* that used civil defence initiatives to create a commentary on the government and erroneously represent nuclear anxieties is here replaced by brand recognition, utilising the series' motifs to create comedy not commentary. Therefore, one of the most popular forms of contemporary nuclear apocalyptic popular culture no longer represents the facets of reality analysed throughout this thesis in the way that such culture can be seen to do during the Cold War.

Fallout lacked the ability to draw upon contextual nuclear anxieties in the same way that nuclear apocalyptic culture had done so throughout the conflict. Instead, influenced predominantly by misrepresentations of nuclear anxiety, *Fallout* created a contemporary commentary about deceitful governments, greedy capitalists and their insistence that "War never changes", while neglecting to represent the realities of its thematic basis. The issue is that while *Fallout* and its sequels are considered by many contemporary academics and critics to be representative of propagandistic civil defence initiatives, the original forms a caricature unrepresentative of the past, while its subsequent sequels remove themselves from their historical grounding altogether, thereby assuming the role of misrepresenting nuclear anxieties; the same thing that Cold War civil defence initiatives can be seen to be guilty of.

Conclusion

This thesis has aimed to explore representations and misrepresentations of nuclear anxiety via the medium of contextually contemporary popular culture. As we have seen throughout the course of this study, nuclear apocalyptic culture is, more often than not, best understood as being representative of its contextual nuclear anxieties, both in medium and message. When viewed chronologically and critically analysed, these representations effectively demonstrate the shift in perceptions of nuclear war that occurred over the course of the Cold War, from early divisions between official optimism and public pessimism to the desire for an end to the conflict in the late 1980s. Therefore, it has been argued that nuclear apocalyptic culture, while often erroneous in its facts, is an effective representation of nuclear anxieties present during the Cold War, reflective of shifting perceptions and fears of nuclear war. This study has therefore demonstrated that both film and video games not only have the capacity to be representative of a particular viewpoint in history but also that their historical accuracy is crucial in determining a context for that viewpoint that might otherwise go unnoticed. It is by assessing both film and video games, despite their difference in medium, as forms of contemporary culture in the periods discussed that this thesis has established a greater understanding of the manner in which nuclear-apocalyptic culture, regardless of medium, can be seen to influence the genre as a whole. However, this trend in representative nuclear apocalyptic culture came to an end following the Cold War as post-conflict popular culture eventually ceased to represent contextual nuclear anxieties, despite utilising a wide array of previously representative cultural influences. This thesis therefore demonstrates that post-conflict nuclear apocalyptic culture fails to continue the trend of accurate representation thanks to the popularisation of such imagery.

This thesis began by considering speculative magazine articles which depicted portrayals of destruction as a reflection of the public's pessimistic attitudes towards nuclear war, contrasted against the governmental attempts to assuage these fears via official literature. It has been argued that these predominantly pessimistic depictions provide us with a greater insight into the manner in which nuclear anxieties existed and how public opinion altered over the course of the conflict, rather than the optimistic attempts of the Government initiatives to educate the public about nuclear war, which failed to reflect either genuine public concern or shifting anxieties across the Cold War. Instead, these represent governmental perceptions of nuclear war, highlighting the principal importance

placed on normalisation. *Survival Under Atomic Attack* and *Duck and Cover* are two prime examples of how such initiatives failed in their reflection of public anxiety, and when compared to FEMA's survival guidance in the 1980s, little can be seen to have changed other than the scientific understandings about nuclear attack. Instead, such initiatives presented readers with a sense of reassuring optimism regardless of changing public sentiment.

Films also tapped into these expressions of nuclear anxiety and began to explore the science fiction themes and apocalyptic scenarios previously popular in both books and magazines. *Five* (1951) presented a bleak and depressing vision of the apocalypse, imbued with signs of biblical societal renewal and reflected in the pessimistic sentiment towards nuclear war among the US public. *Panic in Year Zero* (1962) ditched such pessimism in favour of moral questions representative of the concerns of the public during the fallout shelter debates. A few decades later, just as films had once represented the most contemporary form of nuclear apocalyptic culture, with greater technological progression came video games. *Missile Command* (1980) tapped into a plethora of non-contextual weaponry to form a nonetheless contextual representation of nuclear anxieties that had shifted since the early 1960s to focus on bringing the threat of nuclear war to an end. *Wasteland* (1988) abandoned this focus and instead utilised public sentiment toward Reagan's SDI programme and the perceived threat of Soviet aggression established during the KAL-007 incident to ground the game's fantastical fiction in reality. When we look at each of these examples of nuclear apocalyptic culture individually, we can see the manner in which they represent contextual nuclear anxieties, and when viewed together they can be seen to chart the changes in nuclear anxieties over the course of Cold War.

However, while the Cold War ended at the start of the 1990s and the threat of nuclear war subsided, nuclear apocalyptic culture, continuing on from *Missile Command* and *Wasteland*, continued to experience unprecedented popularity in video games post-conflict. *Fallout* (1997) represents a watershed moment in nuclear apocalyptic culture. The game's success catapulted the series to heights unattained by previous nuclear apocalyptic culture as the franchise continues to grow in popularity. However, as nuclear anxieties waned, *Fallout* had few contextual anxieties to be influenced by. Instead, in an attempt to create a commentary on its own time, *Fallout* drew from nuclear apocalyptic culture we have seen previously, such as *Five*'s empty world, *Panic*'s misguided violence, *Missile Command*'s use of

non-contextual influences and *Wasteland's* fantastical yet grounded backstory. However, while these influences formed the game's depiction of nuclear devastation, as seen in the opening cinematic, it primarily utilised governmental civil defence initiatives at the centre of its commentary. While this commentary remains strong and reflective of the contextual lack of nuclear anxieties, it is created by exploiting civil defence initiatives. For example, distorting such initiatives, *Fallout Boy* is reminiscent of Bert the Turtle, yet the juxtaposition of morbidity and comedy caricatures governmental advice to appear deceitful for the sake of its commentary. *Fallout* is therefore a piece of nuclear apocalyptic culture influenced by misrepresentations of historical nuclear anxiety for the sake of commentary, which can conversely be seen to represent contextual nuclear anxiety. While nuclear apocalyptic culture was further popularised by Bethesda, who purposefully restructured the series to monetise the brand and motifs of the original *Fallout*, expectations of the audience's internalised knowledge allowed for the removal of a contemporary commentary. Therefore, it has been argued that nuclear apocalyptic culture no longer reflects contextual nuclear anxieties as *Fallout's* misrepresentations of history have been proliferated greatly by its sequels, which could now be regarded as the most popular representation of nuclear anxieties in the Cold War despite in fact being a misrepresentation of such sentiment.

In conclusion, this study has shown that nuclear apocalyptic culture can be regarded as representative of contextual nuclear anxieties and therefore indicative of changes in anxiety over the course of the Cold War. However, if one were to view public nuclear anxieties during the Cold War exclusively through persistently unrepresentative civil defence initiatives it could indeed be said that "War never changes."¹ While this conceit is arguably a part of the *Fallout's* intended commentary on deceitful governments, when viewed in regards to Bethesda's *Fallout 3* and its sequels, the series can now be seen to rely on the player's acceptance of this statement as a part of the series' expectations of internalised knowledge. Yet no evidence for the unchanging nature of war can be found here and as such the players' perceptions of it are unsubstantiated. Consequently, while the *Fallout* franchise - an example of contemporary nuclear apocalyptic popular culture - can be viewed as unrepresentative of nuclear anxiety in the Cold War, as well as contemporary nuclear anxieties, it now also stands to propagate the acceptance of government

¹ *Fallout: A Post Nuclear Role Playing Game*, Beverly Hills, CA: Interplay Entertainment, 1997.

propaganda as a representation of reality. After all, without accepting the realities of public nuclear anxiety during the second half of the twentieth century, the notion that "War. War never changes" is given false credence by the continuing popularity of the *Fallout* series; a franchise whose persisting success and popularity gives undeserved legitimacy to its portrayal of nuclear anxieties.

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