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# **Atomic Apocalypse –**

## 'Nuclear Fiction'

## in German Literature and Culture

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by

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#### Abstract

In my dissertation "Atomic Apocalypse – 'Nuclear Fiction' in German Literature and Culture," I investigate the portrayal of the nuclear age and its most dreaded fantasy, the nuclear apocalypse, in German fictionalizations and cultural writings. My selection contains texts of disparate natures and provenance: about fifty plays, novels, audio plays, treatises, narratives, films from 1946 to 2009. I regard these texts as a genre of their own and attempt a description of the various elements that tie them together.

The fascination with the end of the world that high and popular culture have developed after 9/11 partially originated from the tradition of nuclear fiction since 1945. The Cold War has produced strong and lasting apocalyptic images in German culture that reject the traditional biblical apocalypse and that draw up a new worldview. In particular, German nuclear fiction sees the atomic apocalypse as another step towards the technical facilitation of genocide, preceded by the Jewish Holocaust with its gas chambers and ovens. This study is primarily a literary one. However, I place the discussion in the vast cultural framework in which the texts of German nuclear fiction were embedded: science, history, philosophy, sociology, and cultural studies. I draw on various secondary sources from a plethora of disciplines to shed light on the nuclear age in German literature and culture.

The study is divided into three chapters that analyze the following aspects: the philosophical question of the ultimate evil of the nuclear disaster in an all-encompassing war, traditional apocalyptic imagery versus the modern science-aided apocalypse, the employment of nuclear science in literary accounts and how it is absorbed by fiction, the dynamics of miscommunication and risk communication and why that inevitably sucks

fictional characters into the maelstrom of disaster. Finally, the depiction of nuclear war in fiction is in opposition to traditional war literature, turning the three-dimensional world of Euclidean geometry upside down and bestowing new meaning on the term "total war." An outlook on the future of nuclear fiction concludes this study, trying to show how the tenets of the Cold War and its apocalyptic culture have informed German writings and culture in the new millennium. Even though this study focuses on German literature, the themes of German nuclear fiction appeal to a global readership.

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#### Introduction

"Die Atombombe – wie auch die Kernkraftwerke und andere atomare 'Errungenschaften' – haben die Phantasie der Menschen von Anfang an beflügelt..."

Michael Salewski, Das nukleare Jahrhundert (9)

The danger of a global nuclear war seemed to have dissipated in the wake of the collapse of the former Soviet Union when on September 11, 2001, the people of the Western world were thrown out of their dreams and back into reality although no nuclear material was involved in the four plane attacks. 9/11 has precipitated a barrage of military and political actions that have simultaneously aggravated and obfuscated a new nuclear crisis. The nuclear aspirations of Iran and North Korea portend the dawning of an era of nuclear resuscitation, but by far the biggest fear is that nuclear material might be in or will get into the hands of irrational terrorists.

What does all this have to do with the field of German Studies? Germany was the cause for the development of the world's first two nuclear bombs that were finally not employed against the already vanquished Nazis but against Japan. Germany itself tried to build the first nuclear bomb but failed. During the Cold War, Germany "served" as the potential first battlefield in the fictitious scenario of a Third World War. Had the Cold War escalated, the then divided city of Berlin probably would have been hit first. German physicists have contributed heavily to the development of nuclear physics and Germany as a whole has been deeply involved in the history of the nuclear age. However, the power of nuclear technology cannot be limited to national discussions. It is an issue that

concerns the entire world, as one could observe in the Chernobyl incident. Yet the essential question how to contain nuclear proliferation remains unsolved.

My study presents what many German writers, thinkers, and also a few filmmakers have brought to the table of the nuclear discussions in the twentieth and the beginning twenty-first century. The goal is not only to explore a strain of German works of literature, philosophy, and film that has barely been afforded academic attention but also to see literature as a way to educate ourselves in urgent matters. First and foremost, fictional texts about the nuclear age represent the center of this study. I refer to these texts as "nuclear fiction." Most of these accounts deal with the possibility of a total nuclear apocalypse or the severe implications for human culture and society if such an apocalypse were to happen. A plethora of philosophical, theoretical and non-fictional texts will second nuclear fiction and help enlighten our understanding of these fictional texts and films. Oftentimes, however, the strict differentiation between fiction and non-fiction is difficult as some authors segue from one genre into the next. I have chosen fictional works as my focus for two main reasons:

- 1. Purely non-fictional writings on nuclear issues are virtually limitless and they exceed the possibilities of this study.
- 2. The nuclear apocalypse is (until now and hopefully also in the future) a fictitious scenario. Its dystopian potential is best depicted in fictional texts rather than in non-fictional writings. The rational approach of non-fictional writings may bring clarification and knowledge, but the visions and fantasies, the abominable atrocities and the fear that the world might come to an end, the ghastly

catastrophe, the phantasmagorias of horror and terror are the purview of fiction where there are no limits to the author's fantasy.

By producing strong and lasting images of terror, literature and also a few selective films are best able to challenge our minds and to provoke our reaction. These works appeal to us because they kindle a desire to learn about the seemingly impossible apocalypse and yet repel us because what they depict is deeply inhuman and horrific. My selection contains texts of disparate natures and provenance: about fifty plays, novels, audio plays, treatises, narratives, films from 1946 to 2009. Since the sheer amount of nuclear fiction abounds, I made a conscious decision only to deal with the most relevant texts that contain core messages about the nuclear age and that exemplify best the key features of nuclear fiction. However, the bibliography contains an extended list of fiction that has not been dealt with explicitly in this thesis. I also decided not to accept poetry into my selection of texts although there are many poems that focus on the nuclear age. A simple and practical reason for this is the danger of losing scholarly transparency by intermingling poetry and prose. A second, more specific, reason is provided by my findings that suggest that poetry very often is unable to express the detailed narrative trajectory of the nuclear apocalypse as a developing event. From what I found, prose here clearly eclipses poetry in relevant areas such as the ability to minutely chronicle the apocalypse. Poetry very often remains an evanescent snapshot whereas prose aspires to epic and cinematic proportions.

Paul Brians in his 1987 monograph *Atomic War in Fiction* claims that German writers have not frequently expressed themselves creatively about the nuclear age:

Not only have many German fiction writers and dramatists signed petitions, marched, and spoken out directly on the issue of nuclear war, but they have also frequently written nonfiction articles on the subject as well. However it is notable that few of them have written fiction depicting such a war [...] Apparently nothing like the proliferation of nuclear holocaust tales in English has taken place in German-speaking countries. German writers may have been more committed and outspoken than their British and American counterparts, but aside from a handful of novels and plays aimed primarily at direct agitation, their concerns have not been expressed in their creative work. (87)

The evidence of the body of German nuclear fiction defies this claim, even though it is obvious that in terms of quantity it cannot eclipse the barrage of fictional writings about the nuclear age from Great Britain and the United States. The pool of works of German nuclear fiction, however, is very creative, inventive, and extremely diverse.

Some of the texts have reached canonical fame, such as Friedrich Dürrenmatt's *Die Physiker* and Heinar Kipphardt's *In der Sache J. Robert Oppenheimer*. Others have shaped entire generations of Germans, such as Gudrun Pausewang's novel *Die letzten Kinder von Schewenborn* or *Die Wolke*. Most of the texts which I deal with were in fact popular during their time but are not well known anymore today, such as Günther Anders's philosophical essays or Hans Hellmut Kirst's novel *Keiner kommt davon*. The latest attempts to develop larger works are Christa Wolf's *Störfall*, and especially Günter Grass's *Die Rättin*, showing that major German writers take up the theme.

I divide nuclear fiction into two historical main strands, following Axel

Goodbody's analysis of three phases of general catastrophism in German literature (1647), the first phase starting after the Second World War and succeeded by the second
phase mainly placed in the mid 1970s to the mid 1980s and continuing to the present.

Goodbody considers a wider body of fiction in his definition that includes any work

dealing with catastrophic events, often related to ecological issues and Environmentalism. He also describes an initial phase of catastrophism around the First World War which, of course, finds no equivalent in nuclear fiction for the lack of nuclear theories around that time. Although the first phase in Goodbody's definition precedes the birth of nuclear fiction, I argue that Goodbody's three-phase model shows that nuclear fiction follows the literary categorization of catastrophic literature in general. It remains to be seen if the new millennium in the wake of 9/11 will spawn a new, a third phase of nuclear fiction.

In Vom Faschismus zum Kalten Krieg – auch eine deutsche Literaturgeschichte,
Helmut Peitsch deplores that the Cold War has left its mark on German literature, a mark
that has never been fully acknowledged: "In den westdeutschen Literaturgeschichten, die
'große Werke' kanonisieren und nach der Moderne periodisieren, scheint es den Kalten
Krieg nie gegeben zu haben" (13). Nuclear fiction centers on the Cold War and the
changes it has brought about. However, I continue the discussion of the nuclear
apocalypse in post-Cold War writings in order to show that German literature after 1989
is still occupied with this topic. Writings by W. G. Sebald, Lutz Seiler and Kathrin
Röggla lend credence to this claim.

Given such a diverse pool of material, I do not think that approaching nuclear war fiction through a straightforward chronological or literary-historical approach will be the appropriate method. There are periods when entire clusters of works appeared, and there are also times when German literature was silent and unproductive in respect to nuclear themes. In a chronological overview this means that I cannot convincingly present the works within the framework of a strict linear continuity. Approaching the topic through the history of protest movements seems proper at first sight, yet leaves too many

questions unanswered. Raimund Kurscheid chose this approach in his analysis of the protest movement "Kampf dem Atomtod." While his study *Kampf dem Atomtod!*Schriftsteller im Kampf gegen eine deutsche Atombewaffnung is a paragon of thoroughness in listing all cogent fictional pieces in the 1950s and early 1960s, Kurscheid only dedicates a minor part of his book to the analysis of the literary pieces themselves. His approach remains limited to domestic skirmishes between Germans for and against nuclear power. Kurscheid also claims that writing about nuclear power always entailed taking up a political position (221). I want to challenge this claim: many pieces of nuclear fiction, especially from the 1980s onwards, are often depoliticized as they cynically try to come to grips with the failure of anti-nuclear protest which they regard as devoid of true political power.

In his 1992 monograph *The Rhetoric of Antinuclear Fiction: Persuasive*Strategies in Novels and Films, Patrick Mannix chooses the term "antinuclear fiction." In my view this already implies a political statement inasmuch as it situates nuclear fiction solely in the small niche of anti-nuclear protest movements. I thus use the term "nuclear fiction" not only as a minimalistic genre description of a diverse body of texts but also as a neutral term that avoids politicization. However, most of the fictional works that I analyze have never been an essential part of protest communities, even when their authors were temporarily active members in such groups. They are often isolated works, even unwieldy and awkward within the oeuvre of their makers - as is the case with Günter Grass's *Die Rättin* or Christa Wolf's *Störfall*. Furthermore, I argue that the political component in nuclear fiction is not what renders it enduring literature.

In this thesis, I seek to analyze works of nuclear fiction in the context of our time but also place them in the cultural background of their times. It is indispensable to touch upon various social, cultural, philosophical, sociological, historical, scientific and psychological aspects that are linked to the topic of nuclear destruction. Anne-Kathrin Reulecke argues that the idea of the "zwei Kulturen" – the deep divide between the science and the humanities – can be overcome (Von null bis unendlich 7-8). The texts of nuclear fiction exemplify this claim as they are truly interdisciplinary. Such a genre can only be understood if one recreates the interdisciplinary context in one's analysis. Another divide concerns the question whether fiction should be taken as seriously as reality, especially when it comes to the question of nuclear extinction. W. Warren Wagar in "Truth and Fiction, Equally Strange: Writing about the Bomb" argues that post-1945 history has increasingly relied on the power of fiction for political purposes. Wagar underscores the great importance of fantasy: "Does World War III itself belong more to the Pentagon or to the writers who have waged it in hundreds of short stories, novels, and screenplays? How can firm distinction be drawn between the battle plans stored in command-post computers and those stored in the heads of writers?" (449). This amalgamation of fiction and reality can be traced back to the inception of nuclear science.

John Canaday argues that literature became the fountainhead of nuclear science (3-4). The nuclear scientists were inspired by literary works when they were developing their breathtaking theories that would change the world. The Los Alamos scientists involved with the Manhattan Project sought to organize their disturbing new condition – the work on a project of inordinate proportions, the new environment, and the artificially created community among other things – within familiar frameworks, and, time and

again, turned to literature to do so. They read, for example, the Bible, Thomas Mann's Zauberberg, H.G. Wells's *The World Set Free*, the *Bhagavad Gita*, John Donne's poems, Columbus's letters, Puritan descriptions of the new world, or sometimes wrote literature themselves such as the *Blegdamsvey Faust*, a travesty of Goethe's Faust drama rewritten and staged by nuclear scientists, or Leo Szilard's *The Voice of the Dolphins*, a collection of fictional narratives about the nuclear age (Canaday 20). The connections between science and literature are deep and work in many directions.

This is a literary study with a strong background in cultural and scientific theories. It cannot be handled or should not be regarded as a historical study of facts. Literature is fiction even if it deals with facts or if it is based on facts. The Cold War, however, was a fascinating historical epoch in as much as many of its war fantasies were actually fictional, worked out by zealous military and governmental leaders of the two superpowers and other countries strategically affiliated with either power. The Cold War was about planning history rather than making it on a grand scale. It was a period when political fantasies, so to speak, ran amok in the minds of imaginative people. Those fantasies were grim and dark, but they were fiction nonetheless, and have remained fiction until today. This is, however, justification enough for me to shamelessly pit the nuclear fiction of literature against the fiction of Cold War history. My main questions in this study are: What can these works from different traditional genres, times, and origins tell a reader from the twenty-first century? Do they struggle for a new concept in literature? Can they function as consolatory entertainment for the concerned citizen of our days? Or do they still haunt us and unsettle our appeased minds?

My study is divided into three principal chapters. Chapter one is entitled "The Most Evil of All Worlds? – The Question of Evil in the Face of Total Annihilation in Fictional Texts on Nuclear War and Technology" and analyzes the philosophical notion of evil and how it can be linked to the atomic age. Is the term "evil" still regarded as it was during Gottfried Wilhelm Leibniz's or Immanuel Kant's times? Or has the advent of modern science, nuclear physics and the atom bomb in particular, prompted a redefinition of what evil means? I then analyze the tradition of the history of evil, looking at the predecessors of the nuclear evil. Almost all works of German nuclear fiction see the Cold War as an outcome of the political instability caused by Nazi Germany. The same evil forces that killed millions of people in concentration camps continue their work and now reappear as scientific ideas that led to the development and use of military nuclear power, as many works argue. My research question is whether the connection drawn to the Third Reich in most of the works is just a stylistic stopgap measure in dearth of literary power to effectively describe the catastrophe or a genuine depiction of a tradition of evil that has been carried on. In other words, did the authors just lack sufficient imagination to portray the ineffable catastrophe and had therefore to take to drawing on the scenes of human misery in the concentration camps, or did they sense an unnoticed undercurrent of totalitarian power that continued to shape the post-1945 era? Have the Germans never turned over a new leaf? Thus, is the *Stunde Null* a myth that the nuclear age belies? The strategies of totalitarianism would have stretched not only to the Cold War but also to our times. The very image of a nuclear blast shares many parallels with the "classical" Holocaust when defined in the truest sense of the word as "something that is completely

burnt." Many of the authors consciously link their depiction of nuclear war or nuclear accidents to the Holocaust imagery.

My thesis is that there is a link between a historical connection drawn from the nuclear age to the Third Reich and the Holocaust imagery applied in the description of the nuclear apocalypse. This chapter seeks to further investigate the relationship of the two components to each other. To pay tribute to the victims of the Holocaust, I abstain from capitalizing the term "nuclear holocaust" as it has been so far a mere imagination and has thankfully not taken or surpassed the same human toll. I do not intend to juxtapose both terms here as if they were equal. However, the purpose of this chapter is to show the transitional evil thoughts that have first emerged during the Holocaust but then have been passed on to post-war developments.

I then analyze the atomic bomb as the literary symbol and the epitome of evil. The bomb itself is hard to depict as its seemingly inconspicuous size and outer shape does not disclose the tremendous destructive effect it can reach. Nuclear fiction struggles with this concept and renders various representations of the bomb that reflect this struggle. Since the notion of evil and morality are closely tied to concepts of religion, I establish a comparison between the traditional Christian moral concepts and the departure from religious tradition in nuclear fiction. While nuclear fiction verbally represents the moral conflicts of the nuclear age with religious metaphors, it rejects the Christian concepts of good and evil. Nuclear fiction can be subdivided into two main strands that I call *engaged* and *disengaged*. While the former strand adheres to traditional concepts of morality, the latter detaches itself from morality as a definable concept. As it unfolds, nuclear fiction

chronicles the change that moral concepts and the ultimate question of good and evil undergo in the nuclear age.

Chapter two, entitled "The Grim Face of the Apocalypse – The Oxymoron of the Old and the New – The Clash of Traditional and Modern Apocalyptic Concepts in Nuclear Fiction" analyzes the literary images of the nuclear apocalypse. My main research questions are: How is the unthinkable depicted? How can literature succeed in describing scenarios that go beyond the mind's ability? Where are the limits of literature and films? Does nuclear war fiction establish a new style in describing the apocalypse or does it draw on traditional biblical imagery? Many authors draw heavily on traditional apocalyptic scenarios such as those found in biblical images, especially in the *Book of Revelation*. At the same time most authors realize that these traditional concepts do not suffice to reveal the intensity of a scenario that transcends any literary image. The nuclear annihilation has new qualities that set it apart from any traditional apocalyptic scenario. Whereas the traditional apocalypse suggests a blissful afterworld for at least a chosen few, there is no such hope in the modern nuclear age.

I analyze the depiction of the nuclear apocalypse from a variety of crucial angles: The nuclear blast is also a double whammy, not only virtually destroying the material world of our planet but also the cultural world of humanity. How is the downfall of human culture depicted? What language is applied to the description of the modern-day inferno? Even though the Bible is a stylistic fount for the authors of nuclear fiction, its traditional language is disenchanted in the nuclear age, serving as a merely literary corset for a new apocalypse. Nuclear fiction not only envisions the end of the world but also fathoms possibilities of post-nuclear survival. How does this survival differ from the

eschatological ideas of Christianity? As nuclear fiction depicts the downfall of humanity, it also shows vivid scenes of love-making that prove to be more than just a random motif. In the act of love-making and human sexuality, the apocalyptic fears of the twentieth century are portrayed in a new light as the departure from procreation and continuity. However, as many later pieces of nuclear fiction claim, the threat that humanity has created in the nuclear age might also be a cynical form of acknowledging the uselessness of humanity in light of the entire history of the world. The realization that humanity is but a small speck in the universe and the apocalypse but a small cosmic spark governs many texts. Stated more provocatively, is it a boon or a bane if humanity vanishes?

The third and final chapter is entitled "Warring Between Logic and Chaos — Concepts of War and Communicative and Narrative Strategies of the Rational and the Irrational" and situates fictitious nuclear war in the context of the history of war. While traditional concept of wars like Carl von Clausewitz's theories were based on reason and logic and the general controllability of the course that a war can take, nuclear war has completely departed from these ideas. Although the term "total war" — "totaler Krieg" — was not an invention of the Nazis, it has been influenced strongly by the way Nazi Germany fought in the Second World War. The concept of a global nuclear war gives new meaning to this term and stretches it beyond our imagination. I analyze to what extent the term and its use in nuclear fiction can be traced back to the Nazis and where it is infused with new meaning during the nuclear age. How does an author succeed in telling a story at the end of which his or her narrator most likely falls victim to a nuclear catastrophe? How can the narrator be a narrator if he or she is not a survivor at the same time? Nuclear fiction poses a new challenge to the construction of narrative forms.

Unlike other war fiction, texts on nuclear wars or conflicts cannot take the same approach in telling the progress of war. There are two main problems: the management of time and the narrator's position must be different than in other texts. The handling of time and narrative in all texts, however, is deeply influenced by the features of nuclear physics. The moment of shellshock during and after a nuclear blast, perceived like time standing still, and the inability of the human brain to process the consequences to their full extent are problems that influence and inform the literary texts strongly. I examine the conflicts and strengths of the various texts in this regard and offer a working description of the narratology of nuclear fiction whose main problem is the infinite continuation and legitimization of the narrative voice in a finite world.

The seemingly perfect logic of strategies of deterrence through massive retaliation can derail when the systems fail and the communication channels refuse to function.

Almost all fictional works are informed by this notion of miscommunication.

Protagonists in nuclear fiction find themselves constantly in dearth of information.

Nuclear fiction analyzes the disruptive elements in unsuccessful forms of communication or a failure to communicate at all. The victims of atomic bomb attacks are not only struck by the fatality out of the deep blue sky but are also rendered unable to communicate after the bomb has wreaked havoc upon their fragile world and leaves people shell-shocked and mute. Failed or flawed communications processes trigger war in many works of nuclear fiction. I further elaborate on how these processes work in the framework of the literary texts, engaging Niklas Luhmann's theories of risk communication. Nuclear war becomes a self-fulfilling prophecy, a monster with its own logic. It annuls the deftly concocted protective mechanisms and evinces its own inherent laws, defying the power

of human control. I trace this process that I dub "anti-logic" in texts of nuclear fiction, posing the ultimate question whether humanity has lost out to a mysterious higher power that seizes power from the modern *homo technicus*.

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## I.

#### The Most Evil of All Worlds?

# The Question of Evil in the Face of Total Annihilation in Fictional Texts on Nuclear War and Technology

The German idealist philosopher Immanuel Kant maintained in his Kritik der Urteilskraft (Critique of Judgment) that the natural world as such is not made for human beings per se. Nature – though it may seem beautiful and pristine to the romantic eye – is full of threats and dangers and often uninhabitable and hostile towards human life. A volcano, a bolt of lightning, or an earthquake for instance, all have in common that they transcend the realms of human control; and that humans need to protect themselves from them: "drohende Felsen, am Himmel sich auftürmende Donnerwolken, mit Blitzen und Krachen einherziehend, Vulkane in ihrer ganzen zerstörenden Gewalt, Orkane mit ihrer zurückgelassenen Verwüstung, der grenzenlose Ozean, in Empörung gesetzt, ein hoher Wasserfall eines mächtigen Flusses u. dergleichen" (160). These phenomena produce great forces that have proven to be harmful, even deadly for humans. Kant called this the sublime, a force that is not always evident to us but is nonetheless at work, raw and unpredictable. Humans, however, have morality in turn. That seems just, for we do not possess – according to Kant – the insuperable power of nature yet we can use it in order to hone our morality through the confrontation with the sublime: "die Seelenstärke über ihr gewöhnliches Mittelmaß erhöhen, und ein Vermögen zu widerstehen von ganz

anderer Art in uns entdecken lassen, welches uns Mut macht, uns mit der scheinbaren Allgewalt der Natur messen zu können" (161).

I argue in this chapter that ever since the advent of the atomic age Kant's thesis must be rejected. The possibility of the manipulation of atomic matter has enabled humankind to free formidable power that no single human could ever engender before. In her 2003 article "Erhabene Postmoderne? Technologie, Gewalt und Ästhetik zwischen der Atombombe und dem 11. September 2001," Monika Fludernik argues that nuclear physics has created a new idea of the Sublime that supercedes Kant's concept:

Das was Kant als die menschliche Fähigkeit pries, dem Erhabenen zu widerstehen, bringt mit der Atombombe im 20. Jahrhundert einen neuen Typ von Erhabenem hervor, der zu einer Bewunderung der Technik einerseits und zu einer Alterisierung der technischen Errungenschaften andererseits führt; im zweiten Fall wird die Technik zum "Anderen"; sie beginnt, sich als unkontrollierbare Naturgewalt zu gebärden. (245-6)

Has morality been corrupted in the nuclear age, and what does meddling with nature's power really mean? Is this act hyperbolic and sinful or justified and even deserved? Do we still live in – as Leibniz termed it – the best of all possible worlds or have we reached a point of no return from which we will get more and more deeply stuck in the quagmire of an atomic catastrophe? Are we allowed to brandish the atomic sword and risk our own eradication? Or is our knowledge today even the outcome of a divine providence that wants us to progress towards our own destruction?

German writers of the second half of the twentieth century have touched upon these questions in many fictional and non-fictional works alike. I want to take these works and situate them in the context of German philosophical thinking. The linchpin of

the chapter will be the term "evil" and the redefinition that it underwent in the course of philosophical thinking and literary portrayal during the atomic age.

In popular culture, Germany has had a certain proclivity for all things evil. German culture and history have been engaged in the shaping of "evil", be this in the literarily extremely fruitful Mephistopheles in Goethe's *Faust* plays or in the real-life barbarism of Auschwitz. Beyond the proverbial German pessimism, however, German works dealing with the nuclear disaster exude a different kind of pessimism. My thesis is that the horrors of an atomic threat are in essence even harder to adequately portray than the horrors of the Holocaust as its destructive force transcends everything. I fully acknowledge the barbarity of the Holocaust, its unspeakable perversion of human values and the ensuing wounds inflicted on the victims that are of such terrible gravity that they will probably never heal. I do not attempt to diminish the Holocaust and its moral, historical and cultural consequences. However, I claim that in the public eye the shell-shocking trauma of Auschwitz has paralyzed and crippled us in the second half of the twentieth century so that we might fail in evaluating another danger.

This struggle for recognition of the new danger is clearly visible in the texts on the nuclear evil. Many of them are incomplete, unsatisfying, even dissatisfied with themselves as their authors realized that they cannot bring closure and harmony to a theme that is all too unthinkable in its evil. Yet this failure to attain closure is at the same time a forte. Literary works that deal with the Holocaust can be successful even when – or that is because - they fail in the face of the impossible they seek to portray. Jurek Becker's *Jakob der Lügner* has spawned discussions about the inappropriateness of its humor. The book fails to portray what will happen to its protagonists and only shows the

events that lead up to their deportation to a concentration camp. Despite the criticism on the shortcomings of Becker's book, *Jakob der Lügner* has become one of the most remarkable fictional stories about the Holocaust. The case of Becker should guide and inspire us to evaluate German nuclear fiction. Especially the fault lines in these texts, the ruptures and cacophonies, yield much more for our discussion of the term "evil" and render nuclear fiction representative of the entire nuclear age, assigning it a position that is as powerful within its context as that of Becker's novel within Holocaust literature.

#### The New Holocaust? – Between Absolute Evil and Blithe Innocence

"Was Faschismus einst anrichten konnte, war ein Klacks" Helga Königsdorf, *Respektloser Umgang* (70)

There are two crucial events in the history of twentieth century Germany that have traumatized and terrorized German cultural memory until today. First and foremost, the Holocaust with its destructive power that all but eradicated the entire Jewish population in Germany and in numerous other European countries. Secondly, the great firestorm, a series of air raids with which the Allies successfully broke the remaining German resistance chiefly during the last year of the Second World War. Both events resulted in killings and the destruction of human culture beyond all measure hitherto known.

There is no doubt in modern research that the Germans intentionally started a pogrom and are thus morally responsible for it to the fullest extent. There is also no excuse for the heinous acts that Germany committed during the Holocaust. The firestorm, however, has always been regarded as much more controversial. Only a few years ago

did especially British and German historians start to scrutinize the acts of bombing German civilians. For decades after 1945 it had been assumed that Germany had simply drawn a just punishment upon itself for its role as the instigator of the greatest war in the history of the world. It was not until the Allies had vanquished and subsequently occupied Germany that they discovered that the Nazis were not only dangerous warlords but that they had also perpetrated the most cruel carnage in the history of Germany, secretly hidden away in the concentration camps.

Especially with W.G. Sebald's *Luftkrieg und Literatur* (a series of lectures held at the University of Zurich in 1997 and subsequently published as a book in 2001) and later with Jörg Friedrich's 2002 study Der Brand (The Fire) the firestorm debate underwent resuscitation. Both works seek to distinguish between Germany as the perpetrator and Germany as the victim of the war. While not claiming any excuses for the Holocaust, they want to show that a great number of German civilians had suffered tremendously during the air raids and that these sufferings had not been adequately portrayed in the public discussion or in historical research. Friedrich's account also reads like the history of an eerie predecessor to the nuclear age, pointing to the aspects of technical perfection and the power of a fire and heat bearing bomb that caused mass death, two important features that shaped the development of the nuclear bomb at the same time: "Before air raids, never in the history of war had the development of a weapon been guided totally by scientists, and in a sense, the air war was itself the research and development of the weapon. Without such a consequent extermination strategy, the fire weapon would have never had a chance to be tested, adjusted, and refined" (15). While Friedrich's book is the work of a historian, detailing the air raids and their consequences, Sebald's treatise is

written from the stance of a literary scholar and author. Sebald's work claims that German literature has failed in the face of a great tragedy in German history: Germans authors have mainly abstained from describing the sufferings of their fellow citizens during the war. Therefore there are only a few works that have ventured forth into the taboo of depicting Germans as victims during the Allied bombings.

The attention that has been paid to the Holocaust and also to the Allied air raids results in a diminished interest in a period that is no less crucial in its consequences – the nuclear threat which had started in 1945 at the end of the Second World War and which soon dictated the course of the Cold War and which has recently resurfaced in the discussion on global terrorism. The nuclear threat during the Cold War is of special interest because it placed Germany in the center of a possible war as the first potential battlefield, although the country had lost most of its military and political power. It also marked a return of the atomic bomb to its original target. When the Americans started the Manhattan Project, they pursued atomic research with the goal of employing the bomb against Germany at the time. When the bomb was ready to be employed, however, Nazi Germany had already surrendered and lost the war. Further, the American bomb was commissioned because of rumors that the Germans were pursing a similar weapon.

This bomb remained fictional; the historian Mark Walker even calls it a "mythical weapon" (243), attesting to its quality of impelling others to ring in the nuclear age: "The German atom bomb is like the Unicorn. It never really existed but during World War II

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<sup>&</sup>lt;sup>1</sup> The notion of Germany as the center of nuclear evil after 1945 has been expressed in popular culture. The James Bond movies depict many rogues as Germans with a clear Nazi heritage. In *The Spy Who Loved Me*, the rogue Stromberg, who seeks to trick the two superpowers into a nuclear war, is played by a German, Curt Jürgens. Stromberg promises a better world thereafter, referring to his self-sufficient underwater city. This is a completely man-made, in fact single-handedly planned, apocalypse. Naturally, it goes awry. In *Die 1000 Augen des Dr. Mabuse*, Austrian-born German American director Fritz Lang mixes German past with Cold War future in a nifty sub-plot: the character of Mr. Trevers owns facilities for manufacturing atomic bombs which the nutty psychiatrist Dr. Jordan wants to bring under his control.

many people thought that it did, or that it might" (243).<sup>2</sup> Ironically, the German physicist Otto Hahn was the first to discover nuclear fission, the prerequisite for the atomic bomb. As can be seen from the development of nuclear research and world history, Germany is closely linked to the evolution of the atomic bomb and the nuclear age.<sup>3</sup>

In *A Brief History of Death*, Douglas J. Davies observes that the ghastliness of the first act of atomic warfare is not given the same attention as the Holocaust: "Yet, while Hiroshima and Nagasaki stand as twentieth-century symbols of power against enemy bodies, they seldom attract the same interpretation as does the Holocaust of the Jews" (154). Brian Baker mentions the nuclear disaster of Japan in one breath with the Holocaust, suggesting a connection in how these two events have evaporated the honest belief in the possibility of progress: "The collapse of the idea of "progress," perhaps brought about by images of death camps and the destruction at Hiroshima..." (125). In this regard, Germany and its history emerge as a link between the Holocaust and the onset of the atomic age. German nuclear fiction explores the connection between these two historic tragedies. Although many German-speaking authors never revisited the air raids during the Second World War in their works, they have produced a considerable amount of fictional works that show Germans and the world in the center of a nuclear apocalypse as the victims of an unstoppable conflict. Not only do these works break with

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<sup>&</sup>lt;sup>2</sup> There has been discussion about the irony that the Nazis, whom everyone expected to drop the bomb, did not bring the project to fruition but the Americans did. Karl Wirtz, physicist and head of reactor construction in the Berlin Kaiser-Wilhelm Institute for Physics describes his confusion about this historical surprise immediately after the bombings of Japan in a conversation with Werner Heisenberg and Carl Friedrich von Weizsäcker and others at Farm Hall in the United Kingdom (where German scientists had been interned for interrogation after Germany's capitulation): "I think it is characteristic that the Germans made the discovery and didn't use it, whereas the Americans have used it. I must say I didn't think the Americans would dare to use it" (Bernstein 133).

<sup>&</sup>lt;sup>3</sup> Even though the play *Copenhagen* by English writer Michael Frayn is not at the center of this analysis, it fathoms quite meticulously the close connections between Nazi Germany and the atomic bomb by juxtaposing two historic figures, Niels Bohr and Werner Heisenberg, at variance with each other about their decisions as physicists and human beings during the Third Reich.

a taboo – the omission of German suffering in literature that Sebald so heavily criticized in *Luftkrieg und Literatur* – they also link the German past during the Third Reich with the course that history took after the war. It is surprising that many authors see a strong link between the history of Germany under the Nazis and the history of the Cold War.

The works of nuclear fiction defy the myth of a *Zero Hour (Stunde Null)* after 1945 according to which the world turned over a new leaf and wriggled free of the past. Depicting the nuclear apocalypse not only allowed German authors to wallow in self-pity about the impending dangers that a nuclear war posed to Germany, it also afforded them the possibility to return to world politics and to link the German fate in a nuclear war with the state of world affairs. Emerging from a desperate and somber apocalyptic vision, this was the first chance for German writers to flesh out the results and consequences of the Third Reich and furthermore to show how its evil spirit lived on in the destructive ideas of the Cold War. German authors after 1945 were well-acquainted with fantasies of downfall and destruction through their own recent history. As Hiltrud Gnüg argues in her essay "Die Unvernunft der technologischen Vernunft" about the emergence of what she deemed "Warnutopien" (65) in German literature:

Doch vor allem deutsche Autoren halten *das* für möglich, was Huxley und Orwell noch weitgehend ausschlossen: den atomaren Holocaust. Die Erfahrung des Zweiten Weltkrieges, der ein zerbombtes, geteiltes Deutschland hinterließ, hatten sich nicht nur den Intellektuellen tief eingeprägt. Der Devise "Nie wieder Krieg" entsprach die Furcht vor dem Knopfdruck, der einen Atomkrieg auslösen konnte (65-6).

Aldous Huxley's *Ape and Essence* and George Orwell's *1984*, the two early "Warnutopien" that Gnüg cites, were in fact unable to portray what the Germans aptly imagined: fantasies of total nuclear annihilation. Hans Hellmut Kirst's 1957 spy novel

Keiner kommt davon (Nobody will escape) was one of the first pieces of fiction to show such a total extinction of the world. While Huxley and Orwell leave remnants of human culture in their books, Kirst did not. Different characters from all walks of life populating the novel are morally ground down amidst the escalation of a conflict between the United States and the Soviet Union. The novel itself takes place in both parts of the then divided Germany and ends with the atomic destruction of Germany and Europe, foreshadowing the destruction of the rest of the world. While Kirst keeps the reader engaged in a suspenseful array of changing events, he directs the attention to the causes of the imminent collapse: "In einer Zeit wie dieser muß man sich auf alles gefaßt machen – auf das Sinnlose ebenso wie auf das Sinnvolle. Denn Gott duldet Satan" (126). Kirst's diction often enough approximates the grandiloquence of a potboiler. He operates with highly symbolic terms laden with moralizing clichés. And yet, these terms are very effective in linking the German past with the desperate present. Kirst describes the times in which his novel takes place as totally unpredictable and unstable. The presence of Satan in the world is alarming. Kirst does not intend to start a religious debate in this otherwise very mundane cliffhanger novel. The term "Satan" rather harks back to Adolf Hitler. The depiction of the German dictator as the epitome of evil is a common one. In Kirst's novel we now experience the repeat appearance of Satan on the world stage. However, while Hitler could clearly be identified as the earlier source of evil, the new Cold War apocalypse into which Kirst throws the reader defies a clear analysis. Kirst, a German in between the fronts of the East and the West, does not allocate the roles of Satan and God to any of the two superpowers. Rather, it has become impossible and senseless to allocate these roles. Good and evil, the attributes between the personifications of Satan and God,

hide in different places. The crux of this apocalyptic world is that these moral core elements have merged into one chaos that makes the Germans lose their bearings. By virtue of its political division, Germany participates in both political world systems: the Eastern part has adopted Communism while the Western part participates in Capitalism. The country is torn apart in this predicament. It finds itself at the mercy of two rivaling systems. While Hitler preached national unity to the Germans and through this overt nationalism eventually caused Germany's downfall, the post-war history in Kirst's novel does not heal the wounds that Hitler has struck but rather deepens them to such a degree where only a total nuclear war will put an end to the divided German nation. In this respect, the escalation of the Cold War as Kirst imagines it exacerbates the German downfall that had begun when Hitler was in power. Oddly, the Germans helplessly look on as the clockwork of the war ticks on, ever so slightly coming closer to the outbreak of the atomic apocalypse. They are politically disenfranchised, leaving their impending fate without choice. Kirst did neither pursue a denigration of Germany nor did he want to pass judgment on the two superpowers of the Cold War, rather he tried to stretch the debate beyond national boundaries: Keiner kommt davon reaches beyond the German point of view as it makes clear that the helplessness of the German protagonists represents a general philosophical aporia that could happen in any part of the world. The end of the novel shows the entire civilized world tumbling into an all-out nuclear devastation. For Kirst, only Germany could be the origin of such an apocalypse. Germany had unleashed the Second World War as an active military power. However, Germany as a passive and defeated nation still carried the potential to be, again, the next war's starting point – the

cursed soil of a nation bound to be ensnared in wars time and again. Such evil potency of one and the same country stands out in sharp relief to the passivity of its citizen.

The evil that Kirst conjures up in his novel is not one of premeditated malice exuding from human beings. In fact, the whole array of characters rather excels at unsuspecting naivety and blithe yearning for peace coupled with a melancholic outlook on life. Kirst's figures are definitely not inspired by feelings of nationalism and militarism as were the Nazis. Many of Kirst's figures are instead mainly engaged in their own private life. For instance, Henry Engel and Constance seek to restore their crumbling love relationship. However, the vagaries of the upcoming war thwart every attempt at doing so. The novel's characters want everything but war. Rather, the source of Kirst's evil is the past of the country. As Germany in *Keiner kommt davon* is the venue of nearly the entire plot, it takes on the function of a character itself. The reader encounters a country that is not only not cleansed from the past but also still deeply steeped in the feelings of defeat and desperation that had lingered since 1945. Despite the material wealth, Kirst's Germany is enshrined with a lethal aura that stems from its past during the previous war.

It has been precisely this lethal aura that occupied Günther Anders through his entire life. The Austrian-born Jewish writer and philosopher dedicated great parts of his life to analyzing the nuclear threat and embedding it into the context of German history. Since many of his writings employ pictorial elements and use the methods of fictional story-telling, Anders partakes in the genre of literature as well. Among all German-speaking writers of the Cold War period he is probably the most outspoken and most radical in his approaches. Anders claims that the quantity of evil energy present during

the Cold War was exactly the same as during the Third Reich. Anders's thinking especially in his main work *Die Antiquiertheit des Menschen* is reminiscent of the techniques of science. According to the first law of thermodynamics, all existing energy or matter can not disappear. It remains in the world and will always reappear in a different form, thereby preserving it. Of such quality is the new evil in the atomic age. What makes it less discernible than the visible evil that the Nazis clearly communicated in their ideological events is its spurious reappearance as the economic wealth.

Germany's vivid economic development in the 1950s is contrapuntally undermined by humanity's mental gridlock in the atomic question. The newly acquired wealth enabled Germans to forget the plight of the Second World War and the guilt that they incurred when the Nazis reigned supreme but it also made them blind towards the nuclear threat.

Günther Anders's writings are heavily engaged in the discussion of historical development. The author distinguishes between the historical development that has led to the construction of the atomic bomb and the impossibility of historical development thereafter. He illustrates this development in a philosophical triple jump: The classical axiom that all people are mortal ("Alle Menschen sind sterblich") has been altered during the Nazi era into: All people can be killed ("Alle Menschen sind tötbar"). The nuclear age finally changes it into: The entire human race can be killed ("Die Menschheit als ganze ist tötbar") (*Antiquiertheit* 243). Not only does Anders insist that the evil during the Third Reich has survived and found its way into our time, but he also claims that this new evil is beyond our control. It has been molded into a new form that makes recognition of the true danger harder: the small torpedo-shaped metal containers that contain bombs with the capability to decide the fate of humanity.

Anders takes up Theodor W. Adorno's debate about the perversion of the Enlightenment and continues it. For Adorno the Holocaust was the pinnacle of Enlightenment's derailment: a society that believed in the spirit of eternal progress but ended up committing the most atrocious of all genocides, the Holocaust. Anders takes Adorno's arguments to an even more extreme level. With the advent of the post-war era this string of unholy events has not been severed. In fact, it continues into the Cold War. The absolute pinnacle, the total nuclear annihilation would then also mark the end of the derailed history of enlightenment and of human history in general.

While Anders philosophized about such a somber post-war world, Hans Henny Jahnn translated this pessimistic view into a theatrical play, *Der staubige Regenbogen* (*The Dusty Rainbow*), that appeared posthumously in 1961 and that had previously borne the working title *Die Trümmer des Gewissens* (*Rubble of Conscience*). The protagonist is Jakob Chervat, a nuclear physicist. He and his family live in a nameless country governed by an autocratic government that permits no criticism or dissenting opinions. Chervat who has always been a loyal citizen to his country and who has supplied the government with technology based on nuclear power slowly recognizes that he is no more than a captive with privileges. When Chervat attempts to break out of the society in which he is trapped, he collides with the authorities and is finally forced to kill himself, leaving his family to be executed by the authorities.

Jahnn portrays a peculiar mélange of Third Reich ideology and Cold War technology in *Der staubige Regenbogen*. He merges two ages into one and shows how they work well together, thus proving that they are ideologically linked together. The contemptuous totalitarianism of the Nazis that has been adopted by the play's

unpredictable government is now enriched by the latest cutting-edge nuclear technology. This results in an omnipotent regime that can clamp down on its citizens at any time and also destroy the environment through the reckless and foolish exploitation of nuclear energy. Jahnn's fictional personnel are the heirs of the Nazi era: the critics are suppressed, constantly fearing death, the minions and policemen resemble SS thugs. The people of this country live under a "Diktatur der Propaganda" that manipulates them to such a degree that they willingly follow their leaders into perdition "wenn das Gesetz es befiehlt" (136). Jahnn depicts a world that has not liberated itself from the fetters of dictatorship.

In *Der staubige Regenbogen*, Jahnn materialized a popular fear that Ernst Jünger in his essay collection *Sgraffiti* anticipated as "Technik als Weltstil" (476): Jünger's vision of modern science enslaved by an autocratic and technologically obsessed society – "Das bedeutet Volldampf für eine subalterne Gesellschaft von großer Häßlichkeit. [...] Verantwortlich für die Vernichtung, die eine Großbombe anrichtet, ist der Politiker, der ihren Abwurf anordnet, oder auch der Pilot, der sie abwirft, obwohl er unter einer viel strengeren Befehlsgewalt steht als der Physiker, der sie ausheckt und sich der allgemeinen Bewunderung erfreut." (476-7) – corresponds very closely to the totalitarian society of constant oppression and control that Jahnn draws, although both authors were at the opposite ends of the political spectrum. <sup>4</sup> The continuous propaganda messages in *Der staubige Regenbogen* have dispelled any spirit of resistance among the people. The

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<sup>&</sup>lt;sup>4</sup> While Jünger recognized the dangers of the nuclear age, unlike Jahnn, he never portrayed them in a fictional account foreshadowing the future. His utopian 1977 novel *Eumeswil* makes up for this lack of literary foretelling of the future when Jünger later in his life waxed critical of technology as Helmuth Kiesel explains: "Eumeswil ist die Summe einer von Katastrophen geprägten Geschichtserfahrung, die bald nach 1910 einsetzte und Jünger zunächst zum Aktivisten der zivilisatorischen Moderne machte, dann aber zum entschiedenen Zivilisationskritiker werden ließ" (14). In *Eumeswil*, Jünger deals with the idea of cascading catastrophism in history yet does not refer to the nuclear apocalypse specifically.

interplay of resisting and concurring becomes one of the main aspects of Jahnn's play. Interestingly, resistance emanates from the "degenerates." Jahnn takes great heed in embedding characters in his text that would clearly be considered morally or physically degenerate in Nazi terminology. Elia, Jakob Chervat's son, is crippled and sick through his upbringing in areas with high radiation. Furthermore, he is depressed, impotent, bald, and harbors a passionate love for his best friend Arran that borders on homosexuality. While his disabilities prevent him from participating in an active life, he has recourse to critical thinking and thus becomes a dissident to the ruling ideology. In the course of the text, Elia is able to "infect" several other characters who are drawn into the maelstrom of his somberly self-destructive dissent. As figures like Elia are detrimental to the existing rule, the authorities seek to eliminate them. At the end of the Jahnn's play, Elia and his accomplices are committed into the hands of the state, awaiting their execution.

Eugenics becomes an important issue in Jahnn's fictitious country as it is necessary to diminish the number of genetically harmed human beings and to uphold a certain number of healthy individuals who can procreate without passing on weaknesses. The Nazis pursued eugenics driven by their ideological obsessions – the production of pure-bred Germanics – coupled with an interest for the creation of able-bodied soldiers that could be used to enlarge their empire. The eugenics movement in Jahnn's play serves the same logistic ends as it enables the state to defend its territories against enemies. The glorification of the body, however, has given way to a sober-minded expediency. Healthy bodies are now no more than useful material, almost like replaceable machines. Although Nazi culture did definitely not further individualism, it also did not denigrate the

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<sup>&</sup>lt;sup>5</sup> Later, some texts of nuclear fiction of the 1980s revived the discussion about eugenics, often with a sarcastic undertone, for example in Matthias Horx's dystopian 1983 free-for-all *Glückliche Reise*, Günter Grass's 1986 apocalyptic novel *Die Rättin*, and Ulrich Horstmann's philosophical 1983 treatise *Das Untier*.

individual in propaganda messages. The uniqueness of each individual remained of high significance among the ruling class, most importantly Adolf Hitler himself. As Rudolf Hess expressed in Leni Riefenstahl's 1935 propaganda film *Triumph des Willens* (*Triumph of the Will*): "Hitler ist Deutschland – und Deutschland ist Hitler."

Although many elements of Nazi culture are reflected in *Der staubige*Regenbogen, the Führerkult does not play a role anymore in Jahnn's dystopia. The author has developed a very refined conflation of the technological novelties of the Cold War and what he thought were the remnants of Nazi culture that had been carried across the border of the *Zero Hour*. Jahnn comes to the conclusion that a successor to the Third Reich would be so advanced as to recognize that even the highly evocative Führer figure will and must be replaceable. By relying on one prominent leading figure, a system becomes unstable when this figure dies. The new malicious thinking of Jahnn's dystopian country renders all persons replaceable regardless of their rank.

As the Third Reich placed an emphasis on the development of a pseudo-science that supported the goals of the leaders, so does the state in Jahnn's play that willfully plays with the health of its subjects. The physician and biologist Lambacher is the updated version of a Nazi physician, ruthlessly experimenting with human material at his discretion. The Nazis mostly supplied their experimental physicians with what they considered non-members of the Aryan race. Lambacher's guinea pig is Tiripa, a young indigenous tribesman that survived a genocide wielded by the authorities against tribes in the rain forest and was brought back by the physician as a trophy and a present. As Lambacher undertakes experiments with human beings to make them more resistant (and thus more functional and effective) in the face of nuclear pollution, his colleagues

establish a sperm bank that contains worthy semen which is meant to survive the destructive power of radiation. Jahnn's atomic state is under the sway of patriarchic power as there is no mention of a complementary bank for the preservation of ova. All episodes about medical research in *Der staubige Regenbogen* are part of the overarching issue of weakness versus strength. The state feels entitled to select its citizens, driven by perverted Darwinian impulses. The play, however, questions the quality of the term "strength" as it shows that physical strength coupled with intellectual strength is an undesirable combination, not well-tolerated by the authorities. As long as the intellectually strong are weak in physical terms (the cripple Elia) and vice versa, they do not pose a threat to the regime. When Arran, the epitome of a healthy and vital Aryan athlete, develops skills of critical thinking under the influence of his friend Elia, he becomes unacceptable to the system. Consequently, he is beaten up so badly by thuggish state officials that his body and face are destroyed. This mistreatment annuls his physical strength and renders him incapable of serving as material for procreation.

Those who become unworthy of participating in the system have to be disposed of. The outcasts have little choice in choosing their fate: waiting for the state to kill them or preempting such measures by committing suicide. In the wake of Nazi tradition, Jakob Chervat carries a capsule with potassium cyanide at all times and finally uses it to escape persecution by the authorities. This means of last resort will prevent him from undergoing torture but is also regarded as a cowardly and easy exit strategy to evade the consequences of one's activities. While Chervat has worsened the state of affairs by supplying an autocratic country with nuclear technology, he cannot revoke his inventions when he realizes his wrong-doings.

Although *Der staubige Rgenbogen* ends with the death of the entire Chervat family and their friends, a personal tragedy that only foreshadows a potential nuclear apocalypse without depicting the apocalypse proper, the practices of this imaginary state mar and destroy people in the fashion of the Nazi ideology. The imaginary country that Jahnn describes has become dependent on nuclear energy that produces electricity in socalled "Energiemeiler", a derogatory term for nuclear power plants (44). These power plants regularly suffer from malfunction, thus causing a steady string of accidents during which plant workers are evaporated into yellow dust: "gewesenes Fleisch ... Der Rest war nicht mehr vorhanden. Staub, gelblicher Staub, irgendwohin getragen, das waren sie geworden" (45). The myriad workers in the drama are employed to keep the nuclear energy production running and are the epitome of the "Untermenschen", a Nazi term applied to people unworthy and undeserving of living within the German society. In the play they have to do menial work while constantly being exposed to deadly radiation, resulting in a procreation ban of the workers. The government thus effectively sterilizes them to prevent the conception of degenerate progeny.

It is not only the practice of forcible neutering that is reminiscent of the practices in the Nazi concentration camps. The nuclear facilities in *Der staubige Regenbogen* resemble prisons and bunkers with cold and impenetrable concrete walls in which the workers are trapped and treated like inmates without human rights. Also, the reduction of the nuclear workers to evaporating yellow dust is an eerie allusion to the disintegration of bodies that took place in the Nazi crematories. It is the strongest and most provocative allusion that Jahnn supplies. Not only is it groundbreaking that Jahnn already discusses the aspects of nuclear technology and genetics so early in the post-war era and that he

recognizes the links that exist between these two different strands of science, it is even more astonishing how he works them into the apocalyptic vision that carefully employs references to the Holocaust and shows the continuation of the past in a world that is the worst of all possible worlds.

Looking into the dark future that writers like Hans Hellmut Kirst, Günther Anders and Hans Henny Jahnn draw, one finds oneself searching for a name that adequately describes these scenarios, keeping in mind their occupation with the past, the present, and the future alike. The term *nuclear holocaust* is apt to describe on the one hand the immense destructive power that results from the bomb itself but it also links two historic epochs, the Third Reich and the Cold War era, by alluding to them in the same breath. Even though the term appears occasionally in nuclear fiction (e.g. Guha, Ende. Tagebuch aus dem dritten Weltkrieg 15, 19) it is barely used in German culture, although it has been applied much more freely in American literature and film. Alfred Hitchcock's 1959 spy thriller *North by Northwest* utilizes the term blithely. When the so-called Professor (played by Leo G. Carroll), a higher-up FBI agent, points out to the film's protagonist, Roger O. Thornhill (Cary Grant), the dangers of the Cold War, he advises him that the consequence of successful espionage might be the outbreak of a nuclear holocaust. The film does not discuss the term critically but rather uses it to induce fear in the audience through the very sound of the word. This example is representative of many American Cold War stories and betrays a certain ease with which the term is often mentioned. This ease is completely absent in German literature and philosophy. The Germans have always avoided the term as it carries a dubious connotation. In the immediate post-war era there was little interest in mentioning the Holocaust let alone critically analyzing it. Later,

when the Germans started coping with the past (*Vergangenheitsbewältigung*) more extensively, there has been insecurity to apply the term to other events and there has also been fear to do so as not to adulterate and devalue the gravity of the Holocaust. While the absence of the term in almost all pieces of German nuclear fiction is striking, the references to the Third Reich and the Holocaust are very explicit. Writers like Kirst, Anders, and Jahnn fully recognized the evil parallels between the two eras but they fell short of directly addressing them.

I claim that the term *nuclear holocaust* is fully functional when talking about nuclear fiction as it gives a fitting description of how German writers and philosophers portrayed the apocalypse of the nuclear age and of how they saw it linked to their own past. The term can be valuable without devaluing or diminishing the Holocaust. The original meaning of the word Holocaust itself refers to the destruction of something through the forces of fire. This is the eponymous meaning for the Jewish pogrom in Nazi Germany as many of its victims were cremated in the ovens of the concentration camps. Douglas J. Davies argues that the Nazis were the first who systematically turned cremation "into an industrial-level incineration process of destroying bodies ..." (772), although in the beginning of the history of cremation this process "...was seen as a positive benefit to public health" as it helped to prevent overfull cemeteries and protected humans from the noxious substances and germs that spring up quickly in decaying bodies: "... the practice [was] deemed to be hygienic and humanitarian" (768). After the

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<sup>&</sup>lt;sup>6</sup> This is not only a notion expressed by German nuclear fiction. The American sociologist David Wendell Moller suggests that the technological and systemic methods that the Nazis implemented during the Holocaust are perpetuated in the nuclear age: "What must therefore be learned from the experience of the Nazi holocaust is not a reasonably comfortable lesson about madness and irrationality. Rather, we must learn about the dangers inherent in many of the organizational features of our own society that are both institutionalized and normalized by everyday life. ... Bureaucracy, mass society, and impersonalization have grown by leaps and bounds. And a technology of nuclear genocide now haunts and shadows every human being on earth" (234-5).

eerie redefinition of cremation through the Nazis and the Holocaust, the idea of burning bodies on a grand scale lives on in the fears of a nuclear war. The original meaning of the term *Holocaust* also describes the effects of nuclear weapons as they cause death by fire unlike any other conventional bomb. What makes the term Holocaust so vicious in its meaning is an insuperable notion of totality. The Holocaust was planned as a total event at the end of which the Nazis expected the thorough eradication of all Jews. When Germany lost the war, this process was stopped by the Allies but it is reasonable to assume that it would have continued in order to reach completion. The notion of totality also carries the idea that once harm has been inflicted, it cannot be reversed. The scale on which people had to endure harm during the Holocaust is unparalleled. Therefore, it would, for instance, be inappropriate to call the air raids a Holocaust. The possibility of an atomic disaster, however, clearly carries this notion of irreversibility. The worst-case scenario would be a global overkill that destroys all human life on earth. I argue therefore that the nuclear holocaust has essentially the same potential to reach and even transcend the gruesome horror of the Jewish Holocaust.

Almost surreptitiously a new possibility of mass eradication thus made its way into the history of Germany yet unnoticed by many Germans. As Günther Anders points out, the world was asleep at the switches when the scientists rang in the nuclear era. The Allies were happy when they had gained victory over Europe's Fascist dictatorships, and the Germans were too traumatized to realize anything but their desperate defeat. The full extent to which the nuclear age could wreak havoc on humanity was not discovered until

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<sup>&</sup>lt;sup>7</sup> In *Der Teil und das Ganze*, German physicist wunderkind Werner Heisenberg refers to stars as atomic ovens: "die Sterne als riesige Atomöfen" (189). The oven metaphor in conjunction with astrophysics is a curious combination. Does he allude to the Holocaust and thus connect the idea of nuclear reactions (fusion in this case) with the cremation ovens in Nazi concentration camps?

the arms race had reached a point of no return. When the Germans finally awakened to the death knell of the atomic age, they found themselves in the midst of a new conflict as a buffer zone between the West and the East, without having dealt with the last war.

The technical facilitation of the process of killing is a prerequisite for the Holocaust as well as the nuclear holocaust. The German philosopher Karl Jaspers was the first one to point out the parallels in the technical setup of the Jewish Holocaust and the nuclear holocaust in his 1957 book Die Atombombe und die Zukunft des Menschen: With a handle the Germans opened up the valves that gave off lethal gas into the KZ chambers, and in turn, by pushing a button, the post-war world can set off the atomic bomb. The result is the same: millions of people die through technical facilitation (*The Future of* Mankind 53). Without the gas chambers that held hundreds of people at the same time, the Jewish pogrom would have been harder to implement on such a grand scale. Between the pursuer and the pursued there needed to be a device that enabled fast mass killings. The gas chambers of the Holocaust de-personalized the killings as they were factories of extinction where the killer would not have to individually face his victims. Rather, technology gave the perpetrator relief and often spared him the gruesome sight of the dying. Those who managed the concentration camps more often than not described their activity as daily work while just following orders rather than the purposeful execution of people. Günther Anders criticizes this alleged moral neutrality of the term "Arbeit": "Der Angestellte im Vernichtungslager hat nicht 'gehandelt', sondern, so gräßlich es klingt, er hat gearbeitet. Und da ihn ja Ziel und Ergebnis seines Arbeitens nichts angehen; da seine Arbeit qua Arbeit ja immer als 'moralisch neutral' gilt, hat er also etwas 'moralisch Neutrales' erledigt" (Antiquiertheit 291).

Technology not only facilitated the killings but also detached the perpetrators from the victims in order to preempt pangs of conscience or feelings of guilt. The nuclear holocaust in turn brings the technical facilitation to a pinnacle, condensing the destruction of the entire world to the act of depressing a simple button. Anders sees a direct link between what he calls the schizophrenic nature of the banality of killing in the concentration camps and the nuclear age: "Was uns vor zehn Jahren mit solchem Grauen erfüllt hatte: daß derselbe Mensch Angestellter im Vernichtungslager *und* guter Familienvater sein konnte, daß sich die beiden Fragmente nicht im Wege standen, weil sie einander schon nicht mehr kannten, diese *entsetzliche Harmlosigkeit des Entsetzlichen* ist kein Einzelfall geblieben. Wir alle sind die Nachfolger dieser im wahrsten Sinne *schizophrenen* Wesen" (272).

The red-button metaphor has become a key concept in many works of nuclear fiction. It is the embodiment of the end of the world as after the push of the button nothing will remain that human beings could do. What starts out as the perfection of murder during the Holocaust is transformed into the perfection of suicide as the roles of the perpetrator and the victim conflate into one hybrid figure: those who killed in the concentration camps had a chance to survive the war and elude prosecution through the Allies. Those who instigate a global nuclear war will be the victims of their own deeds and will perish, together with their enemies.

Günther Anders saw the greatest risk of the Cold War era in the absence of concrete moral responsibility. Those who govern the world now, so he argues, are no longer the barbaric and barking Nazis but the smiling managers who are ignorant of the power that they can unleash. As the technical facilitation has progressed to the highest

degree imaginable – the red button within effortless reach – those who access these weapons are no longer warriors well taught in the way these bombs work but they are civilians with complete electronic access to the destruction of the world. This does not exonerate them from possible guilt but redefines their responsibilities.

As the lethal effects of the atomic bomb cannot be intensified there is no meaningful difference between the regular overkill and the multiple overkill capacities. Anders juxtaposes this state with the grammatical absurdity of comparing the adjective "tot" and the lack in meaning words like "toter" or "am totesten" would bear: "Die absolute Gefahr, die man in Händen halt; der Effekt, den man auslösen kann, ist nicht mehr steigerbar. Jedenfalls ergäbe die Steigerung des Mittels [i.e. the bomb] nichts Neues; nichts Neueres als der Komparativ des Eigenschaftswortes 'tot'. Das ist etwas Erstmaliges, das ist in der Geschichte der Produktion noch nicht dagewesen" (Antiquiertheit 250). It is the endpoint in the refinement of technology that succeeds the technology of the Holocaust. The crucial point is that this relationship between the technical apparatus of the Holocaust and that of the nuclear holocaust does not entail a relationship between the countries which possessed these technologies. Anders is not making a historical statement that would claim to see the United States and the former Soviet Union as the successors of Nazi Germany. Such thoughtless and precipitated historical links would of course be outright wrong. Rather, the structure behind these weapons and how they appear and reappear in various political systems transcends mere historical comparisons between countries. The moral evil that the Nazis spread is not

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<sup>&</sup>lt;sup>8</sup> John Canadey has shown in *The Nuclear Muse* that the researchers of the Manhattan project were thinking about the moral grounds they were treading on, harnessing the language of good and evil that enveloped the nuclear discussions at Los Alamos (192). These moral discussions appear to be quite independent of the concepts of good and evil that the Nazis held.

simply passed on to or inherited by the Americans or the Russians. Anders acknowledges that there is a morality of the individual but he points the reader to another form of evil that is beyond the individual grasp.

While Anders does not really flesh out the difference between these two forms of evil, Susan Neiman has developed a more precise definition. In her book Evil in Modern Thought, she claims that there is a constant amount of philosophical evil in the world that will reappear in different forms in the course of time (cf. 12, 44, 239). The shape it will take on is always unpredictable. Evil in Neiman's concept is also not tied to individuals. It arises in a collective process rather than from the act of a single person. When applying this argument, Neiman does not want to absolve individual human beings from their wrongdoings or open up the discussion of evil to a general arbitrariness. Instead, she distinguishes between a more general form of evil (philosophical evil) and moral evil (which is inflicted through the acts of individual human beings) (8). The definition of moral evil ascribes to humanity a personal responsibility for its own deeds but it also points to the fact that there must be a meta-concept of evil which cannot be explained through moral breaches and lapses of man alone. The physicists in Friedrich Dürrenmatt's Die Physiker, Heinar Kipphardt's In der Sache J. Robert Oppenheimer or Helga Königsdorf's Respektloser Umgang all start out with good intentions when they pursue their scientific work. They amass knowledge and insight into the way nature works, often driven by their insatiable curiosity (Möbius in Die Physiker, or Lise Meitner in Respektloser Umgang) or their wish to defend their own country and to liberate the world from the Nazi tyranny (Oppenheimer).

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<sup>&</sup>lt;sup>9</sup> Neiman discusses evil as a periodical or cyclical idea that is attached to various histories (e.g. world history, the history of philosophy) and that has become so strong that it deserves to have its own story, the history of evil.

Although these three different authors show us three very different scientists, their literary constructions are all trapped in the quagmire of their morality that collides with reality. There is Oppenheim who defends his country by orchestrating the Manhattan project and is finally dethroned by dubious CIA agents who accuse him of ideological unreliability. Then there is Dürrenmatt's fictitious Möbius figure, a one-of-a-kind physicist whose ingenious work is forcibly wrought out of his hands despite his every attempt at shielding it from the world. Finally, there is Lise Meitner whose work not only contributed to the discovery of the nuclear chain reaction by Otto Hahn but who also had to flee Nazi Germany because of her Jewish lineage. Helga Königsdorf uses the Meitner figure in Respektloser Umgang as a counterpoint to the first-person narrator, a very ill bedridden female mathematician who contemplates her services to the government of the GDR, the country where she resides. Meitner - a feverish and fanatic figure herself - is a mirage that shows up in the narrator's fevered hallucinatory dreams. Meitner is both an innocent victim of the Nazis and an unscrupulous scientist who selfishly obsessed over her career and thus also paved the way for the development of nuclear warfare. Meitner is depicted as the female alter ego of Otto Hahn from whom she sought recognition for her original research. From a human perspective, neither of these three figures seeks to wreak havoc on the world by delivering scientific theories into the hands of a humanity that is not (and probably will never be) ready for the consequences that they entail. However, all three figures end up enmeshed in an inseparable tangle of guilt and innocence, naivety and premeditation. Dürrenmatt, Kipphardt and Königsdorf flesh out the constant interplay of guilt and innocence in their protagonists while concluding that there is no clear decision on what the moral verdict of their actions will be in the end. 10

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 $<sup>^{10}</sup>$  Pieces like Dürrenmatt's  $Die\ Physiker$  or Kipphardt's  $In\ der\ Sache\ J.\ Robert\ Oppenheimer$  (and for that

Traditional approaches of moral clarification seem to fail in the face of the nuclear age. The two most important traditions of ethics and moral philosophy by Immanuel Kant and Max Weber seem all of a sudden useless. According to Kant's deontology the three literary figures would have acted correctly. As Kant claimed, an action is acceptable and possesses moral integrity when the intentions that precede it possess the same degree of integrity. No matter what the outcome might be, the good intention sanctions the action. Max Weber, on the contrary, claimed the opposite in his teleological concept: 11 good actions are not predetermined by the intentions of those who act but by the final result of the action itself.

As nuclear fiction shows, the nuclear age perverts the deontological approach because it shows that nuclear scenarios evade human control and planned action. The teleological approach does not work either as the ends for which the scientists work will betray their own morality and leave them marred. The deontological self-sacrifice that Oppenheimer invested in his years at Los Alamos deprives him of his private life. In Kipphardt's play, Oppenheimer is demoted to an untrustworthy person by the authorities. The great ideals of vanquishing the Nazis that had propelled him and his scientist colleagues were not only useless but also caused the scientists moral pangs as the bomb was not employed against Germany but killed many hundreds of thousands of Japanese. For Kipphardt, Oppenheimer is the literary embodiment of the loyal adept who finds

matter also Brecht's Leben des Galilei) have heavily influenced the research on literature about the nuclear age. Their protagonists are physicists burdened with heavy moral qualms. Thus, nuclear fiction is often portrayed as literature that deals mainly with the responsibilities of scientists or where the scientists are the center of the entire issure. John T. Dorsey in "The Responsibility of the Scientist in Atomic Bomb Literature" demonstrates this lopsided focus: "Literature related to the atomic bomb traces the main turning points for the scientist in the nuclear age, from the creation and use of nuclear weapons in World War II, through the alternatives of the postwar years, to the ultimate use of the weapons in destroying the world" (289). Especially in later pieces of nuclear fiction, however, the physicists themselves play a little role. 11 Weber called his concept of ethics Verantwortungsethik while he termed Kant's approach Gesinnungsethik.

himself betrayed by others and divested of his honor as well as his ideals. Möbius in *Die Physiker*, however, tries to preempt betrayal by shielding his findings from others who could abuse them. His thinking is teleological as he does not harbor any great ideals but gears his every action to the concealment of his research. He remains as futile and hapless in his endeavors as Oppenheimer and is finally found out and deprived of his intellectual property, a formula that enables its user to govern the world. Dürrenmatt's and Kipphardt's pieces (to a lesser extent also Königsdorf's text) have garnered much attention and subsequently have become famed contributions to the literary canon. This is in great part because the texts have an ever-increasing understanding of the failure of traditional moral philosophy and instead portray the equivocation that results from moral uncertainty: the question of guilt is a philosophical aporia. The nuclear age traps its coevals in a quagmire that cannot be solved with traditional concepts of morality as Dürrenmatt has shown in *Die Physiker*:

Möbius: "Die Entscheidung, die wir zu fällen haben, ist eine Entscheidung unter Physikern. Wir müssen wissenschaftlich vorgehen. Wir dürfen uns nicht von Meinungen bestimmen lassen, sondern von logischen Schlüssen. Wir müssen versuchen, das Vernünftige zu finden. Wir dürfen uns keinen Denkfehler leisten, weil ein Fehlschluß zur Katastrophe führen müßte." (340)

While (or, rather: because) Möbius is trying to apply the morally reasonable and just, he fails and unleashes the evil executed by totalitarian forces. <sup>13</sup> The nuclear age begs a new philosophical understanding of the term "evil." Karl Jaspers tried to solve the issue

<sup>&</sup>lt;sup>12</sup> Although Dürrenmatt does not mention that this formula refers to the construction of a nuclear bomb, critics agree that Möbius's research must be related to nuclear science.

<sup>&</sup>lt;sup>13</sup> Urs Baumann and Karl-Josef Kuschel describe Dürrenmatt's unique approach to thwarting traditional concepts of morality in *Die Physiker* that distinguish him from other authors of nuclear fiction: "Dürrenmatt konterkariert mit seinem Stück sowohl den Brechtschen Glauben an die richtige politische Selbstverpflichtung als auch den Kipphardtschen Glauben an die Rückzugsmöglichkeit des einzelnen Forschers" (51).

by proposing a union of the forces of philosophy, politics, and ethics in *The Future of Mankind*:

World peace rests on two premises: First, on *free will* – right and justice are to rule instead of force. Second, on *reality* – the human world is not and will never be one of right and perfect justice, but man can strive to make progress on the road to justice. (17)

One thing is certain: there is reason in the world. Men seek it and try to act rationally; what is not rational is the world, the battleground of reason and irrationality. [...] Are we on the verge of a tremendous reaction of awakening humanity against all present trends? Can we expect a rational rebirth of man? (316)

Jaspers's optimism nurturing the hope that it will be possible to marshal enough power of reason from all parties involved to avoid a nuclear escalation coincided with the founding of the International Atomic Energy Agency in the same year when Jaspers's book appeared. Jaspers was a true believer in the success of Enlightenment thinking which earned him scorn by Günther Anders who doubted the viability of Jaspers's philosophy and claimed that "Jaspers bleibt reiner Katheder-Apokalyptiker" (*Endzeit und Zeitenende* 44). Nonetheless, Jaspers maintained that the power of reason could avert another possibly fatal war. His political view was diametrically opposed to that of Theodor W. Adorno who saw the Enlightenment as a dangerous experiment that had gone awry. While Adorno maintained that all of Enlightenment's original thinking had continually been degenerated and corrupted far into the twentieth century, Jaspers regarded these former values of the Enlightenment rather as temporarily suspended. They could, however, be restored. It is not the atomic bomb per se that causes the threat of a global war, Jaspers continued, it is much more the traditional concepts of force,

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<sup>&</sup>lt;sup>14</sup> Günther Anders highlights the limits of the human mind in Kantian philosophy: "Not only our reason has its [Kantian] limits, not only *it* is finite, but also our imagination, and even more so our feelings" (12).

aggression, and violence that originated chiefly from terrorist totalitarian regimes. In other words, Jaspers claimed that reasonable people were able to handle the unreasonable bomb. As long, as well-pondered rationality prevailed, even the most serious of weapons would be harmless. The National Socialists in Germany had already given their performance displaying the traditional concepts of war. Luckily, they fell short of engineering an operable atomic bomb. According to Jaspers, Hitler premeditatedly doomed his people and great parts of the world by pressing for a global war. The balance of fear during the Cold War had the potential to set off a similarly devastating war. Here, Jaspers compares the Third Reich directly to the Cold War era, yet he abstains from making any further inferences. Jaspers clearly considered the National Socialists to be totalitarian terrorists. Although the Cold War could bring similar doom over the people of this world, the philosopher naturally balked at expressing the thought that humanity after 1945 could relapse into the patterns of totalitarianism.

Jaspers's book was ultimately unsuccessful because it failed to characterize the people of the post-war era. It was practicable to call for the power of reason and to describe the terrible past that already had shown what would happen if reason was supplanted by insanity and lack of moderation. However, Jaspers argued for the democratic discussion of the nuclear threat without trying to describe under which conditions these discussions could take place.

Philosophical thinking and literary production during the 1950s and 1960s did not coincide. Philosophy felt pressed to offer up solutions for the atomic problems. Literature refused to do so and, in turn, preferred to draw eldritch apocalyptic scenarios instead.

Jaspers's sanguine attitude in *Die Atombombe und die Zukunft des Menschen* is not met

with an enthusiastic counterpart in nuclear fiction. Although both disciplines, philosophy and literature, developed perspectives for the future, these perspectives differ fundamentally from each other. The apocalyptic scenarios of nuclear fiction hark back to the German past and the history of the Third Reich much more than Jaspers's treatise on the atomic bomb. The philosopher's work tries to turn away from the past in order to open up a new positive future while the authors of nuclear fiction claim the past as an evil springboard into the future.

Günther Anders poses an exception to the division of philosophy and literature mentioned above. Although mainly a philosopher, he partook of the two worlds an act which resulted in hybrid texts that were informed by both, literary fantasy and philosophical thinking. Anders, a Jew, was not only a refugee of the Third Reich, he also knew the way of Nazi thinking well. In his various works on the nuclear inferno, he tries to negotiate between the demand for evil elements in fiction and the thirst for a ray of hope in philosophy. Anders bases his description of the nuclear age very much on his experiences with the Third Reich. He sees the evil of the nuclear age in the unawareness of the masses and the misinformation that they receive from governmental and official sources. It is not a general lack of virtue in mankind to which Anders's writings attest but the inability to grasp the imminent danger.

Although both Nazi Germany and the world of the Cold War were interconnected through history, Anders clearly saw that the people of the nuclear age were not like the Nazis anymore. In his view, they were rather naïve and taken aback by their own invention. Anders claims that the amount of evil that was afloat during the Third Reich has now transformed into the atomic bomb. It is not the people who carry this evil

anymore, but a technical gadget. Science has evolved to the degree that scientific inventions dethrone the human being as the sole decision maker. The smiling manager is the new human of the nuclear age. He is simpering because he does not understand the consequences of his doings nor does he understand the bomb's mode of action. He believes that the atomic bomb will actually protect the world and that its use will not be necessary because of the fear of mutual assured destruction (MAD). Unlike the Nazi who was a militarist through and through, the post-war manager has little knowledge about the concept of war nor does he possess any premeditation to dominate the world as the Nazis intended. The manager also harbors no moral guilt as he is not aware of the potency of the weapon which he can wield in a case of intercontinental escalation (*Antiquiertheit* 262-74). The evil that was clearly visible in the militant Nazi now evaporates into a realm of non-identification enshrouded in confusion and helplessness.

In *Bloodrites.Origins and History of the Passion of War*, Barbara Ehrenreich argues that war is not a continuation of the old prehistoric image of man as the hunter who has to kill in order to survive. Even though the image of war has been dominated by warmongers, in order to truly understand war, Ehrenreich suggests, one should rather look at the image of man as prey: "Rituals of blood sacrifice both celebrate and terrifyingly reenact the human transition from prey to predator, and so, I will argue, does war" (22). Humanity's relationship toward violence and its ambivalence is noted in a feeling that we have almost completely "repress[ed]" (22), the feeling of being preyed upon by more skillful hunters than we are.

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<sup>&</sup>lt;sup>15</sup> Anders tells the reader little about the Russians and their system that was much more permeated by military thinking than the Western world. The figure of the smiling manager only applies to America and Western Europe, as he embodies the key representative of capitalism. It seems also justified to see the manager of that time as male, as there were hardly any women who worked in these positions. Anders's account is clearly based on a male capitalist world.

To continue Ehrenreich's argument, the smiling managers that have control over the nuclear stockpile are not hunters but prey, unaware of the danger, hounded by their own fears and unable to readily turn from helpless prey into acute hunters. Nuclear fiction mirrors this helplessness very well as the conflicts and contradictions from the nuclear problem shine through in these texts whereas many of the protagonists cannot be solely held responsible for their doings. Assigning individual guilt to a person fails. This is even shown in the figure of Lise Meitner in Helga Königsdorf's Respektloser Umgang. The novel, written in 1986, is one of the earliest pieces of nuclear fiction. However, it bears out Anders's claim of the diffusion of evil. The protagonist, a female mathematician, meets the German physicist Lise Meitner in her delirious dreams and starts a conversation with her on the moral responsibility of their profession. Meitner, who partially contributed to the discovery of the nuclear chain reaction, was then forced to emigrate from Nazi Germany and later passed on her knowledge on atomic science to the Russians, is not only highly enmeshed in scientific advances that occurred during the transition period of the Third Reich and the Cold War, she was also politically meandering between the West and the East, trapped in the politics of the post-war era. When she appears as a revenant in the narrator's dreams, Meitner evades questioning. Whenever the narrator inquires about Meitner's guilt as a scientist, the transient specter dissolves into oblivion. The question of evil likewise is an ephemeral mirage, hardly tangible and elusive.

The moral evil that writers like Anders and Königsdorf tried to depict in a literary mode is at the beginning of a process that could eradicate the world as a whole and lead to a nuclear holocaust. In defining the literary reaction to the nuclear holocaust, Theodor

W. Adorno is one of the most important voices to consult as he outlined the bearings the Holocaust has had on the development of post-war literature, blazing the trail for the term nuclear holocaust. While Adorno's famous dictum that writing a poem after Auschwitz would be barbaric has been abundantly discussed in research, his attitude toward the effects that the new nuclear era had on literature has been totally neglected. Admittedly, Adorno did not flesh out his thoughts about the nuclear age with the same intellectual depth that he (and Max Horkheimer) applied in the *Dialektik der Aufklärung*. The Dialektik contains little evidence of the threat of the nuclear age. In the "Aufzeichnungen und Entwürfe" section, Horkheimer and Adorno ominously claim that a "Lawine" (250), an avalanche of negative historical energy will not stop after the defeat of fascism: "Auch seine [i.e., fascism's] Niederlage bricht nicht notwendig die Bewegung der Lawine. Der Grundsatz der liberalen Philosophie war der des Sowohl-Als-auch. In der Gegenwart scheint Entweder-Oder zu gelten, aber so, als ob es je schon zum Schlechten entschieden wäre" (250-1). While one could see the dawning of an era of further escalation through nuclear fission's "avalanchesque" chain reactions looming in the term "Lawine," the book's philosophical centerpiece remains the occurrence of the Holocaust and not the invention of the nuclear bomb or the bombings on Japan for that matter. Rather, Adorno couched his thoughts on the nuclear age and literature much more discreetly in a lengthy book review on Samuel Beckett's play *Endgame*, entitled "Versuch, das Endspiel zu verstehen." The text is a hybrid between book review and philosophical treatise, and was probably written in 1958 but never completely published before 1974 when it appeared in full print in the Suhrkamp work edition. Due to its occasional nature, the text has been overlooked. It is, however, a revealing document that is witness to Adorno's shock in the

face of the nuclear age. The most appalling feature for Adorno was the possibility to bring total nothingness to the world through the thorough eradication of everything that the earth was. This catastrophe is especially malicious as it remains invisible and as the idea of the absolute nothingness is beyond the human grasp. Adorno senses this nothingness in Beckett's play as he fleshes out Beckett's abundant use of the word "nichts" that emulates the destruction of the world in a logically inspired meta-language that does not take recourse to maudlin depictions of human plight but turns the description of the end of the world into a philosophical mind game. Inspired by Beckett's aesthetics, Adorno develops his own literary theory on nuclear fiction: <sup>17</sup>

Jedes vermeintliche Drama des Atomzeitalters wäre Hohn auf sich selbst, allein schon, weil seine Fabel das historische Grauen der Anonymität, indem sie es in Charaktere und Handlungen von Menschen hereinschiebt, tröstlich verfälscht und womöglich die Prominenten anstaunt, die darüber befinden, ob auf den Knopf gedrückt wird. Die Gewalt des Unsäglichen wird nachgeahmt von der Scheu, es zu erwähnen. ... Über das aller Erfahrung Inkommensurable läßt nur euphemistisch sich reden, so wie man in Deutschland von der Ermordung der Juden spricht ("Versuch" 286).

This statement carries two fundamental messages. First, literature in the atomic age has become impossible, as the portrayal of an atomic devastation would render all of literature's artistic devices powerless. The event is beyond our abilities to reason and to understand its extent. It bursts and transcends the human mind, and therefore every attempt at capturing it in literature will end with dissatisfaction or even moral adulteration. Such authors would ensnare themselves in a language steeped in euphemisms and dishonesty. Surely not accidentally, Adorno's argument bears

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<sup>&</sup>lt;sup>16</sup> Adorno obviously read the play in German as all quotations from *Endgame* in his article are in German. <sup>17</sup> Adorno refers only to theater plays, a decision which is partly based on the piece at hand – *Endgame* – but which also shows that he was not thinking of nuclear fiction as a broader concept in literature that would utilize different genres such as novels, radio plays, narratives, etc.

resemblance to Wittgenstein's dictum that what we cannot talk about we must pass over in silence, yet Adorno does not go as far as to pronounce a ban on writing literature and to administer Wittgenstein's silence to the post-war literature harrowed by the nuclear nemesis.

The second argument carries even more weight: The nuclear age and the Holocaust have thwarted literature through their menacing magnitude. Speaking earnestly of the Holocaust is as impossible as speaking truthfully of the nuclear apocalypse. Both events lead the serious author to a methodological impasse. Adorno even goes one better when he suggests that disregarding his advice not only leads to a type of literature incommensurate to the events it seeks to describe but also to a literature that incurs moral guilt by adulterating the truth. Adorno's judgment on the nuclear age takes his main argument in the Dialektik der Aufklärung one step further. There he saw the Third Reich as the endmost point that the derailed Enlightenment project could reach. In the *Dialektik*, the Third Reich is the epitome of a perverted idea of reason that lead to the darkest of all chapters of humanity. In "Versuch, das Endspiel zu verstehen" the atomic age rivals the Third Reich in its malice. One can only speculate why Adorno did not continue the Dialektik. It seems as if the Holocaust kept him occupied and was a graver event because it had happened actually. The nuclear threat was at best a possibility, albeit a very real one. However, Adorno admitted to the total absence of solace. In a world that was facing extinction no comforting thought would be permitted without distorting reality (288). This thought is especially harsh as Adorno adds that even every inmate of a concentration camp had more inner freedom at his or her disposal than the human being living in the nuclear age:

Die Katastrophen, die das Endspiel inspirieren, haben jenen Einzelnen aufgesprengt, dessen Substantialität und Absolutheit das Gemeinsame zwischen Kierkegaard, Jaspers und der Sartreschen Version des Existentialismus war. Dies hatte noch dem Opfer der Konzentrationslager die Freiheit bescheinigt, was an Marter ihm angetan wird, innerlich anzunehmen oder zu verneinen. Das Endspiel zerstört derlei Illusionen. (290)

The philosophical existentialism, a direct answer to the internment camps of
Fascist Europe, provides solace for the internee. In the teeth of death the captives regain a
certain inner moral freedom that gives them strength to endure their fate. In the nuclear
age, Adorno goes on, this freedom is debunked as an illusion because the endgame, the
last moves that humanity can undertake before it is blown out of existence, leaves no
room for any hope. Adorno avoids using the terms "good" or "evil" as these are human
categories that would also be overthrown by the magnitude of the nuclear destruction.

The nuclear age figures beyond the classical philosophical tradition and cannot be
captured with the well-known terminology of moral philosophy. Adorno describes a loss
of tradition that unhinges the entire human culture. His view of the nuclear age leads to a
dangerous moral emptiness that defies classification at all and leaves the reader without a
perspective.

Adorno's claim that literature about the Holocaust or the nuclear age would only lead to invalid euphemisms tallies with the findings of Ilona Stölken-Fitschen in her study *Atombombe und Geistesgeschichte* analyzing Germany's cultural response to the atomic bomb in the 1950s. Basing her judgment on myriad reports and features from newspapers and newsreels from this era, Stölken-Fitschen concludes that in the early 1950s the German press, TV, and radio featured – almost cheerfully – all nuclear tests that the two superpowers staged in various parts of the world. It was not until about the

mid-1950s that the Germans became aware of the devastating global consequences these weapons carried. This cheerfulness was usually conveyed by a feeling of awe in the face of the gigantic nuclear mushrooms that appeared on the horizon. Its sheer size coupled with an apocalyptic thunder and earthquake, various effects of iridescent lighting, and a spectacular afterglow held the observing journalists in its thrall. Oblivious to all the dangers resulting from these tests, the onlookers were captivated by what they saw and would pass on their observations to their readership in florid and euphemistic wording. Additionally, photographs of the nuclear mushroom cloud appeared more often than not in many nation-wide newspapers, thus supporting the claims in Stölken-Fitschen's article (89-90). Adorno's position on the nuclear age is not only short-spoken but also linked to his criticism of the 1950s and the insensitivity towards danger that he sensed among his coevals. Yet it is effective insofar as it links the Holocaust and the nuclear age and shows that they share common features. Günther Anders tried to elaborate on the phenomenon that Adorno called an unawareness of danger in a general way. In Anders account, humans are like fossils that are eclipsed by their own technology. We "lungern wie verstörte Dinosaurier zwischen unseren Geräten herum" (Antiquiertheit 16). Out of our own conceptual devastation, our inability to cope with the presence of the bomb we become blind to the impending apocalypse ("apokalypse-blind" 276). Günther Anders describes this impending danger as a precarious undercurrent that people shun out of their conceptual helplessness. Anders' biologism of a humanity lagging behind in evolutionary terms enjoyed currency. 18 In his 1959 essay "Haben wir das neue Weltbild im Geiste

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<sup>&</sup>lt;sup>18</sup> Anders expressed his concerns about humanity's "Antiquiertheit" in various images. The sociological version draws on Marxian and mythological vocabulary: "Die Tatsache der täglich wachsenden *Asynchronisiertheit des Menschen mit seiner Produktionswelt*, die Tatsache des von Tag zu Tag breiter werdenden Abstandes, nennen wir 'das prometheische Gefälle" (Antiquiertheit 16).

bewältigt?," Hans Henny Jahnn deplored the absence of modernized thinking as the atavistic relapse into old patterns of thought: "Atavistische Denkprozesse sind seit jeher und heute besonders das eigentlich Böse. Mögen die Träger der Gedanken auch biedere Durchschnittsmenschen sein" (582). The danger of an atomic war is therefore omnipresent although it keeps furtively lurking in the background of our brains.

Günther Anders is one of the earliest and harshest critics of the young Federal Republic of Germany in the 1950s. In a prosperous phase when most of his contemporaries were in awe of the *Wirtschaftswunder*, he claimed that the young democracy was built on technocracy. Without the efforts of machines this new wonderland of democratic freedom would be impossible. The obsessive use of machines, however, takes away from our freedom. We live, as Anders argues, in an illusion of democratic freedom. This illusive world rigorously chides people who harbor doubts about the general progress. In fact, the imperturbable belief in continuous progress is enforced by all major forms of government, capitalism as well as communism. Anders draws the protester of the nuclear age like a dissident during the Third Reich: fighting against the public opinion and creating awareness for danger in a society that does not want to accept this impending danger. Both groups of dissidents, those who fought the Nazis and those committed to preventing the nuclear inferno, had in common that they sought to avert a total downfall. The July 20 Plot, for instance, wanted to avoid a total defeat before Hitler could see to it that all of Germany was destroyed in the war and all Germans had been sacrificed as cannon fodder. The nuclear dissidents like Anders saw their role in a similar way: they wanted to avert a total downfall not of Germany alone but of the world. The fight against the Nazi regime was always connected with personal

danger and the fear of execution once the subversive plan was found out (e.g. Scholl siblings, the Kreisau Circle). The dissidents in Nazi Germany had no right to express their opinions in the public. They knew that death and incarceration would await them.

Although the post-war era de facto establishes democracy and guarantees the right of free speech and the distribution of knowledge, writers like Anders are sceptical if their criticism will be allowed in the public discourse or if it will be curtailed when an acute nuclear crisis arises. In other words, the nuclear age would create an atmosphere of mutual distrust and fear that poisoned each debate. The tactics of the Cold War did not permit the release of information to the other side thus disabling open discussion as this was regarded as a potential leak. Anton-Andreas Guha depicts just such a Cold War society in his fictitious 1983 diary Ende. Tagebuch aus dem dritten Weltkrieg. At the beginning of his study, Guha portrays the Germans as citizens of a free society that has recovered from the Second World War and who have rebuilt their country into a functioning market economy that provides wealth to its citizens. This freedom is only short-lived, however, as the advent of a severe nuclear crisis uproots the democratic climate in Germany. The emergency measures that the German government takes before the actual war breaks out in Guha's diary repeal the most essential rights of the Grundgesetz, Germany's democratic constitution. Censorship becomes widespread again and, as Guha's narrator puts it, the whole country returns to the authoritarian dangers of the Third Reich. Germany's authors were especially suspicious of such a scenario that would justify the annulment of the advances that the country had slowly made after 1945 and would ultimately result in a transfer back to the rule of authoritarianism in the fashion of Nazi power.

The texts of nuclear fiction clearly express doubts towards the political stability of Germany and depict post-war Germany as a weak construct that has yet not been anchored in the minds of its citizens deeply enough to guarantee steadfastness during a time of crisis. Guha's narrator ends his account with the description of a total chaos. The authoritarian rule only takes place as long as the government is still able to act. Once the nuclear war has engulfed the infrastructure for law enforcement and military force, the authority dwindles and gives way to total mayhem, the absolute disintegration of society that occurs to the counterpoint of nuclear devastation. The burnings that take place in texts by Guha and many other authors of nuclear fiction are reminiscent of the burnings that took place during the Holocaust. The motifs of fire, flames, smoke, and the cremation of humans are a staple in nuclear fiction and appear in myriad variations. However, while Nazi Germany was in charge of its doings, the new disintegrating Germany that is portrayed in nuclear fiction is the total opposite of the erstwhile military power that Germany flaunted under Hitler. The divided Germany within the confines of the Cold War is merely a hand-wringing ally of both main parties of conflict. The country's political clout has dissolved and the authors do not feel Germany's return to a Nazi empire. However, the moral depravity that Germany has seen during the Third Reich will likely occur again.

Günter Grass and Christa Wolf, the two most significant voices of nuclear fiction of the 1980s, have written extensively about the Third Reich and the questions of ensuing guilt and dealing with the past, before they turned to the topic of the nuclear age. While they have founded their reputation on and have been celebrated for works that mainly deal with the National Socialist era – Grass's *Die Blechtrommel* and Wolf's

*Kindheitsmuster* – their novels on the nuclear age have not garnered the same amount of attention. Nonetheless, in these works, both Grass and Wolf pick up on the issues of the Nazi past and link them to the atomic crisis of the mid-1980s.

In *Die Rättin*, Günter Grass weaves a disastrous vision of humanity sinking into a nuclear devastation while the world is taken over by anthropomorphized rats.<sup>19</sup> Before the catastrophe happens, Grass shows the reader a human world ruled by the omnipresence of the media.<sup>20</sup> Those who own the media own the world as they are extremely powerful in controlling the public opinion. The former leaders of the Third Reich exerted power through an extreme level of authority and unmitigated cruelty. The new leaders of the 1980s, as Grass shows ironically, wield power through the distortion of media content. In *Die Rättin*, Grass employs the character Oskar Matzerath for the last time and permits him to die in a nuclear apocalypse at the end of the book. The figure of Oskar is arguably Grass's most ingenious and resourceful invention. Oskar appears in many of Grass's other novels, notably in *Die Blechtrommel*, where Grass introduces him to his readership. Oskar is the living proof of history which has left its marks on him: he

<sup>&</sup>lt;sup>19</sup> Wolfgang Koeppen sketched a narrative of nuclear fiction that employs animals in various roles. Just as *Die Rättin* is an elegiac threnody on the end of the world that bids farewell to human culture in rhapsodic cascades of prose, Koeppen likewise imagined his narrative to be a literary swan song. He chose Venice as the city of saying farewell to life and of death: "Zerstörung Europas (Zerstörung der Welt) durch das Atom. Zwei Überlebende. Sie wissen nicht voneinander. Experimentieren beide mit Radiosendern, deren Batterien intakt geblieben sind. Erkunden ihren Standort. Verabreden eine Begegnung. Machen sich zu ihr schwer bewaffnet auf. Mißtrauen dem zweiten. Sind entschlossen zu schießen […] Venedig tote Stadt. Aber die Wassertiere haben überlebt. In den leeren Palästen Feste der Frösche, der Ratten, der Biber. Im Palazzo Vendramin Goethe, Casanova, Wagner. Kartenspiel mit dem Biberpräsidenten und einem Russen. Der Russe schlägt vor: russisches Roulette. Der Biberpräsident ist Amerikaner" ("Übers Jahr vielleicht mal wieder in Venedig" 105). Out of a classical Cold War survival scheme, Koeppen develops a flamboyant apocalyptic carnival that is played by anthropomorphized animals. Unfortunately, Koeppen never realized this project.

<sup>&</sup>lt;sup>20</sup> This was, of course, a very popular form of criticism during the 1980s and 1990s. A notable example from popular filmic culture attesting to this wave of media criticism is the 1997 James Bond classic *Tomorrow Never Dies*. Hamburg-based media mogul Elliot Carver tries to throw the world into a nuclear crisis by willfully distributing distorted information. He is assisted by Nazi-like German henchmen who protect him and help him pursue his insane goal.

is the malicious little gnome-child that lives through the Third Reich and the Second World War, then comes of age in the young Federal Republic and finally becomes a famous media czar towards the end of his life. Oskar, formerly an onlooker and bystander during the Third Reich, now acquires power on his own. He turns into one of those creatures that Anders had recognized as the smiling manager. In this capacity, Oskar leads a German media trust that produces manipulative TV content which lulls the audience into a fallacious fairy-tale world and thus obscures and obfuscates their perception of reality. In this state of unawareness, the entire country tumbles into a nuclear war without being aware of it. In Grass's account, the media manipulations clearly compare with those of NS propaganda: deceptive messages released on the audience cause disinformation and obedience. However, while the Nazis had outspoken political interests that they sought to achieve with their propaganda campaigns (motivating the Germans for the impending war as the first and foremost goal), Oskar and his cronies do not pursue such a goal. The modern media coverage rather seeks to allay doubts and alleviate people's conscience in the face of growing environmental pollution and growing strife in the world. Oskar's media productions numb the pain that could arise when looking at the world. While not militant or belligerent, the media create an air of totalitarianism that turns the viewers into blinded vulnerable ignoramuses. The effect of this media ideology is so mighty that it even engulfs its owners and makers.

In one of the last grand panoramic scenes of the novel, the party on the occasion of the 107<sup>th</sup> birthday of Oskar's grandmother Anna Koljaiczek, the mighty media boss Oskar himself is taken by surprise when the nuclear flash of an ominous neutron bomb hits the party revelers. All revelers are instantly burnt to a frazzle, paradoxically frozen

by the unbearable heat and sucked dry of any life-carrying liquid that their bodies contained. This scene is early evocative of the Holocaust as it shows the destruction of human bodies through fire and furthermore depicts them as an act of rash and senseless mass killing. The destruction of life is total and totalitarian at the same time. When the nuclear flash occurs, the birthday guests are all set up in a tableau as if waiting for the official photographer to appear and immortalize them. Instead of the photographic flash, the nuclear flash makes its appearance and engulfs everybody. Looking at the birthday guests, Grass presents us with 100 years of history: the grandmother Anna herself who has even outlived a century by then and who has turned into a relict of a long bygone history, is surrounded by many generations of her numerous progeny, most of them having been born during the Third Reich. The nuclear flash thus does not only extinguish human life but also human history. It strikes horizontally (the sheer numbers of people) as well as vertically (the annihilation of history), leaving only the empty shells of civilization – cities, buildings, infrastructure – unharmed. The neutron bomb thus is described as "etwas, das wegrafft und zugleich erhält, das nur Lebendiges nimmt, dem toten Gegenstand aber Respekt erweist" (31).

Oskar Matzerath is born during the Nazi party's *rise* to recognition, and he dies at the *end* of the nuclear inferno. By choosing precisely these two eras and turning them into the periods that frame Oskar's life, Grass admits to the continuity of history. The Third Reich and the nuclear holocaust are the two events that mark the beginning and the end of the downfall of the world: what started out in 1924 now reaches its ultimate conclusion: "Rein ins Ofenloch" – this ambiguous phrase encompasses the history of destruction by incineration from the symbolic fairy tale's oven of the witch to the Holocaust and the

incinerators at the concentration camps and finally the nuclear holocaust with its ultimate conflagration where according to Grass the end of all storytelling has been reached (119). According to Hardy Ruoss, Grass's willingness to kill off his literary creation Oskar points to the all-transcending destructive power that the nuclear age holds for Grass: "[die] zu verlierende Heimat ist geographisch nicht mehr abgrenzbar wie etwa noch in der 'Danziger Trilogie'. Die Erde ist unsere Heimat und die Zerstörung ist global" (864).

Christa Wolf's *Störfall* is less of an epic panorama than Grass's *Die Rättin* but rather a reflective narrative bordering on the essay genre. The text aims at the visualization of the unthinkable and therefore engages heavily in metaphors and images. For Wolf's narrator, the gigantic cloud hovering over Chernobyl and great parts of Europe becomes the harbinger of evil. She compares the "böse Wolke" (46) with the innocuous white clouds before an azure sky in nineteenth century poetry:

... doch jene Wolke blühte nur Minuten und als ich aufsah, schwand sie schon im Wind.

Hoffentlich. Hoffentlich nur Minuten, hab ich da nur denken können, obwohl dies ja ein Lied aus der Zeit ist, da Wolken "weiß" waren und aus Poesie und reinem kondensierten Wasserdampf bestanden. Nun aber, habe ich gedacht, während ich die gekochten Kartoffeln abpellte, durfte man gespannt sein, welcher Dichter es als erster wieder wagen würde, eine weiße Wolke zu besingen. Eine unsichtbare Wolke von ganz anderer Substanz hatte es übernommen, unsere Gefühle – auf sich zu ziehen. Und sie hat, habe ich wieder mit dieser finsteren Schadenfreude gedacht, die weiße Wolke der Poesie ins Archiv gestoßen. Sie hat, von heut auf morgen, diesen und beinahe jeden Zauber gebrochen. (61)

The cloud, a symbolic fixture in literature, has undergone a dramatic change.

While Wolf claims that clouds were morally impeccable in older times, they have now transformed into evil figures. The narrator does not talk about the clouds that rose above the concentration camps, but the reader learns from Wolf's description of clouds in the

nineteenth century and the late twentieth century that there must have been evil clouds in between these periods that marked the departure from moral goodness. Although the reader is left to fill in the blanks himself, Wolf provides a story about a Jewish fate during the Third Reich that she weaves into the reminiscences about Chernobyl. Not only does this enable the reader to rethink the concept of cloud, it also shows that Wolf does not want to jettison concepts of morality. While the author admits to the lost morality that originally stemmed from Enlightenment reasoning, she suggests a new form of "felt" morality that works through strong literary images. The function of the cloud in *Störfall* enables the narrator to regain an understanding of evil and good without taking recourse to the power of reason. Chernobyl according to Wolf is the sum of all of evolutionary development. It presents the pinnacle of ingenuity that the evolution of the human brain has brought forth, unfortunately now engulfing those who evolved in the evolutionary process. In this context, the brain surgery of the narrator's brother gains a new aspect: It should serve as a cure for disease but it is in fact incisive and threatens the human brain that has grown considerably in the process of human evolution, as Wolf's narrator argues:

Etwa hunderttausend Jahre lang stand die Größe des Gehirns in einem ungeheuren Mißverhältnis zu der Leistung, die ihm abverlangt wurde. [...] Das Wuchern des Gehirns könnte durch eine lange Periode der Vorgeschichte hindurch ebenso Hindernis wie Hilfe für die Vorfahren des Homo sapiens gewesen sein. Jene Steine, Bruder, jene Tänze und Zeremonien haben ihnen geholfen, einen kulturellen Apparat zu entwickeln, Formen, in die sie ihr Menschsein fassen konnten. Wir sagen: Sitte – (75, 76)

While a sizable brain enabled us to become humans with morality – "Sitte" – in the first place, it has now outgrown the human body as it turns against it by devising dangerous nuclear technology. The formerly sound and intact reasoning that enabled

humanity to control its power – a product of Enlightenment thinking – has lost its moral grounds as its destructive frenzy strikes out. In a similar fashion, Anton Andreas Guha in *Ende* acknowledges a loss of reason ("kollektive Vernunft," 43), a fact that he attributes to the excessive development of the human cerebrum – the "Großhirn" (87). In his essay "Physik 1943," Gottfried Benn had still hoped for an evolution of the brain. He saw this as an exit strategy from the problematic historical situation in which science had navigated humanity:

Einst war wohl Gott der Schöpfer der Welten, und zweifelslos gibt es Älteres als Blut, aber seit einiger Zeit treiben die Gehirne die Erde weiter und die Entwicklung der Welt nimmt ihren Weg durch die menschlichen Begriffe, und offenbar ist es zur Zeit ihr Haupt- und Lieblingsweg. (355)

Benn's view still mirrors, of course, the benevolent naivety of an era that has been toying with subatomic matter but that has not yet arrived at the horrors of the nuclear age. Wolf, having lived through these horrors, finally rejects such hopes that Benn harbored for the human intellect. The further evolution of the brain will not result in a humanity that can carry the burden of technology better.<sup>21</sup> Furthermore, continuing to pursue the Enlightenment ideas will not yield a solution of the nuclear crisis either.

As has been shown so far, the events of Germany's past, namely the Third Reich and the Second World War, play a considerable role in nuclear fiction. The authors, however, do not just use the past as a treasure trove for their eerie texts in order to increase the horror of the nuclear apocalypse. They truly see a link between the Third Reich and the atomic age thereafter which justifies the use of the term *nuclear holocaust*.

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<sup>&</sup>lt;sup>21</sup> The brain surgery in Wolf's *Störfall* is cast in a negative fashion. Although the surgery promises potential relief and healing, those who enter the brain, enabled by their own eerie brain power, wield control over the brains of others, thus being able to cripple minds by literally cutting into them. Technology thus makes humanity vulnerable as the book argues.

As the *Vergangenheitsbewältigung*, dealing with the Nazi past, was often glossed over in the immediate post-war era, the writings of nuclear fiction, especially those from the 1950s and 1960s, already discuss issues of the Nazi past in the disguise of a new crisis. Nuclear fiction thus also became an emergency outlet for German literature that struggled with finding an adequate way of portraying the past.

Ursula Heukenkamp claims in the foreword of *Unerwünschte Erfahrungen*, a study of war literature and censorship in the former GDR, that all of East German literature in the ten years after 1945 in one way or another referenced the Second World War (6). It was an event too incisive not always to find its way into the writings of any author. I would like to stretch this argument and claim that all of German nuclear fiction, be it from the East or West of Germany, from Switzerland or Austria, references the Second World War and the Third Reich, no matter if the texts stem from the immediate post-war period or the late 1980s. All authors are highly sensitive to links with which they can connect the nuclear apocalypse to the history of the Third Reich. Some authors are very outspoken about these links and discuss them in detail, others prefer to use the history of the past rather as a backdrop, more carefully alluding to the Nazis and the Second World War. However, for all authors the traumatic era of Nazi Germany provides fertile grounds for their apocalyptic nuclear fantasies.

Nuclear fiction nonetheless does not simply adhere to the thought that the post-war period is a continuation of what happened before. The texts that are closer to 1945 (namely all texts from the 1950s) adopt more direct allusions to the Third Reich and are often steeped in traumatic melancholy which is often caused by the authors' immediate experience in Nazi Germany. The later texts offer a less forced use of allusions to Nazi

Germany. Their authors are curious to investigate the links between two historical epochs but they do not feel the immediate presence of the Third Reich as closely as their predecessors did. All of nuclear fiction tries to develop a new image of the people of the nuclear age. While they share some of the traits that are typically ascribed to people in literature on the Third Reich (strong belief in authority, mass manipulation), they are much different from their ancestors. Although nuclear fiction regards the evil of the nuclear age as the successor of the totalitarian evil before 1945, it also shows that the evil has changed its face.

In sum, the new evil has metamorphosed into a more anonymous shape, much harder to spot in a world that only wants peace but only produces war. Nuclear fiction pictures the people of the atomic age mostly as passive and misinformed or uninformed followers who not at all seek confrontation but who nonetheless become ensuared in the evil mechanism that the bomb dictates. They are not the brutal and barking Nazis anymore but rather intellectually decapitated beings without a potent leader who could avoid the imminent war. This is an evil that is much less voluntarily chosen than the evil of the Third Reich. The most precarious notion of evil, however, is hidden in the feeling of innocence and naivety that adorns many protagonists in texts of nuclear fiction. The lack of responsibility and knowledge renders the herd of fictional personnel helpless. This evasion of responsibility is also often a topic in fictional texts on the Third Reich. Nuclear fiction, however, goes one better: leaders and inferiors are equally helpless in the face of the atomic war. During the Second World War only the last days in the Führerbunker were as desperate and hopeless as this new conflict. Gerhard Zwerenz's novel Der Bunker symbolizes this dramatic weakness of the political leaders by narrating

the story of the Chancellor and his fellow members of the government in the depths of their bunker during the Third World War. While the Chancellor under pressure reveals himself step by step as a cruel and self-absorbed Hitler-like dictator, the reader learns that the bunker has now become the ultimate symbol of capitulation in the face of the evil. The modern bunker that Zwerenz depicts in his novel is technically more advanced than Hitler's bunker, enabling the Chancellor to flee it in a special tank before the Russians could possibly crack it open with atomic weapons. However, the Chancellor does not cover many kilometers before he is killed by an undercover spy. The bunker is the new impasse of the nuclear age, the last resort before death strikes. Whereas many Germans could still leave their bunkers after the Second World War, the new bunkers, albeit stronger, are the tombs of the post-1945 era. They innocently promise security but they bring the evil of a procrastinated and agonizing death.

## The Personification of Evil – The Bomb as the Epitome of Evil

The atomic bomb has become the symbol of terror of the twentieth century. Nothing else carries the same notion of devastation as the atomic bomb and its notorious explosive power. While the bomb seems to be the materialization of evil, its sheer size compared to the gargantuan effects of its detonation defies adequate portrayal in literature: the bomb's size is disproportionate to its power. This has led all but few authors of nuclear fiction to focus rather on the effects of the detonation than the bomb itself. The bomb, that is the metal casing in which it is stored, is rarely depicted in fictional texts. It is too uncharacteristic and nondescript to hold any value for ascribing evil to it. The atomic

bomb is a device that not only rejects visualization in literary fantasies, but that by doing so brings up issues of visibility and invisibility.

What Immanuel Kant said about the sublime character of nature's force is comparable to the man-made copy of nature's force, the atomic bomb. The bomb itself is invisible and hidden away in secret military armories unless it is used, just like the raw power of natural catastrophes like earthquakes is only visible during the moment of activity but is otherwise accumulated in the tectonic rifts underneath the earth's surface. In times of peace, the power of the bomb remains invisible. The material of which atomic bombs are produced is taken from nature. It contains a gigantic amount of energy that will not be released prior to setting in motion the dreaded chain reaction. I argue that atomic weaponry is in essence an anthropomorphized and refined version of what Kant deemed nature's force.<sup>22</sup> Humanity has been able to construct a means that enables us to release huge amounts of energy in a sudden way that can bring devastation over many people and huge areas similar to or even in excess of nature's powers. However, despite its engineered shape, the atomic bomb remains invisible nonetheless. Its evil is its invisibility, and following from that, its imperceptibility.

Early as well as late works of nuclear fiction fall short of portraying the face of the bomb proper, avoiding immediate depictions and rather trying to pinpoint a new abstract source of evil in the atomic bomb. In Kirst's *Keiner kommt davon* the bombs just

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<sup>&</sup>lt;sup>22</sup> Richard Klein, a proponent of the nuclear criticism movement of the 1980s, perpetuates Kant's idea of the sublime and carries it over into the nuclear age as the "nuclear sublime," arguing that this idea of the sublime needs to be imagined and discussed in a philosophically productive mode: "... thinking the unthinkable is probably unavoidable, since it is not only the explicit aim of the project with the eighteenth-century reflection on the sublime, but, more permanently perhaps, the ambition of philosophical interpretation of future time since Plato. The nuclear sublime is that all too familiar aesthetic position from which one anticipatorily contemplates the end, utter nuclear devastation, from a standpoint beyond the end, from a posthumous apocalyptic perspective of future mourning, which, however appalling, adorably presupposes some ghostly survival..." (79). For a broader discussion of nuclear criticism, cf. my chapter "The New Indifference? – Two Strands of Nuclear Evil."

fall on Germany, and in a newsreel fashion the reader learns about the destroyed areas like the taken figures on a chessboard. Nowhere in the novel does the reader observe the bombs or the act of employing them. The bomb appears like a deus ex machina – a "Wolkenungeheuer, Springbrunnen, Feuerbaum" (Schilliger 62) – explodes, and leaves a ravaged area. Many texts just speak about the bomb in a theoretical fashion, passing on the opportunity to narrate its vast unfolding of energy, as their authors dreaded that the portrayal of the bomb's effects might lapse into a trivial narrative that would not measure up to reality.

Many authors felt the crux that Adorno had already expressed when he claimed that every portrayal of the bomb would inevitably end in euphemistic babble falling short of depicting the true dangers. Authors of nuclear fiction have often resorted to the depiction of the mushroom cloud that forms after an atomic explosion. As they realized, the bomb itself was indescribable and therefore the next available symbol within reach was the "signature" cloud that was representative of atomic evil. In his 1961 radio play *Die japanischen Fischer*, Wolfgang Weyrauch described the tragic incident that occurred on March 1<sup>st</sup>, 1954, when 23 Japanese fishermen accidentally navigated their vessel into the security zone of the American H-bomb detonation on the Bikini atoll. He makes the reader observe the bomb through the lens of these fishermen, naïve and unsuspecting bystanders who did not know that they had just witnessed the detonation of the biggest bomb humanity had ever set off. In the eyes of these Japanese, the mushroom cloud in the sky forms a symbolic dragon, a creature that spells evil for the pious fishermen. <sup>23</sup> As the different shades of the cloud cascade into obscure spirals and whirls of smoke, the atomic

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<sup>&</sup>lt;sup>23</sup> Ilona Stölken-Fitschen in *Atombombe und Geistesgeschichte* argues that the nuclear mushroom cloud in nuclear fiction of the 1950s (and one could argue beyond) serves as a symbol of the obsessive fear of radioactive contamination (120).

explosion becomes an evil monster in the reader's mind. Weyrauch mythologizes the cloud and turns it into a green dragon with multiple heads, a fictitious creature that can be imagined by the reader:

Stimmen von Fischern. [...] In der Nähe lag die Insel, wo sie immer ihre

Versuche machen.

Mit dem Atom.

Dem grünen Drachen. [...]

Fischer. Es ist enthauptet.

Fischer. Sein Kopf schwebt hinauf.

Fischer. Ich bete das neue Wesen an. Denn ich sehe, daß es in diesem

Augenblick einen neuen Kopf bekommt.

Fischer. Der zweite Kopf wächst aus seinem Hals heraus.

Fischer. Kopf, Hals und Leib sehen zusammen wie ein Pilz aus. (39-42)

Nonetheless, Weyrauch provides a visualization of the evil rather than a firm description of the source of evil. He utilizes the fishermen and their naïve perspective in order to interpret the shape of the mushroom cloud. The fishermen also harbor the antediluvian belief that the radioactive atoms jump into the human body and thus communicate an infectious disease. Weyrauch exploits the clash of modernity (the bomb) and tradition (the fishermen) in order to shape the description of the bomb. His approach is very visual yet evades the bomb itself. The evil evaporates into figments of nature mysticism, far away from a precise description of the bomb itself.

Günther Anders was indeed the first author who tried to pinpoint the evil by providing a philosophical description of the atomic bomb. For him, the bomb was a new category of evil that could not be measured with the language of traditional philosophy. In his treatise *Die Antiquiertheit des Menschen* Anders establishes a philosophical category that seeks to assess the bomb's evil capabilities. Anders's pessimistic approach starts with the observation that this new force really "exists" although its existence is kept

secret by the governments. Most people have never seen an atomic weapon and yet there is a tremendous effect of deterrence that emanates from it, which is astonishing for an object that has such political clout yet is physically invisible most of the time. For Anders the bomb becomes an intangible, almost immaterial super-evil, a monstrosity that rules its makers and deprives them of their Promethean authority. Anders's criticism is based on a period of wondrous awe when the bomb's first presence during 1945-49 held the world in its spell, as Ian Smart argues:

... the original "nuclear age" was an age of wonder, of vague awe or even of catharsis – an age, one might say, of nuclear superstition. Moreover, the object of that superstition was not the influence of nuclear weapons upon some particular and possibly ephemeral situation in international politics but the apparently supernal character of the nuclear weapon itself. (549-50)

Anders was one of the first to philosophically overcome the riveting allure of horror that captivated the world, and he was quick to point out that the transcendent beauty that Smart describes was suppressing questions of morality with its mythical presence.<sup>24</sup> In mythology, Prometheus's theft brought the spirit of invention and innovation to humanity and enabled people to sever the ropes of their thralldom in which the gods had kept them. Human beings could hold sway over their own fate since they

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Similar to Anders, the psychologist Lawrence LeShan argues that the bomb is surrounded by an air of mythical secrecy that imbues average people with strong feelings of good and evil. Thus morally charged, they turn into cold-blooded warriors or war strategists: "... it is useful to understand that the reality construction used in wartime is one subclass of what we have called the mythic mode. In the mythic reality we never question why evil exists; it simply is. Cinderella's stepmother and the Dark Lord of Mordor simply are evil, as Cinderella and Gandalf are good. The enemy is evil [...] Hiroshima was picked as the target for the dropping of the first atomic bomb according to criteria laid down by James B. Conant, who later became the president of Harvard University. Among these criteria were that the target are include a factory complex full of workers, surrounded by closely packed workers' housing. Some 80,000 people died in the bombing. Someone guided by a sensory reality orientation might well have picked a target featuring a factory complex not surrounded by closely packed workers' housing. However, the choice made is typical of what can be expected from even a highly intelligent, educated decent man if he is using a mythical construction of reality" (The Psychology of War 47-8). LeShan here describes the psychological mechanism that prompts Anders to demand a complete destruction of the mythical shroud that envelops the bomb.

would use the device of the gods, the fire that they illegally obtained. The advent of the atomic weapon marks the end of our authority since the Promethean fire that has now turned into an atomic fire could destroy us at any time.

Anders is one of the few authors to approach the bomb as a physical object directly and to put it at the center: "... daß die Bombe ein ganz abnormer Gegenstand ist; nämlich ein Gegenstand sui generis, das heißt: das einzige Exemplar ihrer Gattung ... Denn die Bombe ist kein 'Mittel'" (Antiquiertheit 248). What renders the bomb evil in his account is the fact that those responsible for the bomb are blithely unaware of handling so disastrous a thing. The bomb's power transcends human understanding. Furthermore, the weapon is presented as a guarantor of safety and freedom which misrepresents and even perverts its true nature. Anders also posits that in the face of the bomb human beings violently suppress thoughts about possible destruction and death. The bomb stalls and stifles discussion. During the Third Reich critical discussion was suffocated by governmental intervention. The suffocation of criticism during the atomic age happens, according to Anders, by means of the bomb itself. It therefore makes free thinking impossible as it thwarts free-wheeling discussions or an emotional formation of useful fear. For it is not fear that we have to fear, it is rather the absence of fear.

In his introductory remarks to *Poesie der Apokalypse*, Gerhard R. Kaiser supports Anders's argument by comparing modern fear (or the lack thereof) with historical fear: "Die realen Vernichtungsmöglichkeiten, die es [i.e. the atomic age] erstmals eröffnet, stehen in keinem direkten Verhältnis zur Stärke der Angst: Die imaginären Reiter der Apokalypse mögen einen gläubigen Menschen des Mittelalters mehr erschreckt haben als uns Heutige das Wissen um die atomaren Waffenarsenale" (20). While the reality of the

Cold War did not elicit deep emotional reactions, Nazi Germany and its fearmongering surely did (and not only the apocalyptic belief system from the Middle Ages, as Kaiser argues). Nazi Germany displayed its militant spirit to the world and thus clearly communicated its aims to its enemies by creating fear, yet the atomic age hides the evil away in neatly shaped bombs that are stashed away in subterraneous storage spaces.

Anders declares the bomb to be the centerpiece of his philosophical argumentation in order to lift it from its military stashes and to counter the cloud of silence that surrounds it. Anders does not claim that the bomb represents the ultimate epitome of evil. He rather wants to recover it as a symbol alongside which the question of evil can be discussed. The bomb is evil because it is has been wrenched out of the hands of human control as the philosopher maintains.

The paradox of this evil in Anders's interpretation is that it has been summoned by human scientists with limited knowledge of what they were doing and what the true consequences would be. The bomb even surprised its makers as it eclipses their imagination of how powerful the atomic blast could be. The bomb, although built by humans, is now super-human and as such enters the realm of the incomprehensible.

Anders establishes the bomb as a super-human category by comparing it to elements of ancient mythology. In fact, his comparison does not digress much from Weyrauch's metamorphosis of the bomb into a green dragon. The crucial difference, however, is that Anders stipulates that the bomb be regarded as a category in its own right. Its ascent into the incomprehensible happens because humanity balks at its own doomsday construction and now tries to minimize it in their minds in order to reduce its disastrous power. Anders encourages his readers to analyze and classify the bomb even though it is beyond our

ability of perception. He untiringly points out that the evil of the bomb lies in its chameleon-like mutability in the human mind: it is reducible to a simple military device if need be. It is also furthermore reducible to something that becomes totally invisible because it is carefully stashed away in secret depots where it awaits its deployment.

Whereas Weyrauch contents himself with an allegorization of the bomb,

Anders directly attempts to penetrate the morally grey area that surrounds the bomb and
enshrines it in an aura of moral neutrality. According to Anders, regaining human control
over the bomb and dethroning its might can only happen through the recognition of its
evil quality and through analyzing and depicting the bomb directly. In other words, the
bomb has to be recovered by human imagination. Although Anders puts forward this
goal, he is skeptical about the recovering process.

In "Theaterprobleme," Friedrich Dürrenmatt tries to explain the difficulty for immediate portrayal of the bomb:

Sichtbar, Gestalt wird die heutige Macht nur etwa da, wo sie explodiert, in der Atombombe, in diesem wundervollen Pilz, der da aufsteigt und sich ausbreitet, makellos wie die Sonne, bei dem Massenmord und Schönheit eins werden. Die Atombombe kann man nicht mehr darstellen, seitdem man sie herstellen kann. Vor ihr versagt jede Kunst als eine Schöpfung des Menschen, weil sie selbst eine Schöpfung des Menschen ist. Zwei Spiegel, die sich ineinander spiegeln, bleiben leer. (57)

In Dürrenmatt's view, the unavoidable aesthetic pleasure of watching the powerful detonation of an atomic bomb and its cosmic proportions makes it harder for us to see the evil element in it. Forty years of nuclear fiction have apparently not solved the problematic epitome of the bomb as the center of all evil. Marlen Haushofer's *Die Wand* and Gudrun Pausewang's *Die letzten Kinder von Schewenborn*, both written in the mid-1980s, even disown the bomb proper. Pausewang's novel, intended to serve as an

educational dystopia for adolescents, places the atomic explosion at the beginning. While a run-of-the-mill Hessian family is riding home in their car to a suburb of Frankfurt, they unexpectedly see a gigantic atomic flash on the horizon, followed by a brown-out and a heavy storm:

Aber im Wald ... blitzte es plötzlich so grell auf, daß wir die Augen zupressen mußten. Meine Mutter stieß einen Schrei aus, und mein Vater trat so fest auf die Bremse, daß die Reifen quietschten. [...] Sobald der Wagen stand, sahen wir am Himmel, hinter den Wipfeln, ein blendendes Licht, weiß und schrecklich, wie das Licht eines riesigen Schweißbrenners oder eines Blitzes, der nicht vergeht. Ich schaute nur einen Augenblick hinein. Trotzdem war ich danach eine ganze Weile wie blind. Starke Hitze drang durch das Fenster hinein. .... erhob sich ein rasender Sturm. Vo runs bogen sich die Bäume, ihre Wipfel neigten sich tief. Wir hörten Holz krachen und splittern. Unser Wagen wurde gepackt und gerüttelt. (13)

This is all they ever see, for what follows afterwards is solely the description of the bomb's aftermath. The ostensible distance of the blast turns into an eeric closeness of the atomic bomb's repercussions very quickly: people fall sick all of a sudden and die from radiation poisoning. Death stalks the survivors of the blast surreptitiously without giving prior notice. Pausewang provides drastic close-up descriptions of radiation sickness that abhor the reader. She also analyzes the disintegration of society that takes place in the nuclear winter following the explosion. In a world without infrastructure that lacks sufficient food, humans turn into suspicious predators who lose their humanity. The physical sufferings coupled with the loss of ethical values are the gravest form of evil that Pausewang describes, for it deprives humanity of a livable future. The bomb is only seen as a means of triggering this evil but it is not the evil per se. With depicting the flash, Pausewang is finished describing the bomb. Although she takes great pains to show the nuclear fallout covering the entire landscape, Pausewang does not visually connect these

ashes sinking on the ground to the bomb. The ashes just like the sickness and the social decay are solely part of the era following the atomic detonation. The blast serves as the literary watershed that separates the normal world from the subsequent dystopia.

Pausewang's text is representative of how many authors recruit the evil power from the bomb's sudden transformation into a nuclear burst. Within a fraction of a millisecond the bomb's body turns into a vast field of destructive energy. The human mind is too slow to cope and is taken by surprise, as Anton-Andreas Guha shows in *Ende*: "14 Uhr: Die Apokalypse ist über die Menschen beiderseits der Frontlinien hereingebrochen" (132). Nuclear fiction dedicates itself to describing this moment of bafflement.<sup>25</sup> The moment of surprise, although just very short, is stretched into a literary slow-motion that fleshes out the gridlock of the brain in the face of the blast.

Marlen Haushofer's *Die Wand* takes a similar approach as the text focuses mainly on the aftermath of what is rather a nuclear accident than an atomic war. The protagonist, a middle-aged woman, wakes up one morning in a cottage that is owned by two friends of hers. She is perplexed by the absence of her friends, a couple who went out the previous evening in order to attend a party in a neighboring village. When she leaves the house in search for them, she realizes that all animal and human life in the vicinity has died as if suddenly frozen. No damage has occurred but, due to a mysterious atomic accident that remains unclear throughout the entire text, an impenetrable and invisible wall has formed around the landscape that surrounds the cottage in a radius of a few kilometers:

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<sup>&</sup>lt;sup>25</sup> Nuclear fiction is clearly inspired by the bombings of Japan. In Homer Bigart's report "A Month After the Atom Bomb. Hiroshima Still Can't Believe It," the suddenness of the attack and the inability to predict it are at the center: "Very few persons saw the Superfortress when it first appeared more than five miles above the city. Some thought they saw a black object swinging down on a parachute from the plane, but for the most part Hiroshima never knew what hit it" (675).

Über die Wand zerbrach ich mir nicht allzusehr den Kopf. Ich nahm an, sie wäre eine neue Waffe, die geheimzuhalten einer der Großmachte gelungen war; eine ideale Waffe, sie hinterließ die Erde unversehrt und tötete nur Menschen und Tiere. [...] Wenn das Gift, ich stellte mir jedenfalls eine Art Gift vor, seine Wirkung verloren hatte, konnte man das Land in Besitz nehmen. Nach dem friedlichen Aussehen der Opfer zu schließen, hatten sie nicht gelitten; das Ganze schien mir die humanste Teufelei, die je ein Menschenhirn ersonnen hatte. (31)

While Haushofer's account is not a realistic nuclear dystopia, it focuses on the consequences of social repercussions. Even though the dying scenario is reminiscent of that caused by a neutron bomb, there is no dangerous fallout nor does the protagonist exhibit any signs of radiation sickness. Scientifically highly unrealistic, Haushofer's text ignores the classical nuclear scenario and focuses on the human being and its dependence on social structures. Employing the motif of the protagonist as the last surviving person on earth – a motif that has been very popular in nuclear fiction – the text depicts the philosophical impossibility of living in a social vacuum. The protagonist is slowly emptied out by the emptiness that surrounds her. The evil is by no means the bomb but it is the absence of a meaningful social context which the bomb has disabled. The protagonist does not even reflect the cause of the atomic accident as it becomes increasingly difficulty for her to stave off insanity in the social vacuum – the real "Teufelei". <sup>26</sup>

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<sup>&</sup>lt;sup>26</sup> The depiction of social isolation is not exclusive to nuclear fiction. Famous examples among German writings are e.g. Stefan Zweig's *Schachnovelle* and "Zelle 89," a chapter from Victor Klemperer's famous diaries. Carl Zuckmayer's play *Das kalte Licht*, however, is the first text of nuclear fiction that employs Zweig's chess play metaphor and puts it in the context of isolation surrounding the nuclear scientist. The isolation that Haushofer harnesses is reminiscent of Zweig's use but even takes it one step further. While the protagonist in Zweig's novella is kept in solitary confinement that is caused by humans and can be removed by them as well, Haushofer's protagonist is kept in a confinement that is eternal and even more vicious: although she is physically free within the area delineated by the invisible wall, her mind broods in solitary mental confinement that cannot be lifted or controlled by humans. The character in *Schachnovelle* is physically confined in his cell which makes the ensuing mental confinement much more comprehensible.

Both Pausewang's and Haushofer's texts have in common that the origin of the explosion is kept from the protagonists and the reader. The authors take the bomb out of sight and thereby also disable a clear definition of what evil is. The question in *Die Wand* is not any longer where the evil hides or accumulates or what its origin is but if the human mind will still be able to discern evil and good and if distinguishing between these terms will still make sense in a world that has been fundamentally altered by a nuclear scenario. Die letzten Kinder maintains a stronger notion of good and evil than Die Wand as it attempts to remind the reader of his or her moral responsibilities to prevent such a nuclear disaster. However, Pausewang draws evil more as a "global" term. Even though the reader does not know if the entire world has been destroyed in her novel, one can safely assume that the damage touches upon global issues. The evil lies like a blanket on the entire landscape. It is like a veil that coats everything and everyone, triggering base, cruel, and anti-social behavior in the survivors. Despite these differences between the two texts, the bomb does no longer epitomize the concentration (or condensation respectively) of evil. The term evil is now a much more diffuse concept that defies such condensation.

While nuclear fiction as a whole is unable to define and portray the bomb as an evil concept in its unexploded state, it uses this inability to mystify the bomb as the source of evil. By shrouding the bomb in a veil of oblivion, nuclear fiction renders the bomb and its notion of evil anonymous and questions the ability of pinpointing the evil. As Peter Fischer maintains in *Philosophie der Technik*, modern technology evades visual clarity and comprehensibility. Such technology and the physical sub particles it is based on are "lebensweltlich als solche gar nicht erfahrbar" (209-10). Nuclear fiction makes a similar diagnosis: the bomb proper turned out not to be the best literary means to depict

evil as it is not "lebensweltlich erfahrbar," as it lacks tangibility. In nuclear fiction it is demoted to a metaphorical *pars pro toto* for evil. The bomb is at best no more than a metonymy for the term evil. In the strictest sense of the term *metonomy* it is associated with the concept of evil but it is far away from representing it fully.

## The Christian Evil? – Religion and Literature at Variance

The apocalypse is arguably the most radical event in the entire New Testament. In exegesis it is usually the act of cleaning the earth from all sins that precedes the second coming of Christ. It shares elements of God's bloody revenge in the vein of the Old Testament but it also promises redemption in the figure of Christ who promises the afterlife. Despite its action-ridden plot, the apocalypse is also a biblical morality play in that it brings the question of good and evil to a head: The good will be rewarded after the apocalypse, the bad will be severely punished and will not partake in the kingdom of God. The apocalypse is thus a morally highly charged term.

In the second half of the twentieth century the term apocalypse has been abundantly used to describe a scenario that seems to be very similar to the biblical apocalypse but that in fact digresses greatly from its ancestor in the Bible. As gruesome and appalling as the "Book of Revelation" reads, its message for the stout Christian is in fact a positive one: after the turmoil is over and the dust settles, there will be the promise of hope and happiness. The apocalypse is necessary to bring about this purification. The purification of the world then enables a purification of the human soul. In drastic biblical

imagery, the evil cannot be punished in a world that stays intact. Subsequently, the good cannot be rewarded in a world in which the evil are not castigated.

In philosophical terms, religion takes on the role of announcing the good and the evil and presaging their fates but religion itself does not represent good and evil. It is rather an answer to the presence of evil in the world. As Susan Neiman maintains, evil proper is not derived from religion. The role of religion in history became more important as religion attempted to solve the problem of evil (317). Using Christian terms which are charged with morality and which make references to the biblical apocalypse is an effective literary technique used by many authors of nuclear fiction to approach the moral question of what evil is in the nuclear age. Most of these texts allude to this tradition of Christian morality when they use the terms *apocalypse* or *nuclear apocalypse*. While the appearance of the term *Holocaust* is extremely rare in works of nuclear fiction, the apocalypse is generally a much more widespread concept that most authors are daring enough to employ.<sup>27</sup>

Josef Schilliger's 1953 short novel *Der Heilige der Atombombe (The Saint of the Atom Bomb)* is an early example of how the biblical language of good and evil penetrated nuclear fiction. In this novel, Schilliger depicts the fate of Dr. Nagai, a Japanese physician who became one of numerous victims of the atomic bomb released on Nagasaki on August 9, 1945. As Nagai survived the bombing by a hair's breadth, he subsequently dedicated himself to helping others all the while suffering from radiation sickness himself. After his untimely death he became a martyr-like figure in Japan. Nagai

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<sup>&</sup>lt;sup>27</sup> Authors of German nuclear fiction use the term Holocaust when they seek to express utter desperation. The term is handled with care and is only applied as a superlative of devastation. For instance, Anton-Andreas Guha in *Ende* conjures up notions of the complete downfall of the world by using the terms "atomarer Holocaust" (15) or "weltweiter Holocaust" (19).

also belonged to a small fraction of Japanese Christians. While the book is based on Nagai's authentic biography, it nonetheless steeps the bombing of Nagasaki and its repercussions on the Japanese in highly religious metaphors. Schilliger compares radiation to a plethora of little devils (49) who ruthlessly pounce upon their victims. The bombing itself becomes an act of divine revenge. In a world of belligerent warmongers, the bomb seems to be the just means to bring about the final conclusion to a battle that has been harrowing humanity for six years. While Schilliger does not discuss the employment of the bomb critically, 28 it is nonetheless noteworthy that he places the venue of his book not in Germany but Japan. While the Germans in 1953 had overcome the famines and extreme poverty in the immediate post-war years, they were still far away from rebuilding their country. The destruction that the Second World War had wreaked on Germany was and would still be visible for a long time. In such a historically difficult situation, Schilliger elects Nagasaki rather than Germany as the venue of his novel which is unusual, as most stories of German nuclear fiction take place in Germany and Europe. Although the book falls short of a knowledgeable understanding of Japanese culture and is clearly dominated by Western ideas about Japan, it shows a deep-felt understanding of the sufferings that the victims endured. The Japanese atomic catastrophe is not just a random choice. For Schilliger it is the epitome of the apocalypse in modern times. While leaving Europe behind, the author could also evade the precarious discussion of the responsibility for the Second World War that rested on the Germans and the ensuing question of guilt that followed from this responsibility. Japan as a literary venue also enabled Schilliger to hold on to his Christian world view. While the ideals of

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<sup>&</sup>lt;sup>28</sup> It is a widely accepted view in historical research today that dropping the atomic bomb was an unnecessary act which did not win the war against Japan.

Christianity had become dubious in post-war Germany, depicting a Japanese martyr-turned-saint was one way of upholding one's convictions. It was obvious for Schilliger that planting Christian ideals in a novel that took place in Germany and discussed issues of war and morality was a moral misfit. The Germans, who were convinced Christians throughout the entire Third Reich were also the evil perpetrators after 1945, convicted of numerous crimes against humanity. Christian mercy did not exactly tally with the ideology of Nazi Germany. Schilliger abstained from depicting the Germans as devout Christians and rather chose the setting of Japanese Christianity, a minority that did not arouse the same amount of suspicion.

The juxtaposition of saints and sinners in Schilliger's novel does not only have recourse to colorful religious parlance, it also is a formalization of morality. Using traditional religious categories was a secure way of discussing moral qualities and including them in a system of moral values. Nagai, the selfless Christian, turns into a saint, the highest representation of moral quality. The idea of sainthood is the religious version of the embodiment of moral integrity. The protagonist perseveres under the hardship in the wake of the nuclear explosion. He meets numerous sufferers on his way. Nagai has to endure his own decay induced by radiation sickness. He nonetheless shows persistence when he treats fellow sufferers who are crudely defaced and suffering from ineffable pain. Through his self-sacrifice he cleanses himself from the impurities of history and becomes a figure of hope for his country fellows, regardless of their religious convictions.

Nagi is a modern Job, and like Job the Japanese himself is not the reason for the sufferings that are inflicted on him. The crux of interpreting the Book of Job is that the

figure of Job rejects rational approaches of finding and attributing personal guilt. Nagi as well as Job have not committed individual sins. They are part of a society that may be morally deprived. Here, Schilliger points to the concept of collective guilt and evil that does not come from the individual. Nonetheless, the individual saint can dedicate his life to fighting the evil that surrounds him.

In a brief prequel to the story of Nagi, Schilliger describes the nuclear research facilities at Los Alamos that produced the bomb as sacrosanct temples:

Auf einem rechteckigen Felsklotz erhebt sich in Neumexiko ein Städtchen. Es gleicht einem Riesenbunker auf dem Berg – einer mittelalterlichen Burg hinter Türmen – oder einem friedlichen Kloster hinter Mauern. Ein verborgen gehaltenes Geheimnis, ein streng gehütetes Heiligtum ist hier hinter einem mehrfachen Schutzwall bewacht. [...] Im äußeren Kreis erhebt sich die "Stadtmauer". Sie besteht aus einem hohen, weitmaschigen Drahtgeflecht [...] Das ist Los Alamos in Neumexiko. (7-8)

The bomb is the arcane center of this holy shrine of science that resembles a medieval city with its fortification walls. However, Schilliger is criticizing the apotheosis of science in *Der Heilige der Atombombe* which he regards as heathendom and pseudoreligion. Schilliger creates the counterpart to this temple of doom in the spiritual sincerity of the Christian figure Nagi. Pitting two religious concepts, heathenism and Christianity, against each other, Schilliger discusses the question of modern science and humanity in religious images.

Schilliger clearly marks the beginning of a period of nuclear fiction that was still very insecure about the meaning of good and evil in the nuclear age. The authors of early nuclear fiction felt that the traditional moral categories had shifted and they had to create a new understanding of good and evil. Schilliger circumvented this dilemma by relapsing into a very traditional style. One can easily criticize his attitude and call it outdated and

inadequate. Schilliger's moral conclusion is that with the spiritual mindset of Christianity, the crisis can be overcome as the hardship of the apocalypse can be overcome. Instead of a more diverse and thoughtful answer, Schilliger delivers a rather naive and conservative trust in tradition belief. While the quality of his moral musings is questionable, his book is the first of many pieces of nuclear fiction that employ the religious classification of good and evil in order to raise moral questions about the nuclear age. Schilliger's book which appeared with Arena, a publisher of youth fiction, is a work directed towards adolescents. It therefore carries a great amount of pedagogical energy as it tries to moralize the plight caused by the atomic age and subsequently educate its readership.

Schilliger not only utilizes Christian symbolism to depict the nuclear disaster, he is also deeply anchored in Christian values and sees them as an exit strategy from the conflict. Other pieces of nuclear fiction that appeared after Schilliger's novel on the one hand kept the religious language when expressing the evil of the nuclear age but became increasingly disconnected from religion. I argue that in the course of time German nuclear fiction adhered to the language of religion while becoming ever more secular.

Arno Schmidt's 1951 novel *Schwarze Spiegel* betrays the same kind of uncertainty of dealing with the nuclear age as Schilliger's text. The language he employs is not as penetrated by religious metaphors as the language of *Der Heilige der Atombombe* yet keeps the same mythical and spiritual aura. Schmidt's narrator-protagonist is one of the few survivors of an ominous nuclear catastrophe about which the reader does not learn anything. When he roams Germany with his bicycle, he encounters various depopulated places, cities, villages, and farms that still give witness to the former

human life that must have filled them once. The protagonist lives in a totally hermetic world, only confronted with himself.<sup>29</sup> It does not happen until later that he encounter a woman, another survivor, who stays with him for a limited time but then roams on to other places in order to found a community of survivors. The novel ends with the lonely protagonist eking out his frugal existence. While Nagi is the hero-turned-saint, Schmidt's protagonist is a highly eccentric author, characterized in the language of literary Romanticism. The religious sentiments in *Schwarze Spiegel* are not decidedly Christian; nonetheless they express the firm belief of a creative God who once fashioned the world and all the creatures on it. The narrator discusses the figure of God that he personally envisions: the "Primo Motore des Ganzen, den Schöpfer, den ich den Leviathan genannt, und langweilig bewiesen habe" (231). While Schilliger assumes that there must be a Christian God serving as the foundation for the cosmos, Schmidt's God figure is a philosophical recreation that is reminiscent of Enlightenment thinking: God as the first motor that propels the cosmos and that equals the biblical Leviathan. This God may be just a human concoction but it remains a very important concept throughout the whole novel.

While Schmidt's protagonist abstains from assigning individual guilt to humanity for the nuclear catastrophe in which he now has to live, he is nonetheless full of contempt for the human species. With the attitude of a Romantic genius, the protagonist looks down on his late coevals who are deserving of the catastrophe that extinguished them.

The narrator divides humanity into two groups: on one hand the sensitive artist who

<sup>&</sup>lt;sup>29</sup> Research on Arno Schmidt has repeatedly pointed out that this set-up represents a philosophical standpoint. It not only applies to the post-nuclear war survivor in *Schwarze Spiegel* but is rather a misanthropic solipsism that befalls other protagonists in Schmidt's novels, too. In his study on Arno Schmidt and Thomas Bernhard, *Das Gelächter der Atheisten*, Jan Süselbeck, however, criticizes the term solipsism as too narrow a concept for describing Schmidt's narrative style (43).

knows about the weakness of humanity and who shares a higher connection with the laws of the world and its maker, and on the other hand the brutish, bland, and indifferent philistines whose depravity and turpitude rightly afford them their well-deserved death through the atomic apocalypse. The protagonist is an intellectual elitist looking down on the lowness of humanity. His misanthropic spirit, however, does not only target certain people, it condemns humanity as such. Ever since the advent of human life, people have been bad and have been destined to vanish from the face of the earth: "also daß dieses Pack weg ist [the rich and privileged] versöhnt mich mit der Katastrophe ... und wenn ich erst weg bin, wird der letzte Schandfleck verschwunden sein: das Experiment Mensch, das stinkige, hat aufgehört" (208).

The evil does not emanate from willful human behavior according to Schmidt. Rather, it is the logical byproduct of humanity as God's own failed experiment. This leads to two conclusions: Either Schmidt insinuates that the authoritative God figure is not infallible (which would mean that the God of the Bible is a misrepresentation) or, given that God still possesses omniscience, God has undertaken a project which was doomed to failure from the very beginning. The question of evil would therefore become one that lies with God who initiated this experiment. Humanity is a herd of beings driven by their own destiny and unable to rid themselves of their depravity. Following Romantic beliefs, Schmidt deems only the artist to be morally strong enough to tackle and fight evil. Schmidt's genius protagonist is an odd misfit in a world that is frantically engaged and ruled by industrial mass production – the blithe innocence of the mass societies that committed to the "Herstellung von Atombomben und Cornedbeef" at the same time without recognizing the absurdity of their own doings (221). While Schilliger still

believed in a cure of evil through Christian values, Schmidt's outlook is much more pessimistic. Nonetheless, both authors fashion protagonists who are inspired by divine power. Nagai, the saint whose selfless works will help to overcome the nuclear tragedy in Japan corresponds to Schmidt's narrator who seeks to turn into a "selig Tobender" (211) seized by demons. While Nagai strives for the continuation of life on earth, the narrator in Schwarze Spiegel hopes that humanity will come to an end soon. Since he is one of the last representatives of humanity on earth, he longs for a spiritual infusion that would render him raving mad and enable him to say farewell to the world much more easily. Although both protagonists pursue different ends, their longing for a divine authority figure is the same. Yet while Schilliger still believes in the retrieval of innocence – Nagai symbolizes the repentant sinner who might be able to attain redemption for himself and his contemporaries through leading a saint's life – Schmidt has written off the concept of regaining primordial innocence. In fact, with the figure of the woman that Schmidt introduces in the novel, 30 he caricatures Jean Jacques Rousseau's ideal of the noble savage. When the narrator encounters her for the first time, both characters act as if they were the first people on earth rather than the last. They both act like savages who try to kill each other. Then they establish a truce because they learn that only within the norms of a society will they find security and peace (232-3). It is this early state of civilization that Rousseau described as the germ of goodness and moral purity. However, in Schwarze Spiegel, it marks the end of humanity and does not betray notions of peacefulness anymore. The narrator and the woman are able to peacefully live together for a while before their relationship becomes fragile and the woman departs. As Schmidt

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<sup>&</sup>lt;sup>30</sup> The motif of the last woman on earth is a very popular one that was also widespread in American popular culture. Roger Corman for example made a movie entitled *The Last Woman on Earth*.

in this Rousseauian farce shows, the state of original impurity is lost forever.

Furthermore, God seems not to take any notice nor is it likely that any divine power will

intervene and avert the downfall of man despite the spiritual presence of a divine figure

over which Schmidt's protagonist ruminates incessantly.

The adherence to religious metaphors is by no means exclusive to German nuclear fiction, in fact, it stems first and foremost from the nuclear scientist themselves. When the researchers at Los Alamos watched the first atomic detonation at Trinity Site in the heart of New Mexico, they were so shocked by the magnitude of the event that they used many religious metaphors in their oral and written accounts. J. Robert Oppenheimer's famous exclamation – quoting the Indian Bhagavad-Gita, "Now I am become Death, the destroyer of worlds" – is probably the best-known example (Oppenheimer's quote referred to the Buddhist goddess Shiva). John Canaday in his interdisciplinary study *The Nuclear Muse* lists and analyzes a whole plethora of such remarks made by the scientists of the Manhattan project as well as external observers who were invited to join the test. He maintains that speaking about the nuclear age has always involved religious metaphors from the very beginning as can be seen in the statements of the nuclear physicists.

Later works of nuclear fiction from the late 1950s onwards leave the concept of a divine being behind and rather focus on the void that the departure of God has left. This divine void turns the nuclear apocalypse into a senseless event for which there is no cure. The question of good and evil also becomes meaningless as the nuclear age renders the sources of evil anonymous: the world that is on the brink of a nuclear war turns into a

chaotic ant hill. In this gigantic disorder, the acts committed by individual protagonists founder in the maelstrom of the overarching turmoil.

Hans Hellmut Kirst dispels the notion of one traceable evil as he quickly switches from one episode to the next in a series of filmic cuts, thereby not allowing the reader to reflect on the moral quality of the protagonists but forcing him or her to follow the breathtakingly fast plot. Although Kirst maintains several individual stories that he intermittently continues and cuts, all of his protagonists find themselves at the mercy of the big war machine that has been touched off and will relentlessly grind on until it has engulfed the world. The Germans become the perplexed bystanders in a crisis that is beyond their control. Because they are unable to trace and identify the evil that causes this bedlam, they are incapable of preventing it. In Keiner kommt davon Kirst uses religious motifs in order to describe the plight that humanity can expect from a global nuclear war. He is, however, also one of the first authors to realize that biblical imagery does not suffice in adequately describing the predicament in which the world is caught: "Hiob war ein glücklicher Mann. Er wußte wenigstens, was er zu verlieren hatte" (127). While not precisely answering what the evil forces of the nuclear age are and from where they emanate, Kirst nonetheless acknowledges that the biblical discussion of good and evil is limited in its meaning for the problems of the twentieth century. Job (Hiob) was a lucky man not because of his sufferings but because of the limited and well-defined nature of his ordeal. Job's life is defined by a wager between the devil and God that is supposed to test Job's piety and moral integrity. While the biblical Job could only lose his belongings and finally his body, the modern human beings can eradicate their entire culture and civilization. The biblical Job did not waver in his beliefs in the one and only

God and the promise of the redemption of his soul. His beliefs were unshaken as they only threatened his physical being but left his soul undamaged. As Kirst insinuates, the modern Job in turn has much more to lose. As Anton-Andreas Guha bluntly puts it in *Ende*: "Hiob würde nicht mit uns tauschen" (159). The biblical world of revenge and redemption, of good and evil, rewards Job at the end of his trial. Job is wealthier than ever and continues leading a happy and pious life. The burden of evil is temporary and can – similar to a curse – be taken off the burdened after the fact. The modern evil is a curse that remains irrevocable and irreversible. The nuclear scenario is even more evil as it does not permit its victims to look into the future. It deprives them of the knowledge and certainty of Job, the trust in higher authority that he harbored and that saved him.

What remains is the uncertainty of not knowing. The evil is encapsulated in the uncertainty with which humanity cannot live again ever after the advent of the Enlightenment. The ability to control one's life by one's own devices is the prerequisite on which Enlightenment thinking is based. This also calls for the acquisition of knowledge by which humans can enhance and secure their independence. Those kept in physical or mental thralldom are those who are unwilling to use their mental faculties and therefore keep themselves trammeled – this is the central message of Immanuel Kant's essay "Was ist Aufklärung?" The authors of nuclear fiction question this belief as they develop protagonists who have to learn that the nuclear conflict can no longer be solved by the power of reason. Even more malicious, the power of reason – as we have seen it in Adorno's definition of the nuclear age as the perverted endpoint of Enlightenment – accelerates the destruction of the world.

Friedrich Dürrenmatt had already demonstrated in his 1962 play *Die Physiker* that the ascription of moral guilt to individuals is increasingly impossible in the twentieth century. Dürrenmatt saw his age as a dangerous time of moral decentralization. Despite the celebration of individuality especially in the capitalist West, mass societies equipped with cutting-edge technology caused the individual's detachment from its moral responsibility. As had already been learned from the previous two World Wars, a single person did not matter to the fate of history because he or she did not play a role, regardless of acting with good or evil intent. The nuclear age is the epitome of decentralization. The redistribution of responsibility has progressed from the human hand and mind to the electronic brains of computers. Although *Die Physiker* was one of his most successful pieces Dürrenmatt honed his feelings towards the question of evil in the nuclear age in the much less known 1981 narrative Der Winterkrieg in Tibet. In this text the world is enmeshed in an endless war between two rivaling armies. Most of this war, however, takes place in huge cavernous mountains that are veined with caves, shafts, and tunnels. In this labyrinth everyone fights everyone. In a late stage of this war, it does not even matter anymore who is fighting whom. Soldiers kill their own comrades as they kill those who are supposed their enemies. The front lines are totally blurred and indistinguishable in the confined space of the mountain-turned-anthill. As these warriors fight themselves into oblivion, they turn into brutish beasts, sloughing all their human qualities like worn-out fatigues. Furthermore, they have forgotten about the war itself and its causes. These soldiers keep fighting like precipitated automatons following their own limited mechanism. In a flashback, Dürrenmatt gives his readers a glimpse of the military rulers that touched off this disastrous war. These leaders are driven to nuclear war by

perverted scientific knowledge: as modern astronomy has shown that the solar system will come to an end at a certain point, they do not have the slightest moral qualms when unleashing a final nuclear war. In their view, the man-made destruction merely anticipates the inevitable destruction of the earth.

In Dürrenmatt's apocalyptic vision there is no room for spiritual mystery: the void that God has left is now filled with physical laws that pervade every facet of the world in *Der Winterkrieg in Tibet*: "Der Tod und die Entropie sind das gleiche Weltgesetz, sie sind identisch; damit sind wir 'Menschen' (dieses Wort wird Euch nichts sagen) und Ihr, die Ihr diese Inschriften lesen werdet, identisch: denn auch ihr werdet sterben" (127). This absolutism is the true source of evil as it does not allow for opposing viewpoints of morality and emotions. The disenchantment of a world ruled by the naked finding of science deprives this world of any hope for the future of humanity. Human beings and their moral code are destined to disintegrate into the slimy primeval soup of matter. The nullification of the traditional concepts of good and evil follows suit. One might call this process of losing the definition of evil evil in itself.

Klaus Vondung claims in his comprehensive study *The Apocalypse in Germany* that the modern apocalypse, especially the nuclear disaster, alters the quintessential promise that the biblical apocalypse had once provided to its believers. While the biblical version vouched for the second coming of Christ and the advent of a better world, the modern nuclear version thwarts every such hope. The sober scientific discourse with which issues of war are discussed in the modern age does not leave room for spiritual hope. The nuclear apocalypse, as Vondung argues, will be total and final, therefore calling for a redefinition of the term itself. Vondung subsequently calls this new

apocalypse the "docked apocalypse" as it is curtailed and mutilated, not affording anymore the restoration of a just and peaceful world after its destructive power has been unleashed: "If we still speak of the apocalypse of a nuclear war, we are dealing with a 'docked' apocalypse. We mean thereby only the first half of the traditional apocalyptic vision; the second half, the establishment of a new, perfect world, which earlier gave meaning and purpose to the end of the world, has disappeared" (5). The docked apocalypse has moral implications insofar as it leaves the good-and-evil balance of power in the biblical apocalypse lopsided.

While the *Book of Revelation*, metaphorically speaking, tips the scales of justice towards evil when the apocalypse is rung in in order to fight the apostates and the dissolute sinners, the very same scales later swing back to their initial level position when the fight is over. With the new "docked" apocalypse, humanity is left with the evil of destruction but cannot hope to redeem the offsetting good afterwards. As the good counterpart is missing, the destructive power loses its function as catharsis. Kirst's use of the Job figure already marks a departure from any sincere belief in the transformational power of religion. In Vondung's account, the docked apocalypse loses every spiritual momentum that it had inherited from its Christian predecessor.

While the authors of nuclear fiction realized that the departure of religious values from their apocalyptic accounts left a gap in the philosophical discussion of evil, they tried to fill it with different elements. In *Die Trümmer des Gewissens*, Hans Henny Jahnn rejected the cyclical and teleological thinking of Christian history (a gradual progression from of the Fall of Man to the ultimate Redemption) and replaced it with the eternal return of suffering. Jahnn borrowed this model from Friedrich Nietzsche's philosophy.

Nietzsche had already criticized the Christian model of history and supplanted it with his model of the eternal return in *Also sprach Zarathustra* (*Thus Spoke Zarathustra*). In his quest for the superman, Nietzsche maintained that those strong enough to become supermen had to overcome the hurdle of the eternal return: "...siehe, *du bist der Lehrer der ewigen* Wiederkunft –, das ist nun *dein* Schicksal! [...] Du lehrst, daß es ein großes Jahr des Werdens gibt, ein Ungeheuer von großem Jahre: das muß sich, einer Sanduhr gleich, immer wieder von neuem umdrehn, damit es von neuem ablaufe und auslaufe..." (466). Mastering this impediment would strengthen them and make them more resistant. While Jahnn utilizes this section of Nietzschean philosophy, he radically reinterprets it. While the eternal return, the way Nietzsche described it, is a positive feature, a test of courage for the maturing superman, it becomes an insufferable burden in Jahnn's play.

In Hans Wörner's *Wir fanden Menschen*, the torturing uniformity of the landscape, the eternal return of crater after crater, exhausts the protagonists: "... es war [...] alles so sehr das Gleiche" (164). Günther Anders's interpretation of Nietzsche ties in with Jahnn's play: the dread that a "neues Massenstadium des Nihilismus" (*Antiquiertheit* 303) now rules universally, and the danger that this nihilism could quickly turn into total "Annihilismus" (304). As *Die Trümmer des Gewissens* attests to the final loss of religious redemption in the nuclear age, it disenchants the reader even more when it claims the absence of any form of worldly redemption. Instead of hoping for liberation, the characters in the play face an eternal return of the nuclear devastation and the concomitant corruption of society. Surviving in this sad world is not a test of courage

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<sup>&</sup>lt;sup>31</sup> Cf. to Sandra Gilbert's argument that the mass extermination of the twentieth century transformed the "hopeful vision of death-as-expiration" into "a nihilistic view of death-as-termination" (136). Gilbert establishes a staggered order of "modern" death: "Expiration vs. Termination" (106) are superceded by "extermination" in the twentieth century.

anymore because everyone is destined to perish. The youth in the play do not see any future for themselves. Accordingly, they yearn for death as the only exit from the totalitarian regime in which they lead their miserable lives. Therefore Arran, one of the young dissenters, claims: "Wir sind die letzte Wiederholung" (123). Not only is the world of *Die Trümmer des Gewissens* suffering from the eternal return of corruption and plight, it is also devoid of any traditional concepts of religion and the belief in a redeeming god. The gaping spiritual emptiness has been usurped by a malicious pseudo religion: nuclear physics is now "der Allmächtige im Weltenraum" (48), the new Almighty in the universe, as the nuclear scientists Chervat puts it.

The texts of nuclear fiction show that religion loses its ethical power in the nuclear age. Due to a lack of metaphors, however, the authors adhere to the religious images in order to draw their fictional narratives. Günther Anders, who not only contributed to the nuclear debate with philosophical writings but also with highly symbolic narratives that he derived from biblical episodes, used the Flood multiple times. The Flood in the Old Testament corresponds with the apocalypse in the New Testament's Book of Revelation. Both images represent the cyclical Christian thinking in which the Fall of Man is answered by a period of moral cleansing and the continuation of life after the catastrophe is over. As Anders's narratives show, nuclear fiction has recognized and subsequently harnessed this relationship. Anders rewrote the story of Noah and the Ark and adopted it to the atomic age. While the narrative keeps its religious imagery, it nonetheless is a very secular story. Anders's Noah figure is no longer the biblical monument but is now suffused with reason. For the author, Noah embodies the qualities of a modern dissident who opposes the ruling system. Noah tries to convince people that

the Flood is coming, and asks them to save what there is left to save. The biblical Noah, the archaic super father, metamorphoses into a utilitarian hero of modern times, driven by logic and rationalization. As Anders saw reason as the only exit strategy that was left to save the world from a nuclear disaster, his Noah figure is no longer a prophet inspired by God's susurrations that Noah the prophet receives and passes on to his fellows but a modern Prometheus who does not need a god anymore. Although Anders painstakingly adheres to a language of mysticism that artistically recreates the tone of the Bible, his intentions have clearly departed from religious ideas.

While Günther Anders's writings heavily rely on Christian culture as a backdrop, Heinar Kipphardt's drama on the proceedings against Oppenheimer, In der Sache J. Robert Oppenheimer, turns this foil into a mundane courtroom setting. However, as worldly as the setting might appear at first glance, it harks back to the religious idea of Judgment Day which has now turned into a hapless endeavor executed by flawed human judges who do not measure up to their job. Historically, the play is the sober-minded literary reproduction of the unofficial trial against Oppenheimer, a trial that ended with the revocation of his special privileges that had entitled him to accessing classified nuclear research. The drama uses authentic notes from the hearings that Kipphardt translated and embedded in the text. Kipphardt is especially interested in Oppenheimer quotes that deviate from the red-tape of the hearings, namely the famous quote from the Indian Bhagavad-Gita that Oppenheimer uttered in the face of the Trinity explosion. The literary figure Oppenheimer uses religious metaphors in order to convey the gravity and magnitude of the effects of nuclear weapons to the CIA agents who cross-examine him. Although Kipphardt adheres to a literary style known as *documentary theater* – therefore trying to integrate as many authentic documents as possible — the drama at the same time conveys the idea that reducing such a complex conflict can only be insufficiently discussed within the framework of logical language. It rather yearns for an emotional discussion laden with vivid imagery. The proceedings on Oppenheimer in Kipphardt's account remain morally open-ended, leaving the redefinition of good and evil unanswered. The literary Oppenheimer acknowledges the need for religious imagery in order to express and discuss the magnitude of the atomic bomb adequately. The formal answers that Oppenheimer receives from the jury make his image-ridden language even more evident. By juxtaposing an ever so rationalized parlance of the jury with Oppenheimer's verbiage, the drama fleshes out that the discussion of good and evil remains insufficient as long as the authorities refuse to analyze the atomic question with parameters other than those provided by formal jury proceedings. The language of formality is insufficient to penetrate the issues of the nuclear age.

While *In der Sache J. Robert Oppenheimer* still expresses the human ability to halt the impending nuclear escalation, Ulrich Horstmann 1983 treatise *Das Untier* ironically reinterprets the purpose that the pieces of nuclear fiction from the 1950s and 1960s pursued: the question is not if humanity *will* survive the nuclear age but why humanity *should* even try to do so. Horstmann argues that it is not evil but in fact good to let humanity eradicate itself. It would be evil not to do so since life on earth only symbolizes the perpetual repetition of suffering and plight. Humans have departed from their moral qualities and descended into the abyss of amorality. They have metamorphosed into beasts and brutes without a higher goal, so-called "Untiere." Horstmann calls this process "Menschenflucht." The descent is inevitable and also

predestined in the fate of humanity. It would therefore be futile to call it immoral. Instead, the shedding of morality is amoral. What remains is a living creature, a lowlife in the biological sense that only breathes, eats, sleeps, and desires but that has irretrievably lost its powers of reasoning. Human history now solely consists of the interplay of beings that underwent the "Menschenflucht" and now are turned into animals that suffer and make other suffer.<sup>32</sup> The infliction of pain is now the essential part of human life. The ultimate nuclear annihilation, an act of totalitarianism in Horstmann's view, would free humanity from every pain that could be inflicted on humans:

Und das Blitzen der Detonation und der sich über die Kontinente fressende Brand wird sich spiegeln in den Augen des Letzten unserer Art und sein Antlitz erleuchten und verklären. Und alle Geschöpfe werden niedersinken in der Glut und dem Untier huldigen in der Stunde ihres Untergangs alse dem Heilande, der sie erlöst hat zum ewigen Tode. (100)

Das Leiden kann sich nur durch seine Totalisierung aufheben. (102)

Horstmann's treatise, a mélange of philosophical speculation and literary inspiration, is highly provocative as it turns the tradition of morality upside down. What used to be good is now evil and vice versa. Horstmann argues that the last four thousand years on earth have had nothing in store for man except for hardship, misery, and grief. Humanity is glorifying its own history and depicting it as a blessed era. However, humans are evil as they do not admit to the myth of their doctored history that they have built in the course of time. They pretend to be humans but are instead nothing but animals. Horstmann then appeals to his readership that the only exit that humanity still

Katastrophe nicht bedurft. Sie hat nichts erzeugt, was nicht vorher schon da war" (66).

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<sup>&</sup>lt;sup>32</sup> Udo Rabsch in *Julius oder der schwarze Sommer* shares Horstmann's perspective. The maintenance of human values is a burden for humanity: "Und der Mensch ist eine Wildnis und möchte eine Maschine sein, deshalb ist er unglücklich" (84). The state of being a functioning physical creature without the ballast of conscience and morality is deeply inscribed in the human mind as a primal yearning: "Es hat der

possesses is the maximization of its destructive power. By willfully killing everything on the earth, the humans can do away with whatever pain and plight they had to deal with: "Ermannen wir uns! ... Vermonden wir unseren stoffwechselsiechen Planeten!" (110). By transforming the earth into a lifeless second moon, we will escape our curse and restore the paradise: "[after the annihilation of human life] wird wieder Eden sein auf Erden" (111). The Garden of Eden, the Old Testament's embodiment of the paradise, however, looks somewhat different in Horstmann's account than in the Bible. It is not the lush garden that provided Adam and Eve with sustenance but a gargantuan void that will never be suited again for human life. The expulsion from Paradise that Adam and Eve underwent was irrevocable but that did not mean that the paradise itself was blown out of existence. In the modern age, not only the humans, the "Untiere" as Horstmann calls them, will have to be expelled, the paradise will be destroyed as well. Ulrich Horstmann's treatise is highly ironic, of course. He shows that the advent of the nuclear age has also brought forth a total perversion of morality. Man has distorted the terms good and evil beyond recognition through the disastrous course of history and the capability of the nuclear overkill. In order to reinstall the categories of good and bad, as Horstmann provocatively claims, humanity has to depart from the face of the earth. <sup>33</sup> Das Untier uses an unctuous tone reminiscent of biblical language. For Horstmann, the Bible and the language of Christianity are the central rhetorical devices in his caricature on the end of humanity. Moreover, the treatise is a caricature of the prophetical books of the Bible. While religious language prevails in *Das Untier*, Christian spirituality does not. There is no God anymore that will guide and protect humanity. Although Horstmann

<sup>&</sup>lt;sup>33</sup> Michael Hesemann's cultural study *Findet der Weltuntergang statt* takes Horstmann's ironic stance one step further: Humanity has celebrated and conjured up the end of the world so heavily that it would be an "apokalyptische Blamage" (45) if it did not happen eventually.

regards humanity as an "evolutionärer Fehltritt" (99), there is no divine maker lurking in the background. Humanity, nature's failed experiment, is left alone in a disenchanted world void of spiritual sanctuary. Horstmann feels schadenfreude about the possibility of humanity's own demise, a theme that crops up in nuclear fiction and that Ulrich Krökel has criticized as wanton yearning for death:

Zwar gründet die Vision vom Menschheitsende in erster Linie auf der Vorstellung eines Atomkrieges, doch wird diese Endzeit oftmals nur atmosphärisch eingefangen. Diese Tatsache hat vielen Schriftstellern und teilweise auch der Literatur insgesamt den Vorwurf eingebracht, einer Lust am Untergang zu frönen oder gar der eigenen Todessehnsucht nachzugeben. (194)

Günter Grass draws a similar world in his 1986 novel *Die Rättin* in which he prognosticates a total nuclear annihilation, yet he tries to abstain from the "Todessehnsucht." Contrary to Horstmann's image of a peacefully deserted planet, Grass envisions a hostile takeover through mutated rats. Once every human being has perished in the nuclear apocalypse, the earth will be subject to the rule of the rats. The evil of humanity's destructiveness is not averted as in Horstmann's imagination, but merely supplanted by world domination through militant rodents: the succession of evil continues in perpetuity. Grass's dystopia is highly disenchanted and decidedly anti-religious yet employs a barrage of biblical imagery at the same time. Man is the repeat sinner, the recalcitrant Adam who cannot resist the forbidden fruits. Grass then contemplates the revengeful God of the Old Testament who seeks to perish all living flesh: "Fleisch verderben, darin Odem ist" (133). However, in the end humanity is exposed to the insufferable emptiness of the godless universe. The end of *Die Rättin* 

shows the last human orbiting the earth in a space capsule, helplessly looking on as his former world sinks into oblivion:

Es war eine Raumkapsel, in der ich angeschnallt saß und meiner Umlaufbahn folgen mußte. Ich, ohne Begriff von all dem Weltraumklimbim; ich, unbelastet vom Spezialwissen, das hochqualifiziert nach den Sternen greift und alle Galaxien namentlich anzusprechen versteht; ich, frei von Sprachkenntnissen, die nicht nur leichthin plaudernden Astronauten, sondern auch Schulkindern mittlerweile geläufig sind; ich altmodischer Narr, dem selbst das Telefonieren ein unbegreifliches Wunder geblieben ist, saß fest in einer Raumkapsel und rief: Erde! Antworten Erde! (61)

While humanity in Horstmann's treatise blows itself into the endlessness of space through nuclear weapons, the last human in Grass's account has to look on while his hands are tied. The question of good and evil becomes senseless for the last survivor of the human species, who is now merely a piece of solar driftwood in the depths of the universe.

As Ulrich Horstmann and Günter Grass have speculated in their works, the future of man is at best uncertain if not somber. The changeability of humanity's fate also entails the blurring of the concepts of good and evil. The cruelty that Horstmann's beast-like humans, the "Untiere," commit is the trait that caused the descent from true humanness into beastliness. For Christa Wolf, this cruelty is also the decisive factor in humanity's downfall. However, whereas Horstmann maintains that the nuclear annihilation annuls all cruelty and pain, Wolf argues that the nuclear age causes the maximization of cruelty and pain. In Wolf's novel *Kassandra*, there is no limit to the amount of cruelty that human beings can inflict on their fellows. Humanity is inevitably striving to discover the maximum level of pain possible: the "Gipfelpunkt der Pein" (*Kassandra* 135). Wolf's Kassandra figure is able to presage the future yet her coevals

are unable to recognize the impending danger.<sup>34</sup> Wolf uses a similar concept as Günther Anders did 30 years ago in his Noah stories: the power of recognition and prognostication is open to the mythical figures that are inspired by some divine knowledge.<sup>35</sup> The rest of humanity, a product of the Enlightenment thinking and its rationalization of the world, is unable to detect the future. The absolute power with which the Enlightenment principles govern humanity forbid giving credence to those who do not adhere to these principles. Although Wolf's *Kassandra* does not explicitly refer to the atomic age, it is clearly situated within the framework of this era, as Leslie Adelson points out: "We know that Wolf follows the preparations to deploy specific nuclear missiles as she writes

Kassandra, but in the novel itself, set in a time when nuclear weaponry did not exist, the equivalent of The Bomb becomes Der Untergang, the complete destruction of Trojan civilization; for the readers this particular demise is a historical certainty" (501).

Christa Wolf has returned to the topic of utter destruction in a very direct way in her 1986 work *Störfall*. This work, probably one of her most controversial texts, continues the skepticism that Wolf already introduced in *Kassandra*. Hardy Ruoss regards *Störfall* as a direct sequel to *Kassandra* as a previously fictional story "die Realität geworden ist" (867). In *Störfall*, there lies no hope and salvation in the future as long as the laws of Enlightenment reign supreme. The modern human possesses a

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<sup>&</sup>lt;sup>34</sup> Rudolf Drux praises Wolf's amalgamation of mythology and realism in *Störfall*: "Neben dem Rückgriff auf Geschichten und Gestalten des Mythos zum besseren Verständnis von Katastrophenereignissen gehört die Referenz auf die Sprache, das wichtigste und vor der Übertragung von (fotographischen) Bildern einzige Kommunikationsorgan zur Vermittlung einer Katastrophe. Die Reflexion auf den sprachlichen Umgang mit ihren konkreten Erscheinungsformen hat Christa Wolf in ihrer Erzählung Störfall beispielhaft vorgeführt" (25). The language of the Kassandra-like seer figure in *Störfall* reaches new reflective heights as it tries to "see" the catastrophe with words that communicate the severity of the event adequately.

<sup>35</sup> Marie Luise Kaschnitz's short story "Der Tag X" also depicts a seer, a woman that mysteriously has prescience of the end of the world and wants to spend the last remaining 24 hours with her family who does not believe her. The fate of the seer manqué that Wolf's widens into an epic panorama, remains, however, on an intimate level in Kaschnitz's story. The buildup of personal fear and the psychological suffering it causes are at the center.

philosophical one-track mind rendering him or her unable to overcome such a narrow scope. The view of technology as the only means to escape the dire straits of the nuclear disaster is wrong as humanity has forgotten to distinguish between reason and the products of reason. The high-end technology that Wolf presents in Störfall becomes a substitute for reason itself, an assumption that Wolf criticizes as fundamentally wrong. The trusted machinery turns evil as it takes on its own life, as it becomes the materialization of reason. This has repercussions on the life of the makers of technology: the nuclear accident in Chernobyl will alter the life of those who are exposed to the radiation. They have to subject their life to the malfunction of technology. Wolf's female first-person narrator juxtaposes this large-scale accident with the brain surgery that her brother undergoes at the same time. The instruments that open up the skull of the narrator's brother, a brain tumor patient, and subsequently penetrate the brain, seat of all human qualities, alter the personality of the patient. They have control over the patient's inner life as it lies open at their disposal. Just as the surgical instruments hold sway over their makers, the derailed nuclear reactor has its makers under control. Just as the radioactive rays can bring health to her brother by killing his cancer cells, they can likewise cause cancer if they spin out of control:

Die Art Strahlen, lieber Bruder, von denen ich rede, sind gewiß nicht gefährlich. In einer mir unbekannten Weise durchqueren sie die verseuchten Luftschichten, ohne sich anzustecken. Das Fachwort ist: kontaminieren.[...] Steril, garantiert steril erreichen sie den Operationssaal, deinen hilflos, bewußtlos hingestreckten Körper, tasten ihn ab, erkennen ihn in Sekundenbruchteilen. [...] Mühelos durchdringen sie die dichte Abwehr deiner Bewußtlosigkeit, auf der Suche nach dem glühenden, pulsierenden Kern. Auf einer Weise, die sich der Sprache entzieht, stehen sie jetzt deiner schwächer werdenden Kraft bei. (14-5)

Christa Wolf is not a Luddite nor does she preach the total rejection of technology. Rather, she presents the double-edged sword that technology and its daily-life application represent. This alone, however, is not the source of evil. The true crux of the modern evil is the fact that the distribution of power has changed. The makers are no longer in control of what they have made. Wolf demonstrates the incapacitation of the human mind in a three-pronged strategy: the figure of the brother is literally incapacitated through the invasion of surgical instruments in his head. The Chernobyl survivors, on the other hand, will be incapacitated by the radiation. Third, those who are just mere bystanders to the tragedy, like the narrator herself who only participates in the tragedy through the reports she garners from the media, are incapacitated through a shell-shock trauma that leads to a temporary aphasia.

Wolf argues that another important source of evil stemming from technology is the alienation that it causes. While the narrator lives in Eastern Germany, she learns about the accident through the media. Moreover, although the fallout will reach her and others, it will not be lethal to her. The narrator knows this and develops insensitivity towards the victims that have already died from immediate radiation sickness or severe burns.

Technology inserts a buffer of inhumanity in between humans that Wolf's narrator clearly recognizes. Nonetheless, she is not able to marshal strong feelings of compassion. Instead, she is disturbed by her indifference. This evil alienation comes furtively, and therein lies the danger. Wolf's narrator is rendered speechless in the face of the accident. She yearns for a clear and recognizable representation of evil: "Der gute alte Teufel! Gäbe es ihn noch!" (68). Her language has died away and she finds herself incapable of clothing her thoughts into apt words. In *Weltuntergang ohne Ende*, Manon Delisle

describes this process of groping for ones words as a metaphor for the moral blind spot that the nuclear evil has created:

Die Erzählerin in *Störfall* versucht, eine Leerstelle, den "blinden Fleck", mit Bedeutung zu füllen. Die leitmotivische Erscheinung dieses Flecks sowie dessen parallel dazu verlaufende sprachliche "Einkreisung" lassen zunächst den Eindruck entstehen, er könne beleuchtet werden und damit einen klaren Sinn bekommen. Trotz zahlreicher unterschiedlicher Deutungsversuche bleibt der blinde Fleck am Ende der Erzählung jedoch unbestimmt: Die Metapher für eine lückenhafte Wahrnehmung wird zum Bild für einen sprachlich unerreichbaren Bereich. (90)

The evil of this state is like a nightmare from which the narrator tries to escape. In the last scene of the text, she sits in her bed, finally weeping and through the flood of her tears breaking open the wall of alienation that kept her emotionally hamstrung. Regaining speech in the face of disaster is a first step towards controlling one's own fate. The text concludes with a positive note as it shows that there is hope for man's future and that there might be a slight possibility to overcome Delisle's blind spot.

While Wolf's Chernobyl reminiscences are still borne by an understanding of morality based on traditional grounds and clothed in the language of religious mysticism, two other texts from the 1980s completely sever ties with the existence of religion in all ways possible. Alex Gfeller's *Das Komitee* and Harald Mueller's *Totenfloß* not only portray a world devastated by nuclear destruction and pollution, they also completely reject the language of religious images to describe this world. The protagonists in both texts are the most base sort of Darwinian survivors who, reduced to their bodies, live like machines that have shed all human qualities. They are reduced to animals whose only purpose is to live on while navigating through the atomic desert that Germany (Mueller) and Switzerland (Gfeller) have become. As these numbed creatures are unable to define

good and evil, it is up to the reader to decide what is evil about the brutish life of humansturned-ogres. One thing is certain, though: religion and religious imagery would be a
ridiculous misfit in this coarse world in which physical survival remains the only goal for
humanity. Both Gfeller and Mueller saw a credibility gap in previous pieces of nuclear
fiction that they sought to overcome. In their texts, they develop a new literary language
that does not take recourse to religious metaphors in order to depict a world full of evil
but is void of religion. This new language seeks to counter religion as it applies
profanities and obscenities. It willfully spews foulness and primitivism into the face of
the bourgeois. In Gfeller's and Mueller's view, the recourse to religious language will
help to evade the radical nature of the nuclear apocalypse as it will unduly mitigate its
brutality. In his 1991 essay "Sprachverlust – Schreiben nach Hiroshima und
Tschernobyl," Axel Schalk recognizes the strong literary voice in Mueller's play (the
same applies to Gfeller's text) that breaks away from the traditional religious imagery
and that Schalk regards as "Glücksfall" (207) for the language of the modern apocalypse.

In conclusion, nuclear fiction has reached a predicament when discussing the question of good and evil. All but one of the texts under discussion bid farewell to the Christian idea of the apocalypse as a means of purification and the beginning of an afterlife (the exception: Schilliger's *Der Heilige der Atombombe*). Rather, the texts betray a disenchantment that has taken place through the advent of technology and that has changed the world. In the face of the magnitude of a nuclear war, there is no mention of a Christian afterlife. Nuclear fiction critically questions religious beliefs and sees them at variance with the nuclear apocalypse. Although adhering to the language of images that religious writings offer, the writers of nuclear fiction finally cut the language ties also.

Initially used as a crutch for depicting the modern apocalypse, the concepts of religion are jettisoned as they do not adequately represent the moral predicament of the twentieth century. The nuclear evil transcends the language of Christian morality.

### The New Indifference? – Two Strands of Nuclear Evil

"Wir können nichts besseres tun als die Welt and diesen wenigen Stellen offenzuhalten, die offenzuhalten sind." (*In der Sache J. Robert Oppenheimer* 147)

Many texts of nuclear fiction openly demonstrate the will to warn the public and stir counteraction against the nuclear danger. As evil and petrifying as the prospect of a nuclear scenario is, these authors want to keep a loophole in their works that encourages their readers to try and break out of the situation. Literature as the bringer of hope and change – this concept is a very traditional and well-known one. Besides Heinar Kipphardt, authors like Bertolt Brecht, Günter Grass, Gudrun Pausewang, Josef Schilliger, Christa Wolf, Wolfgang Weyrauch, and Carl Zuckmayer<sup>36</sup> adhere to this tradition in that they seek to encourage social change that could defuse the precarious nuclear danger. As they maintain in their texts, literature can further an understanding of the problem at hand and can subsequently mobilize the readership or at least hone its perception of the danger. While none of these authors is naïve enough to simply assume a simple law of causality in that the consumption of literature will improve the world, fight evil, and change the course of history, they all see their work as a means of last resort in the face of a seemingly hopeless crisis: the evil future that mankind is facing has not occurred yet and there is still time and space to act. This strand of nuclear fiction

 $^{36}$  These are only the most prominent representatives of this particular direction.

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comprises about one half of all texts of nuclear fiction discussed here. The other half not surprisingly differs from this concept and does not see literature as a mouthpiece for social engagement anymore. It rather disengages with the simple hope that survival is the only valid option as it questions the traditional concepts of evil as something that can be cured or at least overcome for the time being. The most important representatives of this second strand are Alex Gfeller, Marlen Haushofer, Ulrich Horstmann, Matthias Horx, Harald Mueller, Gabriele Wohmann, and Gerhard Zwerenz.

In the following, I will call the first type of writing *engaged nuclear fiction* while I will deem the second type *disengaged nuclear fiction*. The latter category does not imply that its authors are morally cold and untouched by human suffering or by a possible escalation into a nuclear disaster. Rather, these authors have re-evaluated the concept of evil and have found it to be completely out of the reach of literature. They also often show that the traditional question of localizing and tackling evil has become obsolete while the moral categories of good and evil have been superseded in their writings with a consciously sought atmosphere of soberness. Disengaged nuclear fiction is a product of the 1980s. While the engaged texts draw the nuclear apocalypse as a problem that has been created by humanity and can only be revoked by humanity, those texts reject any claim for humanity's salvation as they expose the quest for salvation as an attempt at shirking history. Disengaged nuclear fiction also renounces the soothing tone that often accompanied its engaged counterpart and depicts a world in which humanity has accepted the fate of nuclear disaster without desperately looking for an exit.

Matthias Horx's *Es geht voran* revives the classic adventure genre and couples it with dystopian ideas, rounding the entire composition out with a pinch of humor. His

protagonists hide out in do-it-yourself bunkers equipped with homespun technology, then after the nuclear blast they roam the country and encounter all sorts of ghastly and curious adventures. The catastrophe is like a huge board game on which the characters make their moves. Horx does not deny the seriousness of a nuclear war, but he turns the whole apocalyptic scenario in his novel into a game for life-or-death gamblers. The text is rather an early example of pop literature than an honest harbinger of evil. Horx treats the nuclear apocalypse as an icon of popular culture in the 1980s and as such shows that it has been demoted to an image of pop. Between the different moves of the games, the question of evil evaporates and is dismissed.

During the 1950s, 1960s, and also early 1970s when engaged nuclear fiction dominated, some authors already digressed from its paths. Hans-Henny Jahnn seeks a radical approach that other authors often avoid. In *Der staubige Regenbogen* he declares any attempt at nurturing hope null and void. Robert, one of the play's characters, blurts out in the final scene: "Sie tun das Falsche! Sie hoffen!" Although Jahnn's drama is socially very engaged, Jahnn could not spot a ray of hope for a nuclear society that in his view inevitably metamorphosed into a reproduction of the Third Reich. His conception of humanity is similar to that of Arno Schmidt's in *Schwarze Spiegel* where the educated few are juxtaposed with the ignorant many. According to the protagonist, a solitary genius in Romantic fashion, humanity does not deserve to live on as it is steeped in moral turpitude and dissolution. While Schmidt jettisons the engagement with humanity and the compassion for human suffering that even the pessimist Jahnn keeps, he comes close to what should turn into disengaged nuclear fiction in the 1980s. However, Schmidt's

romanticizing attitude separates *Schwarze Spiegel* from the disenchanted and soberminded texts of the 1980s.

On the other hand, during a time when disengaged nuclear fiction prevailed, authors of the older generation still adhered to the values of engaged fiction. Günter Grass and Christa Wolf are obvious examples for this direction. While Grass encourages the reader to become politically involved in the nuclear debate, he steeps the entire nuclear scenario in *Die Rättin* in an ironic uncertainty: at the end of the text the narrator asks himself if the catastrophe really happened or if it occurred only in his dreams. While Grass remains a moralist in *Die Rättin*, a reputation that he had earned from previous works, he opens up to the hide-and-seek of the 1980s that questions the concept of reality.

Horstmann's ironic indifference in *Das Untier* not only turns down any claims for mercy in the face of the apocalypse, the author also provokingly maintains that the end of humanity might be seen as the only reasonable exit to unburden the earth of its cumbersome mankind. Horstmann calls those who try to avoid the final apocalypse cowardly shirkers in the face of a fate that humanity has been approaching ever since coming into being. With such radical statements, Horstmann demonstrates that the apocalypse has indeed lost its meaning and that talking about the evil inherent in the apocalypse will not improve anything or even diminish or vanquish the evil.<sup>37</sup> At the same time, deconstructionist thinkers, especially the two French philosophers Jacques Derrida and Jean Baudrillard, maintained that the big nuclear bang had lost its theatrical expression yet kept its aesthetic clout in cultural thinking. In his famous 1984 essay "No

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<sup>&</sup>lt;sup>37</sup> Lynn Gumpert argues that the ultimate loss of meaning of the "apocalypse" is manifested in today's wholesale use of the term, e.g. when serving as a metaphor for the collapse of capitalism (12).

Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives)," Derrida points to the imaginary aspect of such a war: "I have recalled that a nuclear war is for the time being a fable, that is, something one can only talk about..." (23). He distinguishes between "this reality of the nuclear age" [i.e. the huge stockpile of nuclear weaponry, W.L.] and the fiction of war" (23). The real aspect of the nuclear age is the physical presence of nuclear weapons. However, as Derrida argues, this has nothing to do with the virtual image of the war proper: A chasm remains between reality (weapons) and fiction (war), an argument that James Clair criticized for its inflammatory nature: "...Jacques Derrida points out that before nuclear war is possible, it must first be imagined [...] So narratives of nuclear war make it possible. [...] We are all familiar with how Star Wars, the movie, became "Star Wars," the nuclear war-defense debacle" (1175). Departing from a similar point of view, Jean Baudrillard then maintains that the actual nuclear event will not occur because it has already been accepted as an event into the world of human imagination and has thus already happened on a symbolic level.<sup>39</sup> He also argues that thus history is not moving forward and towards a specific end anymore:

Perhaps the end of history, if we can actually conceive such a thing, is merely ironic? Perhaps it is merely an effect of the ruse of history, which consists in having concealed its end from us, in having ended without our noticing it. So that it is merely the end of history that is being fuelled, whereas we believe we are continuing to make it. We are still awaiting its

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<sup>&</sup>lt;sup>38</sup> Derrida's essay should spawn the "nuclear criticism" movement that opened up several discussions in philosophy, the social sciences, and literature. Nicholas Royle offered an early definition of the term nuclear criticism: "... a currently indeterminate shift, in philosophy, literary criticism, and elsewhere, concerning the place and play of chance, and in the relations between belief and science" (39). Roger Luckhurst describes the movement's universal openness for new sources: "Undisciplined, Nuclear Criticism has the discipline to rethink the 'nuclear epoch'; its incompetence in these matters is its very competence – its facility with texts, all kinds of texts" (89). While nuclear criticism was born out of the spirit of the nuclear age, it extended far beyond it but fizzled out in the late 1980s. Especially nuclear fiction of the 1980s is influenced by this debate.

<sup>&</sup>lt;sup>39</sup> The pre-produced doomsday on TV that Oskar Matzerath's media conglomerate distributes among the people, carries the same notions of an apocalypse that has already happened: "Nicht Unvorstellbares ereignete sich" (126). Ironically, the pre-imagined and pre-fabricated apocalypse leads to the *Verharmlosung* of the catastrophe: "Schulfernsehen: Kernspaltung kinderleicht gemacht" (90).

end, whereas that end has, in fact, already taken place. History's ruse was to make us believe in its end... (*End of the Millenium* 324)

For Baudrillard, the possibility of nuclear war is a *simulacrum*, a virtual token of the real, a cultural image that is not reality but that by virtue of its imaginative and simulative power acts as if it were real. Thus, the nuclear threat is part of "the characteristic hysteria of our time: the hysteria of production and reproduction of the real" (*Evil Demon* 199). A Klaus R. Scherpe in his 1986 essay on the apocalyptic consciousness of modernity and post-modernity comes to a similar conclusion when he claims that the nuclear bomb is nothing more than a "final sign in the game of simulation" (97). The younger generation of writers, those who would produce the disengaged strand of nuclear fiction realized that the nuclear blast had in a certain way already occurred as its repercussions precluded the older generation from thinking clearly. They also saw the danger that it would paralyze the fantasy and imagination of their coevals (cf. Scherpe 95). The authors of disengaged nuclear fiction saw their chance in shaking off the fears of the older generations and instead adopted a provocative and at

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<sup>&</sup>lt;sup>40</sup> For a more detailed discussion of Baudrillard and the apocalypse as a fait accompli see Teresa Heffernan's essay "Can the Apocalypse be Post?" (Dellamora 171-81). The infinite reproducibility of the catastrophe, a pet topic of Derrida and his followers in nuclear criticism - Klaus R. Scherpe laconically calls it: "The producibility of the catastrophe 'is' the catastrophe" (96) – plays a major role in nuclear fiction. Johann Siemon for instance describes the catastrophe in Günter Grass's Die Rättin, "far from being a unique event, is conjured up again and again; like a terrible chorus, like an admonishing ritual, it constitutes the sediment of narration" (185). Thomas Kniesche follows in the wake of Baudrillard by interpreting Grass's Die Rättin as the literary representation of an apocalypse that has already taken place, on a literal level in the novel's plot and on a symbolic level altogether: "Endzeitvisionen zuhauf also, und doch ist Die Rättin keine literarische Apokalypse im hergebrachten Sinne. Der entscheidende Unterschied liegt in der Erzählkonstellation und in der zeitlichen Struktur. Während in der Apokalypse das Medium gläubig die Warnung einer höchsten Instanz vor dem nahe bevorstehenden jüngsten Gericht entgegennimmt, ist in Die Rättin schon alles vorbei, wenn das Erzählen beginnt, und das Erzählmedium versucht alles, um die Behauptungen der Rättin zu widerlegen. Alle Geschichten, die erzählt werden, sind nichts weiter als Existenzbeweise oder nach dem Scheherazade-Prinzip vorgebrachte Unterhaltungen, die das Ende aufschieben sollen - ein nutzloses Unterfangen bei einem Ende, das schon stattgefunden hat" ("Schuldenmanagement, Urszene und Rattengeschichten" 550-1).

times humorous ruthlessness that questioned the timid admonishments of those who sought to incessantly warn their readers.

The new ideas of disengaged nuclear fiction gave way to cynicism and a reevaluation of death. In *Der Bunker*, the protagonists talk about the "Erotik des Sterbens" (219). In the novel, video cameras outside of the chancellor's bunker relay their blurry and nondescript images of nuclear death into the rooms of those who have the privilege to sit inside. The irony of the "Erotik des Sterbens" is the mere fact that those inside the bunker only delay their own impending death by looking at the video recordings. Everything turns into unreal satire in this bunker: the fictitious German chancellor is a mere caricature of a political leader as he engages in meaningless trivialities while Germany's nuclear devastation goes on outside. If there is any evil left in this absurdity, it is buried under the meaningless ash heaps of the former political and social system that has now lost all of its credibility and relevance.

Gabriele Wohmann's 1987 novel *Der Flötenton*, a direct response to the nuclear accident in Chernobyl in the previous year, toys with the loss of meaning as well.

Wohmann, however, uses the elements of absurdity and sarcasm much more sparingly than Zwerenz. The question of evil is now embedded in the daily discourse of average Germans who devalue the seriousness in their platitudinous ramblings. Despite being the talk of the town, the issue of Chernobyl is literally talked asunder in the lengthy discussions and monologues of the protagonists. Wohmann depicts a set of self-absorbed characters whose main activity is worrying about the future. However, in the process of incessantly working themselves into serious depression and other mental illnesses, the protagonists lose sight of what they are worrying about. In the end, their ramblings do not

result in productivity, as the endless grind of daily life moves on and takes them along. Wohmann shows that the nuclear catastrophe of Chernobyl has been trapped in the verbal quagmire of people's ennui. As much as her protagonists yearn for morality and moral actions, they do live a life that is utterly devoid of what they seek. The novel displays the German society as one that is indeed indifferent to catastrophe. While Wohmann diagnoses this mental gridlock, she does not admonish the reader to pursue change. *Der Flötenton* is more a book about the tacit acceptance of the catastrophe into our lives than it is a book about the Chernobyl accident itself. Wohmann thus describes the mental state of an industrial society approaching the turn of the millennium. Germany is the main venue in her book, but it could easily be any industrial nation.<sup>41</sup>

In conclusion, the question of evil in German nuclear fiction has been perceived in, roughly speaking, two different ways. Engaged nuclear fiction, mostly prevailing from the 1950s to the 1970s, describes evil as something that humanity has to fight and, if not eradicate, prune back as much as possible. As daunting and shocking as the possibility of an annihilated world sounds, engaged nuclear fiction encourages its readers to stand up against it and persevere even if the fight seems to be a fait accompli in which the single opponent cannot achieve much. Most of these texts are written in a foreboding and ominous tone, conjuring up a somber atmosphere of evil. Even though the authors of engaged nuclear fiction describe the world as driven by rationalism and predictability,

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<sup>&</sup>lt;sup>41</sup> Michael Haneke's 2003 film *Time of the Wolf* conjures up similar notions of cultural boredom and indifference within the confines of Western societies. Even though it remains unclear whether Haneke refers to a nuclear war, the film shares similarities with many pieces of nuclear fiction: Some unknown mysterious disaster on a grand scale has struck and forces a family to take refuge at their weekend cottage where conflicts with other refugees, an Arabic family, arise. In an interview about the film, Haneke admits to criticizing the overly saturated Western society: "... And I wanted to do a film for our superfluous society who feels good and comfortable, who is watching the end of the world on TV, because it's far away And to give it a taste of what it'd mean if it happened to them..."

they seek to reveal the irrational and unpredictable undercurrents within a world of apparent reason. The evil can be approached when acknowledging the weak points and even absurdities of reason reigning supreme. Conversely, disengaged nuclear fiction, prevailing in the 1980s, tries to overcome the accounts of its predecessor. Fighting evil is seen as an illusory and unrealistic strategy that does not match an era that is now pervaded by moral listlessness and survival fatigue. These texts also try to shed the traditional concepts of evil by adopting a new and fresh language that is often pragmatic, sober, seemingly emotionless, and often brutal or satirical. While the authors of engaged nuclear fiction regard themselves as augurs of the future and heralds of doomsday, the authors of disengaged nuclear fiction divest themselves of the power of prognostication. They see the disaster coming, but they disdain to crown their fantasies with the warning voice of moral authority. They acknowledge the lack of morality in the atomic age and supplant it with sarcasm and irony. Matthias Horx's "Briefe aus dem Bunker" mocks the absurdity of German bureaucracy and red tape that still persist after a nuclear war: "Sehr geehrter Herr Kollege, [...] Wie sehr würde ich mir jetzt einen persönlichen Besuch bei Ihnen wünschen! Doch leider wäre dies bei der draußen vorherrschenden Strahlung mit etlichen Gefahren für Leib und Seele verbunden" (1). This sarcastic type of literature refuses to take a moral stance but rather pours scorn on human flaws. Not surprisingly, many pieces of engaged nuclear fiction have garnered more acclaim than their disengaged counterparts as they have been perceived as more accessible to a wider range of readers. The abolition of morality and of the traditional concepts of evil, an inevitable consequence of the nuclear age in the eyes of the authors of disengaged fiction, has mostly been rejected by readers. Disengaged nuclear fiction rids itself of the classic terms of good and evil as its authors realize that the inferno they portray is so disastrous that it transcends and ridicules the term evil. They do not see an immediate solution for the atomic age by adhering to a traditional discussion of morality even though they are fully aware of the impending dangers.

While the separation into the two strands of engaged and disengaged nuclear fiction does not suggest a difference in literary quality or the validity of the moral stance their authors assume, it clearly shows that the questions that the nuclear evil has raised have not led to a unanimous conclusion in nuclear fiction.

#### **Conclusion – The Most Evil of All Worlds?**

It is thus one must think of the creation of the best of all possible universes, all the more since God not only decrees to create a universe, but decrees also to create the best of all.

For God decrees nothing without knowledge, and he makes no separate decrees, which would be nothing but antecedent acts of will: and these we have sufficiently explained, distinguishing them from genuine decrees. (Leibniz, *Theodicy* 196)

We live in the best of all possible worlds because it has been created by a God who possesses the absolute knowledge of what he is doing, as Gottfried Wilhelm Leibniz argued in 1710. Leibniz defends this God against the claim he had been acting malevolently by leaving the evil in the world: "Man is himself the source of his evils: just as he is, he was in the divine idea. God, prompted by essential reasons of wisdom, decreed that he should pass into existence just as he is" (151). The evil is now man's responsibility and no longer in the hands of a divine being that willfully burdens mankind with its evil impositions.

Nuclear fiction is at variance with Leibniz's first postulation as it shows that today's world which enables a nuclear apocalypse can hardly be the best of all possible worlds. The fictionalizations show that a world destroyed by a nuclear war is hardly even a world anymore as this term will cease to exist when humanity is totally eradicated. When Leibniz called this world the best of all possible worlds he meant in turn that it was the least bad of all possible worlds. The (in)famous saying of the best of all possible worlds, which has erroneously been interpreted as a utopian fantasy, actually refers to a world that is sufferable to humans. Leibniz did not suggest a paradise when he coined this famous phrase but rather interpreted the world *ex negativo*. The authors of nuclear fiction, however, depict the world of the nuclear age as no longer sufferable. This important feature, that is the decisive prerequisite for Leibniz's best of all possible worlds, gets lost in the throes of the atomic war. Nuclear fiction overthrows this claim and turns it into the worst of all possible worlds.

Most authors of nuclear fiction would probably agree with Leibniz's second claim that man is "himself the source of his evils" as they come to reject religious notions of evil in their works. Neither God or the devil are responsible for the nuclear crisis for it is mankind proper who conjured it up. While the authors still regard religious imagery as a valid literary technique to portray their scenarios, they dismiss the presence of divine authorities in the crisis. Leibniz maintained that God knew about humanity's innate propensity for evil in advance and nonetheless decided to bring man into existence. God did not leave the evil in the world out of negligence but on purpose. Leibniz theodicy vindicates God and defends him against detractors who accuse God of moral corruption. Susan Neiman speculates on the demise of different theodicies during the previous

centuries. Each epoch spawned its own theodicy with which it tried to fend off evil by making it accessible to reason. She sees Leibniz as one of many representatives who tried to defend God in the face of evil. Neiman then asks the question if the concept of theodicy will now, at the beginning of the twenty-first century, die for the last time (288). Nuclear fiction bears out Neiman's speculation and rejects not only Leibniz's theodicy but the need for any other vindication of divinity and its relationship to evil. The theodicy in fact dies for the last time in nuclear fiction. The world of the nuclear age has become a disenchanted place in which the evil, be it visible or not, cannot be traced back to a God nor can it subsequently be blamed on him. The authors of nuclear fiction acknowledge that there is evil aplenty in the atomic age but they refuse to ascribe it to God. Most texts acknowledge humanity as the main culprit for inventing nuclear technology. However, this moral guilt is questionable, as those humans involved in the nuclear age cannot be blamed for it individually. At most, the authors of nuclear fiction speculate that there might be a collective guilt that leads to the nuclear evil. However, the new evil is part of a very complicated age that obfuscates guilt and responsibility to a level where seeing and identifying it become impossible. In his 1985 article "Nach dem Atomschlag," Volker Lilienthal sounded a critical note on the blurring of guilt in nuclear fiction: "Literatur also als Kriegsvorbereitung, Literatur als Probehandeln, welches das Unvorstellbare vorstellbar macht und so das entwickelt, was technologische Gesellschaftsplaner 'soziale Akzeptanz' nennen" (149). Even though Lilienthal wants to provoke with his argument, he shows that literature itself cannot remain carefree when dealing with a guilt-ridden topic. Instead, literature assumes moral responsibility that it cannot shed.

Although the authors of nuclear fiction acknowledge that the atomic age produces a new evasive evil, most works ascribe moral guilt to man, blaming him for originating an evil that is now beyond human control. Thus, the nuclear catastrophe is the exact opposite of natural catastrophes like the earthquake of Lisbon in 1755. While the earthquake came as an unexpected shock to the world and set off a barrage of philosophical writings which tried to explain the earthquake through theodicy, the nuclear catastrophe has always been described as an event which humanity can foresee. The moment of surprise is taken out of it and is only preserved in the hope that a global nuclear war will – against all odds – eventually not break out. In the face of man-made disasters, natural disasters have lost their philosophical meaning. Susan Neiman even argues that after the Lisbon earthquake all natural disasters have become meaningless: "Since Lisbon, natural evils no longer have any seemly relation to moral evils; hence they no longer have meaning at all" (250). Although such disasters continue to wreak havoc on the human world, they have been divested of their significance and have been replaced with the man-made disasters that are now in the center during the nuclear age. What remains is solely moral evil.

The evil of the nuclear age is in many respects similar to the evil of the Great Plague of the European Middle Ages that wreaked havoc on human civilization (cf. Stölken-Fitschen 120). The people who lived through the Plague did not know according to what design they were chosen or spared. But according to medieval perception the Plague was seen as a punishment for sinful behavior and not, as we know today, as simply spread by a lack of hygiene. The idea of just punishment, however, provided solace for people who then understood why they had to die. Despite all the despair, the

great divine design of the world was not questioned in the pre-atomic age. The atomic age defies providing us with a sensible cause for the nuclear catastrophe. In a letter to Richard Gohlke from Feb 27, 1955, Hermann Hesse voiced this lack of cause: "Ich glaube an keine religiöse Dogmatik, also auch nicht an einen Gott, der die Menschen geschaffen und es ihnen ermöglicht hat, den Fortschritt vom Einandertotschlagen bis zum Töten mit Atomwaffen auszubilden und auf ihn stolz zu sein" (777-8). Many pieces of nuclear fiction share Hesse's judgment: Gudrun Pausewang's Die letzten Kinder von Schewenborn expresses utter disenchantment over the nuclear apocalypse: Nobody knows why the atomic blast happened and what the current political situation might be. The protagonists are kept in the dark as is the reader. Yet the causes do not matter anymore. The unstoppable suffering of the protagonists has superseded any search for the motives of people who triggered the explosion. Furthermore, there is no higher divine design that hovers above all the events nor is there any need to discuss such a divine entity. In Matthias Horx's Glückliche Reise, the so-called "Transformisten," a sect of nuclear survivors tries to override the hole that the nuclear age has torn into the spiritual world of humanity. The limits between good and evil, between the real and the unreal are mere imaginary prosthetic ideas to tide over the dispirited survivors:

Die Transformation war vielleicht der letzte Versuch, die Mystifikation der Natur aufrechtzuerhalten, aus Angst vor der einfachen, bitteren Wahrheit, daß es keine Götter gibt, kein bestimmtes Außen, keinen kategorischen Imperativ, keine immerwährenden Grenzen. Die Transformation war die letzte Auflehnung des Mythos gegen die Aufklärung. (170-1)

This obfuscation of the origin of evil is typical for modern thinking. As Susan Neiman claims, ever since Auschwitz an answer to the causes of evil has become

impossible. The unprecedented brutality of the pogrom blurs any consciousness of guilt and shell-shocks our powers of analysis. Neiman further argues that any rational explanation for the causes of the Holocaust cannot be found. Modern philosophy therefore has mostly dismissed an explanation of evil: "Thus the rejection of theodicy becomes the rejection of comprehension itself" (325). The Holocaust is beyond real comprehension because nobody knows exactly why it happened. What makes it even harder is the impenetrable systematization behind its process. Were all of those working in the camps evil beasts or were many of them just following orders? Can the killing of millions even be imagined by the human mind? Or do we just balk at the numbers because they are rationally perceivable but emotionally out of reach? The view of evil as perceived in the works of nuclear fiction connects well with the evil that happened during the Holocaust: There is no God that would help the victims overcome their fear or proffer solace. The human society falls apart in the face of the long-term consequences of the radiation. Bereaved of all human grace and morality, people turn into beastly low lives that strive for maintaining their animal life at all costs. The drastic moments of the text of nuclear fiction are often disturbing: ashen, burnt, bloody, and ragged corpses beyond recognition are scattered among the landscape everywhere. The protagonists slowly turn into people who accept their inevitable fate and become accustomed to the daily routine of death and destruction.

The great Lisbon earthquake was the trigger for a rationalist Enlightenment discussion on the causes of evil. Yet what is more important about the way this discourse took place is the fact that it was probably the first international debate of its sort,

inspiring a feeling of early globalization (cf. Neiman 241). The philosophers who worked their way through explaining the earthquake were distraught:

Lisbon shocked the eighteenth century as larger and more destructive earthquakes did not move the twentieth. And though the Thirty Years' War was barbaric and ravaging, it did not leave those who lived through it feeling conceptually devastated. Auschwitz did. (240)

I argue that this same kind of conceptual devastation continues in the atomic age and its literature to an even larger extent. The Holocaust and the thinking of the nuclear age share many similarities in their structure and systemic set-up. The evil energy inherent in the process of the mass murder of millions of people in concentration camps did not suddenly cease to exist in 1945. It was rather transferred into a new form of evil whose face is radically different from the factory-like concentration camps but whose evil energy is quite the same. I do not argue that the evil that the Nazis spread infected the rest of the world but that a certain philosophical evil has continuously resurfaced in history (cf. Susan Neiman's argument). Anton-Andreas Guha in *Ende* observes an overarching theme of evil in the form of barbarism and a resulting existential fear that connects Germany's Nazi era and the Cold War and that leads to the devastation of our cultural concepts:

Hitler und die Nazis kehrten wieder zur barbarischen Praxis der Existenzvernichtung zurück. Nicht nur die Juden, auch die polnische und sowjetkommunistische Elite – geplant und gnadenlos – ausgerottet. [...] Jetzt stehen sich wieder zwei Eliten [i.e. USA and Soviet Union] unversöhnlich gegenüber. Die Existenz der einen bedeutet Existenzbedrohung für die andere. (103)

By the same token, the narrator in Zwerenz's *Der Bunker*, sees the moral culture of humanity endangered by the Cold War's inheritance of evil energy from the Nazis:

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<sup>&</sup>lt;sup>42</sup> This ties in with the criticism of the term "Stunde Null"

"'[die] gleiche Amoralität, also die gleiche Mord-Energie, wenn die SS die Juden zum Feind erklärte und daraus ihr Recht ableitete, die Juden umzubringen, und wenn Amerikaner und Russen jetzt gegenseitig sich atomar vernichten'" (271).

In "Germania das große Kind," a short essay on the ideological connection between the Nazi era and the Cold War, Zwerenz describes the atomic age as a "Planung des Weltuntergangs" (168), suggesting a comparison to the planned pogrom of the Nazis and expressing the hope that the powerful figures in Germany and elsewhere do not turn into the "Testamentsvollstrecker[...] Hitlers" (170). Willfrid [sic!] Schilling's essay "Sonnenuntergang" does not use the Holocaust as a comparison but the cowardice of Nazi figureheads who, after having positioned Germany at a point of no return, committed suicide in order to evade prosecution. The suicidal strain of the nuclear age stems from the "bürgerlich-pervertierten Mentalität des Dr. Goebbels" who poisoned his children, his wife and himself in an act of desperation. The "moral insanity unserer Zeit" and a "geschickt weiterentwickelte [...] Faschismus-Erbmasse" (135) spell the conceptual devastation of our moral thinking. In a less politically explicit form, Günter Grass has embodied the same conceptual devastation in the design of his first-person narrator in *Die Rättin*, who is vacillating between dream and reality. Until the very last page of the novel we do not know if the whole apocalyptic atomic scenario that the narrator experiences is just a dream or reality. Grass blurs the concept of reality into an obsessive waking dream. Are we humans now like rats who will die in the inferno and are the rats now the new humans who will survive the atomic blast and replace us? By playing with this idea, Grass mixes up the clear boundary between humans and their value and creatures like rats that embody repulsive pests.

Furthermore, the characters in the novel experience the reality of their own lives as a cinematic production that they can watch by themselves. Grass here toys with an idea that reminds us of the folklore that a dying person's soul leaves the body and is therefore able to observe its own corpse lying prostrate. In *Die Rättin* this idea leads to an alienation of oneself: people learning about their own fate through Oskar's media productions remain saturated and indolent – an attitude that Klaus R. Scherpe called "the infinite sea of indifference" (99) and that Ken Ruthven dubbed the "normalization" of the nuclear age with the danger of ensuing "normalization narratives" that would work the threat of the nuclear apocalypse into a routine (42-4). The people that populate Grass's novel do not care about their future anymore, for it is not they who can change it but the controlling instances behind the media trust. Ironically, the person who advises all this media hocus-pocus, Oskar the mastermind, falls victim to the final nuclear catastrophe in just the same way as everybody else does. Although Grass has been severely criticized for Die Rättin as "kabarettistisches Untergangsdesaster" (Durzak 194) or just simply as "ein katastrophales Buch" (Reich-Ranicki 113), 43 the novel exhibits this confusion of concepts perfectly, not however without playfully exposing and enjoying them as Franz Josef Görtz noted: "Sein Buch, das den schwärzesten Tag des Planeten in buntesten Farben ausmalt, ist ein Paradox, ein Endspiel gewiß, aber ein Spiel vor allem anderen" (465). It should give the reader pause that Grass sacrifices the single most famous character in his oeuvre for good. Oskar Matzerath so far has proven to be a survival artist. In the *Blechtrommel* he bumbles through the most atrocious period of German history

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<sup>&</sup>lt;sup>43</sup> Reich-Ranicki criticized that Grass was trying to hard to evoke notions of literary salvation in *Die Rättin*, an overly moralistic attitude that sabotaged its literary prowess: "...spürt man die verzweifelte Anstrengung eines Romanciers, der sich seiner nationalen, wenn nicht universalen Verantwortung unentwegt bewußt, allzu bewußt ist" (113).

and outlives most of his friends, many of whom fall victim to the inhuman National Socialist system or are later punished by the allies, like Oskar's father Alfred. What time is it that rings the death knoll for the most skilled of all literary survivor figures? Not only do we learn through Oskar's demise that the most intricate survival techniques have become outmoded in the face of the nuclear perdition but also do we see that this new evil engulfs everything by unhinging the world as we knew it. The Third Reich wreaked havoc upon people but it did not destroy humanity's will to move on; the Third World War now takes away this last possibility without a doubt. The protagonist who has to experience the demise of all of mankind and is cut of from the rest of civilization is reminiscent of the genre of the Robinsonade. 44 Grass's modern Robinson, however, ends up in a space capsule that orbits the earth incessantly and torments its passenger with ever-present images of a destroyed earth. The passenger is not only a hellish joyrider but also an eternal inmate in his last home, conceptually devastated and unable to hand down his observations to nonexistent progeny.

As seen in the computer-induced countdown-controlled world in *Die Rättin*, the nuclear evil is now the inexorably ticking clockwork of a self-sufficient process that humans have set in motion. Among all of nuclear fiction, Hans Hellmut Kirst's *Keiner kommt davon* represents this eerie mechanism best. Almost 500 of the lengthy novel's 600 pages are dedicated to the display of how the political situation in the Cold War between the Western countries and the Soviet Union deteriorates and reaches the final flash point that sets off a nuclear showdown. The narrator opens up several subplots and jumps back and forth between them using a filmic cutting technique. Each subplot

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<sup>&</sup>lt;sup>44</sup> There is a plethora of popular films and books bearing titles like *The Last Man on Earth* or *The Last Woman on Earth*.

portrays different protagonists who are helpless and unable to keep the escalating conflict under control, each in his own way. These characters seem to resemble little cogs in the great overall plan. They try to resist but still do their turn in the big machine. Kirst's irony is that even in democratic countries, decision-making processes occur in a very mechanistic way. The author portrays West German politicians as pigheaded bureaucrats who follow capitalist ideology. They do as little as their Russian counterparts to defuse the boiling conflict. Kirst's book is suffused by a deep mistrust of systemic thinking. The actual evil is not that people would not like to avoid a conflict. The opposite is true: in last-ditch attempts several people try to intervene on behalf of last-minute peace. The true evil is that humans have constructed a machinery with an independent logic behind it. Now humankind has beheaded itself and lets the system that it has thought up take over. Accordingly, all future events are unpredictable: "In einer Zeit wie dieser muß man sich auf alles gefaßt machen – auf das Sinnlose ebenso wie auf das Sinnvolle" (Kirst 126). The tense conflict could abate but also explode. The evil is the waywardness of the system, not one or more malevolent persons who seek to inflict harm on others. Kirst's evil is modern irreligious mathematical randomness. The protagonists in *Keiner kommt* davon live in an eschatological vacuum facing the absolute senselessness – a senselessness that does not possess a face and is totally anonymous.

The concept of evil as anonymous mechanization is not the exclusive hallmark of the atomic age. Familiar to us since Franz Kafka's *In der Strafkolonie*, it is carried even further in Friedrich Dürrenmatt's concept of the labyrinth, a visual representation of the chaos that besets the nuclear age. In his narrative *Der Winterkrieg in Tibet* the reader is confronted with the very same idea of anonymity: soldiers fighting in the Third World

War are hustling and bustling within a big mountain that contains a warren of walkways. Each single soldier does not know what he is doing, whom he is fighting and why he is fighting. Absurdity reaches a high point in the fact that nobody knows if there even is a mastermind that controls the war:

Phantastische Siege werden gemeldet, stets ist der Endsieg nahe, eigentlich schon errungen, dennoch geht der Winterkrieg weiter. (106)

...sie [i.e. the soldiers] gruppieren sich während der mörderischen Schlächtereien allzuoft um und mähen – statt die Feinde – einander nieder, sie werden von den eigenen Granatsplittern zerfetzt, von den eigenen Maschinengewehrsalven durchlöchert, von den eigenen Flammenwerfern verbrannt, sie erfrieren in Eisspalten, krepieren an Sauerstoffmangel in den phatastischen Höhen, wo sie sich verzweifelt eingegraben haben... Aber dem Feind wird es nicht anders gehen, falls es diesen Feind überhaupt gibt ...(107-8)

Dürrenmatt makes nonsense of the classical concepts of war in the vein of Carl von Clausewitz's definition, thus destroying its possibility in the modern nuclear age. Clausewitz argued that a critical analysis of the status quo is necessary for a warring party in order to conceive strategies that will finally lead to overcoming the opponent(s) and reaching victory (cf. chapter "Strategie" – *Vom Kriege* 345-53). Dürrenmatt shows us bloody internecine quarrels which nobody can win. Furthermore, the concept of winning and losing are irrelevant because there is nothing to win or to lose anymore.

As we have seen so far, the real evil of the atomic age is not so much the individual infliction of pain and perdition anymore but rather a deconstructionist mechanism that destroys any traditional system of beliefs. In his fictitious text *Ende* – *Tagebuch aus dem dritten Weltkrieg*, Anton-Andreas Guha refers to the demise of traditional cultural values. His protagonist, an atomic bomb survivor in Wiesbaden, Germany, who awaits a slow death from radiation, claims that in the face of his lethal fate

all philosophical hopes fail. The entire German cultural heritage, personified by the author with Immanuel Kant, Karl Marx, and Sigmund Freud, is useless. Guha shows that in the miserable fate of his protagonist, who loses his senses, his hope, and his health and thus represents humankind as such, Nietzsche's idea of the superman who can overcome human weakness cannot come true anymore. The juxtaposition of Nietzsche's superman with the moribund war survivor also insinuates that all philosophical ideals are prone to failure, leaving humanity with nothing but the empty remnants of its former self.

Evil manifests itself also in the perversion of originally peaceful and good thoughts. Kurt Tucholsky's popular anti-war slogan "Stell dir vor, es ist Krieg und keiner geht hin" becomes a caricature in Guha's text: nobody needs to go to war anymore. The atomic war is executed from high-tech control bases and renders the involvement of traditional armies unnecessary (Guha 73). Thoughts like Tucholsky's involuntarily receive eerie new meaning under the aegis of atomic power. They are distorted, perverted, mutilated, and devalued. What used to be culture is worthless all of a sudden. By deconstructing his cultural background the protagonist finds himself alone and void of any concept of future at the end of the text. He who is slowly killed by the aftermath of the bomb gradually kills his own culture in his diary only to find himself finally naked and without purpose. This destructive moment, the unavoidable mental and physical death, is the true evil. What remains is the desperate thought that man was just one of nature's experiment that is finally about to fail.

Karl Jaspers had offered up an attempt at solving the nuclear crisis with ideas based on Kantian rationalism in *Die Atombombe und die Zukunft des Menschen*.

However, I claim that his admittedly noble attempt was doomed to failure from the very

beginning since the crisis caused by the nuclear age exceeds the possibilities of Kantian thinking. Kant denied that humans could ever possess such a thing as big and as sublime as nature nor could he imagine that the emulation of nature's force would ever be possible for humans. It is not surprising that none of the authors of nuclear fiction followed in Jaspers's wake. Nuclear fiction refuses to provide its audience with a fictitious utopia in which the world is saved through Kantian principles at the eleventh hour.

While Karl Jaspers did not succeed in providing a viable remedy for the nuclear crisis, his philosophical treatise on the nuclear age is nonetheless extremely perspicacious and visionary. Jaspers is the first German author who linked the threat of a nuclear war to the concept of totalitarian terrorism. The terror that Jaspers feared was one inflicted by totalitarian countries and governments, not one perpetrated by smaller terror groups. 9/11 has set in motion a heated debate on the threat of nuclear terrorism. While there is still confusion aplenty about the capability of illegally obtaining fissionable material and transforming it into a functioning bomb, the risk that such attacks will happen in the future is much more likely today. Interestingly, most pieces of German nuclear fiction do not focus on the illegal possession of atomic bombs. Most of the nuclear evil in these texts emanates from entire governments and countries. Up until the 1980s, the nuclear threat was clearly seen as one that lies within the responsibilities of governments.

<sup>&</sup>lt;sup>45</sup> Graham Allison's Nuclear Terrorism is one of the few serious analyses that avoid sensationalism. He argues about the possibility of a nuclear terrorist attack: "it is not a matter of if; it's a matter of *when*" (6, my highlighting). Lee Garth Vigilant and John B. Williamson argue that a new era of "superterrorism" has been launched by the Sept. 11 attacks. The authors dread that terrorists are likely to push up the lethality and media topicality by means of weapons of mass destruction. They also argue that such acts of terrorism ought to be called wars against civilians (242-4).

work and keep governments away from employing atomic bombs. Nuclear fiction mainly bases its depiction on Cold War principles. However, many texts display an anarchic free-for-all immediately before or once the nuclear war has broken out. The disintegration of society through mutual terror is a major theme of texts like Friedrich Dürrenmatt's *Der Winterkrieg in Tibet*, Alex Gfeller's *Das Komitee*, Matthias Horx's *Es geht voran*, or Gerhard Zwerenz's *Der Bunker*. Although the terror groups here do not gain access to nuclear bombs, they still act out their violent fantasies during the nuclear disaster either by rampaging through depopulated regions, by ransacking the possessions of others, or by senselessly killing or even slaughtering their fellow survivors. These terror groups accelerate the downfall of their society that is already weakened by the nuclear explosions. As these dystopias show, nuclear war sets free the evil energy in humans that until then has been kept at bay by the rules of civilization. Once these rules dissolve in the midst of a war, human terror breaks free fast.

Surprisingly, even former German terrorists have been interested in nuclear fiction. Gudrun Ensslin, one of the founding members of the Germany's most dangerous and most notorious terror organization, *Rote Armee Fraktion* (RAF), edited a volume of German nuclear fiction in the early 1960s (*Gegen den Tod. Stimmen deutscher Schriftsteller gegen die Atombombe*) and showed an interest in the nuclear apocalypse immediately before she turned towards left-wing extremism. The volume contains a wide array of complete texts and excerpts, often short poems, brief narratives, and essays all dealing with the nuclear age. Ensslin was a vehement opponent of nuclear power and warfare and sought to pronounce a warning with this volume that she co-edited with her husband. Ensslin believed that nuclear fiction would not be sufficient in changing society.

She then became an active terrorist who participated in several lethal bomb attacks against leaders of the German society. The case of Gudrun Ensslin is an early and striking example for the connections between nuclear fiction and terrorism. It is pure irony, though, that a woman, who realized the evil potential of the nuclear age and its expression in literature, turned evil herself when she co-founded a terrorist group, engaging in violence that outright defied the fight against evil that Ensslin sought to stimulate in her book.

In fleshing out the links between the nuclear age, terrorism, violence, and apocalyptic fantasies, nuclear fiction from the 1950s to the 1980s is obsessed with the concept of evil. The notion of evil in the atomic age is a product of the development of nuclear weapons. It did not exist before the advent of the atomic bomb. In fact, the first literary text that can be considered nuclear fiction and was mainly written in German was a parody of Johann Wolfgang von Goethe's *Faust* drama that a group of 35 leading nuclear physicists drew up at the end of their annual meeting at Niels Bohr's *Institute for teoretisk Fysik* in Copenhagen in 1932. The so-called *Blegdamsvey Faust* was not only a creative literary stunt of scientists who sought to distract and entertain themselves during their research, it also reflected the problems, disputes, and insecurities in researching atomic substructures, knowledge that would lead to the construction of the atomic bomb 13 years later. The scientists discussed such spell-binding events as the recent discovery/postulation of the neutron and subsequently rewrote and staged Johann

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<sup>&</sup>lt;sup>46</sup> Named after the location where the conference took place, a building on Blegdamsvey which today hosts the Niels Bohr Institute.

<sup>&</sup>lt;sup>47</sup> Namely the discovery of the neutron. The neutron was the necessary particle that enabled nuclear fission, a prerequisite for the atomic bomb. Heinrich Koch in "Chaplin und die Atomphysik" points out how both, atomic physics and the arts during the 1920s and early 1930s were at the vanguard of shaping a new world view (63). Even though the atomic physicists who wrote the *Blegdamsvey Faust* were not professional artists, their urge to express their avant-garde research with artistic means shows how literature served as a tool for imagining a new world view.

Wolfgang von Goethe's *Faust* play in which they incorportated their scientific findings. The play, written in German, English and French and adorned with drawings, is a curious amalgamation of science and literature. While the *Blegdamsvey Faust* naively shows that the scientists in 1932 did not suspect any evil coming out of their research, it also marks an unquestioned belief in the beauty of science. 48 Mephisto's promise to Faust – "Drum will ich Ihnen Neues offerieren, / Sie werden sicherlich damit die Welt sanieren" (322) – can hardly be understood as an anticipation of nuclear disaster but rather expresses the sincere hope that something worthwhile might emerge from nuclear research. The descriptions of atomic experiments appear innocent and poetic: "Die Protonen knarren rasselnd, / Elektronen rollen prasselnd, / Sausend fährt heraus das Licht" (328). The early form of the nuclear flash on a small scale – "Blitzlicht", "du Blendendes" (334) – is an exciting novelty. Faust's exclamation – "Nun ist die Luft von solchem Spuk so voll, / Daß niemand weiß, wie er ihn meiden soll" (332) – describes the scientists' obsessive curiosity that does not allow them to lay to rest so novel a research topic. In the end, the Blegdamsvey Faust nurtures a sincere hope for the advancement of human life through science, the "Apotheose des wahren Neutrons": "Wer experimentierend sich bemüht, / Den können wir erlösen" (335).

Eleven years later, caught in the throes of the Second World War, Gottfried Benn was still fascinated by the boundless microcosm that physics was able to uncover, yet all of a sudden a notion of being unsettled by the findings of science is present in a piece of

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<sup>&</sup>lt;sup>48</sup> As a precursor to this, Oswald Spengler in *Decline of the West*, keenly interested in the development of the sciences himself, conjures up the "truly Faustian power of inner vision" (1385) that foreshadows the advent of nuclear science. In many pieces of nuclear fiction, the Faust figure reappears in a similarly prophetic context as the fallen sinner who, instead of leaving the Paradise, tries to recreate his own version of it. This striving for independence from nature through knowledge and insight is quite innocent and playful in the 1932 *Blegdamsvej Faust* but turns quickly into hubristic megalomania in nuclear fiction.

literary writing: "In der modernen Strahlenforschung ist ein Gedanke aufgetaucht, der die Sonne verdunkelt. Die Mikroskope verlassen schon das sichtbare Licht, sie machen sich frei von dessen begrenzter Wellenlänge und arbeiten mit tausendmal kleineren des künstlich erzeugten Elektronenstrahls" (*Physik 1943* 354). On a metaphorical level, Benn sees the departure of the natural light of Enlightenment (the Sun) and humanity's embarking on an artifical man-made understanding of nature. Benn seems to have early misgivings about the new sights on the atomic and subatomic level although he remains enthralled by the mysteries of the newly discovered microcosm of atomic physics.

Almost a half century later, Alexander Kluge's 1986 treatise *Die Wächter des Sarkophags* resuscitates this old notion of scientific beauty, now in the face of the evil power of the nuclear age that has long since become evident. In the wake of the Chernobyl accident, scientists are fascinated by a random structure that formed when molten matter trickled below the reactor vessel. The so-called "Elefantenfuß" inspires a curiosity in the scientists, reminiscent of the naïve and unadulterated joy that the authors of the *Blegdamsvey Faust* shared:

Ein Teil des flüssigen radioaktiven Materials, zu einem heißen Brei vereint, floß im Keller zu einer Struktur zusammen, die den Beobachtern dem Fuß eines großen Tieres ähnlich schien. Sie nannten diese besonders intensive strahlende Erscheinung den *Elefantenfuß*. (11-12)

Einige Wissenschaftler sind begeistert. Sie sehen neue Farben, ungeahnte Strukturen, eine Natur, wie man sie sonst nirgends antrifft. Es ist die Krönung ihres Lebens. Sie riskieren die Aufnahme einer tödlichen Dosis, aber sie können nicht aufhören zu forschen. (12)

More than fifty years later, at the end of the last big wave of nuclear fiction, this naïve belief in science has been shattered. In "Ultimo oder das Gerede von der Endzeit," Hardy Ruoss shows how the "aufgeklärte Wissenschaftsgläubigkeit" (862) in German

apocalyptic fiction is portrayed as a catalyst for the impending catastrophe rather than a retardant. The insouciant humor of the *Faust* parody has now mostly been replaced with vitriolic cynicism. In Kluge's account, the thrall that the scientists feel can only survive for a short time because moral questions are rigorously excluded from their observations. It might be that the ultimate loss of the immaculate beauty of science – "Faust ist tot" as Günther Anders summarizes it (*Antiquiertheit* 239) or, as Christa Wolf muses, "[e]in Faust, der nicht Wissen, sondern Ruhm gewinnen will" (*Störfall* 71) – and its subsequent metamorphosis into an ugly beast is thus the greatest of all evils. Hardy Ruoss describes this transformation as "das Dilemma der Schönheit des Schreckens" (862), a moral conflict with aesthetic implications. From a sociological point of view, Ulrich Beck claims that the role of science as a former tool of Enlightenment has led to an "immunity of science" (*Risk Society* 169), a state that is no longer tenable today and needs to be revoked.<sup>49</sup>

The fear of the evil nuclear age, however, has lived on past the 1980s and the Cold War as Kathrin Röggla shows. In her 2006 treatise *disaster, awareness, fair*, she acknowledges that the nuclear catastrophe is central to herself and her generation: "weil ich mit dem phantasma der atomkatastrophe aufgewachsen bin und mit in diesem genre quasi zuhause fühle" (7). The term "phantasma" – phantasm – refers to her dissatisfaction with how the catastrophe is expected and portrayed. No longer will the traditional literary voice prevail, she argues mysteriously, but we have to find a new depiction of the evil – something that Klaus R. Scherpe had already aptly called "a shift in the grammar of the end of the world" (97). Lutz Seiler's 2006 narrative *Turksib* that takes place in the polluted wastelands of nuclear experiments in the former Soviet Union, also claims that

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<sup>&</sup>lt;sup>49</sup> Also cf. the chapter "Science Beyond Truth and Enlightenment" (Beck 155-182).

the evil of the nuclear age has not been laid to rest after the end of the Cold War. The evil of this barren world is beyond the control of those who traverse these realms. While the actions of Cold War doings are in the past, the evil consequences live on in Seiler's account.<sup>50</sup>

Immanuel Kant maintained that our power over the consequences of our actions is very limited. What lies in our hands is good intention only (cf. Neiman 74). Whatever evil results from our actions is not our fault if we have behaved properly. This claim, as well-argued and harmonious as it sounds, does not and cannot satisfy the reader of nuclear fiction anymore. Whatever the authors of nuclear fiction do with the world, whether they preserve it at the eleventh hour or set it ablaze, whether they fill their works with the fiery cascades of a nuclear holocaust that burns mankind and its entire culture to a frazzle or they show the painful sufferings of individuals who face the behemoth of their own inventions, merely acting bona fide will not avert the nuclear evil. In Gerhard Zwerenz's *Der Bunker*, the German chancellor stops reading Kant and clandestinely starts reading Nietzsche when he realizes that a full-blown and unstoppable nuclear world war is afoot. The novel transforms the figure of the chancellor, the formerly powerful man, into an enfeebled creature whose mind is balking at the evil that overwhelms him.

The idea of evil has gained an unprecedented complexity during the nuclear age that ridicules the employment of good intentions and reason. If we agree to call the

<sup>&</sup>lt;sup>50</sup> In the essay "Wendover Airfield. Atombombenabwurftraining in Utah und Nevada" from her collection *Morgen nach Utopia*, Tanja Dückers discusses the moral consequences of the patriotic stance the Americans have taken up in the aftermath of the atomic bombings of Japan. Wendover Airfield was the place where Little Boy and Fat Man were put into the cargoholds of the airplanes that dropped them over Japan. In a mixture of personal travelogue and historical reflection, Dückers sharply criticizes that the morally uncritical attitude still persists: the Enola Gay, one of the atomic bombers, now in a museum in Washington D.C., still serves as a "Symbol amerikanischer Wehrhaftigkeit" (172-3) and "Die Überzeugung, Nationalhelden hervorgebracht zu haben, wird in Wendover nicht in Frage gestellt" (174). Dücker's essay albeit not a narrative of nuclear fiction, corresponds to Lutz Seiler's account as it seeks to revisit the locales of the Cold War from a traveler's perspective.

nuclear threat the ultimate evil, in the teeth of our own lethal potential we will have no choice but to continue looking for new answers.

In 1958, Hans Henny Jahnn already expressed this need for new ideas by calling for a "neue Elite" of authors who would mobilize society with their thought ("Nein – und nochmals nein" 486, 487). Jahnn also demanded that within the discussion of good and evil, the authors need to take up a moral stance: "Die Aufgabe des Schriftstellers ist es noch immer, Barmherzigkeit, Mitleid und Menschlichkeit zu vertreten und nicht einen politischen Sadismus zu unterstützen" ("Thesen gegen Atomrüstung" 490). Nuclear fiction can be a useful tool to better understand the question of good and evil as it opens up our understanding of the nuclear age for new perspectives and new modes of thinking.

## II.

# The Grim Face of the Apocalypse –

## The Oxymoron of the Old and the New

### The Clash of Traditional and Modern Apocalyptic Concepts in Nuclear Fiction

"The thing he draws that cannot be drawn!" (Erasmus of Rotterdam on Albrecht Dürer) (van der Meer, *Apocalypse* 288)

Known as the *Book of Revelation*, the final book of the Christian Bible has probably had more influence on history and human behavior generally than any other single piece of writing. (Simon Pearson, *A Brief History of the End of the World*, 19)

After Albrecht Dürer had published his 15 woodcuts on the biblical Apocalypse in 1498, his work garnered immense fame in the decades thereafter. His friend Erasmus of Rotterdam was fascinated by the way Dürer could make things visible that he himself thought could not be captured in art (or in writing): "fire, rays, thunder, lightning, lights, walls of clouds, even the affection of a man's soul, and nearly his voice" (van der Meer, *Apocalypse* 288). As we can learn from Dürer's case, depicting the apocalypse has always entailed overcoming the difficulty of visualizing something that resists imagination, therefore posing numerous artistic problems: "The text of the Apocalypse defies visualization" (31). Seen from this angle, nuclear fiction has faced the same problems when attempting to depict the nuclear apocalypse.

As David Dowling in *Fictions of Nuclear Disaster* argues, from the very beginning nuclear fiction has appropriated religious imagery in order to depict the unimaginable: "The language of the Biblical apocalypse has been transferred effortlessly and wholesale to the description of late twentieth century angst and, in particular, the

secular menace of nuclear destruction" (115). Today's perception of what people perceive as apocalyptic has, of course, truly changed. Whereas the apocalyptic riders, the Scarlet Woman, and the Great Beast infused utter fear into the minds of Dürer's contemporaries, people of the twentieth and twenty-first century will probably name other things, one of which, standing out in its gravity and severity, is the fear of a nuclear apocalypse that has resurfaced in the wake of 9/11 and the current discussion on global terrorism.

Erasmus's description of Dürer's art raises questions that also pertain to nuclear fiction: How can one convey the fire, thunder, lightning, the blinding atomic flashes and gigantic plumes of smoke and radioactive fallout that threaten humanity in reality and in fiction? How can one convey a sense of the last days of humanity and the attritional war-like circumstances that bring about man's downfall? Would not any attempt at describing a final nuclear war in fiction slide into the ditch of sci-fi kitsch and unrealistic pulp? While the traditional apocalypse has led to revered artistic representations, Peter Schwenger is skeptical whether representations of the nuclear apocalypse will emerge. Schwenger argues that our human psyche does not permit these images to actually pass through us to the full extent of their reality:

If we can overcome this reluctance to think about the subject, being willing does not mean that we are able: nuclear war is unthinkable in one sense because none of the images that characterize our previous experiences is adequate to this one. What images we can come up with are so painful, so unacceptable, that they, or the emotions associated with them, are blocked; and this, properly speaking, is the numbing phemonenon. ("Writing the Unthinkable" 35)

American popular culture, especially of the 1950s and 1960s, is flush with such apocalyptic narratives and films. Susan Sontag, who was especially interested in

apocalyptic cinema, once wrote in *The Imagination of Disaster* that such films carry the "deepest anxieties about contemporary existence" (220) but also that they often fail miserably as works of art. Sontag also cast reasonable doubt on whether the written word would be strong enough to convey the same cataclysmic drama that the visual medium of film could, according to her, portray much more easily. And even with the support of visuals, Sontag argued, such films were, despite their best efforts, "the emblem of an inadequate response" (224). Hal H. Rennert in his article "The Threat of the Invisible" bears out Sontag's claim by arguing that language remains insufficient "to express the vast dimensions of sudden destruction threatened by nuclear explosion or the more sinister and slower process of nuclear contamination" (91). Daniel Wojcik argues that the nuclear apocalypse in fictional accounts is now a hybrid in which the new disenchanted apocalypse competes with the traditional religious apocalypse (297).

In order to understand how hard it is for authors of nuclear fiction to imagine the apocalypse adequately, one needs to take a look at how inadequate many often-quoted descriptions by well-known public figures remained. In his various philosophical essays and letters, Albert Einstein expresses himself rather formally when discussing the nuclear apocalypse: "the greatest disaster in the history of modern civilization" (459), "universal annihilation" (466), "universal destruction" (619), or "the threatening doom" (622) are examples of how Einstein was unable to evoke notable imagery. In his memoir *My Life*, German physicist Otto Hahn applied the same commonsensical language when he expressed the desperation he felt about Hiroshima: "I was shocked and depressed beyond measure. The thought of the unspeakable misery of countless innocent women and children was something I could scarcely bear" (170). Hahn's rather traditional and

unimaginative way of describing the horror of nuclear war excludes men from the list of casualties as if he almost expected them to die as soldiers in a war that aside from its magnitude does not differ much from other wars. Hermann Hesse who passionately devoted his literary genius to pacifism, fell short of expressing the fears of the nuclear age other than with commonphrases such as the "teuflischen neuen Waffen" and the portrayal of fear of war as an illness: "Kriegsangst, eine mächtige und ansteckende Gemütskrankheit" (*Politische Schriften* 781).

While one cannot blame Einstein, Hahn, and Hesse (and with them many others) for not being able to express in more detail the throes of the nuclear age, one also cannot but acknowledge the inadequacies of their language. Sontag's claim of an "inadequate response" (224) can thus be found on many different levels. On a general cultural level, Frances Carey in *The Apocalypse and the Shape of Things to Come* describes the fears and anxieties during the Cold War as "dull" and "static" as opposed to the colorful biblical tribulations (25).<sup>51</sup>

Susan Sontag's allegations about portraying the nuclear age transcend the realm of her narrowed-down discussion of science fiction films. Science fiction, though, is the linchpin that marks the decisive difference between American and German nuclear narratives. While it is the purview of most American writings, there is surprisingly little evidence of the science fiction genre in German nuclear fiction. In his 1984 monograph *The Empire Strikes Out*, William B. Fischer explains this lack of science fiction thus:

... one easily comes to wonder why Germany, a major force in both literature and science during the last two centuries, did not produce a body of S[cience] F[iction] more impressive in quantity and quality and more cohesive as a literary tradition. [...] I think that the development of

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<sup>&</sup>lt;sup>51</sup> Carey then argues that the Cold War ended with scenes that could be regarded as "benignly apocalyptic" and raises the question whether the destruction of the Berlin Wall represents a peaceful Armageddon (25).

German SF was also greatly hindered by the weak and belated incorportation of science and technology into German literature generally. (302)

I argue, though, that Fischer's claim is not correct. There is evidence of a strong incorporation of science and technology in literature, especially in the 1920s, <sup>52</sup> and then later in nuclear fiction. German literature, however, lacks the innocent playfulness of American science fiction. Susan Sontag maintained that the excessive use of playful sci-fi elements would diminish the efficacy and tragedy of American films on nuclear scenarios, and she is undoubtedly right. However, since most German accounts avoid these elements and focus rather on a more culturally inspired and less "technical" apocalypse, I argue that Sontag's complaints about nuclear narratives fall short of what German nuclear fiction has to offer.

In the foreword of *Utopie, Anti-Utopie und Science Fiction*, Hans Esselborn describes many texts of German nuclear fiction as "schwarze Utopien" (8), a term that acknowledges the frequent portrayal of technocratic elements but that also shows that there is little evidence of the technical playfulness of traditional science fiction. Rather, whenever elements of science fiction crop up in German nuclear fiction, they serve broader philosophical concepts of a future world. Gertrud Lehnert has summarized this

<sup>&</sup>lt;sup>52</sup> Visions of science are present e.g. in Alfred Döblin's *Berge, Meere und Giganten*, in Friedrich Wilhelm Murnau's *Nosferatu*, Walter Ruttmann's *Berlin: Die Sinfonie der Großstadt*, or Fritz Lang's *Metropolis*. The Weimar Republic's obsession with the advent of technology is well established. While many technology-centered accounts of this era are filmic, there was also a whole array of literature (especially in the second-tier category) that surrounded and accompanied the burgeoning medium film. In his 1991 book *Fantasy and Politics: Visions of the Future in the Weimar Republic*, Peter S. Fisher characterizes science-fiction texts form the Weimar Republic as deeply embedded in their cultural setting – a complexity of themes that eclipsed mere technical playfulness: "The published fantasies – often a quirky mixture of adventure story, fairy tale, millenarian vision, and political program – was intended as a catalyst inflaming the same type of emotions among the readers that originally elicited the fantasies in the minds of their creators" (6). One could argue that nuclear fiction after 1945 is the heir to the futuristic literature from the Weimar era minus the political impetus.

central idea that is germane to many German texts: "Science fiction als das Durchspielen des Denkbaren – sei es in der Extrapolation realer Gefahren und Möglichkeiten, sei es im Entwurf des 'ganz anderen'" (312). This broader concept clearly shines through in the terms "schwarze Utopien" and "Entwürfe."

I claim that German nuclear fiction not only draws on the tradition of apocalyptic imagery and utilizes it, but that its main goal of describing the indescribable is the very same goal that historical depictions of the apocalypse (such as Dürer's) had. I then set out to show that nuclear fiction vacillates between tradition and modernity. It cannot repeat or emulate the same solutions of the problem of depiction that the tradition has found. Instead, it has to rephrase its answers by incorporation of the tremendous scientific advances that have changed the face of the apocalypse and have led to the possibility of a nuclear holocaust. Nuclear fiction is therefore challenged to bridge the gap between the heavy burden of tradition and the mind-boggling prospect of the possibilities of modern science.

In the early 1960s, Sontag had already captured the predicament in which the people of the nuclear age would find themselves ensnared: "Ours is indeed an age of extremity. For we live under continual threat of two equally forceful, but seemingly opposed, destinies: unremitting banality and inconceivable terror" (224). What Sontag meant was the indifference of the disenchanted and technically saturated modern human who would not recognize the severity of a possible nuclear apocalypse precisely because he or she was unable to envision it fully, a point that German thinkers such as Günther Anders had also expressed at the same time.<sup>53</sup> In 1988, Hardy Ruoss expressed concerns similar to Sontag's: "Im Spannungsfeld zwischen Hoffnung und Angst, zwischen

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<sup>&</sup>lt;sup>53</sup> Anders referred to this as the "Apokalypse-Blindheit" (*Antiquiertheit* 233-324).

grundsätzlich aufklärerischer Haltung der Moderne und fröhlichem Nihilismus der Postmoderne entsteht heute Literatur" (863). German nuclear fiction is completely aware of this dilemma and it has successfully developed and expressed a new sense of the modern apocalypse that supplants more traditional apocalyptic notions and opens up the curtain for a completely new discussion of the nuclear apocalypse in the twenty-first century.

## The Great Showdown – Literature's Worst Case Scenario

Auf belebte Seehäfen und blühende Millionenstädte an den Küsten der Weltmeere fielen fast lautlos übergrelle Riesenblitze vom Himmel herab. [...] Ein seltsam verhaltenes, unterirdisches Grollen lief unter ihren Füßen, und schon brachen die Häuser krachend auseinander und begruben alles. Die Erde barst, und Tausende fielen in ihre breiten, tiefen Rinnen. [...] Das unterirdische Grollen brach plötzlich in ein peitschendes Krachen, und wie ein Fanal des kommenden Weltuntergangs warf eine riesige Feuerwolke Stadt und Land und Meer weitum ins hohe Nichts des Himmels und regnete als sengender Staub wieder hernieder. (*Erben* 13-4)

The beginning of Oskar Maria Graf's novel *Die Erben des Untergangs* contains probably one of the most suspenseful and dramatic opening of any German post-war novel. Oddly, what follows thereafter on the 400 some remaining pages is probably one of the most uneventful and contrived post-nuclear war narratives ever and provided for retiring the novel to the pool of second-tier literature very early. However, those first highly theatrical pages (13-21) that Graf entitled "Das apokalyptische Vorspiel" are most capable of showing how writers of nuclear fiction transformed and transposed the traditional apocalypse into a token of twentieth century catastrophism. Graf's depiction of nuclear war is impressive because it narrates the downfall from a high vantage point that

opens up the view on the entire planet and its atmosphere. The vista that the reader garners from these first pages is a cosmic perspective that shifts away from the microcosm of life on earth and that delivers a global picture of the war in broad and forceful strokes done with the narrative paintbrush of a narrator who hovers in outer space and looks down on earth.

Graf's tone of narrative is clearly inspired by the biblical apocalypse and its allencompassing drama that devours the world.<sup>54</sup> Yet at the same time, it also taps into a
mode of scientific precision as if the author were describing an experiment with
demanding exactitude. On the contrary, such exactitude is unbeknownst to the biblical
apocalypse. The logic of sequencing the catastrophe is not part of what the Book of
Revelation offers. Rather, if one compares Graf's apocalypse to the journalistic account
of John Hersey's widely known feature on Hiroshima, it becomes clear how much Graf
drew on concrete observation rather than just speculation:

There was no sound of planes. The morning was still; the place was cool and pleasant. Then a tremendous flash of light cut across the sky. Mr. Tanimoto has a distinct recollection that it traveled from east to west, from the city towards the hills. It seemed a sheet of sun. [...] He felt a sudden pressure, and then splinters and pieces of board and tile fell on him. He heard no roar. [...] ... soldiers were coming out of the hole, where they should have been safe, and blood was running from their heads, chests, and backs. They were silent and dazed. Under what seemed to be a local dust cloud, the day grew darker and darker. (684-5)

And yet, Graf's novel does not deliver just another rendition of an eyewitness's story that the author reiterates in the witness's stead nor is it a piece of journalism embedded in a fictional work. There is a stylistic grandeur of biblical proportions to

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<sup>&</sup>lt;sup>54</sup> Cf. Denis Bousch's analysis of the novel: "Die Verarbeitung biblischer Weltuntergangsbilder durchzieht den gesamten Roman. Außer Sodom und Gomorrrha finden wir vor allem eine atomare Variante der zehn Plagen Ägyptens" (97).

Graf's writing that makes the reader wonder to what extent apocalyptic imagery has influenced the novel and shaped the face of the atomic catastrophe in literature. Similar to Graf's spectacle of grandest proportion, Josef Schilliger's *Der Heilige der Atombombe*, evokes notion of both, the biblical and scientific apocalypse:

Ein blendender Blitz leuchtet auf, spaltet das Firmament entzwei und fällt blauviolett auf Urakami hinunter. Ein glühender Sturm fegt über die Dächer der Stadt hinweg, fünf- bis zehnmal stärker als ein Orkan. Dann stürzt ein eisiger Frostwind nach mit der Gewalt von weit über 1000 Kilometer in der Stunde. Eine Feuersglut von rund 6000 Grad, so heiß wie die Oberfläche der Sonne, lodert herab. Asche und Papierfetzen wirbeln durch die Luft. Abendliches Dunkel bricht mittags um 12 Uhr herein. Die Plutonbombe [sic!] ist 450 Meter über der Vor- und Industriestadt Urakami geborsten und wie ein vorzeitiges Weltgericht hereingebrochen. 45 Sekunden sind verstrichen, eine erste Explosionswelle und vier weitere Beben der Erde verklungen. Da speit die Erde eine riesenhafte Feuerkugel aus [...] Jetzt bricht aus der Säulenspitze ein Riesenpilz heraus [...] Von dieser Höhe herab zischt auf die Stadt Nagasaki in tausend Funken ein teuflisches Feuerwerk. Es siedet und brodelt in allen Regenbogenfarben [....] Die Halbinsel von Nagasaki stellt eine gespenstisch-prächtige Szenerie für den Jüngsten Tag dar. (61-2)

Seen through the refractive lens of structural analysis, the biblical apocalypse is a loose and random interlacing of different strands of destruction: the seven seals, the four riders, the Great Whore as well as the Beast, of course, provide clear narrative markers for the destruction to come, but the very process of the world tumbling down into mayhem and bedlam is unstructured and full of surprises, randomly so. Graf and Schilliger, however, structure their accounts of the end of the world according to scientific findings which determine its sequences: first, multiple nuclear flashes strike, notably without any forewarning breaking apart the firmament; then the earth is shaken by a portentous undercurrent of rumble that pervades the planet and spreads across its surface, causing rifts, furrows, and craters; finally the slower speed of sound, lagging

behind so far, catches up with the material destruction and reaches its ear-splitting maximum followed by a gigantic outburst of flames. After all this has happened, the remnants of the catastrophe, piles of dust, slowly descend on the earth. When Graf's narrative cools down together with the abating shock wave of nuclear explosion, he informs us of the onset of nuclear winter which marks the beginning for the lengthy story of nuclear afterlife. <sup>55</sup> In sum, these passages contain ancient apocalyptic drama thoroughly coupled with scientific evidence. Scientists as well as theologians alike, I argue, are able to isolate and identify knowledge from their disciplines in these apocalyptic scenarios.

The biblical apocalypse unfolds in a relatively slow mode while Graf's and Schilliger's atomic spectacles do not allow for much narrative elaborations between the flash and the ensuing thunderous aftershock. Without further ado, the world plunges into a global nuclear war right from page one. It is as if Graf and Schilliger could not hold their apocalyptic horses very long. In Graf's text, the rapid succession of the prelude's (Vorspiel) destructive powers correlates with the early appearance in the novel. One can truly feel the urgency of the topic that drove the author to almost squander it so early in the book. It is the very outrage about the nuclear age that is very fresh in Graf's novel which appeared in 1949 for the first time (in an earlier version entitled Die Eroberung der Welt), still only four years after the atomic bombings of Japan. Graf's novel is infused with a yearning for the realistic portrayal of a new apocalypse while

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<sup>&</sup>lt;sup>55</sup> The depiction of nuclear winter in fiction never receives the same attention as the hot phase of the explosion. In his essay "The Continuing Threat of Nuclear War," Joseph Cirincione speculates on the Janus-headed character of the nuclear apocalypse: "The American poet Robert Frost famously mused on whether the world will end in fire or in ice. Nuclear weapons can deliver both. The fire is obvious: modern hydrogen bombs duplicate on the surface of the earth the enormous thermonuclear energies of the Sun. with catastrophic consequences. But it might be a nuclear cold that kills the planet" (381).

acknowledging the existence of a previous tradition of apocalyptic imagery. Graf's text reads like a literary anticipation of what Karl Jaspers claimed about eight years after the first edition of the novel. In *Die Atombombe und die Zukunft des Menschen*, Jaspers offered an early view of the nuclear apocalypse as an amalgamation of tradition and modernity wherein modern realism eclipses the older tradition:

The atom bomb is today the greatest of all menaces to the future of mankind. In the past there have been imaginative notions of the world's end; its imminent expectation for their generation was the ethically and religiously effective error of John the Baptist, Jesus, and the first Christians. But now we face the real possibility of such an end. The possible reality which we must henceforth reckon with – and reckon with, at the increasing pace of developments, in the near future – is no longer a fictitious end of the world. It is no world's end at all, but the extinction of life on the surface of the planet. (4)

Both Graf and Jasper painfully acknowledge the simultaneous presence of myth and realism. *Die Erben des Untergangs* also runs counter to Klaus Vondung's claim that the end of World War II was marked by the hope for an end of apocalyptic perdition (338). As much as the Germans yearned for peace after 1945, the rapid scientific advances of the nuclear age thwarted such hopes quickly and made way for works of nuclear fiction to express concerns about a new nuclear apocalypse that would follow the attritional Second World War seamlessly. The apocalyptic interpretation of the bleak post-war experience thwarts a fresh start: "The apocalypse begins with destruction. The sense that the world is approaching destruction – indeed, that it *must* perish, since it is experienced as wrong and distorted – is the cause of apocalyptic interpretations of experience" (277).

Whereas the biblical apocalypse consists of clear historical segments that distinguish between three ages (the pre-apocalyptic time where man becomes a sinner,

the time of the apocalypse where the world is purged from sin, and finally the postapocalyptic era which is governed by the sanctified 1000 year reign of Christ), authors of nuclear fiction came to express the new endlessness of the nuclear catastrophe. The nuclear apocalypse defies a clear periodization in human terms. As the half-life of nuclear elements ranges from tens of thousands of years up to several millions of years, nuclear fiction questions the definition of biblical eternity. The time spans that one encounters in the Book of Revelation are comparably short and easily eclipsed by the scientific concepts of time in twentieth century physics. The idea of time undergoes a reevaluation: While the biblical time frame with its millennial epochs must have appeared as daunting to believers, the advent of the study of radioactivity introduced a completely new understanding of time that operates in regions far beyond our imagination. It is not so much the idea that the speed or length of time is a relative rather than an invariable concept (as introduced by Einstein in his theories on relativity) that influenced the authors of nuclear fiction but the idea of stretches of time (as seen, for instance, in the half-life of certain materials) unimaginable for the human perception. The concept of eternity has now become an even vaguer and less tangible term and turned out to be an important factor in the reinterpretation of the apocalypse in the nuclear age.

It is this new understanding of time that comes to light in Friedrich Dürrenmatt's *Der Winterkrieg in Tibet*, where soldiers are involved in an internecine nuclear war that seems to be illimitable and that carries on for eons to come: "Vor zwanzig, dreißig Jahren – wer zählte noch die Zeit ..." (96). Dürrenmatt shows that one of the major aggravating moments of the modern apocalypse is the loss of control that humans have over the war's length. While the Thirty Years' War must have lasted for a gargantuan stretch of time for

those who suffered through it, it pales in comparison with the effects of nuclear war, essentially capable of making the world uninhabitable for centuries and even millennia. Dürrenmatt's depiction of nuclear war leads to a labyrinthine world in which inimical countries launch nuclear weapons at each other and thus kill a great part of the population while the hard core of the military flees into an underground web of interconnected mountain caves to escape radioactive contamination. There they carry on the war in an absurd labyrinth of time and space. Furthermore, the soldiers lose the ability to keep track of time. For them, life is now one long period of eternal fighting until they die in combat or through exhaustion.

The nuclear age, as Dürrenmatt's narrative argues, touches on the concepts of our planetary system and even the universe. Through the power of nuclear weapons humanity has been introduced to a new concept of time and space that stretches far beyond the reaches of the biblical definition of our world. Humanity now has to wrestle with the thought that this subterraneous war might last until the solar system collapses due to the sun burning out — a period of many billion years: "... der Kernprozeß im Sonneninneren dringt in die Konvektionszone vor, die Sonnenoberfläche wird heißer: kaum ist auf der Erde noch zu leben. Die Sonne bläht sich auf, bis sie wieder die Merkur-Bahn erreicht: das Leben auf der Erde erlischt, die Atmosphäre, die Meere verdampfen." (115-6). While Graf delivers a rather visual take on nuclear war in *Die Erben des Untergangs*, Dürrenmatt's war narrative introduces the great variables of modern physics, time and space, and therefore shows that the modern apocalypse hinges less on mythological thinking as presented in the Bible but, more so, on the stunning concepts of modern

science. Moreover, Dürrenmatt's pronounced interest in theoretical physics is sufficient for Gunter E. Grimm to ask if the author is the "... Einstein der Apokalypse" (319).

Dürrenmatt's text perfectly embodies a concept of nuclear fiction that Hans
Henny Jahnn had demanded in 1957: "Ist der Dichter von heute nicht berufen, das neue
Weltbild, das die Mathematiker und Physiker entwickelten, in den Konsequenzen
vorauszuschmecken, zu sehen, zu erfahren und, mit welchen Mitteln auch immer,
darzustellen?" ("Vortrag Ebert Gesellschaft. Gegen das epigonale Denken und
Empfinden" 478). While depicting the undepictable of the nuclear catastrophe is the
general challenge of nuclear fiction, Jahnn and Dürrenmatt more specifically also pursue
the role of the sciences in greater detail: the literary author becomes an amplifier and
mediator for different voices in science and society that he or she has to carefully bring
together instead of losing them in the catastrophic turmoil. Both authors want to include
specific knowledge from science and technology in their works.

Inspired by the same penchant for technology and the rules it dictates, Kirst's *Keiner kommt davon* (1957) uses the story of the biblical creation and transforms it into a backdrop for an escalating nuclear war. The world is now undone in a nerve-racking process of diplomatic failure that quickly and inevitably leads to war. As the world was created in seven days according to the Book of Genesis, Kirst starts his novel from the first day and literally moves on to the seventh day. The hegemony of nuclear technology has prevailed on Kirst's apocalypse, which is a factual and sober-minded account of the last seven days of humanity rather than a melodrama about the impending departure of mankind. The technological apocalypse is propelled by the logic of the bombs and not by

emotional musing or mythical clichés: once the bombs have been launched and are in midair, the destruction cannot be halted anymore but follows its own set of laws.

The idea of reversing time, a centuries-old dream of humanity, has been given serious thought during the development of modern physics in the first half of the twentieth century. Especially Einstein's theory of relativity lends itself to this fantasy as it regards time as a fluctuating variable that is part of the spatio-temporal nexus. Before that, Herbert George Wells had already enabled the protagonist of his 1895 novel *The* Time Machine to overcome the limitation of time. When Wells wrote the novel, this thought was a merely fictitious, though as it turned out just a few decades later, portentous literary idea that was eventually borne out by physical theories. Kirst's text, however, is already informed by the spectacular findings of nuclear and quantum physics and puts forth the idea of time reversal as the conceptual underpinning of the modern apocalypse. The time reversal also shows that humanity has assumed the role of God, the erstwhile, now deposed creator of our world. Mankind is able to undo the great scheme of creation which requires as much power and knowledge as the original process. Keiner kommt davon rejects spiritual concepts yet portrays humanity's destructive power as a very mundane force.

The apocalypse has been wrested out of the divine domain and fallen into the lap of *homo technicus*. Yet has the downfall proper become an "unremitting banality" (224), as Susan Sontag remarked? Perhaps it has, when we witness the many characters of *Keiner kommt davon* as they helplessly flounder about in the face of the imminent nuclear war. However, there is no banality in Kirst's depiction of the catastrophe's gradual succession. All factors that contribute to the escalation are logically intertwined with one

another: the world of the Cold War and its politics work like a gigantic machine geared towards self-destruction. One might find the working of such a machine banal but then one is forced to regard the deeds of an apocalyptic God as prosaic as well: neither the revengeful God of the biblical apocalypse nor the modern apocalyptic machine have mercy on the world. They both work relentlessly and progress steadily until the apocalypse has been accomplished. The less time humanity has left and the closer the world lurches towards destruction, the more Kirst revs up the apocalyptic engine: time accelerates the more the world approaches perdition. Kirst incorporates the concepts of modern physics when he shows that one hour in a human's life becomes less valuable the closer humanity comes to its self-eradication.

Keiner kommt davon and Die Erben des Untergangs are kindred souls as both novels depict the actual nuclear apocalypse on approximately twenty pages, densely compressed and highly dramatic. Oddly enough, while Graf has shot his bolt at the very beginning, Kirst's apocalypse crowns his novel at the very end. In either case, this brevity is surprising and disappointing at the same time as the reader works through these lengthy some 400 page novels, either instantly gratified (Graf) or expecting the delayed apocalyptic suspense (Kirst). The apocalypse does not fare well in narratological slow motion but requires relentless speed to keep up with its terror. In this regard, there is no difference between the biblical and the nuclear apocalypse. Both not only harness brevity, they survive on the dramatic density it provides.

The speed of the apocalypse has increased in modern times, and the authors of nuclear fiction try to keep up with this speed. While the destructive power of the biblical apocalypse happens in neatly divided stages, nuclear fiction has to adapt to the idea of

destruction as the outcome of an explosion that lasts a fraction of a millisecond but causes unparalleled damage, an idea that is beyond human comprehension and that defies visualization. Therefore, apocalyptic narratives have to develop a new sense of describing the indescribable.

Oskar Wessel's audio drama *Hiroshima* recounts the story of the lonely industrialist Tagota who is – literally out of the blue – eradicated by the atomic bomb dropped on Hiroshima. The piece tries to capture this new brevity of the nuclear apocalypse and offers a literary paraphrase of the fractional amount of time that it takes the atomic chain reaction to come to full fruition: "Wie bei uns der Fuchs aus dem Reisfeld springt und die Bauern erschreckt, so war sie [the atomic bomb] da, mit einem Mal, und erschlug die Stadt Hiroshima" (221). Wessel's metaphor for the atomic ambush remains nonetheless unsatisfactory whilst struggling with the fox as a rather pitiful symbol for the atomic bomb, incommensurate to the bomb's magnitude. Wessel's main concern is, however, that the new surprise apocalypse falls out of the sky, an event that is, similar to the traditional Christian apocalypse, announced by a prophetic harbinger of the danger. Ozuma, the fisherman-cum-seer in the play, takes on this role to wrest his brother Tagota out of his indolence and presents him with a poetic-mythical rendition of the impending atomic explosion:

... winzige Kugeln fangen an zu rollen, und es rollt unaufhörlich... Teilchen zum Teilchen... und macht die Kugel... und die Kugel beginnt zu rollen, Kugel an Kugel – du hältst es nicht auf... und rollt sich warm und rollt sich heiß, die Erde wird glühend, der Boden bewegt sich. Die Kugel wühlt und die Kugel wächst, Tagota, bis sie eine winzige, kleine Sonne wird. So viel Licht schon, Bruder, so viel Brand. Und steigt noch und strahlt! Halte die Augen zu, Tagota! Es quält dich und quillt, immer mehr Feuer, und dröhnt schon und donnert, eine Sonne am Himmel, eine furchtbare Sonne! Und hat kein Ende. Und zerreißt Himmel! Und schreit, mein Bruder, schreit, schreit, bis alle es hören!! (232)

Wessel then moves on and overrides the poetic rendition with an even more striking visualization that focuses on the suddenness of the nuclear apocalypse: The protagonist Tagota is literally "nailed" to the ground when the atomic flash jolts him. Similar in effect to the traces that light leaves on the coating of silver nitrate on a photographic plate, the "atomare Strahlung brannte den Schattenriss Tagotas gleichsam in den Boden" (222). The shadow of the deceased victim remains and subsequently becomes the narrator of the story. As Tagota's pulverized body has dissolved into nothingness, the shadow is the surviving proof of the nuclear explosion, capturing Tagota in the extremely short-lived moment of his death. The subsequent transformation of Tagota's shadow into an independent character of the play shows that this atomic "snapshot" is the only way of depicting the apocalypse.

As the nuclear explosion happens so fast, the human ability to observe suffices only in describing the world before and after the apocalypse, but is completely unable to provide an accurate description of the moment of destruction proper. The apostle John, presumably the narrator of the Book of Revelation, could still observe all three parts of the apocalypse: the "before," the "during," and the "after." He especially dedicates a great part of his narrative to the apocalypse itself and only mentions in passing what has happened before and after. There is no such external narrator in Wessel's play anymore. Rather, Wessel reconstructs the narrative perspective from a photographic remnant of the protagonist. And even this remnant, the shadow, is just that: an incomplete remainder of a former human being, colorless and black, one-dimensional and by no means a true-to-life representation of the deceased. Ironically, the remainder serves as a reminder that even this quasi-photographic capture of the apocalyptic moment is too weak to fully visualize

the catastrophe. Thus, the nuclear bomb in *Hiroshima* symbolically contravenes the law of common sense: whereas death in olden times meant the departure of both, body and shadow, the nuclear Blitz boggles even death as it leaves the shadow alive and pulverizes only the body.

Günther Weisenborn's short story "Tag X" challenges common sense by imbuing the nuclear catastrophe with an air of irreality. A man sitting in a café sees the world in front of him suddenly tumble into a war. Like in surrealistic fantasy, the world literally melts into oblivion, fizzles out, evaporates, and bursts: "Weltseufzer, [...] millionenfach platzten die Lungen." Weisenborn then alludes to the Garden of Eden as he compares the world with a garden filled with smoky mushroom clouds and the humans as "ausgezeichnete Gärtner" who "die reiche Ernte vorbereitet hatten" (80). Wessel's shadow metaphor and Weisenborn's surreal reality warp aptly show that the modern apocalypse ultimately remains evasive and beyond human understanding and that traditional apocalyptic concepts in the twentieth century can merely serve as crutches in achieving a vague visual approximation.

So far we have looked at works of fiction that more or less depict the nuclear apocalypse explicitly as what it is as a physical event: the explosion of numerous atomic bombs and the destruction that it causes. Another strand of nuclear fiction has produced a quite different depiction of the catastrophe and has harnessed another biblical image, the Old Testament's Deluge. At first glance, the Deluge seems unsuitable for representing a catastrophe that is driven by the nuclear heat and the ensuing onslaught of fire. Why should authors of nuclear fiction carelessly douse the nuclear *Weltenbrand* with the great

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<sup>&</sup>lt;sup>56</sup> Gunter E. Grimm's notion of the "erfundene Unwirklichkeit" (315) that he senses in Dürrenmatt's *Winterkrieg in Tibet* would also aptly describe the distorted reality in Weisenborn's story.

waters on which Noah's ark floated? The use of the deluge motif prevails in works of nuclear fiction which put philosophical questions about the moral consequences of a nuclear apocalypse first and which shrink away from trying to depict the apocalypse itself. The deluge is a visible symbol of threat for those who do not prepare and arrange for their survival. While the biblical apocalypse as a foil in nuclear fiction denotes the inevitability of the impending catastrophe, the deluge, conversely, is a more sanguine symbol that all is not lost yet. In Anders's writings, the Noah figure stands for a humanity that can read the nuclear handwriting on the wall and will find the courage to act and make others aware of the danger. Furthermore, building an ark enables humanity to survive in the teeth of the eleventh hour.

In "Der Atomdiskurs im Kalten Krieg (1945-1962)," Wilfried von Bredow attests to the widespread dissemination of Anders's powerful imagery while at the same time admitting that their acceptance was limited: "Die Thesen und Gedanken von Anders rangierten in Deutschland zeitweise sehr hoch, ohne daß man ihren drängenden apokalyptischen Ton wirklich akzeptiert hat" (98). <sup>57</sup> This chasm between mere acquaintance and complete acceptance is ironically mirrored in the juxtaposition of two groups in Anders's narratives – those who understand the warnings of a nuclear apocalypse and those who ignore them. While Günter Anders was the first German author to harness the impending metaphorical deluge in his short narratives on a

<sup>&</sup>lt;sup>57</sup> Georg Jäger's article "Der Schriftsteller als Intellektueller. Ein Problemaufriß" offers a possible explanation for the diminished moral impact that Anders and other like-minded intellectuals had: "Der Kalte Krieg veranlaßte viele Schriftsteller, in einer moralischen Sprecherrolle aufzutreten, der jedoch durch die politische Definition und propagandistische Indienstnahme zentraler humanistischer Werte – objektiv gesehen – der Boden entzogen wurde..." (17). Ilona Stölken-Fitschen offers another explanation: Nuclear power became a symbol for economic success and the improved standard of living in Western Germany in the 1950s. It was thus a very positive force in the public eye (179ff). There prevailed also a strict differentiation between the "good" nuclear power (civil use as in power plants) and the "evil" nuclear bomb in the public discussion in Germany at that time. Neither were seen as the two ends of one and the same problem (192).

humanity blindly walking into the eye of the nuclear catastrophe (especially in *Endzeit und Zeitenende*), he was followed by many more.

In 1948, Fred Denger had already tried to intricately weave the nuclear apocalypse and the deluge together in his audio drama *Bikini*, a piece dedicated to and loosely based on America's historic nuclear tests on the Bikini atoll. While the tests serve as a backdrop for the story, Denger's play mainly observes the people on one of the American ships as they fearfully anticipate the nuclear explosion. While the depiction of the characters' increasing fear is the most spell-binding feature of the piece, the actual apocalypse is not. The detonation is climax and closing point alike, but as it occurs the drama suddenly breaks off and leaves it to the reader/listener to reminisce about the terrible implications of nuclear weapons. The audience experiences the first nuclear flash and is then relegated to a state of contemplation. In the play, all crew members on the ship are haunted by the fear that the whole world might go to rack and ruin if the effect of the hydrogen bomb greatly outdoes the scientific prognosis.

The ultimate question is if the findings of modern weapons technology and physics are infallible so that humans can entrust themselves to them. The existential fear of uncertainty that Denger incorporates into his literary piece is nothing but a reevaluation of the naked fear that held sway over the scientists of the Manhattan project when they ignited the world's first atomic bomb at Trinity site in the middle of New Mexico (Szasz 79-91): the famous (and at the time acute) dread that the atomic bomb might light up the oxygen in the atmosphere and turn the earth into a glowing fireball (Szasz 60). Heinar Kipphardt later utilized this dread in his documentary play *In der Sache J. Robert Oppenheimer* as a memorable case of anxiety filtered through the

Sobering and formal language of a kangaroo court that cross-examined the physicist Oppenheimer and eventually revoked his privileges. Denger takes this memory, one of the most memorable of the atomic age, and implants it into the characters of *Bikini*. We find the same acceleration of time as, for instance, in Kirst's or Graf's novels. This time, however, the explosion will tear apart the sea before it reaches above-ground level, as the nuclear test device is submerged in water. In Denger's account, the apocalypse shakes the waters, the air, and the land equally. It is a scientific meta-apocalypse that incorporates all forms of traditional apocalypses: a deluge caused by the underwater pressure that turns into an earthquake once the pressure waves reach land, then a fireball when the nuclear chain reaction surfaces, and ultimately the potential danger of the entire globe bursting after the small globe, the bomb in its housing, has burst: "... wenn die kleine Kugel platzt" (24).<sup>58</sup>

As Brian Baker points out in his essay "The Map of Apocalypse," the moment of the apocalypse's advent in nuclear fiction is often left empty as a "temporal 'gap' or blank space" (126). The nuclear apocalypse occurs as a literary *Blitzkrieg* that is already over the moment it started. Historically, the *Blitzkrieg* is targeted at the quick takeover of hostile territory and less intended to produce many casualties and much destruction. Insofar, the nuclear apocalypse combines the *Blitzkrieg* with the apocalyptic lethality of the apocalypse, all happening in a fraction of a second. Some accounts of nuclear fiction avoid depicting the catastrophe itself as their authors fear that overdoing the apocalypse

<sup>&</sup>lt;sup>58</sup> The image of the earth as a ball spinning out of control is quite frequent in nuclear fiction. Compare for example Anders's vision that "die Erde künftighin als verödeter Ball durch die Einöde des Weltalls kugeln soll" (*Der Mann auf der Brücke* 102). Alfred Gong in his radio play "Die Stunde Omega" uses the ball metaphor for the atomic bomb, transforming it into a surreal imag: "Ein Sausen und ein Zischen. Ein kleiner Feuerball stand reglos einen Augenblick am Himmel. Dann fing er an zu wachsen, gleißend schwoll er an, und plötzlich glühend weiß zersprang der Ball – wie Dotter aus der Schale rann es" (229).

could result in camp kitsch. In "Warten auf das Ende," Marinne Kesting points out this danger of an all too explicit depiction that could result in trivialization: <sup>59</sup>

Große und bedeutende Endzeitliteratur der Moderne behandelt gerade nicht technische Umweltkatastrophen und Atomtod im realistischen Detail und scheint, was schon in der Zeitung behandelt wird, peinlich zu meiden, ja, es geradezu auszusparen. Man darf hier von einer "Negativstruktur" sprechen insofern, als nur noch die subjektive Reaktion auf die apokalyptische Bedrohung angezeigt wird, nicht diese selbst. (176)

Fred Denger's *Bikini* is representative of this strand of texts that build up cataclysmic tension to the zenith and then abruptly discontinue the narrative. Hanns Henny Jahnn's *Die Trümmer des Gewissens*, Weisenborn's *Die Familie von Makabah*, and to a certain degree also Hans Hellmut Kirst's *Keiner kommt davon* are other notable examples for leaving the moment of the worst case a literary blank. Kirst, of course, succeeds at narrating the nuclear destruction of Germany impressively and in detail. He does not leave the nuclear apocalypse a narrative blank space. Then, however, he laconically concludes the novel with one vague statement: "Und so endete der sechste Tag. Den siebten Tag überlebte Europa nicht. Die Stunden der Menschheit waren

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Tödliche Strahlen schleichen ungesehen durch die Eichen. Giftige Substanzen wirken auf die Menschen unter Birken [...]

2. stanza Vor dem Kopf die Aktentasche fliehst Du vor verseuchter Asche. Flüchtest auf die Autobahn, fährst Du später, bist Du dran. Strahlenwolken treibt der Wind, verfolgt Dich, Frau, Mann und Kind.

<sup>&</sup>lt;sup>59</sup> While most pieces of nuclear fiction evade this danger through careful reflection, often popular antinuclear texts fall victim to trivialization. Many songs from the protest movements are quite creative but remain trivial as they sacrifice seriousness for simple morally charged messages. Songs like "Tödliche Strahlen" (*Wehrt Euch. Lieder aus der Anti-AKW-Bewegung* 39) are more political than apolyptical and work with clichés:

gezählt" (638). As it seems, the downfall of Europe, and we might further imagine, the world is, first, too daring a task for the author to accomplish, and secondly it will probably not differ so much in detail work from the already proffered account of Germany's downfall: the German nuclear theater is *pars pro toto* for the global disaster.

It is Herbert Achternbusch who most notably integrated the deluge as a symbol for modern theoretical physics and its contribution to the modern apocalypse into a theatrical play, accordingly entitled *Sintflut*. In all other texts, the deluge represents the alarming immediacy of the nuclear danger and the subsequent quagmire of human morality as it strives to escape this close call. The deluge, in general, is more a symbol of the concrete than the abstract. In *Sintflut*, however, the little sailing boat (and not a bulky ark) with which Noah and his friends try to escape, mysteriously becomes stuck in a wall or sheet of water that suddenly ends, vertically limited like a loaf of bread from which slices have been cut off and abutting an empty space filled with air (288-90). Held in place by an invisible force, the boat belongs to neither of the two worlds, its fate being uncertain.

Achternbusch has developed a rather unusual image in the boat kept in limbo between the stages of water and air – the "schiefe Schiff" (288) – that contains a multitude of aspects in condensed form: biblical lore, theoretical physics, and applied physics (the atomic bomb). One could also regard this scene as a modern-day update to Schroedinger's cat, the famous thought experiment conceived by Erwin Schroedinger in order to anecdotally visualize quantum physics. In this case, we do not know whether humanity is dead or alive as we are trapped in a physical state of uncertainty. The boat could swing back into the water and then be safe but it could also fall out of it into the

empty space and probably perish. Furthermore, this limbo devastates the human mind as it destroys reason: "... denn der / Menschschädel ist entzwei" (289). The limbo in its nerve-racking indecisiveness is the true apocalypse in *Sintflut*.

Just as Achternbusch's *Sintflut*, Grass's *Die Rättin* utilizes the same notion of the sea as a potential safe haven for humanity. The figure Damroka leads a seafaring expedition consisting of herself and four other women whose goal it is to rediscover the storied city of Vineta, a mythical place where women once ruled and which has been submerged in the depths of the Baltic Sea for times immemorial. In the very moment when the five women discover the city and get ready to descend into the water, the atomic flash strikes and pulverizes them. Although the vessel that carried them at sea cannot protect the five Amazon expeditioners like an ark, the water under its keel would have done so.

Die Rättin is a macrocosm of different myths, fairy tales, and biblical stories that crisscross its poetic provinces, but most notably, the novel ties the two main motifs of biblical catastrophism together and pits them against each other: the deluge and the apocalypse. Death by fire and heat thwarts the rescue at sea. Symbolically speaking, the deluge has completely lost its potential to save the human species.

The apocalypse in nuclear fiction is trapped between tradition and modernity, between concepts like the biblical apocalypse and the deluge on the one hand and the sobering rationality of technology and science on the other. Traditional biblical concepts are often taken up and then developed into tokens of modernity. The authors clearly need traditional depictions of the apocalypse in order to erect their own updated version of the nuclear catastrophe of the twentieth century. They recycle a centuries-old concept but

they often do so with dissatisfaction and repulsion as they struggle to develop an independent modern apocalypse.

The most powerful tool for showing the advent of modernity in the modern apocalypse is the integration of ideas of physics into nuclear fiction. This enables the authors to call into question the traditional concepts of catastrophism without trivializing the tragedy. I claim that, to a considerable extent, concepts and theories of nuclear physics serve as conceptual underpinning for some works of nuclear fiction, and, furthermore, that they supplant the idea of a manipulative divinity that controlled catastrophes in previous centuries in the imagination of those who suffered through them and described them. The laws of physics do not differ from this divinity as they are equally as omnipresent and omnipotent. The apocalyptic universe, however, is no longer ruled by an individual God but by a set of eternal laws of physics that not only govern our life on earth but also continually shape the universe.

Gilbert Merlin's *Ein Marsmensch reist durch unsere Zeit* (1948) is one of the early texts to acknowledge the connection between the man-made atomic bomb and its possible repercussions on the universe, although in a rather unscientific way. The protagonist, a Martian who is sent to earth by his fellow Martians in order to investigate and study human history and culture, does so because he feels threatened by the gigantic explosion of nuclear bombs that could be witnessed from Mars. The Martians observe a bulged-out deformation of the earth's atmosphere and suspect an impending danger that could also affect neighboring planets or the entire solar system. Although Merlin does not compare the nuclear chain reactions that are taking place in atomic bombs to similar physical events in the universe, he stresses that the nuclear processes that humanity has

precipitated cannot be confined to the earth alone but take place in a universal space that stretches far beyond the reaches of our own planet.

Friedrich Dürrenmatt's *Der Winterkrieg in Tibet* draws a connection from the man-made nuclear war to the inevitable downfall of our planetary system and even the universe (when the nuclear fusion on the sun ceases), although in a much more scientific way than Merlin. Physically speaking, all of nuclear fiction centers around the release of disproportionate amounts of energy (cf. Emter 57) and how this release reaches an unprecedented pinnacle (like in a nuclear war) or, after all explosive events are over, comes to a complete rest (entropy, the Second Law of Thermodynamics).

While Dürrenmatt's piece frees up the apocalypse from its little niche on earth and links it to the grand scheme of the universe, Max Frisch's theatrical farce *Die chinesische Mauer* not only regards the nuclear apocalypse as a special case of modern apocalyptic catastrophism, it also juxtaposes it with its counterpart, the other ultimate atomic death when the physical concept of entropy has reached its acme: "Wärme-Tod der Welt, so nennt man das: das Endlose ohne Veränderung, das Ereignislose" (163). Admittedly, Frisch's piece is more a literary-cultural discussion of the modern apocalypse than a true-to-life depiction of nuclear war, but the author, obviously thinking in dichotomies, nonetheless tries to find a modern category in which the nuclear apocalypse can snuggly fit together with other brethren such as the entropic apocalypse. Both apocalypses, as Frisch shows, rely on the release and subsequent degradation until both matter and energy reach an inert equilibrium. While the traditional biblical apocalypse still bore the hope of the presence of a divine figure and the purpose this figure pursued, there is no seeming agent in twentieth century catastrophism anymore,

making the modern apocalypse more theoretical but also more finite and ultimately more tragic for mankind.

Although many authors of nuclear fiction level accusations at humanity's imprudent blind trust in science as the new God, the overall feeling prevails that mankind can cause its own downfall and that it is responsible for its actions. However, bearing in mind the findings of physics, we now know that even if we did not ignite our arsenal of atomic weapons, we would only prolong the presence of our life in this universe but would remain unable to guarantee the cosmos's survival in perpetuity. Trusting the laws of physics and mathematics, humanity has obtained certainty that it will not survive in the end but eventually come before a fall as does the universe: "Die Wahrscheinlichkeit spricht für das Chaos, für den Zerfall der Masse" (*Chinesische Mauer* 163). Mankind's fate is inextricably yoked to the material universe's fate.

Beyond the laws of thermodynamics, I also argue that in nuclear fiction Werner Heisenberg's uncertainty principle has entered and shaped the literary apocalypse with its essential finding that single events cannot be predicted anymore and that prognostications can only be made about masses. Heisenberg's findings are based on an idea of nuclear physics that an observer to an experiment taking place in the realms of atomic microstructure will alter or even destroy the configuration just by observing it.<sup>60</sup> In other words, the single atom evades the human gaze. Statements about the behavior of atomic activities such as quantum leaps can only be made based on a huge amount of atoms

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<sup>&</sup>lt;sup>60</sup> When Heisenberg had reached this impasse of mathematical predictability, he suggested the departure from the sole use of formal scientific language and the return to a visual language that could convey the new principles in images rather than abstract concepts: "Denn irgendwo müssen wir von der mathematischen Sprache zur gewöhnlichen Sprache übergehen, wenn wir etwas über die Natur aussagen wollen" (162). Heisenberg's affinity for literary language was very strong and he saw a scientific purpose in using it.

which forces the researcher to employ probability calculation instead of his or her own gaze. The single event remains "uncertain" and unpredictable (Ingold 37, 50).

Nuclear fiction, I claim, has been shaped by the same fundamental principles from Heisenberg's findings and subsequently absorbed them: Scenes of mass destruction during nuclear war can only be adequately depicted if their authors reduce or even abolish the depiction of particular events and rather draw an overall picture of the catastrophe. The observation of particular single events through the particular narrow lens of one observer at a time cripples the narrative breadth of nuclear fiction, weakening the intensity of the literary panorama. Authors like Hans Hellmut Kirst, Oskar Maria Graf or Günter Grass solved this problem by developing a multi-faceted and ever changing narratological perspective.

Frequently, works of nuclear fiction still rely on the classical first-person narrator who reports his or her observations during the catastrophe as in a final diary-turned-novel. However, these individual narratives are based on the idea that the plot often cannot be predicted anymore and does not undergo the classical literary scheme of the slow build-up of suspense. Therefore, the vagaries of the modern apocalypse haphazardly strike the protagonists who more or less aimlessly bumble through a world in dissolution. A great part of this apocalyptic horror in nuclear fiction lies in the juxtaposition of the scientific predictability of events (nuclear chain reactions, power of destruction, entropy, etc.) and the dramatic and traumatic unpredictability of the individual human suffering. Science has created the precise prognosis of future events on the one hand but has in turn left mankind speechless and agape in the face of a catastrophe where the single individual

counts as little and is as unimportant as is the single atom in the laboratory of modern physics.

The true disaster attacks the body and the mind of the human being in the nuclear age at the same time. It cripples and kills and it leaves us as loners who have to bear the thought of our own insignificance. Christa Wolf has represented this fundamental contradiction of the nuclear age in *Störfall* where she shows us an emotionally struggling protagonist facing the nuclear tragedy of Chernobyl, not an atomic war per se but an apocalyptic scenario nonetheless: "der Sog des Todes ist es, die Machbarkeit des Nichts ..." (70). Similar to Wolf, Gerhard Zwerenz expresses the same moment of apocalyptic suction in *Der Bunker*: "[der] Sog unserer Kultur zur Allesvernichtung" (131).

Nuclear weaponry and a global nuclear war, as it seems, are just the beginning of a universe in dissolution. Nuclear fiction places the apocalypse out of reach for human accessibility and controllability. While the traditional biblical apocalypse is anthropocentric, focusing on the salvation of the chosen few, the modern one is not as it disregards the value of human life. Rather, it is an end in itself that cannot be stopped by human power once let loose. True, nuclear war is solely man-made, but on a more abstract level it foreshadows the inevitable downfall of the universe. It seems that not only has God lost its influence on the universe but man has too. We are in the position of Socrates who can choose to take his own life by poison hemlock or await his trial that will inevitably sentence him to death. In this regard, nuclear war becomes an exit strategy, as Ulrich Horstmann has remarked in his literary essay *Das Untier*, cynically encouraging humans to take their own lives in anticipation of the inevitable end. What also drives the modern apocalypse is a deep-seated yearning for it all to be over, the

search for a fresh start that would do away with all of the old cultural "ballast." In its most extreme form, this would lead to humanity's suicide, which Horstmann describes as "subjektivistisch verkürzter Reflex apokalyptischer Sehnsüchte" (17). Horstmann's ironical comment to make a virtue out of necessity by regarding the catastrophe as a premature liberation from the jail of the human body shows that the apocalypse in modern times is no longer a means to morally cleanse humanity. It does indeed not fulfill any purpose but nonetheless the destruction and the tragedy are bound to happen. Nuclear fiction describes the apocalypse as final proof of humanity's insignificance within a world that is governed by natural laws which even the best of human beings cannot change or even influence. Nature is indolent and irresponsive to human needs and wishes.

The crux of the modern apocalypse is that despite its terrible and unsurpassed destructive power there is no underlying meaning left to it. The discovery that the world does not look back to humanity and that nobody misses human life is another source of apocalyptic horror. In order to make up for this loss of importance of human influence on the world, the authors of nuclear fiction shift their focus back to human life in the face of or after the atomic catastrophe in order to show the true consequences of the blast.

As Jerome Rosenberg and Dennis L. Peck have established in their study on the humanitarian consequences of what they call "mega-deaths:" "[...] a war does not end when the shooting ceases" (226). These simple words of wisdom, however, pose a challenge for depicting the nuclear apocalypse as it forces the authors to describe human suffering and plight in words that might be off-putting and revolting to many readers.

Gudrun Pausewang's *Die letzten Kinder von Schewenborn* is one of the most dramatic accounts that relentlessly depicts throngs of dying people in a quite realistic

tone and that reads like an amalgamation of an autopsy report and a modern re-enactment of the Great Plague: "Als die Toten so überhand nahmen, daß die ganze Stadt stank, taten sich ein paar Männer zusammen, die den Typhus überstanden hatten, karrten sie in jedem Viertel auf einen Haufen, übergossen sie mit Benzin und zündeten sie an" (62). Dying and decaying bodies, a burnt-down world flush with the rank odor of rot wafting everywhere. After part one of the nuclear apocalypse has razed the signs of human civilization (such as cities and infrastructure) to the ground and charred millions of bodies, part two shows that the suffering continues and that the survivors in fact might have been dealt the worse fate as their weak and sick bodies now torture their minds in the throes of moribund pain. Pausewang's book has been criticized for its outright portrayal of cruelty and bloodshed, and its literary classification as a work of youth fiction does not do the book justice.

Similar to Pausewang's text, Udo Rabsch's *Julius oder Der schwarze Sommer* focuses on the transience of human life and depicts the physical sufferings in detail in order to supply a visual underpinning for the true severity of atomic war. The reader encounters victims of nuclear carnage, the most severe cases a dismembered woman – "Sie hatte keine Beine mehr. Die Oberschenkelknochen blitzten weiß hervor" (101) – and a comatose elderly woman who has incurred acute radiation burns of the skin through which maggots enter her body, eating her alive (113). Rabsch's account is steeped in "Fäulnis, Gestank und Wüste" (66). Matthias Horx in *Glückliche Reise* depicts the horros of nuclear war similar to Pausewang and Rabsch:

Dann folgten Bilder der Zerstörung, Brände, Tote mit glasigen Augen, verkohlter Haut, Flüchtende, Strahlenkranke, die durch Matsch und Dreck einem unbekannten Ziel entgegenzogen, wimmelnde Ratten, Amok, brennende Hochhäuser. Hungrige Gesichter hinter einem rostigen Pflug

auf einem steinigen Acker. Ein gewölbter Leib preßte zuckend ein Kind ohne Arme, mit deformiertem Schädel heraus. (128)

Without the same brutal immediacy but in a more theoretical fashion, the narrator of Grass's *Die Rättin* also anticipates cruel consequences for the human body:

Du weißt ja, Freundchen, sagte die Rättin, was eure Wissenschaftler in Prognosen bis ins Detail gewußt haben. Während der ausgehenden Humanzeit wurde beim Schlußstrichziehen und Zusammenzählen gewetteifert. Es ging um Megatonnen und Megatote. Szenarien nannte man das. [...] Keine Region blieb verschont, nirgendwo hielt sich eine Idylle ... Überall fanden strahlende Partikel hin: kein Tal zu eng, kein Inselchen vergessen. Hier trat der Tod sofort ein, dort dauerte das Leiden. [...] Es war, um ein Wörtchen zu benutzen, das der Mensch gelegentlich scherzhaft für das Wort radikal setzte, weil es uns Ratten zur Wurzel hat, ratzekahl alles weg! (185-6)

Ich habe mir sagen lassen, daß die beschleunigten Neutronen- und Gammastrahlen zuerst das menschliche Nervensystem lähmen, dann den Magen-Darmtrakt zerstören, gleichzeitig innere Blutungen, heftigen Schweißfluß und Durchfall auslösen, schließlich den Körper bis zum Eintritt des Todes den letzten Tropfen Wasser entziehen, ihn also entsaften, wie unsere Mediziner sagen. (*Rättin* 219)

The omnipotent might of radiation penetrates the entire planet and leaves no place on earth untouch. The same penetrating power also invades the insides of human bodies in *Die Rättin*. Harald Mueller's *Totenfloß* describes this act similar to Grass's novel as an act of global conquest: "Hörst du dies Sirren nicht? Dort strahlt das Ufer, die ganze Landschaft! Die Hügel, die Täler, alles strahlt! Harte Strahlen, sehr harte Strahlen! Sie schießen in unser weiches Fleisch! Inne [sic!] Blutbahn, die Lungen, ins Knochenmark" (110). The utmost apocalyptic terror is the slow death that decomposes the body and makes human life insufferable. The Book of Job also contains the apocalyptic destruction of a human body told in great detail. However, in nuclear fiction there is no divine will

that could serve as a panacea to restore health. Writers like Rabsch and Pausewang portray in detail the atomic blast proper but then switch to an in-depth scrutiny of the aftermath and the repercussions of the bomb on human life.

I argue that the atomic apocalypse is limited in its ability to be literarily reproduced. As the atomic detonation happens so fast, authors of nuclear fiction rarely stretch this passage, if even, far beyond 20-30 pages. As the apocalyptic quality of the atomic explosion is limited in time, nuclear fiction, in order to continue the narration of the apocalypse, quickly switches back to human life in order to study the effects the bomb has had. As the modern apocalypse has stripped away illusions of sense and meaning behind the atrocious sufferings, nuclear fiction loses its inhibition to describe the true colors of war with all the disgust that language can marshal.

One of the principal pillars of Western society is the recognition and appreciation of individuality. Therefore, Western culture seeks to stress and further the development of every single human being. The common belief is that only through personal and individual development of each member, larger societies can remain stable and functional. This tradition of individuality is also quite visible when humans die, as their death and the ensuing burial ceremony is culturally recognized as the departure of one single life just as their birth is the start of an individual biography. As William R. Wood and John B. Williamson have shown in their essay on the historical change of the meaning of death in Western culture, under normal circumstances "to speak of a single death is to speak biographically. [...] death cultivates the creation of stories [...]" (14). Every human being's civil right to have his or her biography recapitulated at the gravesite is lost in any form of war where death befalls a large number of victims. Stories of life

are irretrievably erased by the vagaries of chaos and destruction. The horror of the nuclear apocalypse, as opposed to previous wars, is the ultimate departure of biography.<sup>61</sup>

Nuclear fiction describes the destruction that nuclear war causes as graver than that of other wars. Julius, the protagonist in Rabsch's novel, attests to this universal dissolution of individuality: "Das Individuelle verschwindet. Es herrschen die gemeinsten Gesetze" (36). Alexander Kluge in *Die Lücke die der Teufel ließ* asks critically whether individuality can be restored once an event has caused mass suffering and destroyed the personal "Ich": "Kann ein Gemeinwesen ICH sagen? / Tschernobyl" (cf. chapter 2: 105-93).

Although the nuclear apocalypse has the potential to reach a state of destructive totality, not all authors of nuclear fiction employ this fatal dead-end of humanity in their accounts. Quite a few works let human life continue in its grim efforts to restore civilization (e.g. Graf, Schilliger, Gong, Achternbusch). This new post-nuclear life, however, does not promise a speedy and full recovery. Often, the survivors are so heavily impaired that their network is maimed for all times, resulting in a society that barely advances to a prehistoric level at the most. The great accomplishments of human ingenuity, especially the signs of highly developed cultural and scientific institutions, cannot be restored as the survivors mostly remain at a much more primitive state – as the animal creatures for example in Hans Wörner's novel or the bestial lowlife in Harald

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<sup>&</sup>lt;sup>61</sup> Calvin Conzelus Moore and John B. Williamson in their analysis of the human fear of death come to the conclusion that culture serves as a means to fight death: "The evidence suggests that human progress is indeed ultimately driven by the fear of death" (11). Cultural achievements are praised when they are successful in staving off death or prolonging life. Culture seeks to "grant dignity to humans in the face of the utter disregard that nature seems to have for life. In sum, although death's sovereignty will persist for some time to come, the human spirit will forever, struggle to deprive it of its central place in human existence" (12). In this respect, the act of biographical storytelling and the preservation of individuality can be understood as a tool to oppose death. The nuclear apocalypse is thus culturally threatening as it takes away culture and enables a universal presence of death.

Mueller's play show. As nuclear fiction destroys the possibility of storytelling it does so by telling the last story possible, the final account before there will be no other accounts.

Whenever authors choose to have a first-person narrator to tell their story and their observations, they do so by turning this character into a soon-to-be-extinct species. The protagonist in Arno Schmidt's *Schwarze Spiegel* is presumably the second-to-last person on earth and therefore there is no meaning any longer in couching the story of his life in order to pass it on as there will no more readers. The protagonist in Anton-Andreas Guha's diary-novel *Ende*, terminally ill through radiation sickness, keeps track of his life as he totters towards death. Here, the last entry into the diary is a final act of writhingly fending off death and bestowing meaning on his life. Although the protagonists know that the story of their life will probably not be read by any other survivor (as there is no survivor) they nonetheless fight the desperation by trying to resuscitate what Wood and Williamson call the "cultivation of stories" (14).

Part of the apocalyptic horror in nuclear fiction is the fact that the protagonists often experience the downfall of humanity before their very eyes, facing a life encircled by depressing social emptiness for which they see no reason to live on. Another contributing complement is the lack of knowledge and information that leaves the survivors disoriented without any possible way of learning about the situation in which they are trapped. Since all venues of information are cut off, there is no flow of reliable news anymore. Therefore, the survivors in nuclear fiction live in a world of obfuscation and indefinite concepts.

Nuclear fiction tries to keep the balance between depictions of mass destruction on a grander scale and the narration of individual fates. Although the texts do not abolish

the portrayal of individual death, their authors struggle with the concept of biographical individuality and their struggle shows that nuclear fiction marks the loss of the classical *Einzelschicksal*. The biblical Job had still been able to succeed after his trial and the time of hardship were over. While the crippled protagonist Beckmann in Wolfgang Borchert's *Draußen vor der Tür* is met with rejection by an ignorant society seeking to suppress its memories of the Second World War by blackballing unbidden representatives of a painful past, nuclear fiction's outcasts find themselves in an empty social space, even more terrifying. As Beckmann, one of the most famous literary symbols for the shattered beliefs of the young German post-war generation, is tottering on the brink of suicide, he finally learns that simply exiting his responsibilities would be wrongful. Beckmann's point of reference, the post-war society, does not exist in nuclear fiction. While Borchert shows the Germans' attempt at returning to their "normal" pre-war life, there is no such thing as normalcy in nuclear fiction. The wounds struck by the nuclear apocalypse have cut much deeper into all aspects of life than in any belligerent conflict before.

Despite its many references to the biblical apocalypse, German nuclear fiction has been inspired by real war scenarios that serve as historical underpinning. The wounds inflicted as well as suffered through the Second World War are especially important for German nuclear fiction. A great part of the apocalyptic horror stems from the severe wounding of human beings, but nuclear fiction takes this process of wounding and striking one step further as it shows the fundamental change of the face of the earth through wounding and maiming our planet: nuclear weapons are so powerful that they alter and alienate entire landscapes, turning them mostly into marred and maimed moonscapes full of dusty deserts and craggy craters (most notably in Wörner's *Wir* 

fanden Menschen, Rabsch's Julius oder Der schwarze Sommer and Zwerenz's Der Bunker). Alexander Kluge's Lernprozesse mit tödlichem Ausgang depicts the same notion of a wounded planet. After the outbreak of the so-called "Schwarze Krieg" that Kluge places between the Orwellian years of 1981-1985, the earth goes up in a sea of flames and craters: "wenige Stunden nach Kriegsausbruch war die gesamte Erde ein Krater- und Flammenmeer" (253). 62 The catastrophe leaves the surface pockmarked and devoid of any life, a spectacle of stellar proportions. The earth itself is transformed into an injured being, the biggest casualty of nuclear war. The protagonists lose track of the world around them as they knew it. As the protagonist in Rabsch's novel attempts to flee the contaminated area of Western Europe and is heading towards South Africa, he is confused by the altered landscape and more often than not runs astray during his escape. By dint of luck rather than knowledge or a firm sense of orientation, he finally makes his escape and reaches his destination. Zwerenz uses the same motif in his ironical nuclear war novel in which the corrupt German chancellor finally flees the *Eifelbunker* with his decimated entourage in a hi-tech tank when it turns out that the war has ultimately and unstoppably escalated. Even the cutting-edge technology of the tank only provides a limited sense of orientation in a world that is completely defaced by the power of the nuclear detonations. While the tank finally reaches its destination in Africa, a place that seems to be least dangerous in the minds of authors of nuclear fiction, the chancellor has previously been marooned and executed in the middle of what used to be Spain prior to the war.

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<sup>&</sup>lt;sup>62</sup> This is the only passage in Kluge's novel that explicitly refers to nuclear destruction. The remainder, though, deals with interstellar space wars that have little to do with nuclear fiction.

The nuclear apocalypse is not the first scenario that deals with the wounding of the earth. In his historical essay on the German army and the disastrous Russian theater of the Second World War, Tobias Jersak describes the venue of the fights as a wounded body: "The 'image' of the landscape might not have changed, but the landscape itself bore scars that would not heal for a long time and are mostly still visible today" (172). In Jersak's accout, the earth as an organism whose surface can be crazed, these mostly superficial changes, while remaining visible, do not alter the whole underlying body. In nuclear fiction, however, the changes are so fundamental that entire chunks of land are blown away to the extent that entire maps would have to be redrawn, as the nuclear disaster has manipulated the landscape and seascape beyond recognition.

Jersak claims that the wounds inflicted during the war in the East have stunned those who saw the landscape before, during, and after the war and subsequently altered their perception and their memory: "The landscape was engraved, as in other wars, in the memory of the combatants. Yet, the mass of memories of the 'same' landscape at different times and at different stages in the war blurred memory itself" (172). The irritation of memory then caused a distorted memory of the war itself, as Jersak continues.

I argue that the deformation of memory in the wake of the deformation of the landscape is stronger in nuclear fiction than in other war fiction. The atomic blasts scar both, humans and the earth. They injure the survivors through "Splitterfrakturen, Fleischrisse, auslaufende Augen" (Mueller, *Totenfloβ* 94) and leave "eine Narbe in der Erde" (109) which cannot be healed anymore. This topographical wound is even more severe in Kirst's *Keiner kommt davon*: "Die Trichter des Todes klafften in Europa, Asien,

und Amerika. Sie glichen hervorbrechenden Geschwüren und breiteten sich über die Erde aus wie eine Seuche – mit der Geschwindigkeit des Schalls" (636).

Revisiting the site of destruction during and after the apocalypse and exploring the marring changes and permanent "Narben" is an important topic in all works of nuclear fiction. The refugees feel the deep-seated urge to return to the site of their former home in order to catch up with the loss, even if this enterprise is utterly senseless or, worse, dangerous as radioactive contamination often harms those who seek to return. The figure of the mother in Pausewang's *Die letzten Kinder von Schewenborn* finds herself obsessed with the idea that her home town, a suburb of Frankfurt, might still be there, undestroyed and happily awaiting her return. Against their better judgment, the father and their children humor the mother's whim and accompany her on the way back:

Später, in der Wetterau, verließ uns das Glück. Je weiter wir kamen, um so verwüsteter waren die Ortschaften. Sie waren fast menschenleer. An den Straßen entlang lagen halbverweste Leichen und Tierkadaver. Als wir zu den Ruinen von Friedberg kamen, fing es heftig an zu schneien. [...] "Bonames?" fragte eine Frau erstaunt, die an uns herüberwankte. "Das können Sie sich sparen. Da ist nichts mehr." "Willst du immer noch weiter?" fragte der Vater die Mutter, die sich, bis zu den Augen eingemummt, gegen den Wind stemmte. "Ja," sagte sie. "Ich muß es mit eigenen Augen gesehen haben." (103)

What they eventually find is total destruction that does not bear the merest resemblance to what used to be their home town. While those who witnessed the wounding of the landscape during the Second World War could at least gather vague if distorted memories, the witnesses of the nuclear apocalypse often forfeit their right of having memories. The changes done to the landscape are often so drastic that one's prior memories of a place or locale become incompatible with the post-war situation in which the place has undergone a sea change.

When Elisabeth Emter argues that "die Auflösung des Gegenständlichen wohnt der modernen Wirklichkeitserfahrung inne und ist durchaus im Konnex mit der Entwicklung der Naturwissenschaften zu sehen" (4), she mainly refers to the impossibility of understanding modern nuclear physics in easy and comprehensible visualizations. Applying Emter's argument to the post-nuclear landscape, however, adds an additional layer of meaning to her argument: the nuclear war destroys and disables the perception of reality. The pre-war reality does not just crumble through the whims of nuclear war, it simply evaporates, making the returning human mind balk at the sheer impossibility of a memory that not only has gone down the drain of verifiability but that seems to have never existed. What good are the memories of a former world for the protagonist of Günter Grass's *Die Rättin*, who now cowers behind the windshield of his space capsule, looking down on a planet that is not his anymore?

In sum, the nuclear apocalypse takes the memories and the process of remembering out of their context and changes the parameters for human life and the shape of the earth so forcefully that the human mind not only balks at this radical change but often goes insane. Insanity takes a hold of many characters in nuclear fiction.<sup>63</sup>

I argue that Tobias Jersak's term "landscape of death" (171) can also represent the post-nuclear landscape as an aptly fitting umbrella term. It carries the notion that the main purpose of the nuclear apocalypse is the infliction of death on the landscape as well as on the humans who settled there. The totality with which the nuclear death blankets vast reaches is one of the shocking main features of the modern apocalypse.

<sup>63</sup> See different cases of insanity in the texts of Guha, Jahnn, Pausewang, Rabsch, Schmidt and Zwerenz. Characters who lose their senses, often irrevocably, are quite common in nuclear fiction.

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In Die Ringe des Saturn, W.G. Sebald argues that the destruction of landscape is inherent in nature and that humanity has adopted these practices and developed them into weapons of mass destruction. As the powers of nature, mainly water and wind, eat away at the coastal line of Suffolk which Sebald's narrator roams, they alter the face of the earth as well as the face of civilization: humans try to protect their settlements from nature's erosive force. As opposed to the destruction caused by human ingenuity, nature's forces operate much differently as they continually work in slow motion, creating a false impression of eternity as the changes are not immediately visible to us. Nonetheless, nature has it in for us, as it spells "nichts als Zerstörung" (281). Sebald also narrates the coalescence of natural destruction and man-made weapons as he shows several weapons research laboratories embedded in the landscape that his narrator explores. Weapons of mass destruction, Sebald remains vague here, include chemical, biological, and nuclear agents which have in common "ein unsichtbares Netz von Todesstrahlen" (275) and lead to "in seinen Auswirkungen jedes Vorstellungsvermögen übersteigendes Massenvernichtungsmittel" (275). Sebald refuses to elaborate on his comparison of natural and man-made destruction but the parallels that he draws between the two modes are obvious: Sebald seeks to work both strands into one universal "Naturgeschichte der Zerstörung" (*Luftkrieg und Literatur* 39-40). <sup>64</sup> Much of humanity's willingness to fight back and to develop weapons of mass destruction seems to stem from its opposition to nature. Successful survival for mankind means staving off nature's destructive intrusions.

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<sup>&</sup>lt;sup>64</sup> For Sebald, the process of destruction is so thorough that it also blurs our capability to analyze the world around us. Writing literature, Sebald here refers to rubble literature specifically, is a "von vorbewußten Prozessen der Selbstzensur gesteuertes Instrument zur Verschleierung einer auf keinen Begriff mehr zu bingenden Welt" (*Luftkrieg und Literatur* 17). The world cannot be adequately depicted anymore without major shortcomings – a challenge with which nuclear fiction struggles, too.

I argue that Sebald's portrayal of the interplay between nature and mankind shows that humanity's will to destroy and to invent sophisticated means of destruction is a counter-reaction to nature's destructive threat. The crux in Sebald's argument is the fact that nature foists upon mankind the sake of destruction as a universal principle.

Mankind's scientific momentum gathers speed and brings forth these weapons provoked by the grand scheme of nature. Nuclear fiction portrays both aspects of destruction, the immediacy of the nuclear explosion and the long aftermath of nuclear contamination, lasting eons and reminiscent of Sebald's description of nature's slow destructive perseverance.

The nuclear apocalypse incorporates a dual disaster, the willfully constructed bomb and the lingering nuclear radiation, a concept inherent in the nature of radioactive elements, and permanently remembered in places like "die Wüste von Nevada oder die Atolle der Südsee" (*Ringe des Saturns* 277). In *Ende*, Anton Andreas Guha's depiction of a world slowly eaten up by a wall of smoke that encroaches upon humanity like a shroud resembles Sebald's description of nature's destructive force: "Die schwarze Wand hat den ganzen westlichen Horizont verstellt, breit und hoch. Eine fürchterliche Stummheit. Die dicken Wolken wie sattgefressene Riesenschlangen. Dort haust der Tod. Er wird näherkommen und sich ausbreiten, wie ein Leichentuch, das langsam niedersinkt" (127; also cf. 135).

Some apocalyptic scenarios blindside humanity without prior notice. Others, however, are scenarios that come to life in the heads of humans before they, if ever, come to fruition in reality. The detonation of the first atomic device at Trinity Site in 1945 partook in both aspects of sensing catastrophes: the prior image of the bomb's outcome

was carefully planned in the heads of the scientists who sought to make precise prognostications on the impact of the bomb. When the detonation took place, the witnesses were taken aback though, as they had totally underestimated the power of their contraption. This moment of indecision between the apocalypse in the heads of humans and the apocalypse in reality has been captured in Heinar Kipphardt's play *In der Sache* J. Robert Oppenheimer. Here, the protagonist, Oppenheimer, reports on the unpredictability of atomic explosions and also raises doubt about science's ability to predict and eventually contain the power of its inventions. Oppenheimer's highly emotional description of the blast shows his surprise at the unfolding of a spectacle of unprecedented proportions. He then evokes religious images to capture the magnitude of the event:

Keiner sah, ich glaube, das erste Aufblitzen des Atomfeuers. Als ich die Augen aufmachte, sah ich in völliger Stille ein nie gekanntes Licht, ein blendend weißer Feuerball, der wuchs, schien Himmel und Berge zu verschlingen. Dann hörten wir erst die Explosion, die Luftdruckwelle, ein Sandsturm, von einem anhaltenden dunklen Donnern begleitet. In diesem Sekunden erinnerte ich mich an zwei Verse aus dem Gesang der Hindus. die ich behalten hatte. Der eine: "Wenn das Licht aus tausend Sonnen am Himmel plötzlich hervorbräche, das wär der Glanz des Herrlichen."

Der andere: "Ich bin der Tod, der alles raubt,

Erschütterer der Welten." (94)

I argue that Kipphardt's play is at the demarcation line of two strands of nuclear fiction: 1. texts which take the catastrophe at face value as a real event and base their fictitious description especially on events of the Second World War, in particular the nuclear bombings of Japan. These texts prevail from the post-1945 era to the 1960s and early 1970s. Whatever shape the apocalypse takes as a figment of the author's imagination, these narratives are deeply impressed by real military events. 2. texts which see the catastrophe as a well thought-out mind game. These texts are inspired by the politics and the discourse of the Cold War during which fantasies of nuclear war existed in numerous variations as speculative scenarios on the drawing boards of military specialists and political scientists. Such texts in German nuclear fiction dominate especially the 1970s and 1980s. Quite frequently, later accounts of the nuclear apocalypse engage in irony and cynicism, regarding the possible catastrophe as a fait accompli. In sum, authors of German nuclear fiction envision apocalyptic scenarios in their imagination more so than based on reality. The nuclear apocalypse becomes an adventurous mind game rather than a precise scientific prognosis of the real consequences of nuclear war or accidents. However, both strands of nuclear fiction closely reflect the public discourse of their times.

When Hans Magnus Enzensberger remarked in his mini-essay *Zwei*Randbemerkungen zum Weltuntergang (1978) that the nuclear apocalypse had become a second reality, "die Katastrophe im Kopf" (336), he was the first German philosopher-cum-writer who had defined, emancipated and established the nuclear mind games as another form of reality, which on the one hand meant admitting defeat in the teeth of ubiquitous nuclear fears that now had been acknowledged as "reality," but on the other hand lending credence to the importance of nuclear fiction. Enzensberger's definition was reinforced six years later by Jacques Derrida's essay "No Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives)" that took up a similar position. Fictitious scenarios, as one could continue Enzensberger's argument, were important as they

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<sup>&</sup>lt;sup>65</sup> My division into these two strands of nuclear fiction tallies with Axel Goodbody's description of three phases of catastrophism in German literature: first phase (around the First World War), second phase (after the Second World War) and third phase (from the mid 1970s to the mid 1980s) (164-7) with the exception of the first phase which does not exist in nuclear fiction.

produced counter-images opposing the war scenarios in the heads of Cold War military officials. Enzensberger also maintained that the modern conception of the world's downfall had lost its qualities of surprise and singularity which were still part of the traditional biblical apocalypse. Rather, he continues, humanity would prefer to watch the apocalypse from the movie theater seat (336-7). Those works of nuclear fiction that were written under the immediate impression of nuclear war or nuclear testing (Hiroshima, Bikini, etc.) defy Enzensberger's statement. The moment of surprise when the bomb strikes and when its destructive flash burns itself indelibly into the memory of the onlookers is the centerpiece of these writings. This is evident even in Udo Rabsch's *Julius oder Der schwarze Sommer* where the moment of the bomb's explosion catches the protagonist and Germany as a whole off-guard as the detonation from one second to the next lays waste to a verdant and idyllic landscape and transforms it into an ashen desert in which the stumps of the burnt trees are the only objects that rise above ground (10).

Works of nuclear fiction that came to life in the wake and under the immediate impression of Hiroshima and Nagasaki still carry very distinctly the excitement of the novelty of terror while nuclear fiction following Enzensberger's definition of a second reality have partially or totally lost this appeal. While the nuclear fantasies in German literature often became more daring and more outrageous in the 1970s and 1980s – Alex Gfeller's and Harald Mueller's pieces serve as good examples – they treated the magnitude of a nuclear apocalypse as something that had become common knowledge, unexciting and predictable. The underlying reason for this indifference might have been

that the world became desensitized by ongoing nuclear testing and that people at the same time became accustomed to the nuclear threat during the Cold War.

German literature responded to the interplay of nuclear ennui and the establishment of a second reality, the proverbial "Katastrophe im Kopf," most notably by works like Gabriele Wohmann's Der Flötenton (1987). The novel traces the lives of various members of a disjointed German family on the foil of the nuclear accident in Chernobyl. While the protagonists live their uneventful lives, they learn about Chernobyl through the media and either remain totally untouched by it or feel a camp feeling of compassion and involvement well up in them as Wohmann shows extensively on the novel's more than 400 pages. Although the media instigate curiosity and stoke panicdriven sensationalism, the event, mostly conveyed through the TV's Braun tube, has virtually no bearing on the life of anybody outside Chernobyl. Wohmann demonstrates how the catastrophe will inevitably escape us as we are no longer part of it and how the media stage it for us bathed in apocalyptic theatricality and pretend that we are truly involved. In *Der Flötenton*, the nuclear apocalypse becomes a mere virtual game in which people can play a role if they chose to do so. The male protagonist Anton responds to the eerie tidings from Chernobyl with "Abschiedsmüdigkeit" and "grimmiger Kulturpessimismus" and misuses the event as a confirmation of his pessimistic world view (75).

The novel's focus is less on Chernobyl than on the narcissistic self-involvement of the protagonists. Chernobyl becomes a pretext and a mouthpiece for the cultural ennui from which the characters suffer. As they inhale the Chernobyl accident through the media, they also absorb the language of the media that now gives them the impression of

being conversant with the topic. Words like "Halbwertzeit," "Becquerel," "Apokalypse," "Atombunker," "Brennstäbe," "Fallout," "Super-GAU," or

"Radioaktivitätsinformationen" are now part of the everyday language but through their manipulation by the media discourse they lose their importance and meaning and degenerate into empty words. The narrator in Wolf's *Störfall* describes the onslaught of the new language as a hazardous downpour:

Der bösartige Himmel. So setzen sich die Mütter vors Radio und bemühen sich, die neuen Wörter zu lernen. Becquerel. Erläuterungen dazu – von Wissenschaftlern, die , von keener Ehrfurcht gehemmt, was die Natur im Innersten zusammenhält nicht nur erkennen, auch verwerten wollen. Halbwertszeit, lernen die Mütter heute. Jod 131. Caesium. [...] Das rieselt nun alles, zusammen mit den Trägern der radioaktiven Substanzen, zum Beispiel Regen, auf uns herab – (35)

The disintegration of atoms during the process of nuclear fission emerges as a symbol for the personal disintegration of the world from which the consumption-driven industrial countries and their people suffer, an overarching cultural neurosis that has deadened the perception of the apocalypse. The event is no longer a terrifying nuclear apocalypse, but rather an expression for cultural decline. Wohmann does not show the departure of the apocalypse in the minds of her characters per se; the apocalypse remains there. It has, however, metamorphosed from a shocking concept of reality into a reality of normalcy. Wohmann also diagnoses a loss of independent language with which we at the same time lose the ability to form a vivid apocalypse in our minds. As early texts of nuclear fiction were driven by an overly acute sense of wariness that the authors hoped to communicate to their audience for reasons of moral fortification, nuclear fiction especially from the 1980s destroys this purpose by revealing the "Abschiedsmüdigkeit" (75) of an entire generation.

In sum, the nuclear apocalypse emerged as a real threat in fiction after 1945, later metamorphosed into a second reality in the heads of those who thought and wrote about it and is finally laid to rest in the graveyard of widespread apocalyptic lethargy.

Wohmann's response fleshes out this lethargic indifference yet does not provoke the reader to protest against it. The novel, however, shows that the change in German apocalyptic thinking that Hans Magnus Enzensberger had rung in has reached an endpoint.

Günter Grass's *Die Rättin* is a unique text as it shares many aspects of nuclear fiction and could serve as a prime example on how the atomic apocalypse is portrayed. The novel depicts the ennui and desensitization which is often present in other texts from the 1980s (such as Wohmann's novel), but it also enages social engagement and personal involvement which are often found in early texts of nuclear fiction.

The German literary critic Fritz J. Raddatz once called the behemoth novel "eine Unheilkatastrophe säkulären Ausmaßes" (Görtz 462). I argue that the term also pertains to all of German nuclear fiction as it touches upon two fundamental aspects that are shared by all works but are especially visible in *Die Rättin*. First, the "Unheilskatastrophe" is vividly and visibly alive in all accounts, no matter if the *Unheil* has already happened or is impending. The word is a composite, consisting of the two single terms *doom* (*Unheil*) and *catastrophe* (*Katastrophe*). The implications of the term catastrophe are obvious: the often sudden destruction of large areas and the mass killing of humans. In this form catastrophe makes its appearance in nuclear fiction. The term doom, however, is more intricate. It aptly describes the state of anxious anticipation and expectation in which the characters in works of nuclear fiction find themselves trapped.

As the word *Unheil* is a negation of *Heil*, the German word for well-being or, in a religious sense, salvation, it describes the ominous threat that moral as well as physical well-being face. While *Unheil* is also suggestive of portentous fate beyond human control, Raddatz immediately invalidates the religious connotations that might carry by pointing us to the fact that the modern-age catastrophe is unspectacularly secular. The worst-case scenarios of nuclear fiction, albeit flush with apocalyptic imagery, in the end cannot but admit that the modern doomsday is a disenchanted event. Nuclear fiction toys with the biblical concepts of apocalypse but it abstains from insinuating that deeply felt religious beliefs in doomsday and Armageddon could be connected to the nuclear apocalypse.

Wherever spiritual thoughts are at work in nuclear fiction, they serve as a stopgap measure to temporarily bridge the spiritual void that the advent of the nuclear age has created (as in Josef Schilliger's *Der Heilige der Atombombe*). In his article "Atomkriege in der Science-Fiction," Rolf Tzschaschel describes this gradual de-mystification of the religious apocalypse as an ongoing process within a broader cultural and historical context:

Mit zunehmendem wissenschaftlichem Fortschritt lösen sich apokalyptische Vorstellungen von der Religion. [...] Waren vor 1914 noch zwei Drittel aller Apokalypsen natürlichen Ursprungs, so wurden nach 1914 bereits zwei Drittel der Apokalypsen durch den Menschen verursacht und von diesen wiederum drei Viertel durch wissenschaftliche Waffen, zumeist sogenannte "Superwaffen". (230-1)

In fact, the de-spiritualization after 1945 has progressed to such a degree that many works of nuclear fiction explicitly reveal the amalgamation of religion and modern

scientific tragedy as outright kitsch. In Harald Mueller's *Totenfloβ*, the apocalypse has lost its sacrosanct appeal and is just simply "horrorschaumäßig" (88). 66

The criticism of a secularization and a subsequent banalization of a predominantly religious vision of doomsday poses a danger for nuclear fiction. Günter Grass warned of "Doomsday trash" (Goodbody 174), referring to the large pool of pulp fiction novels during the 1980s, a decade that especially in Germany brought forth plenty of pulp fiction and pulp discussion about the end of the world: "Wollte ein heutiger Johannes als Schriftsteller seine Offenbarung zu Papier bringen, es käme eine Doomsday-Kolportage, ein trivialer Science-fiction-Aufguß dabei heraus…" ("Literatur und Mythos" 793).

Ironically, Grass who in *Die Rättin* tried to establish a precedent for how apocalyptic literature was supposed to be written in the post-1984/post-Orwell era, <sup>67</sup> fell victim to similar accusations which claimed just that: the novel was trash, a stain especially for a Nobel Prize winner "dessen Oeuvre einen so miserablen Roman wie *Die Rättin* aufweise," as Frank Schirrmacher maintained (Durzak 187). The criticism about the dangers of trivializing a very serious topic, nuclear war, ties in with the apprehensions that nuclear fiction could "simply become a good read," as Volker Lilienthal generally speculated on works about ecological catastrophism (Goodbody 174). Admittedly, some works of nuclear fiction walk the fine line that separates kitsch from literature. Matthias Horx two nuclear novels *Es geht voran*. *Ein Ernstfallroman* (1982) and *Glückliche Reise* (1983) are examples for a playful approach to a nuclear apocalypse along the lines of ecocatastrophism and the hope for a post-nuclear society that might rise like a phoenix

<sup>&</sup>lt;sup>66</sup> Notice the total absence of religious considerations in works like Hans Henny Jahnn's *Die Trümmer des Gewissens*, Alex Gfeller's *Das Komitee. Swissfiction*, and, of course, Mueller's *Totenfloβ*.

<sup>&</sup>lt;sup>67</sup> In the chapter "Im Wettlauf mit den Utopien – Die Rättin als Science Fiction" of her monograph on women and female elements in Die Rättin, Barbara Garde analyzes the connections between Grass and Orwell and Grass's own claim that Die Rättin was his 1984 novel (261-7).

from the radioactive ashes of the nuclear fallout. Horx, a self-declared futurologist, translates the nuclear apocalypse into a tough game of life in which characters receive the chance to survive the nuclear "game over" by developing primordial survival strategies. Looking back from the perspective of today's computer-based society, Horx's texts read like the literary predecessor of virtual-reality computer games. They are couched in a rough and ready youngster language that conveys the unorthodox political grassroots courage of the young generations of Germans at the time: "Ein Blitz, ein Bums, und übrig bleibt noch ein Haufen verstrahlter Scheisse" (*Es geht voran* 17).

Horx's novels are undoubtedly a suspenseful read as they make the reader curious about the fate of the protagonists. Will they survive? What will they encounter on their adventurous car jaunt through parts of Germany? And what will they find in the end if they survive? Despite their informal everyday language that provokes notions of trash at times, I argue that Horx's novels also contain a very serious apocalyptic streak that attempts to look into a nuclear future and that develops a fantasy of survival in the midst of chaos. Horx also employs very real descriptions of cases of radiation sickness that give his writings a more serious tone.

Gudrun Pausewang is probably the single most explicit author who did not shrink away from portraying the human suffering, the naked animal fear and the unmitigated cruelty of the morally and conceptually devastated survivors who either go insane or return to the Darwinian concepts of the survival of the fittest, thus severing all ties to the moral codex of society. Distrust and utter embitterment supersede humanitarianism and compassion. The plight caused by the atomic apocalypse is severely aggravated by the disbanding of society, depriving the survivors of the material means as well as the moral

support arising from a functioning community of humans. The severity in Pausewang's text counters criticisms that accuse nuclear fiction of being trivial. The nuclear apocalypse is mostly a serious and tragedy-laden enterprise in German writings. This has to do with the Germany's nefarious role during the Third Reich and the Second World War and the ensuing wish in German authors to prevent another second disaster on an ever grander scale. It also has to do with the virtual absence of science fiction elements that have mostly no part in German nuclear fiction. While the obsession with machines and their power are part and parcel of the nuclear apocalypse in German culture, technology is not a playful element in nuclear fiction. The lives of many characters from these texts often center around or rely on machines but they are a necessary means rather than an object of fantasy gone rampant. The expeditioners in Hans Wörner's Wir fanden Menschen rely on their heavy-duty off-road vehicles that protect them from radiation but that become almost a second home in which they can hide out and escape dangers. The space capsule in Grass's *Die Rättin* is more an artistic means to create a new perspective and to enable the last man alive to look down on earth than it is an element of science fiction. Grass permits the narrator to look beyond the individual perspective by ironically placing him into a space capsule that orbits the earth. However, the capsule is just a vehicle for the new perspective and not an end in itself.

Science fiction often takes great pleasure in playing with technology and the possibilities of machines. The genre also exaggerates the power of science and technology and often describes their positive effects. In comparison to English-speaking literature there is but a little body of science fiction in German literature and culture. As Paul Brians maintains, English and American nuclear fiction often lack the

adventurousness and suspense of science fiction (cf. 14-16). I argue that the same is true for German nuclear fiction. However, the underlying reason is a different one. While American or English science fiction writings have an unbroken and unspent optimistic trust in the abilities of technology and science, English and American nuclear fiction has to oppose this genre and redefine the role of science and technology in the nuclear apocalypse. German nuclear fiction does not need to redefine the technological aspects of the nuclear apocalypse. Here, technology always leads to disaster, destruction and chaos and almost never offers up the chance for a better future. Among authors of German nuclear fiction there is much distrust towards technology the closer their texts are to

Do texts of German nuclear fiction just provide a good read or do they achieve something else? Do they tickle us with the apocalyptic needles piercing our flesh, and do they produce goose pimples of pleasurable suspense on the skin of our lust for adventure? I argue that German nuclear fiction does not satisfy the reader who expects elements of suspense as they appear in science fiction. Rather, these apocalyptic scenarios are heavy, serious, devastating and often melancholic if not depressing reads. They torture the reader, and part of this torture is programmatic: the borderline situation of a world in dissolution calls for a type of literature that adequately displays the severity of this event. Although many texts build suspense – very often in the form of a countdown – it is not a form of suspense that can be enjoyed. Rather, the literary worst-case scenarios remain an unpleasant thorn in the reader's side.

Although the nuclear apocalypse is frequently portrayed as a global phenomenon, the actual plot of most pieces of nuclear fiction remains limited to one or several locales.

Not surprisingly, German authors saw Germany as the center of the apocalypse. Nuclear war or a nuclear accident starts on German soil, often triggered by a failure of Cold War strategies. The rationale of the Cold War clearly informs these texts as Germany serves as the powder keg of an escalating Russian and American conflict. Germans now saw themselves threatened again by yet another war. This time, however, they envisioned themselves as unintentionally forced into the conflict. While Germany takes no part in the outbreak of the war and remains passive, it is sacrificed by the two superpowers Russia and the United States that use the country for test-firing nuclear weapons before they plunge into an internecine war.

Hans Hellmut Kirst, Arno Schmidt, Udo Rabsch, Anton-Andreas Guha, Harald Mueller, Gerhard Zwerenz, and Günter Grass all chose Germany to be the center of the apocalypse. Friedrich Dürrenmatt and Alex Gfeller, both Swiss, naturally depict the nuclear destruction in Switzerland, yet their domestic focus is the same as in the previous group of German authors, although Dürrenmatt later in his narrative widens the geographical scope and shows how the war spreads to other parts of the world, namely Tibet. The three texts that deal with nuclear accidents – Gabriele Wohmann's *Der Flötenton*, Christa Wolf's *Störfall*, and Gudrun Pausewang's *Die Wolke* – follow suit in centering their plot in Germany. While Pausewang's text narrates an accident in a German nuclear power plant, Wohmann and Wolf focus on the 1986 Chernobyl catastrophe. Oddly, though, they do so by narrating their story from a solely German viewpoint. While their protagonists travel to Ukraine in their thoughts and attempt to envision the damage and the devastation, they are all Germans based in Germany. Whatever the protagonists learn about the catastrophe in Ukraine is conveyed by the

media. I argue that although Wohmann as well as Wolf sought to criticize this selfcentered view, their texts nonetheless do not artistically push beyond the confines of the German border.

I argue that by mainly choosing locales that are based in German-speaking or European countries or that are fictitious countries reminiscent of German or European landscapes and civilizatory phenomena, authors of nuclear fiction sought to make the danger of a nuclear apocalypse more vivid and more relevant. While destructions depicted in faraway parts of the world do not receive the same attention, the devastations of one's own country and cultural tradition are destined to shake up the reader much more. I also argue that pieces of nuclear fiction that in turn depict the nuclear apocalypse in other regions of the world, do so mainly based on history's account, less so for effecting dramatizations or immediate emotional closeness.

In the following I will show what texts deviate from the rather common Eurocentric focus of nuclear fiction. Hans Henny Jahnn's *Die Trümmer des Gewissens* and Alfred Gong's audio play *Die Stunde Omega* take place in fictitious countries that are meant to represent an apocalypse that could happen anywhere. While Jahnn's locale is a dictatorial and highly industrial state, a mélange reminiscent of Nazi Germany and postwar industrial Cold War nations, possibly Eastern Bloc countries, Gong's locale remains an idyllic small rustic country that the author purports to be a democracy but whose old-fashioned almost medieval world stands in opposition to the intrusive force of nuclear weapons. The little hamlet of Terrina, a name that Gong concocted, defies concrete identification and could be situated anywhere on earth. While Max Frisch's *Die chinesische Mauer* envisions the apocalypse as a multi-cultural phenomenon, the play

avoids depicting nuclear war in one region of the world. Rather, the nuclear apocalypse becomes a possibility based on and embedded in a tour de force of world cultural history. Frisch shows that many erroneous political developments throughout the world (such as dictatorships, failed revolutions etc.) have provided the foundation for fantasies of a nuclear catastrophe.

Oskar Maria Graf's *Die Erben des Untergangs* is an attempt to deliver a comprehensive depiction of the world in and after a nuclear war. The author jumps from one country to the next, focusing especially on the United States, where a new world government, a predecessor to the United Nations, is established, and Germany, where the reader witnesses a new post-war society arise from the nuclear ashes, slowly leaving behind the turmoil of the war and re-establishing social order amidst the morally depraved survivors.

Heinar Kipphardt's *In der Sache J. Robert Oppenheimer* and Carl Zuckmayer's *Das kalte Licht* situate their story in the Anglo-American world. However, these pieces are less interested in producing a vivid image of the nuclear apocalypse than in engaging in an analysis of certain Cold War tactics that sprang up in the English-speaking West. Conversely, pieces of nuclear fiction that try to fathom and depict the Russian side do not exist. Oskar Wessel's *Hiroshima* and Wolfgang Weyrauch's *Die japanischen Fischer* as well as Fred Denger's *Bikini* focus on historic nuclear events that the authors analyze and represent as literary apocalyptic scenarios in retrospect. Therefore, many literary coordinates are already set by historical evidence that the authors do not fundamentally alter. History precedes fiction and exerts a strong influence.

Lutz Seiler's 2008 narrative *Turksib* depicts the remnants of nuclear radiation from the Soviet empire in Kazakhstan. As the protagonist travels the country, he keeps obsessively track of the radiation level with a Geiger counter. Although *Turksib* shares the historical perspective with Wessel's, Weyrauch's, and Denger's texts, it is an analysis of the aftershock of the Cold War nuclear era. Here it is not the sudden explosions that unsettle the world of the 1950s and 1960s as in the previous pieces, it is the radioactive afterglow that slowly and steadily trickles into our lives and that becomes audible through the constant "knattrige und knirschelnde Gewisper" (11) that the protagonist's Geiger counter gives off. Seiler's account is one of the rare moments in nuclear fiction where the former Eastern bloc, a cultural blind spot for older nuclear fiction, is not only made visible but is in the center of the literary eye. While the domestic apocalypse enabled authors of nuclear fiction to be more shocking, it also opened up the possibility of literary fantasy. Nuclear fiction that deals with Hiroshima, Nagasaki, the bombings at Bikini or in North American deserts, tends to be more restrictive and sparser with literary fantasy. These events, I argue, have infused the writers with awe and have in turned stifled the literary imagination.

It is surprising how nuclear fiction discovers terra incognita outside the dominion of the Cold War and the reaches that the nuclear powers kept in a stranglehold. In some works (e.g. Rabsch, Zwerenz), Africa is seen as the only viable long-term exit for survivors, most notably South Africa, the southernmost region of the continent. As the Northern hemisphere, a symbol for the destructive powers of nuclear industrialization and the Cold War, is in a self-inflicted shambles, the South remains a less contaminated place where the survivors might find an ecological niche for continuing human life. Ironically,

Africa, severely disregarded by the Western world during the nuclear age, now becomes, once again, the cradle of human civilization.

In his 2005 treatise *The Culture of Death*, Benjamin Noys argues that the twentieth century was an era of "mass production of corpses" (3). He then names Auschwitz and Hiroshima in the same breath as the two most important cornerstones of a violent culture of mass dying, suggesting a direct comparison of the two events. In conclusion, Noys contends: "The analysis of death becomes more and more pressing as the new global reach of power leaves us all exposed to death" (154). Irrespective of whether one agrees or disagrees with Noys's warning of a future exposure to death during the twenty-first century (obviously a reference to the threat of an uncontrollable proliferation of nuclear weapons), his argumentation ties in with the apocalyptic message of nuclear fiction. Whether or not nuclear fiction portrays the nuclear apocalypse as a cosmic event with atomic flashes and mushrooms shooting up all over the world or as the heinous history of individual gruesome radiation death, these texts of nuclear fiction have one common denominator: their worst-case scenario is humanity's universal exposure to death. These narratives know a thousand ways of showing death and the barbaric circumstances in which it occurs a myriad times. Although many narratives show survivors of nuclear warfare as to instill hope in their readership about the continuation of humanity beyond a nuclear apocalypse, the hardship and distress, the universality of local and global dying depicted in nuclear fiction is a literary first that reaches far beyond the presence of death in other fictional texts, even classical war literature.

Whereas traditional German war literature (such as Remarque's *Im Westen nichts Neues* or Plivier's *Stalingrad*) depicts past wars, nuclear fiction seeks to envision a war

that is yet to happen and that is likely to be completely different in nature than previous wars. In her article "So long, Mom: The Politics of Nuclear Holocaust Fiction,"

Jacqueline Smetak points to the fundamental novelty of such a war in fictional accounts.

She concludes that the new elements in nuclear war fiction stem from a different literary background than traditional war fiction: "War literature and nuclear war literature come out of two very different traditions with radically different assumptions: war literature comes out of the Epic, nuclear war literature is Apocalyptic" (43). The final lines of Gert Ledig's 1956 novel *Vergeltung* (*Payback*) confirm Smetak's argument. While the novel portrays the Allied air raids on Germany during the Second World War with shockingly graphic realism, the work concludes with a rejection of the apocalypse as the underlying pattern:

Nach der siebzigsten Minute wurde weiter gebombt. Die Vergeltung verrichtete ihre Arbeit.

Sie war unaufhaltsam.

Nur das Jüngste Gericht. Das war sie nicht. 68 (204)

Benjamin Noys argues that in the affluent modern Western culture after 1945, death is much less visible, an argument that is also supported by the claim in William R. Wood's and John B. Williamson's essay "Historical Changes in the Meaning of Death in the Western Tradition" that the twentieth century has been witnessing "the gradual disappearance of death from the world of the living" (14). Nuclear fiction answers and counters Noys's thesis as these texts bring the omnipresence of death back before the

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<sup>&</sup>lt;sup>68</sup> Gert Ledig's writings reject notions of spirituality and higher meaning. The sober-minded and bleak outlook on a world that is devoid of meaning is thus not an invention of nuclear fiction but already present at an earlier point in literature. In *Die Stalinorgel*, Ledig describes not only the absence of a religious apocalypse but of a (merciful) God altogether amidst the plights of the Second World War: "Dieser Gefreite hatte den einfachsten Weg eingeschlagen. Mit einer Beziehung zu Gott hatte er sich nicht abplagen müssen. Er hatte bereits seit zwanzig Jahren keine Kirche betreten. Später verspürte er kein Bedürfnis danach, und Gott begegnete ihm ein zweites Mal nicht" (10).

public eye. The apocalyptic aura that hovers over nuclear fiction is one that has been taken from Christian iconography but that has been transformed into a modern and scientifically updated version of the apocalypse: it is not the presence of God and the idea of post-apocalyptic redemption that have prevailed in the narratives of the nuclear apocalypse but the absence of a central authoritative figure coupled with the discovery of a gigantic tangle of natural laws that seem impenetrable for the individual human being.

The new apocalypse is on the one hand simpler and on the other hand more intricate than its traditional precursor: the reins that regulate the power of undoing our world have been taken from the deities and handed over into the hands of humanity. At the same time, the ease of pushing the buttons that ignite nuclear forces is thrown in stark relief to the difficult efforts of preventing such an escalation. In the nuclear apocalypse we have been afforded the simplicity of a world about whose continuation humanity proper may decide. On the other hand, humanity is forced to emancipate itself morally and take on the blame for its doings, "weil fast alle ihre leitenden Männer wissen, daß kein Gott da ist, sie zu retten" (Merlin 40). As the Martian narrator in Gilbert Merlin's Ein Marsmensch reist durch unsere Zeit argues, the departure of God not only makes the modern apocalypse an era without spiritual redemption, it also turns the post-nuclear world into a time of utter desperation.

The atomic bombings of Japan have spawned a figure in Japanese fiction that has come to epitomize the apocalyptic power of nuclear technology: the monster Godzilla, an atomic mutant that haunts the metropolises of the earth and poses a constant threat to civilization. Such a figure, however, has always been more effective in pictures than in texts. Therefore we see Godzilla in countless comic books and movies:

... movies have always been excellent indicators of the apocalyptic fears of a particular age. In the wake of Hiroshima and Nagasaki came a whole series of monster-mutation movies: cinema screens were awash with giant women and spiders, tearing down cities and terrorizing the inhabitants. (Pearson 283)

While Godzilla is a walking and mortal nuclear worst-case scenario, German nuclear fiction refuses to spit out a comparable figure. Furthermore, it refuses to create cinematic images in the fashion of Hollywood. The worst case for this modern literary apocalypse might be that it has lost the playfulness to create such bizarre figures. Instead, the torturing monotony of the emptiness of modern civilization prevails in German narratives. Paul Brians points out in his study on the nuclear holocaust in English and American fiction that the nuclear apocalypse is often wrongly portrayed as a rite of passage or an apocalyptic cleansing. Rather, the nuclear apocalypse denotes the absolute end of human civilization, frequently going hand in hand with laying waste to the world's governmental systems in general and democracies in particular (69). We might be able to detect a moment of anarchy or at least civil unrest and unruliness in German nuclear fiction as the worst-case scenario is the beginning of an era not only of dissolution but also revolution. However, this cathartic hope for turning over a new leaf that Brians has found in Anglo-American texts does not emerge in German nuclear fiction: the nuclear apocalypse remains a worst-case scenario without any real benefit.

The Nuclear Double Whammy – The De(con)struction of Human Qualities

The nuclear scientists that wrote the *Blegdamsvey Faust* in 1932 sought not only to embed their ideas with cosmopolitan verve into other disciplines such as literature and

visual arts, but also first and foremost to portray themselves as Faustian researchers who had contravened sacrosanct territory: the divine atomic substructure, the essence of the matter from which the universe was built. The modern atomic physicist, as the play reads, is a seducible Faust who seeks to delve deeply into secrets of which he or she (Lise Meitner attended the conference as the only female physicist known by name) is not supposed to gain knowledge. This unorthodox theatrical piece deals with the question of loss of human morality through the unbidden discoveries of untrodden and formerly exclusively divine territory. Quite surprisingly, though, the playfulness and the lust for penetrating the stuff of which the world is composed outweigh overly strong moral concerns. Early nuclear chain reactions are rather benignly described as curious experiments taking place behind the doors of a quirky alchemist's study, full of scintillating drama: "Die Protonen knarren rasselnd, / Elektronen rollen prasselnd, / Sausend fährt heraus das Licht!" (328). Surely, the physicists already had a vague premonition that the matter they were investigating might have the potential to mar their lives and haunt them: "Nun ist die Luft von solchem Spuk so voll, / Daß niemand weiß, wie er ihn meiden soll" (332). However, the *Blegdamsvey Faust* is literary witness to the great enlightening power of science: "Wer experimentierend sich bemüht, / Den können wir erlösen" (335). Despite the titillations of becoming modern, nuclear Fausts, I argue, the scientists did not foresee the huge moral conflicts that their discovery would produce just fifteen years later. The genuine joy and the honest and naïve anticipation of a world revealing its conundrums to a group of chosen minds in the end vanquish the moral concerns that their scientific enterprise might be able to bring about a nuclear apocalypse

that in turn would not only engulf the material world but also damage and corrupt humanity from inside.

It was not until after 1945 that nuclear fiction took cognizance of the double whammy that the atomic apocalypse would inflict on humanity. When a nuclear war strikes in German fiction, the world as we know it comes to a halt and the traces of civilization are either extinguished or severely mutilated: larger and smaller settlements alike are razed to the ground, as in Udo Rabsch's Julius oder Der schwarze Sommer; completely marred and maimed landscapes are pitted with craggy moon craters and blanketed with lifeless dust as in Hans Wörner's Wir fanden Menschen; or radioactive contamination over large areas of land that forces survivors to flee their homes and to resettle as in Oskar Maria Graf's Die Erben des Untergangs, Alex Gfeller's Das Komitee. Swissfiction or Gudrun Pausewang's Die letzten Kinder von Schewenborn. Caused by the visible pressure wave of detonation or the stealthy and invisible effect of long-lasting radiation, the destruction of the outer world through nuclear power is omnipresent and occupies a great part of the narrative of nuclear fiction. However, the authors do not stop at this outer portrayal and very swiftly seek to fathom the changes that take place inside the victims and survivors. The nuclear inferno not only causes destruction of the material world including nature and the face of human civilization, nor does it only physically kill and hurt humans, it fundamentally distorts the concept of morality and other values that define humans and that distinguish them from animals. <sup>69</sup> The protagonist in Marlen

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<sup>&</sup>lt;sup>69</sup> While the Blegdamsvej Faust remained a text within a scientific community, nuclear fiction after 1945 opened the discussion up to a much wider audience. Werner Mittenzwei in his analysis of early theatrical pieces on the nuclear age recognized that nuclear fiction from the beginning wanted to deal with more than just the image of the atomic scientist and his invention. The topic had profound and far-reaching social implications: "Zum anderen erblicken die Dramatiker in der Situation des Wissenschaftlers das Spiegelbild ihrer eigenen Konflikte. Darum geht auch das, was sie gestalten, über den engen Kreis des Wissenschaftlers hinaus" ("Dramatik gegen die Atomkriegsgefahr" 387). Although Mittenzwei's argument refers to early

Haushofer's *Die Wand* realizes this: "Die Schranken zwischen Tier und Mensch fallen sehr leicht" (192). In Hans Hellmut Kirst's *Keiner kommt davon*, animals are described as more sensitive to the imminent catastrophe than humans: "Die Tiere waren unruhig in dieser Nacht. Die Kreatur witterte die Nähe des Todes. Aber der größte Teil der Menschheit hatte längst verlernt, das Unhörbare zu hören; er vernahm nur noch das Laute, das sich aufdrängte. Auf die Stimme des Gewissens hörten die meisten schon lange nicht mehr" (503).

The catastrophe does away with the self-understanding and the self-definition of human identity and its moral superiority. The war-ridden Germans in Gilbert Merlin's Ein Marsmensch reist durch unsere Zeit are "furchterfüllte Tiere" who have lost all "Verzierungen ihrer Kultur" (129). In his 1948 novel Wir fanden Menschen, Hans Wörner has probably exemplified this inner devastation best:

Dies ist das Bild des Menschen, der aus sich selbst herausstürzte in den Stand des Übertiers [...] Er stürzt nicht in die Unschuld des edlen Tieres, er gewinnt die Reinheit des natürlichen Instinktes nicht mehr zurück. [...] Er wird Übertier, dazu angepaßt, in Städten zu hausen, die er dabei verwüstet." (74)

The novel tells the story of three expeditioners who set out to explore a nameless country that has been devastated by a nuclear weapon. As the protagonists encounter the remaining settlements, at first glance havens of safety because of their low levels of radiation, they quickly discover the squalid circumstances under which the survivors vegetate. Crime runs rampant, morality is virtually non-existent, and the remaining social

plays primarily, it basically applies to all of nuclear fiction. Robert D. Hostetter points out that the Manhattan project and the subsequent bombing of Japan were the turning point of discussion that used to focus on the small number of perpetrators and is now directed towards the victims. "So Hiroshima and Nagasaki play a vital role in many artistic considerations of the nuclear age. Historically and symbolically they shift the focus from responsible *individuals*, such as scientists and politicians, to masses of innocent

victims" (89).

life is at best that of a ravenous pack of wolves trying to deprive each other of what little sustenance is left. Wörner's account is clearly infused with the pessimistic loss of faith in humanity and its brittle morality that is symptomatic of many other German post-war writings. Yet even if one regards Wir fanden Menschen as the sole product of the eerie afterglow of the Second World War, one cannot deny Wörner's convincing depiction of human morality as a philosophically limited concept: without the proper prerequisites, humans evolutionarily cannot behave like humans. The social trappings decide on and preside over man's ability to be a cultured creature or, when they have gone amiss through atomic war, man's descent into the immoral cesspool of animal cruelty. Wörner depicts human beings who have undergone such a fatal loss in the course of the nuclear apocalypse as the new *Übertiere*, the super animals, cynically responding to Nietzsche's postulate of the super human. He then throws these dastardly beings into relief with three expeditioners, men who set out from their home country where there has never been a nuclear disaster and where therefore the concept of civilization is unblemished. The new Übertiere cannot account for their transformation, for they have lost not only their moral qualities but also their ability to couch experience into a narrative.

The expeditioners function as ambassadors of human culture which they try to bring back to a country destroyed by nuclear forces. However, the gravitational pull that emanates from the *Übertiere* is a force that makes the expeditioners aware of "welche unmenschlichen Wesen sie in sich selber herumtragen…" and how easily they themselves could become victims of brutalization (79).

Paul Brians claims in his meta-study *Atomic War in Fiction* that the survivors of atomic wars often mutate into super humans, embodiments of belated National Socialist

vitalism in the wake of Nietzsche and Wagner (67-9). What sets Wörner apart from this description is that he turns the table on this very same idea of physical and mental mutation: the prefix super is still applicable to his *Wolfmenschen*, but quite to the contrary of the original positive connotation: "super" denotes the extreme fall from human virtues. Wörner is not alone in raising this issue. It is a common problem in nuclear fiction as Dürrenmatt's *Winterkrieg* questions: "Wo hört das Raubtier, dieser grausame, blutige Raubaffe auf, der sich Mensch nennt, wo fängt der Übermensch an?" (176).

The human being has turned into an undefinable creature, vacillating between insane intellectual and ruthless beast of prey. Wörner's text represents a radical departure from the biblical apocalypse which does not deprive man of his position in the universe as creature invested with a sense of morality. How else could the *Book of Revelation* call man a sinner? Despite its corruption, its sordid turpitude, mankind as portrayed in the Bible is capable of assuming moral guilt. On these grounds, the punishments meted out in the Book of Revelation can bring about change for the better. The Christian apocalypse is based on rehabilitation and moral improvement: those who believe in God in the teeth of the catastrophe will be part of the second coming of Christ and will be awarded a future in the promised post-apocalyptic world. The nuclear inferno in turn harms humanity twice. Those who immediately fall victim to the explosion are dead yet will not have to endure the hardship of the aftermath. The survivors, however, although they carry on the gift of life, are now forced to fight against their own inner decay and the emergence of the beastly elements of their animal nature.

It is quite common in war fiction to describe humans descending to the level of wild animals, gradually shedding all their former human traits in the process of securing their survival in the midst of death and destruction (Gert Ledig's war novel *Die Stalinorgel* is a prime example). Wir fanden Menschen, however, aggravates the fall of human morality and social culture depicted in such literature through the totality it conjures up.

Questions of extreme cultural decay were pressing authors of dystopian literature beyond the scope of German nuclear fiction: in the same year in which Wörner's novel appeared, Aldous Huxley published the novel *Ape and Essence*, a work surprisingly similar to *Wir fanden Menschen*. Expeditioners from New Zealand scour the Californian coast for survivors after an extensive nuclear war. They chance upon people who have not lost or shed all their cultural memory as the survivors in *Wir fanden Menschen*, but who have mentally adapted to the catastrophe by inventing a perverse devil's cult that defines and regulates the life of the survivors. Huxley and Wörner both are more interested in the cultural changes that the nuclear apocalypse has effected than in the technical details of the nuclear blast proper. However, while Huxley refuses to accept the possibility of a total loss of culture and rather replaces the dreaded void with a new

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<sup>&</sup>lt;sup>70</sup> Ledig's relentless realism anticipates the description of brutality in nuclear fiction. The degradation of humans to decaying carcasses is also a common motif in nuclear fiction: "Unter einer handbreiten Erdschicht stießen sie auf Leichen. Die Spaten zersplissen verwesendes Fleisch, kratzten an Knochen, zersplitterten Gebeine. Im Schein der Leuchtkugel stießen sie auf einen Schädel, an dem ein russischer Helm klebte. Ein Gerippe, das ein verschimmeltes Koppel zusammenhielt. [...] Wer noch keine Gasmaske trug, dem flogen die Giftschwaden in Gesicht und Mund." (*Stalinorgel* 127)

<sup>&</sup>lt;sup>71</sup> In the novel, Huxley draws strong links between the Nazis and the Third World War and the nuclear age: "All men are merciful and all are murderers. / Doting on days, they build their Dachaus; / Fire whole cities and fondle the orphans" (75). Workers craft tools from the bones of the deceased (99-100). The Belial cult that rules the survivors is reminiscent of the penchant of Nazi leaders for the occult (e.g. Göring). The narrator maintains that Hitler, whom he sees as possessed by Belial, is eclipsed and outdone by the post-WWIII leaders in terms of fanaticism and evil possession. Those leaders were even worse than Hitler in the narrator's view because their actions lead to the outbreak of the Third World War, the final and destructive war (130).

primitive diabolic cult, Wörner does not shrink away from showing the worst possible deculturation.

While the German survivors of the Second World War could at least return home, they found a society that was morally and physically in a bad state but that made constant attempts to rebuild and regenerate itself. This attrition, in all its severity, could not extinguish humanity's will to survive. Wörner, very much under the vivid impression of the plight of the first post-war years in Germany, takes this societal breakdown to a next level in Wir fanden Menschen, to a severity that required quasi-missionary humanitarian intervention from outside. The survivors that he portrays are unable to recover mentally from their descent to the *Übertier*; they remain politically impotent creatures, "verwilderte Kerle" (40), unable to reorganize themselves and to reintroduce morality to their society. Wörner's survivors are also marked by a total loss of cultural memory and the ensuing ceremonies and rites that healthy societies perform in order to remember their cultural heritage. Not only does cultural tradition appear unnecessary and useless for the survivors, the brutalization in the wake of the nuclear apocalypse also erases the cultural consciousness completely from their minds – a nuclear tabula rasa that not only zeroes out the outside world but also humanity's inside with an unprecedented radicalism. The crater-studded moonscape that the nuclear blast has created in Wir fanden Menschen is a token of the mental landscape of the survivors.

Jerome Rosenberg and Dennis L. Peck claim in their essay on the social consequences of megadeaths that cultural ceremonies are of the essence when societies try to recover from tough strikes with many casualties. Human beings, they argue, need to make a cultural transition from wartimes to times of peace through a symbolic act that

serves as a psychological demarcation line (227). Despite their devastating defeat, the Germans were granted such a demarcation line with the official capitulation in April 1945. However, the post-nuclear society in Wörner's novel is left alone, losing every sense of time, timing, and cultural judgment.

The concept of humanity has changed considerably in nuclear fiction. While the biblical apocalypse showed man as sinner who was to suffer for his moral corruption, it nonetheless does not strip mankind of its title as creation's crowning glory. Man remains man and despite his downfall through his own turpitude, he falls as man. Nuclear fiction, however, often depicts humanity as deprived of its former state of humanness and humaneness.

In Günther Weisenborn's play *Die Familie von Makabah*, Cricot, a former nuclear physicist-turned apocalyptic alerter, regards humanity as an accumulation of beasts, governed by primordial instincts and ridden by deep-seated fear of death and destruction. In the face of the nuclear age, humanity is demoted to a horde of evolutionarily retarded animals which (and accordingly not: who) have shed the skin of civilization. In the biblical apocalypse, man proper always retained the grace of being the personal creation of God. In nuclear fiction, this last bastion of solace has been taken away. The narrator in Matthias Horx's novel *Es geht voran* puts it bluntly: "Ich glaube, daß diese verfickte Menschheit ihren Platz in der Evolution abtreten muß." (43)

The modern apocalypse holds no hope for the active presence of an engaged divine being that will at some point intercede on behalf of man and come to his rescue. In Weisenborn's play, Cricot furthermore tags the nuclear age as a watershed between the continuation of the eternal gruesomeness (wars, plight, atrocities) and the chance of

abolishing all of these shortcomings of humanity. In other words, God has given man the power to find knowledge and discover the laws of nuclear physics so that he can learn that he is about to overstep the critical threshold leading him to a point of no return. Although Cricot's metaphor is powerful, in the context of the entire play it loses its divine underpinning. There is in fact no divine meaning that can be given to the disenchanted world of nuclear destruction. The world has instead turned a spiritual blank, yearning to be filled with sense and meaning. The play therefore reveals Cricot's admonishment flush with religious sense as a rhetorical reinforcement of his plans to contain the dangers of the atomic bomb.

Most works of nuclear fiction paint a somber picture of mankind's morality and culture being destroyed in multiple ways during the nuclear apocalypse. Josef Schilliger's *Der Heilige der Atombombe*, however, contains the challenging message that the catastrophe can actually make society stronger and inspire compassion and mercy among people. The protagonist, the Japanese doctor Nagai, metamorphoses from a virtuous yet inconspicuous man into a selfless saint who seeks to rescue as many patients as possible after the nuclear attack on Nagasaki. Nagai sacrifices his own health to assist others and is subsequently admired as a saint: "Steht doch auf seinem schlichten Grabstein: 'Ich war nur ein bescheidener Diener. Ich habe nur meine Pflicht getan.' Sein Testament lautet: 'Ich bin der Atombombe dankbar, sie hat mich zu Gott geführt'" (110). Although the novel is based on a historic figure, Schilliger's literary apotheosis of Nagai goes beyond authentic historiography and seeks to demonstrate symbolically that human strength can not only be set free in an extreme situation but that its level surpasses all levels of expectations. Such demonstration of human dignity in the face of a catastrophic strike is

the rare exception in nuclear fiction. Günter Anders symbolic short narrative "Die beweinte Zukunft" (1961) harnesses the same idea as it portrays Moses as the proactive warning voice of the impending deluge (*Endzeit und Zeitenende* 1-10). Moses trespasses divine law as he tries to convince his people to build several arks, not just one, in order to rescue as many lives as possible. Comparable only to the Sisyphus figure in Albert Camus's existentialism, Anders's Moses figure comes to represent human courage and engagement in the face of an imminent threat of life.

Courage and the ability to survive and persevere during the nuclear catastrophe are not always noble human traits bespeaking true humanitarianism but can also be regarded as useful "tools" in guaranteeing post-nuclear life. Able-bodied and able-minded soldiers in Matthias Horx's *Es geht voran* are psychologically and psychiatrically pre-conditioned to endure the anticipated post-war plight. Through brainwashing and psychoactive substances they are steeled and hardened not only against the possible pains of radiation sickness but also against the humanitarian catastrophe that they will have to witness. These soldiers do not serve a bona fide mission but act as henchmen for a secret group of people who seek to gain political control of the world after the nuclear apocalypse. Gradually, this conditioning wears off and the soldiers return to their former state, unable to withstand the stress and exasperation that the post-nuclear world causes. Horx's novel claims that the nuclear apocalypse not only alters human beings after the fact but already manipulates them in the course of war preparation, strongly marring and maiming their minds.

Another form of psychological conditioning is described in Helga Königsdorf's novel *Respektloser Umgang*, a text portraying the incessant exposure to fantasies of the

Cold War and its psychological bearings on the life of a East German nuclear physicist. An entire nation, Königsdorf's homeland, the communist GDR, prepares its citizens constantly for a nuclear war through inundating them in a constant stream of media messages:

Stelle das Radio an und höre von morgens bis abends Berichte, Kommentare, Debatten, Beschlüsse. Sicherheit durch Abschreckung. Mehr Sprengköpfe. Mehr Raketen. Dabei geht es in Wirklichkeit um ganz neue Waffen. Der Mensch ist gut. Der Mensch will das Böse nicht. Aber die Verhältnisse. Die ökonomischen. Diese verfluchten. Und die KZ-Ärzte? Und die Waffenhändler? Und die Strategen, die mit Megatoten rechnen? (12)

While the protagonist reminisces about the former idyll of an "internationale Familie der Atomforscher" (59) during the gestation period of nuclear physics in the 1920s, she recognizes and deplores the departure of such former concord between science and society when Adolf Hitler rose to power and destroyed a close-knit scientific community. Königsdorf's protagonist then fleshes out the tremendous pressure of sudden and unpredictable nuclear devastation that rested upon every single human being during the Cold War. Despite the absence of greater nuclear scenarios with gigantic amounts of casualties in the novel, the hovering fear is enough to inflict a traumatization of sorts upon the protagonist. Paul K. Saint-Amour defines this limit situation as "conditional traumatic space" (60), which he derived from Sigmund Freud's idea of the uncanny and "impossibility of its anticipation."

Applying Paul Saint-Amour's argument, the mental conflict that Königsdorf's female protagonist undergoes is not a full-blown trauma (which could only occur to those suffering through a nuclear apocalypse) but hamstrings her nonetheless: the physicist is a bed-ridden mental case who struggles hard, harried by hallucinations and anxiety over the

threatening make-up of the atomic world. The protagonist's mental illness, in particular the hallucinations, attempt to make up for the lack of anticipatory images in the Cold War: "Die Phantasie läßt uns im Stich" (61). She who suffers from a world that withholds visuals of the atomic apocalypse from her starts to create her own images to fill the unbearable void and to ease the pain. Unfortunately, this compensation at the same time causes mental illness, reducing the protagonist's human quality and turning her into a cripple from inside, unable to function as a moral stronghold to society.

In nuclear fiction, human morality often suddenly evaporates, ousted by a new vested interest in one's own survival. Quickly, this instinct turns against former duties and moral responsibility. In Gerhard Zwerenz's *Der Bunker*, the German chancellor violates his responsibilities as the head of the German state. He who should pursue everything that prevents his fellow Germans from damage and injury, gleefully watches when helpless victims burn to death outside his *Eifelbunker*, cynically and laconically commenting on the nuclear holocaust: "Wer nicht hören will, muß brennen" (63). The nuclear apocalypse causes a loss of human individuality as the novel's first-person narrator remarks: "das Kernkraftzeitalter degradierte den Menschen zum Atom, und in der Masse der Atome verlor er seine Individualität, seine Würde, seine einzigartige Ich-Energie" (432). The nuclear age, as the novel claims, deconstructs and dissects the formerly integral human mind, just like nuclear science has broken down complex compounds into single atoms and sub-atomic particles.

Zwerenz applies scientific imagery to describe the decay of human qualities, very similar to the imagery in Christa Wolf's *Störfall*, where the splitting of the atom is translated into the schizophrenic attitude that humanity assumes facing science's

advantages and disadvantages: the technological advances that mankind has made can either rescue us and prolong our life (the brain surgery of the brother) or, quite to the contrary, they can threaten and extinguish human life on a grand scale (the reactor accident in Chernobyl). We live in a schizophrenic quandary trapped between these two poles, as Wolf claims. In Carl Zuckmayer's *Das kalte Licht*, the "fission" or splitting of atoms leads to the schizophrenic splitting of the human mind: "Wolters: Alles spaltet sich auf wie unter einem infernalischen Strahlenbeschuß ... Wie kann da ein Mensch noch seinen Weg sehen?" (53). In *Die Rättin*, Günter Grass refers to the same state as the "gespaltene Mensch" (132).<sup>72</sup>

Human qualities are as vulnerable as the human body to the atomic disaster. In *Julius oder Der schwarze Sommer*, the blast lays waste to feelings of moral steadfastness. The sudden strike temporarily overburdens and unhinges the protagonist Julius's nervous system so that he does not have any feelings of fear or pain during the first minutes after the explosion, momentarily living through a sensory vacuum (10). Paul K. Saint-Amour describes this process of initial petrifaction in his essay "Bombing and the Symptom: Traumatic Earliness and the Nuclear Uncanny," analyzing the nuclear trauma that aptly describes the mental distress of Rabsch's protagonist Julius:

... the impact of the traumatic event is felt belatedly, after a period of latency, through symptoms that often include the return of repressed memories and the compulsive repetition of behavior, gestures, dreams, and fantasies associated with the traumatic event ... the traumatic past remains transgressively present as revenant, haunting, possession, dominating the present rather than receding, as it should, into the past. (62)

<sup>&</sup>lt;sup>72</sup> The claim that the nuclear age and its moral burden infuse humanity with schizophrenia is a frequent statement about the nuclear age. David Dowling characterization of Robert J. Oppenheimer, the whipping boy of the nuclear age, resembles the physicist's depiction in Kipphardt's play as a man torn apart between two worlds: "In many respects, Oppenheimer is the classic case of the schizophrenic scientist torn between machine and morals. He was the humanist who quoted Indian scriptures... he was also the professional civil servant..." ("The Atomic Scientist. Machine or Moralist?" 140).

While Julius is stunned by the nuclear blast at first, he later comes to his senses and is subsequently haunted by memories, inflicting on him severe moral pangs that draw him into a vicious circle of endless brooding. The tragic turning point for Julius is that there will be no period of mental recovery granted to the survivor of the global nuclear apocalypse. While Saint-Amour claims for the Japanese bomb survivors that "the proper work of mourning should at least partially restore the pastness of the past and enable the survivor of trauma to reinvest in the present" (62), Rabsch's protagonist is trapped in a world where he cannot step outside of the nuclear conflict, because it is omnipresent. Rabsch also takes Saint-Amour's argument of the nuclear uncanny one step further by showing the interconnectedness between body and mind, and not just by regarding physical and mental injury as two different phenomena. Body and mind cannot properly function without each other. Human morals and thinking are contingent on the well-being of the human body: "Das Denken würde vom Fleisch und der Fäulnis mitgerissen werden, auf jeden Fall, es würde genauso aufgelöst werden" (26). The decay and destruction of the human body inevitably destroys the human mind too.

Insanity can be seen as the ultimate stage of a destroyed human mind. Gudrun Pausewang's *Die letzten Kinder von Schewenborn* depicts the vast social and mental changes that an atomic apocalypse would trigger through protagonists who go insane in the course of the atomic apocalypse. The figure of the mother loses her senses as she has to grapple with the complete loss of her home town. As the security that she gained from the feeling of *Heimat* evaporates in the atomic blast, so does her inner mental *Heimat*. The outer homelessness translates into an inner state of confusion and disorientation which surfaces as insanity. In turn, insanity is often prevented by victims of the nuclear

apocalypse as they shield themselves against moral pangs and mental ruminations. In Alex Gfeller's Swissfiction and Harald Mueller's  $Totenflo\beta$ , the survivors of a nuclear war have become cold-hearted insensitive creatures that do not permit feelings of morality or pangs of conscience. They limit themselves psychologically to thinking about strategies that protect them from the daily dangers in the post-apocalyptic world. In both works, the protagonists have withdrawn to a state of mind where only logical decisions about survival are permissible. Any moral concern or deep-seated soul-searching about the future would inevitably lead to insanity and is therefore eliminated.

Solitude is what remains in the post-apocalyptic world of Arno Schmidt's *Schwarze Spiegel* and Marlen Haushofer's *Die Wand*. Both works portray protagonists who live in a socially empty world after a devastating nuclear event has all but engulfed all human life. The romantic ideal of absolute inner seclusion, of total immersion into one's self, quickly turns out to be a horror fantasy as the social vacuum becomes unbearable. The desire for being close to other living beings dominates the thoughts of the protagonists. Haushofer's female protagonist finds trust and companionship in several animals that she keeps as pets. However, when they finally die, the inevitable thought of hermetic isolation harrows her and endangers her psychological well-being, slowly sending her into a schizophrenic state in which she develops an alter ego:

Damals, im zweiten Sommer, war es mit mir noch nicht so weit gekommen. Die Grenzen waren noch streng gezogen. Es fällt mir schwer, beim Schreiben mein früheres und mein neues Ich auseinanderzuhalten, mein neues Ich, von dem ich nicht sicher bin, daß es nicht langsam von einem größeren Wir aufgesogen wird. Aber schon damals bahnte die Verwandlung sich an. (151)

The motif of schizophrenic transformation that one can observe in Wolf's *Störfall* on a metaphoric or symbolic level – "Das Doppelgesicht der Sprache..." (*Störfall* 87) –, is present in *Die Wand* on an immediate psychiatric level: the protagonist changes from her old ego to an alter ego and finally faces the danger of falling into a "we" personality that can be regarded as the mind's attempt at creating its own social world within itself (lacking an outside society that stimulates and nurtures the social human being). In turn, Schmidt's misanthropic protagonist first is elated at the prospect of his being the last human alive. Later, he encounters a female survivor whom he hosts for a while in his makeshift hut before she, a restless post-nuclear drifter, moves on to other places. The reader witnesses the yearning and the feeling of loss that the protagonist suffers when the apocalyptic couple finally separates.

In his essay "Wer noch leben will, der beeile sich!' Weltuntergangsphantasien bei Arno Schmidt (1949-1959)," Jörg Drews points to the misanthropic happiness that guides Schmidt's protagonist: "Meist aber herrscht eine finstere Trauer darüber, daß die Menschheit ist, wie sie ist, und dann kann ihr Untergang als Glück empfunden werden von dem einen, dessen es mindestens bedarf, um vom Glück der Menschenleere zu erzählen" (18). Even though the narrator wallows in his solitude, his cynicism continues, leaving him in a world that is free of human amorality but also purposeless. In spite of all pessimism and misanthropy, what the protagonists in Schmidt's and Haushofer's novels experience is not precisely true happiness. In his introduction to the narratives of Arno Schmidt, Mario Fränzel applies the politically infused term "autarky" in order to describe the freedom of (or one might say: from) other fellow humans: "Dem Erzähler in Schwarze Spiegel gelingt es scheinbar endlich, jene Autarkie zu erlangen... und er

erlangt diese Autarkie auch nur deshalb, weil sie überflüssig geworden ist, da die Menschheit, vor der zu fliehen ware, nicht mehr existiert" (74-5). Fränzel's description fits Haushofer's protagonist as well: The autarky that both characters obtain loses its role in the face of a dehumanized empty world.

When survivors in nuclear fiction realize that they are the only ones left in the post-apocalyptic world, they quickly learn that they cannot survive without society's net that provided them with meaning in life and that assigned them a spot in which they could function and be of use to others. In literary visions, the nuclear apocalypse not only destroys the physical world, it also devastates the mental world on which all human character traits hinge, distinguishing human life from animal life.

## Rationalizing the Religious – the Language of the Modern Apocalypse between Imitation and Innovation

Was Johannes auf Patmos niederschrieb – [...] dieses Glanzstück literarischer Erhellung und Eindunkelung, dieser siebenmal versiegelte Mythos vom Weltuntergang verspricht heutzutage, platterdings eingelöst zu werden.

(Günter Grass, *Literatur und Mythos* 793)

Many authors of nuclear fiction rely on religious metaphors and quotes taken from the Bible and other religious writings. Time and again, they invoke the mighty fantasies of the end of the world as we know it from the Book of Revelation. Works of nuclear fiction that followed closely in the wake of Germany's Stunde Null (the Zero Hour) rely heavily upon Christian imagery and religious number symbolism, often already alluding in the

title to the role that such imagery plays. Josef Schilliger's *Der Heilige der Atombombe* invokes this atmosphere of sacrosanct mystery from the very beginning:

Auf einem rechteckigen Felsklotz erhebt sich in Neumexiko ein Städtchen. Es gleicht einem Riesenbunker auf dem Berg – einer mittelalterlichen Burg hinter Türmen – oder einem friedlichen Kloster hinter Mauern. Ein verborgen gehaltenes Geheimnis, ein streng gehütetes Heiligtum ist hier hinter einem mehrfachen Schutzwall bewacht. (7)

Here, the discovery of twentieth-century physics is cloaked in the shrouds of medieval Christian mysticism. Schilliger romanticizes Los Alamos as a medieval castle, a fortification whose thick walls have to withstand the onslaught of prying curiosity from outside. Alternatively, he offers us the "peacefulness" of a monastery in which the secret of the atomic bomb is guarded like a precious library with the illuminated knowledge of its time. However, even this monastery has to be shielded against intruders in order to preserve its knowledge. The National Laboratory resembles a *Trutzburg*<sup>73</sup> in the Christian understanding of a sanctified place that resists the devil and all evil forces in allusion to Martin Luther's choral "A Mighty Fortress is Our God."

God, figuring as reliable edifice which the believer can entrust with his or her fate, is now replaced by the bomb, as Schilliger implies. This is of course a blasphemous move as it shows the loss of Christian values that the Christian world and its main representative, the United States, undergo. Furthermore, these values are turned into their opposite, the devastating bomb which then is used in order to bring destruction to Japan. Schilliger not only adheres to Christian metaphors, he also shows how Christians harm each other as the Japanese main character Nagai is also a Christian. Therefore, the

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<sup>&</sup>lt;sup>73</sup> A *Trutzburg* is a castle that is erected in order to beleaguer the enemy's castle. In this sense here, I like to apply the word as a description of the intent behind Los Alamos that becomes evident in Schilliger's take: the laboratory serves to produce a bomb that is able to break the enemy's resistance in the Pacific theater of the Second World War.

religious language is more than a sacral embellishment of an event that seems to defy description. The relapse into religious language documents the firm belief that science and technology have passed the threshold of moral responsibility or even unhinged morality proper and its categories.

It does not matter if we regard Schilliger's description as ironic or meant in earnest. The most important finding is that he resorts to the language of a bygone era and that he is seemingly unable or unwilling to match the modernity of the atomic bomb with an equally modern literary description. Schilliger was obviously very critical of the atomic bomb as he continues to portray the life of the victims of such technology as an eternal plight, a precursor to the Christian hell: "eine wahre Hölle von radioaktiven Stoffen" (14). Here, tradition and modernity come together in a language that is fueled by both worlds. Schilliger's text regards human life as being buffeted between the need for keeping with the existing knowledge and the urgent desire to research new technology and subsequently implement this for practical military purposes: "Jetzt kann der Mensch, wenn es ihm beliebt, aus der Pracht des Schöpfungsmorgens ganze Erdteile einfach auswischen" (16). The word "auswischen" implies a ruthless eradication of life, wiping out what has been willed by creation. In juxtaposition to that, the earth is portrayed as a divine Paradise that is now in the hands of humanity. The earth changes hands from God to man almost like the forbidden fruit from the Tree of Knowledge does in its sacrilegious misappropriation by Adam and Eve.

In the chapter "Die drei apokalyptischen Todesengel" (49-56), Schilliger also evokes allusions to the biblical apocalypse in his narration of the atomic attack on Nagasaki. Here, the three B29 bombers that fly over Nagasaki and drop the atomic bomb

are transformed into the lethal angels of the apocalypse, the bearers of death and destruction. However, Schilliger does not merely use the biblical apocalypse as a foil to tell a hair-rising war story. He enhances the biblical allegories by filling them with human life. So it happens that in an introspective moment, we learn about the pilots and their last-minute pangs of conscience that are filled with Christian visions of the apocalypse. The reader can thus take notice of the thoughts that move the dreaded angels of death. They are in fact very human and haunted by daunting visions that plague their conscience:

So schweben die neuen Welteroberer durch den nachtschwarzen Weltenraum und gehen ihren Gedanken nach. Teuflische Fratzen steigen vor ihnen auf. Verkohlte Skelette greifen nach ihnen. Totenköpfe glotzen sie aus schwarzen Augenhöhlen an. Wimmernde Waisenkinder ballen gegen sie die kleinen Fäustchen. (53)

Subsequently, the atomic bomb splits the firmament asunder and descends – a foretaste of Judgment Day (80). It seems alienating to read such a traditional depiction of downfall and decay when facing the impact, both literally and emotionally, that the atomic bomb is about to have on humanity. One might wonder if the author could not come up with a more modern depiction of the aftermath of an atomic explosion. In fact, such a detonation is so forceful that it will not only defy traditional imagery but also leave no human remains after it has wreaked havoc. This passage is rather reminiscent of a portrayal of victims of the plague or a conflagration. Its Christian notion of the sepulchral somberness that constantly goads fear of eternal damnation in the eye of the beholder is archaic. As becomes evident in other parts of the novel, Schilliger has done his research on the scientific facts of the Manhattan Project. However, he refuses to limit himself to a purely technological language. The religious imagery that continues to

resonate throughout the book is chosen on purpose. It might seem archaic but it is also the author's means to express the inexpressible in lieu of a more forceful and dramatic language.

In *Nuclear Fear*, an analysis of the complex use of various imagery in nuclear fiction, Spencer Weart claims that the use of non-scientific language such as religious language represents not just recourse to traditional language but is rather chosen on purpose to reveal underlying issues:

Modern thinking about nuclear energy employs imagery that can be traced back to a time long before the discovery of radioactivity. That fact is disturbing, for it shows that such thinking has less to do with current physical reality than with old, autonomous features of our society, our culture, and our psychology. (421)

Frequently in nuclear fiction, the religious language of doom and desperation is juxtaposed with a different jargon, often influenced by science and modernity. In "Die Atomenergie in der Science-Fiction – unerschöpfliche Energiequelle oder implizite Katastrophe?" Hans Esselborn describes the difficulty that nuclear (science) fiction faces when portraying the catastrophe:

Schon immer zeigte die Literatur Interesse an Katastrophen, gipfeln in ihnen doch dramatische Ereignisse, welche allgemeines Interesse erwecken und ästhetisch eindrucksvoll gestaltet werden können. [...] Die Literatur hat allerdings spezifische Probleme, technische Katastrophen vor allem neuerer Art darzustellen. [...] Der Science Fiction geht es um die hypothetische Darstellung möglicher Katastrophen als Modell, mit denen Ereignisse und Gefühle experimentell vorweggenommen oder alternativ durchgespielt werden. Der Anstoß geht von aktuellen technischen Ereignissen und ihren wirklichen Bedingungen aus. Doch werden diese weitergedacht und weiter fantasiert. Dabei können zwar alte Denkmuster nicht vermieden werden, neue aber werden gesucht. (213-4)

According to Esselborn, nuclear fiction offers a clash of old patterns of thinking – "alte Denkmuster" – and a new experimental style. This stark contrast is especially effective in pieces like Heinar Kipphardt's In der Sache J. Robert Oppenheimer, where the lingo of formal juridical logic clashes against the ominous language of fate. Especially two characters, Robert Oppenheimer himself and Ward V. Evans, are the advocates of a more flexible discussion of the atomic bomb. They invoke the spiritual quality of the bomb resembling divine power, God or the devil respectively. As the work shows, the language of reason within the formal setting of a quasi court session is unable to grasp the philosophical and physical problems caused by the bomb. The language of religion and prophecy therefore foils the rationality with which the authorities regard the bomb. Such religious phrases and connotations are not as prevalent in Kipphardt's drama as in Schilliger's piece. Nonetheless, they thwart the existing beliefs of the legal system and are a measure of counteracting the obsolete Enlightenment spirit. Religious lingo is suffused with elements of speculation and obscure prognostication. It opens up new realms for defining the apocalyptic feelings of those who have lived and continue to live in the nuclear age.

In contrast, Karl Jaspers's treatise *Die Atombombe und die Zukunft des Menschen* forgoes any religious associations with the topic. The work was highly unsuccessful although its author proposed a sophisticated train of arguments in order to bring about betterment in the nuclear world and to reduce the dangers of a potential third world war. The work was written in the best Kantian Enlightenment spirit, and just like Kant, Jaspers does not seek to deny the presence of a divine entity, but he also does not include such a divinity in his problem solving efforts as he regards such things as transcendental. From a

practical stance, Jaspers was indubitably right as his work tries to close the gap between theoretical and applied philosophy. Nuclear fiction, however, does not attempt to solve problems in a sober-minded way. Therefore, the language of religion is used as a very disturbing means of making the reader aware of the philosophical and moral bedlam of the nuclear age.

Religious language in nuclear fiction can also be regarded as a literary rite to humanize the nuclear apocalypse. While the total annihilation of human culture and the subsequent distortion of the face of the earth are a possibility at which the human mind balks, the ceremonial description of the end of the world in the biblical apocalypse possesses highly visual elements.

In her book *Death's Door*, Sandra M. Gilbert, inspired by the research of Terrence Des Pres, describes the complicated ritual procedures that—someone who has died will undergo under normal circumstances. These procedures "confer meaning and dignity upon his or her death and thereby humanize it" (156). Burial rites are comprised of actions (the descent of the coffin into the grave, for instance) but even more importantly of words that reenact the life of the deceased for the mourners. It is useless to search for such meaning and dignity in nuclear fiction. After all, these texts attempt to demonstrate the opposite: the irrationality and the indignity inherent in the nuclear age. Yet we may still think of nuclear fiction as a literary sermon — a humanizing procedure according to Gilbert's arguments — to bring back the nuclear apocalypse into the realm of human concern and restore a traditional accessibility of the natural and scientific world that humanity had possessed prior to the nuclear age. Detractors may argue that this at the same time can play down the catastrophe and lessen the severity of a nuclear apocalypse

by depicting it with conventional cultural means. However, the portentous tone of the religious language in nuclear fiction creates an atmosphere of disorientation and utter menace, highlighting the ineffable of the nuclear age.

Günther Anders is probably the first German-speaking author who implemented a notion of ominous danger in nuclear fiction. He stylizes the atomic bomb with a plethora of religious metaphors and thus invokes it as an idol or the false God of the twentieth century which the scientists joyously idolize like the biblical golden calf. Anders subsequently portrays the danger behind this idol as the deluge that seeks to engulf all of humanity (Der Mann auf der Brücke 223-8). The biblical sin of idolatry is mild, however, compared to the idolatry that occurs in the wake of the emancipation of technology. While the golden calf remained a lifeless figure, the atomic bomb has assumed a will of its own. The calf and the sinful renunciation of God that it represents can be given up and cast away. The bomb, however, has become so mighty that it or the ideas that led to its construction cannot be relinquished or annulled. The nuclear bomb is blasphemous in more than one respect: Humans are the fathers of their own God and subsequently give up parenthood by idolizing their own child.<sup>74</sup> Anders harnesses this biblical metaphor in order to emphasize this paradoxically incestuous situation. He blurs the lines of demarcation between deity, humans, and man-made objects through the use of religious language. It thus represents the dissolution of traditional categories of thinking. Religious language becomes a tool for questioning the validity of these categories in the nuclear

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<sup>&</sup>lt;sup>74</sup> It is interesting to observe that nowhere in nuclear fiction does motherhood play a role when talking about the development of the atomic bomb. Historically speaking, most of the physicists involved in the construction of the first nuclear weapons were men, and therefore the birth of the nuclear era has always been described as fatherhood. Nuclear fiction adheres to this pattern yet sometimes alludes to the idea that fatherhood and male aggression are two inseparable aspects of the genesis of the nuclear age. In *Ende*, Guha summarizes this laconically: "Alle Waffen haben nur Väter!" (23)

age. Anders, however, does not ask if this might be an act of blasphemy. Language is a tool, and as such it must serve a purpose. Religious images in Anders's writings are not conjuring up notions of sacrosanct realms. Rather, they help to create a new "Zwecksprache" so that – as Anders posits – all of humanity can communicate among its members to solve the nuclear crisis (60).

One could argue that for Anders, religious images have the power to expose blasphemy. It does not matter if nuclear fiction references single words, similes, or more complex metaphors bearing religious content. The invocation of God and devil, of good and evil, or for that matter of the new fallacious God of technology, is a universal act of revelation of the truth. The Book of Revelation seeks to reveal the future, and thus the revelatory language of nuclear fiction pursues the same: making heard the truth of a dangerous age.

Blasphemy then often begs the question of betrayal and fraud. The stoker in Fred Denger's *Bikini* regards his remuneration as thirty pieces of silver – "Heuer ein Judaslohn" (9) – that he is paid in order to acquiesce in the face of a looming catastrophe. However, the figures in Denger's piece do not adhere to a religiously motivated classification of sinfulness and virtue. Rather, they feel themselves as a part of a disenchanted world in which God has been demoted to a figure on the periphery "Ganz oben aber sitzt Gott schon auf Posten / und wartet ab und schüttelt nur den Kopf!" (10). God's power is eclipsed by human power. The powerless divine figure has been shunted aside by the rigorous human will to exert all power on earth. The Christian imagery remains present but is also deprived of its philosophical core values. The play impugns the authenticity of the Christian worldview but at the same time wallows in a rich

Christian language that embodies the helplessness of the bystanders who are awaiting the nuclear explosion. Just as the concept of Christian spirituality is reduced to mere word, devoid of substance and meaning in the technical world, so is the existential fear that inhabits almost all crew members on the battle ship: reduced to mere thoughts and words of apprehension: Language proper has lost its impact on reality. The (nuclear) sword is mightier than the word. The emasculation of religion symbolizes the moral and ethical castration of humanity.

The idea of God as an external divine entity has become an impossibility in nuclear fiction. While the language of the divine is still an important tool, God has been pushed to the side, as for instance in Gilbert Merlin's Ein Marsmensch reist durch unsere Zeit: "Und wo früher Gott thronte, haben wir einwandfrei den Andromedanebel und einige tausend Sonnensysteme, deren Ende ebensowenig abzusehen ist wie der Anfang" (11). Although the concept of a Christian God, towering atop the universe, has been replaced by the modern scientific findings of astronomy, the new concept, nonetheless, remains impenetrable and mysterious not unlike a deity, as the reaches of the universe are still immeasurable. Merlin's text takes away the spiritual sanctity of the Christian apocalypse but it establishes a new universe whose many unsolved riddles prevent a disenchanted world view. Merlin now creates a substitute for God in the Martian. Not that the Martian would have any godly attribute – omnipotence, omnipresence, or omniscience – but he figures as an external character entering the human world from outside. In other words, he is an anthropomorphized version of the dethroned God of the nuclear age. The Martian's language is therefore an ironic surrogate for the language of God. However, he turns out to be a God that has no authority over language anymore. He

is a seeker who tries to find out what the humans intend to do because he does not possess the power of prognostication. As the Martian wanders across the world, he meets a few reasonable humans who share their wisdom with him: "Bikini ist der Name für die Zusammenballung gottähnlicher Macht in den Händen von Unmündigen, die zum Himmel streben, aber schon auf dem Weg in die Hölle sind" (85). The bugbear of hell and the paradisiacal prospects of heaven are the two extremes between which the nuclear age quavers. The languages of science and religion interlace: the conglomeration ("Zusammenballung") of divine power resembles the conglomeration of atomic matter in preparation of a bomb. In turn, matter is conflated with divinity, branding it as a holy object that must not be touched just like the fruits from the Tree of Knowledge. "Unmündig" strongly refers to the first sinners in Judeo-Christian mythology, Adam and Eve. Merlin adheres to a language infused with religion for which the Martian serves as a mouthpiece. The naïve extraterrestrial being resembles a human being more so than the humans of the nuclear age resemble their own former selves. They have left the path of humanity and begun their journey into the self-imposed hell. Merlin depicts a world that is upside down with a language that has changed its speakers. Heaven and hell are not meant in a Christian way but are rather verbal simplifications of the impending apocalypse.

The reduction of the apocalypse to words on the one hand represents the loss of the power of the word as Günther Anders argued: "Vor dem Gedanken der Apokalypse aber streikt die Seele. Der Gedanke bleibt ein Wort. —" (269). However, on the other hand one could also regard this process as a compression as it occurs in Günther Weisenborn's *Die Familie von Makabah*. Here the title is already suggestive of the apocalypse.

According to the play's foreword, Makabah is a fictitious place that could exist anywhere on earth. The sound of the word, being reminiscent of "macabre," carries an apocalyptic notion that suggests an all-embracing omnipotent and omnipresent threat. While the town of Makabah on the one hand is a nondescript commonplace, on the other hand it possesses qualities that vault its nuclear evil into the realm of the divine: the macabre Makabah is everywhere and therefore turns the world into an apocalypse. If it were a single place on earth, the dangers it exudes would be containable. Since it is, like God, a paradigm for a myriad places on earth, it catapults human life into an apocalyptic abyss. The name "Makabah" is therefore a specific allusion on the one hand but an all-pervasive umbrella term on the other hand, a juxtaposition of two realms that Werner Steifele described as "zwei Handlungsebenen, einer realen und einer imaginären" (109). Weisenborn compresses and condenses a multitude of aspects into this one word which becomes a multi-faceted verbal representation of the real global dangers.

Another approach to harnessing religious language and its ritualistic power is shown in Anton-Andreas Guha's *Ende. Tagebuch aus dem 3. Weltkrieg.* The diary of a nuclear war survivor who totters towards his own demise and chronicles his own slow decay is on another level a dramatic obituary that is written by its own object – a paradox as there is no recipient to read this obituary. The nuclear obituary therefore is the product of a nuclear zombie so to speak, one who already is doomed to death but is still alive for the nonce. Guha implements the pious language of an obituary and caricatures it. While the role of an obituary is to summarize the vita of the deceased by lauding him or her and extolling his or her special virtues, Guha's obituary is quite the opposite: it is a lugubrious farewell song to a world of wrongs that is swallowed up by chaos. Of all the

cultural achievements that Guha's narrator enumerates in his diary, none will live on after the impending death of humanity. Whereas a traditional obituary nurtures the hope that the virtues of the deceased may live on in the future among his or her descendants or - if there are none – will at least be remembered by posterity, Guha's obituary is a swansong about the survival of culture. This ultimate finding is expressed in a language that vacillates between reason and rancor, between rationality and religious ire. The text's language is interspersed with various snippets from the Bible – such as the sounding of the trumpets of Jericho (15) or multiple references to Armageddon, the final fight of the good against the evil – that constantly pervade, pervert, and distort the narrator's attempt to chronicle his own end sober-mindedly. The atomic desert that the narrator anticipates resembles the desert where Jesus stayed when he was tempted by the devil (23, 33, 101). This temptation, however, is ruled by the idea of the "Götterdämmerung" (63) of the entire Western civilization and its icons. Guha's narrator claims that the entire West with all its rich philosophical traditions attests to its own utter helplessness in the face of the downfall. Guha does not exempt Christian beliefs from this notion of helplessness. The narrator does not find any solace in religious words or in anything else. He is governed by an omnipresent nihilistic fear that leaves no cultural foundation stone unturned in his fragile mind. In the midst of this total fall of culture, religious words and phrases serve as a mere harbinger of the unimaginable: "Und ich bin der Chronist der Apokalypse. Sie wird schrecklicher und größer sein als die des Johannes und als das Inferno Dantes" (119).

An important reason for the strong desire of authors of nuclear fiction to use religious language seems to be the loss of morality that modern literature, art, and

aestheticism have suffered. Such loss of morality is a criticism that is present in early as well as in late pieces of nuclear fiction. The reasons behind this loss are different, though. While the early pieces are still under the spell of the Second World War, they do not dare utter moralizations on the nuclear world. Their postulations are marked by a lack of trust in the strength of the German nation whose historic wrongs are still present for the authors. Although the hope for moral betterment and the continuity of human civilization pervades these works, they do not scathingly caricature religious language but use it in order to strengthen a feeling of subconscious unease about the age. Later pieces of nuclear fiction in turn cast scorn on the nuclear apocalypse by utilizing religious language more freely. These pieces originate in an era that has economically completely recovered from the war and that now even suffers from an onslaught of material wealth which not only fattens human bodies but also deadens the perception of fear. Religious language is an instrument of engendering such fear, but at the same time it reveals itself as a means of an outdated era: the old-fashioned production of fear as a makeshift solution to create awareness in a naively fearless society.

The language of religion is one laden with mythical imagery. As we have seen above, Günther Anders was the first one to extensively use biblical myths in nuclear fiction. The old myths are juxtaposed with the new myths of the nuclear age and its seemingly innocuous calm before the nuclear storm – the contrast between the -"endliche Nähe" (the feasibility of the nuclear apocalypse) and the "mythische Ferne" (images of the traditional apocalypse) as Hans-Jürgen Heinrichs called it in his study *Die katastrophale Moderne* (21). In Helga Königsdorf's *Respektloser Umgang*, the narrator addresses the danger of the modern myths: "Gefährlich ist der Mythos, wir könnten mit

ihrer [i.e. science's] Hilfe getrost jede Suppe auslöffeln, die wir uns einbrocken" (93). The modern myth is a ticking bomb that might explode in humanity's face. Nuclear fiction thus conjures up counter-myths to oppose the modern myth. Of all of nuclear fiction, Günter Grass's Die Rättin embodies this principle the best. Grass constantly spins forth myth after myth, trying to enmesh the modern age in a tangle of various yarns in order to finally reveal the mythical identity of the nuclear age. For him, a myth can only be portrayed in an array of other myths. At first glance, the novel is an amalgamation of myth and reality, of a barrage of wild stories from a wide variety of cultural traditions – fairy tales, sagas, myths, mystic stories, legends. In his study on intertextuality in works by Günter Grass, Mark Martin Gruettner has countered criticisms of *Die Rättin* merely being a chaotic and eclectic text. Gruettner argues that the novel is a text richly saturated with intertextual references that infuse it with literary life and that strengthen the visual representation of the modern apocalypse: "Die Intertextualität in Grass's Werk hat mit der Rättin ihren Höhepunkt gefunden. Danach wird das Medium der Literatur erweitert: das Bild tritt dazu" (139). In *The Life and Work* of Günter Grass, Julian Preece regards Die Rättin as a great encyclopedic summary that reunites various strands of Grass's work: "The Rat expresses by literary means – stories, images, fantasies and fables – much of what Grass had said in pamphlets, articles and lectures. It is a vehicle for ideas and opinions, much in the manner of Voltaire's Candide or Swift's Gulliver's Travels, even though Grass negates the implicit belief of the eighteenth-century Enlighteners that satirical literature might embarrass its target, or serve otherwise as a force for general human improvement" (162).

Die Rättin frequently provokes a collision of the ominous language of myth and religion and an overuse of the formal language of rationalism in the media. Here we see a group of Sibylline women on their boat scouring the sea for the mythical underwater city of Vineta when they are engulfed by an atomic flash out of the blue, there we learn about the death of Oskar and the congregation of the birthday revelers at his grandmother's place. The first scenario portrays a mythical death almost as if executed by the vindictive will of a God, the second one refers to the passing of Oskar and his bystanders as the "Entsaftung des Menschen" (219), an amoral and purely technical term that contains nothing but utter disdain for the value of human life.

Grass's language is a means of exposing opposition, of showing the rivalry between the old world and the new world. His critics have often bemoaned the willy-nilly entanglement of motifs in a dozen different styles. However, this confusion is part of a consequent program of exposition. The novel's language refuses a clear characterization. It jumps hither and thither like a wayward creature but does so in order to negate the efficacy of rationality. Grass regarded sheer rationality as an absurd element in the new apocalyptic era of the "nüchterne Offenbarung," and "der ausgezählte Wahnsinn, die Apokalypse als Ergebnis eines Geschäftsberichts" ("Die Vernichtung der Menschheit hat begonnen. Feltrinelli Preisrede" 830). In the language of *Die Rättin*, he shows how the two elements of rationality and insanity linguistically clash together.

It is a commonly held belief in linguistics that language is ambiguous and can often be interpreted in many ways. Its meaning is therefore not definite. It is beyond the mathematical clarity of science that led to the advent of the nuclear age. Language, therefore, opposes the nuclear bomb by the difference in its very principles. Grass

enhances this difference further and uses language as a tool of confusion and obfuscation. The novel imparts the message that through the language of reason alone the nuclear age cannot be represented in literature adequately, creating a strong tension within the novel proper that Erhard Friedrichsmeyer described as "...fiction programmed to self-destruct" (24) – the ultimate apocalypse of literature and language itself.

There are also quite a few works of nuclear fiction which decidedly reject religion and show the world as disenchanted. However, through the air of sober cynicism, the longing for a more spiritual world becomes obvious. In Matthias Horx's *Glückliche Reise*, the idea of a transcendental apocalypse is frowned upon. The novel shows several small villages and communities of nuclear survivors who have returned to a fanatic practice of religion. One of the figures, a Christian minister, preaches persistently the Book of Revelation and explains the fate of humanity through the lens of the biblical apocalypse as caused by a predestined divine intent. The ominous tone of the sermon, though, has lost its prophetic power for Horx who ridicules its ceremonious monotony and its rejection of new ideas that could bring about improvement. It is a parody of a relapse into the parochial nature of medieval thinking:

"Und er tat den Brunnen es Abgrunds auf, und es ging ein Rauch aus dem Brunnen wie ein Rauch eines großen Ofens, und es ward verfinstert die Sonne und die Luft von dem Rauch des Brunnens. So ist es geschehen und so wird es geschehen, wenn wir der Sünde keinen Einhalt gebieten", leierte der Schwarzrock. (7)

Here, the minister's sermon refers to the Pershing missiles in their subterranean silos, idolizing them as cult objects. Horx makes clear that there will be no rescue from the monotonous ("leiern") promulgation of biblical texts. While the apocalyptic fear is

still fresh during the nuclear or the post-nuclear age, the insensate emulation of the biblical apocalypse makes no sense, even borders on sacro-kitsch later in the novel:

"Und es erschien ein Zeichen im Himmel, ein Weib mit der Sonne bekleidet... Sternen" (221); "Und ein starker Engel hob einen großen Stein auf wie einen Mühlenstein, warf ihn und sprach: Also wird mit einem Sturm verworfen die große Stadt Babylon und nicht mehr gefunden werden." (223)

This outright ironization and rejection of this plagiarized apocalypse, however, asks readers to redefine the notion of apocalypse in the nuclear age. In Harald Mueller's Totenfloβ, the reader encounters a similarly disenchanted world. The play depicts how an authoritarian state led by a few nuclear survivors has emerged, exerting control over its subjects, the throngs of other survivors. It establishes ten basic rules, the Ten Commandments of the nuclear age (82). Mueller's use of Christian symbolism, however, transcends the mere regurgitation of traditional religious elements. Christianity or its means of implementing power receive a critical treatment as they offer the structural principles of domination. Religion is not a personal conviction for the individual believer but has turned into a universal control mechanism utilized to reign in personal freedom. The first commandment reads: "Du sollst nicht lieben" (82). This tenet seeks to reign in the emotions of the survivors. Compassion and love are unbidden guests as they endanger the survival of the fittest – or one might also say – the least impaired. Emotional distress proves harmful in a polluted world where everyone is struggling for their own survival. The aggravated ecological conditions do not allow for leisure but force the survivors to develop sober-minded and completely rationalized strategies. This caricature of nuclear Darwinism is a travesty, clad into the gown of biblical belief systems.

Mueller's post-nuclear survivors reinterpret the Darwinian principle of the natural selection of the fittest and toughest as a resuscitation of the cruel and adamant sense of justice in the Old Testament: an eye for an eye and a tooth for a tooth. Religion is not religion in its purest sense of the worship of God anymore but debunked as a myth sanctioning and covering up inhumane practices. The loss of freedom and individuality in the form of the newly formulated Ten Commandments has even been engraved in the skin of its subjects. The figure Itai carries the commandments always with him, carved into the skin of his back. It is a clear allusion to the guilt and expiation theme in Franz Kafka's In der Strafkolonie. Beyond that, however, the lacerating power of quasireligious authoritative powers becomes evident through the language and the images of religion. Mueller's ten nuclear commandments teach to blindly trust one authority and to avoid any pondering of the nuclear wasteland and the causes that lead up to it. Religion means placing unmitigated and unwavering trust in a divine figure who cannot be questioned. This principle is harnessed by a new regime to avoid a massive outbreak of insanity and total psychological breakdown. The spirit of the Enlightenment, the critical reflections of one's self and one's surroundings, the fathoming of the causes that propel the world is stifled by the powerful use of religious language.

The word "apocalypse" is not only – as we have already seen – a highly effective concept in dystopian literature but has first and foremost become an everyday word. In an article in *Time Magazine*, Amy Lennard Goehner and Rebecca Winters Kegan concluded: "THE LAST MAN IS NOT ALONE ON EARTH. The joint is crawling with last men" (112). A

recent surge of last-man-on-earth scenarios in film, literature, and popular culture suggests that the apocalypse has again assumed center stage in the public consciousness.

The word "apocalypse" proper has not been used exactly sparingly in the wake of 9/11. Its inflationary appearance makes it hard to use it effectively in portraying a real danger. It comes therefore as no surprise that many works of nuclear fiction use the mere word very often without going into the detail of the historic concept.

Many authors draw heavily on traditional apocalyptic scenarios such as those found in biblical images. One finds allusions to various biblical apocalyptic depictions – especially the *Book of Revelation* – in many pieces of nuclear fiction: the depiction of those that released the atomic bomb onto Nagasaki as three apocalyptic riders (Schilliger), Noah's Ark (Anders and Grass), the trumpets of Jericho and the great whore of Babylon (both Guha), the purgatory (Schilliger), allusions to the biblically tinged Breughelesque plague images. Another source is ancient mythology such as in the "Weltenbrand" (Kipphardt), the hyperbolic Prometheus figure (Anders, Königsdorf)<sup>75</sup> or just as the "monster" (Anders, Horstmann), images that are not per se drawn from the Bible but that nonetheless possess religious quality and that connect well with the Christian apocalypse. However, at the same time most authors also acknowledge that these traditional concepts do not suffice to reveal the intensity of a scenario that transcends any literary image. The nuclear annihilation has new qualities that set it apart from any traditional apocalyptic scenario.

<sup>&</sup>lt;sup>75</sup> Königsdorf impressively yokes together modern physics and ancient myth: "Da verschwindet Masse, und wenn Masse verschwindet, entsteht Energie. Wieder einmal wird dem Menschen Feuer in die Hand gegeben. Noch war keine Zeit für Mythen. Noch steht der moderne Prometheus in seiner ganzen Blöße vor uns. […] Sein Geschenk kann Wohltat oder Vernichtung bringen. Bisher hat der Mensch stets beides in Szene gesetzt. Warum sollte es diesmal anders sein" (78).

Nuclear fiction vacillates between imitation and innovation when it comes to its abundant use of religious words, metaphors and imagery in general. It harnesses a universal fear of the end of the world as it was prevalent for instance during the Middle Ages when the firm belief in the course of the world according to the biblical predictions prevailed. At the same time, it becomes evident that the authors of nuclear fiction are torn between their evocation of strong religious words and notions and their general feeling of disenchantment that the world in the atomic age undergoes. There is no overarching belief in an omnipotent deity anymore that would philosophically and morally warrant the use of such language. The use of religious language remains powerful and effective though dissatisfying at the same time. The struggle for a new way of expressing the ultimate dangers of the atomic age in language does not result in a modernist form of experimental literature but leads the authors back to more traditional notions of fear. In his 1995 monograph *Mit Wörtern das Ende aufschieben*, Arnd Flügel argues:

Die Beispiele verraten einen beinahe spielerischen Umgang mit eschatologischen Interpretationsmustern. Die religiös ausgedeutete Apokalypse fungiert als Symbol der Erfahrungsauslegung, um das Unfaßbare auf den Begriff zu bringen. Durch die Zitatform wird ebenso die Fragwürdigkeit des religiösen Bezugsrahmens wie auch die Selbsterhebung des Menschen zum Vollstrecker des Schicksals kritisiert. (61)

Traditional religious images are not just anachronistically pasted into texts of nuclear fiction but carefully embedded and updated in a world that is under the auspices of total nuclear annihilation. The fear that the biblical apocalypse might have posed to believers in the pre-atomic or even pre-industrial ages has evaporated. The cultural memory of Christian fear has lived on in the heads of the denizens of the atomic world.

Therefore, the language of spirituality is still a powerful tool that works well in nuclear fiction.

Peter Sloterdijk argues in his *Kritik der zynischen Vernunft* that the advent of the modern age (under which he also subsumes the atomic age) has created a two-sided and almost schizophrenic way of thinking. This cynicism is the only possible mode that enables us to balance between reason and insanity – between Enlightenment and the atomic bomb – as Leslie Adelson summarizes: "The link between Enlightenment and The Bomb of today's future is, as Sloterdijk sees it, cynicism..." (503). The cynicism of the modern age is created by a general equivocalness of things:

Das zynische Denken nämlich kann nur erscheinen, wo von den Dingen zwei Ansichten möglich geworden sind, eine offizielle und eine inoffizielle, eine verhüllte und eine nackte, eine aus der Sicht der Helden und eine aus der Sicht der Kammerdiener. In einer Kultur, in der man regelmäßig belogen wird, will man nicht bloß die Wahrheit wissen, sondern die nackte Wahrheit. (2:401)

The use of the religious in nuclear fiction is a cynical move that remains a double-edged sword. On the one hand it is a mere literary tool to stir up cultural fear that is used by authors who in general do not share the deep-felt piety of Christianity anymore and therefore becomes a cultural lie according to Sloterdijk's definition; on the other hand it functions as a radical approximation to what Sloterdijk calls "die nackte Wahrheit" – the naked and unadulterated truth. When Günter Grass argues in "Literatur und Mythos" (see initial quote at the beginning of this chapter) that the prophecies of John of Patmos might become a reality in the twentieth century, we can clearly belie him and argue against his questionable hypothesis. In fact, he himself belied his provocative claim of a true apocalypse in an interview with Harro Zimmermann:

Mein erzählerischer Ehrgeiz bestand darin, was die Kritik völlig übersehen hat, eben keine Apokalypse zu schildern, denn die Apokalypse – auf Johannes auf Patmos zurückgehend – wird von einer göttlichen Macht als Strafe über die sündige Menschheit verhängt, ist unentrinnbar. (197)

In "West-östliches Höllengelächter," Grass admitted to the apocalyptic cynicism with which literature responds to the nuclear age: "Was, außer Hohngelächter, könnte ihr dazu einfallen?!" (920). It is safe to say that the nuclear apocalypse will probably not look like the biblical one or a cynical farce thereof. Yet the question remains how it will look – and this is the central question of nuclear fiction, not only of Grass's speculation. Doris Berger has summarized the difficulties that the language of the nuclear age faces by constantly resisting hackneyed clichés:

Die Autoren haben – mehr als mit der Verfälschung der Sprache, die Raketen und Atomreaktoren personalisiert und Menschen zu Objekten degradiert – mit der Abnutzung der Sprache zu kämpfen; mit dem Verschleiß an Worten und Bildern durch die täglichen Katastrophenmeldungen der Massenmedien, die die Wahrnehmung abstumpfen. <sup>76</sup> (178)

Grass and other authors of nuclear fiction vigorously fight the conventions and old habits of language in their works. They seek to break free from the confines of the "Verschleiß." Whatever we call Grass's attempt at imagining the apocalypse – whether it is naïve, realistic, unrealistic, schizophrenic or speculative – the language that it utilizes remains a cynical hybrid, torn between the old and the new, the religious and the disenchanted – a language sitting on the fence that separates the world from its end; a language that uses the allusive in order to debunk the illusive.

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<sup>&</sup>lt;sup>76</sup> Berger's article deals primarily with East German authors. However, the above-mentioned quote applies to both, West and East German nuclear fiction. One could even argue that in the capitalist West, language was even more under pressure by a higher amount of clichés that originated from commercials.

## Lovemaking in the Face of Death

And if there are any who who remain, according to what I hear and see, they do whatever their hearts desire, making no distinction between what is proper and what is not, whether they are alone or with others, by day or by night ... and have given themselves over to pleasures of the flesh, for they have made themselves believe that these things are permissible for them and are improper for others, and thinking that they will escape with their lives in this fashion, they have become wanton and dissolute. (Boccaccio, *Decameron* 14)

"OFFIZIER: ... denn / der Tod in Aussicht steigert die Begierde. ... Wenn ich es bedenke, / daß morgen schon die Kunst der Liebe schwiege, / dann möchte ich – obwohl ich gar nichts fürchte – / am liebsten deinen kleinen Leib umfassen / und immer neu das Feuer dir entfachen." (Fred Denger, *Bikini* 37)

The desire for carnal joy in the face of death, the opportunity to really live it up before one has to pass, unbridled by social norms and moral impediments, is a common theme in catastrophic literature. Almost 600 years of human and literary history separate Giovanni Boccaccio's *Decameron* and Fred Denger's *Bikini* play. And yet, the sense of sexual *carpe diem* that informs both texts has remained unchanged throughout the centuries. Under the impression of the impending apocalypse, regardless whether it is the plague or the hydrogen bomb, humans pursue their primal instincts, sexuality and sensual satisfaction. It simply seems that – as the officer in Bikini argues – the prospect of death goads sexual desire. Works of nuclear fiction are frantically involved with the question of sex in the face of the catastrophe. Lovemaking in the face of the nuclear apocalypse is not a trivial element of rip-roaring entertainment, it brings to the fore questions of emotional and physical survival during the apocalypse. Nuclear fiction vacillates between two ideas: on the one hand, the idea of having sex before one's impending death takes away all the cultural shame and moral inhibition. One seeks to enjoy the last remaining hours and

minutes of life before one dies. On the other hand, and this is quite realistic, notions of sex become eventually unimportant in the face of atomic war as there is no incentive for lovemaking.

The question of lovemaking depends strongly on the window of opportunity during the nuclear apocalypse. Most sudden onslaughts of desire happen before the catastrophe unfolds. With the severity of the apocalypse desire recedes disproportionately. Nuclear fiction refutes and counters the cliché of the lecherous nuclear survivor. The victims are not in the mood for sex, they often even feel disgust or just plain indifference (cf. also *Black Rain*, 211). The sexual instinct is replaced by the instinct to survive in a harsh post-nuclear world. Nonetheless, lovemaking is a fundamental issue for the post-nuclear world as it is needed to maintain or increase the population, and despite the departure of sexual pleasure, it is a sign of hope for the future survival of humanity.

The protagonist in Helga Königsdorf's *Respektloser Umgang*, an East German governmentally employed physicist during the Cold War, senses that the imposed political conflict bears consequences for her individual well-being. While she engages in her physical research, therefore involuntarily contributing to the Cold War world order and the nuclear arsenal it commands, a notion of repressed sexuality wells up in her: "Weil ich so ein Gefühl zwischen den Schenkeln habe, daß ich unverzüglich einem Mann die Kleidung vom Leib reißen könnte. Weil ich weiß, daß ich heute fruchtbar bin" (22). Female fertility and the threat of nuclear destruction are facing off against each other in *Respektloser Umgang*. The protagonist's reproductive functions are only available for a limited period of time, as is the world as such, awaiting nuclear war that might terminate

all human life. The immediacy of the urge that the protagonist feels is a panic-stricken reaction towards the immediacy with which the world could perish. The woman feels forced to act before it will be too late and before she will have missed her last chance at sexual fulfillment and possibly reproduction. As this wish persists, the novel nonetheless paints a somber picture of the Cold War world in which the upbringing of children remains a depressing affair.

What remains a prospect in *Respektloser Umgang*, Gudrun Pausewang has brought to life. The author shows in *Die letzten Kinder von Schewenborn* that procreation does not necessarily spell a more sanguine future during and after the nuclear apocalypse. The grossly revolting portrayal of the death of a malformed baby resembling a piece of flesh rather than a human being comes as a disappointment for the first-person narrator, a maturing teenager who wishes the advent of his little baby sister to be a sign for the continuation of life but who finds himself severely shocked:

Ich erstarrte. Ich konnte nicht schreien. Ich saß ganz steif. Meine kleine Schwester Jessica Marta hatte keine Augen. Dort, wo sie hätten sein müssen, war nichts als Haut, gewöhnliche Haut. Nur eine Nase war da, und ein Mund, der an meiner Brust herumsuchte und saugen wollte. Mich lähmte ein solches Grauen, daß ich nicht einmal imstande war, das Kissen wieder zusammenzuraffen, als sich das Kind bloßstrampelte. Da lag es, nackt und blutig, und ich sah, daß es nur Stummelarme besaß. (114)

As the offspring is unable to live, so is the mother. When she dies from emaciation and stress endured during carrying her baby to term, chances for successful procreation dwindle. Procreation does not vanquish the apocalypse nor does it open up the way for a promising world in which children are the beacons of life and the rebirth of civilization. In a milder and less visually offensive fashion, Pausewang draws the figure of the female protagonist in her second nuclear-fiction text *Die Wolke*, a girl who survives a grave

accident at a nuclear power plant in Germany and who subsequently falls sick with cancer. Her blossoming womanhood is nipped in the bud by the nuclear contamination. The cancerous woman, wrestling with death, symbolizes the absence of fertility. Not only is she unable to give birth to a healthy baby, but also she is not a viable choice for healthy males anymore. Males as well as females lose their sexual drive in the throes of the nuclear apocalypse, but females have to suffer more from this loss. This topic is by no means new in German nuclear fiction.

In Masuji Ibuse's novel *Black Rain*, a detailed literary recapitulation of the ghastly aftershock of Hiroshima's nuclear bombing, the loss of fertility through radiation sickness is even more of a cultural shame as the parents of such women could not marry off their daughters. German authors describe the same social stigma although it is not culturally as important in the Western world. Wolfgang Weyrauch's *Die japanischen Fischer* fleshes out this contrast of cultural shame by confronting the German reader with the strict moral codex of the Japanese. The fishermen kill themselves because they feel that shame has been cast upon them through radioactive fallout and thus excludes them from participation in social life and reproductive responsibilites:

Stimmen von Fischern.

Mit uns ist es aus.

Das Atom hat uns blind gemacht.

Das Atom hat uns taub gemacht.

Aber stumm gemacht hat es uns nicht. [...]

Alle schlagen einen Bogen um unser Dorf.

Sie furchten sich vor uns.

Sie halten uns für aussätzig. [...]

Wir sterben indem wir leben.

Ich möchte nicht sterben. [...] (59)

In Pausewang's *Die Wolke* the victims of radiation sickness are stigmatized as "die Aussätzigen des 20. Jahrhunderts" (131) – a new low caste of humans with inferior genes for whom the bald head is the hallmark of their status as outcasts:

Das große Sterben. Janna-Berta versuchte es sich vorzustellen. Sie hatte Bilder von Hiroshima gesehen, hatte von Haarausfall, von Blutungen und Wucherungen, von Leukämie und unstillbarem Brechreiz gehört. Von all diesen Schrecklichkeiten erschien ihr der Haarausfall am schrecklichsten: sich mit einem Kahlkopf neugierigen und mitleidigen Blicken aussetzen müssen. (65)

Gudrun Pausewang's novels not only mark the loss of evolutionarily successful sexuality and the joy of lovemaking, they also depict the disintegration of the family, a safe haven for bringing up children. While the socially sanctioned lovemaking in wedlock becomes useless during the nuclear apocalypse, sexuality turns into a solitary and random enterprise for the lonesome survivors who seek temporary release during their struggle.

In Harald Mueller's *Totenfloß* sexuality is an irrepressible drive among desperate bodies who are about to fall apart. Checker, a sturdy and rough-and-ready survivor, sleeps with Bjuti, a fragile girl already half eaten by radiation sickness. While the moribund girl tries to mitigate the animal brutality with which Checker forces himself on her by invoking the language of love of nineteenth-century romanticism, Checker is only interested in satisfying his drives. The act of love is demoted to a primitive mating ritual – not lovemaking but mounting – "bespringen" (101). Love and romantic commitment are dangerous in the post-nuclear world and will impede the survival of the fittest.

Therefore, the first of Mueller's Ten Commandments of the nuclear age forbids love as an interfering force: "Du sollst nicht lieben" (82). In order to further ridicule this nuclear

Darwinism, Harald Mueller amalgamates it with a perverted form of Germanic heroism: the protagonist Checker seeks to reach Xanten in order to procreate and to establish a new cast of German rulers in the wake of the Siegfried figure. These eugenic aspirations naturally go awry as Checker is already contaminated by radiation sickness and is no longer able to pose as Germanic stud. Checker mates with the sick girl Bjuti as he cannot hold off his sexual longings any longer. The noble goal of post-nuclear procreation of a new dynasty turns into the desperate act of giving in to his drives. Checker symbolizes humanity's wanton lust for power that even does not lessen during the downfall. The destructive power of this lust becomes evident in Checker's sexual drives that destroy Bjuti's integrity and health. Bjuti's elementary question – "Warum habt ihr das alles kaputtgemacht?" (117) – thus refers to the damage that has been inflicted on her body but also on the entire world. There is no logical answer and the questions remain a rhetorical one. Sexuality becomes a representation for the human power that destroys the world. However, it can only be wielded by the very few who still marshall the physical strength before their impending exhaustion. The character Kuckuck wears a wig in order to cover the sign of his emasculation, the bald head or "heißer, radioaktiver Klump" (111) – a piece of poluted flesh that foretells his death and that deprives him of his sexual attraction.

In Anton-Andreas Guha's *Ende*, this lust for power is described as an erotic experience: "Die Wollust, über totale Zerstörungsinstrumente zu verfügen, mit denen sich die Apokalypse auslösen läßt, real und wirklich. Für Stunden oder Tage allmächtig zu sein, das Gesetz des totalen Handelns an sich zu reißen, Gott zu sein" (139). Guha sees the exertion of power as the orgiastic act of temporarily assuming god-like power.

However, those governed by such longings have no emotional base but only strive for raw power – a short-lived nuclear affair with no strings attached so to speak.

In Alex Gfeller's *Swissfiction* sexuality has likewise lost its emotional force and becomes a commodity. As the survivors live in small camps, closely huddled together and dependant on the scarce resources that are left, they avoid pregnancies by all means as they would only bring further misery. Therefore, lovemaking becomes an act of prostitution in which women give themselves away in exchange for perks that will help them survive.

Friedrich Dürrenmatt had already reduced sex and love to mere prostitution in Der Winterkrieg in Tibet. Here, soldiers who incessantly carry on the war, take brief rests in establishments, engaging in sex with prostitutes before they return to the battle – "Dem Tod geweiht, zur Liebe bereit" (145). Men have become warring machines for whom sexual release reduces mental distress and keeps them operable. Notions of love have been abandoned in the frenzy of sheer violent lust: "Ich fiel über sie her, riß sie nieder, riß ihre Schenkel auf, eine Ewigkeit hatte ich keine Frau gehabt" (149). Former rituals that served to support the coherence of society now turn into unbridled sacrilegious orgies, celebrating rampant sexuality in the face of death: "Der Gottesdienst war eine Orgie. Die Gläubigen fielen übereinander her in der Hoffnung, noch fürchterlichere Mißgeburten zu zeugen" (135). Humanity sinks back into the primeval soup of conception and destruction: "[M]an tötet und fickt um die Wette, Blut, Spermen, Gedärme, Fruchtwasser, Gekröse, Embryos, Kotze, schreiende Neugeborene, Gehirne, Augen, Mutterkuchen schießen in Strömen die riesigen Gletscher hinab, versickern in den abgrundtiefen Spalten" (109). The escalation of uninhibited sexuality results in

destructive energy that engulfs the offspring. As sexuality has lost its primary function in nuclear fiction – survival of the human species – it now reaches an evolutionary impasse.

In the chapter "Wie sie sich liebten" (149-77) of *Ein Marsmensch reist durch unsere Zeit*, Merlin fleshes out the violent streak in human sexuality. The Martian protagonist is shocked at humanity's obsession with sex detached from romantic love. The loss of love coincides with loss over a peaceful world.

Herbert Achternbusch's Sintflut not only acknowledges the uselessness of sexuality and love, it perverts the very idea of procreation in order to show its impossibility in the post-nuclear world. The protagonist Noah organizes the escape of several living beings (humans, animals, animate objects) from the deluge. He tries to escape the "Atomtod," a phrase that obsessively recurs as an apocalyptic leitmotif (e.g. 272, 275, 276, 277, 278, 280). The initial purpose of the ark's journey is the continuation of life: "NOAH: ... Die Welt / Muß weitergehn, sind wir erst herun- / Ter vom Wasser, dann werden unsere Paa- / Re sich mehren und verzehren und ent- / Behren wie immer" (266). Noah predicts lively sexual activity after the deluge. However, his fallacious projection is soon thwarted by an anthropomorphized coot, celebrating lust in the face of death: "WASSERHUHN: ... Fröhlich ster-/Ben, Höheres kann kein Mensch erwerbön. Schön! / Möchte vergöhn, vergöhn, Lustgestöhn... / Lust der Frau und der Brust der Frau, Lust / Dem Unterteil, weil das Heil liegt geil im / Geschlechtsteil verwachsen..." (270). In the face of the end of the world, sexuality becomes the apocalyptic pastime while waiting for the end. The impending death is amalgamated with feelings of sacrilegious lust. The travelers on the ark let go of their rational belief in their survival but are carried away by their orginatic fantasies. Even Noah, who appeared as the

most steadfast representative of quasi-biblical order, now descends into perversion:

"NOAH: ... laß mich zur Schwalbe hin. In / Der Hängematte möchte ich sie begatten...

AUTOR: Noah, matt hängst du an der Hängematte / Schwalbengatte ohne Land ohne

Verstand. Doch / Der Verstand ist ein Loch" (267). Noah irrationally transfers his wish to

procreate to an animal partner, as he tries to mate a swallow. Achternbusch surely pokes

fun at the biblical myth of survival by staging an absurd apocalyptic orgy between

humans and animals. The most important novelty, however, is the departure of

productive love and controlling reason at the same time. An unquenchable desire for love

without reason's guidance leads to a perverse and at the same time senseless cult of

sexuality. Achternbusch shows that in the face of the catastrophe humans possess nothing

that could effectively counter the disaster, as their rational concept of procreation, a

former stronghold against the onslaught of mass death, turns into an absurd and sexually

degenerate chaos.

Nuclear fiction invokes the moment of death as an erotic enterprise, playing on the clandestine wish for the catastrophe to be all over and to reach its cataclysmic zenith. In "The Plague of Utopias," Elana Gomel has described this eroticism of nuclear fiction as characteristic of all secular apocalyptic literature within a larger time frame:

In the secular apocalyptic visions that have proliferated wildly in the last 200 years, the world has been destroyed by nuclear wars, alien invasions, climatic changes, social upheavals, meteor strikes, and technological shutdowns. These baroque scenarios are shaped by the eroticism of disaster. [...] The end result of apocalyptic purification often seems of less importance than the narrative pleasure derived from the bizarre and opulent tribulations of the bodies being burnt by fire and brimstone... (405)

The unfolding of the nuclear apocalypse and the concomitant events that lead up to the destruction of human life are juxtaposed with the dramatic development of climaxing during the sexual act. It comes as no surprise that the first-person narrator in Gerhard Zwerenz's Der Bunker ties death and sexuality together into the "Erotik des Sterbens" (219), encompassing both elements of seduction and danger in his phrase. The novel shows a many-faceted view on the interplay of sexuality and the nuclear apocalypse. Elisabeth, a female spy, obtains access to the chancellor's bunker during the nuclear war as she dances naked in front of the outside observation cameras and sends the soldiers inside into a sexual frenzy. Once admitted to the bunker, she endures multiple rapes in order to prevent her removal from the bunker. She sacrifices her sexual integrity in order to fulfill her mission, the assassination of the German chancellor. Elisabeth accomplishes her mission and escapes with the narrator to South Africa where they try to found a new civilization. In their newfound exile, the two protagonists try to put sexuality back into its original function of impregnation: "Wir ahmen die Bewegungen der Liebe nach" but "die Unfruchtbarkeit umgibt uns wie ein Dschungel" (448). The sexual act proper happens without joy, as the two have unlearned love in all its facets (be it sensual or romantic love). Their mutual efforts during sex are an act of desperation. The protagonists are still healthy but their fate is overshadowed by radiation sickness that remains unpredictable and could break out at any time.

In *Glückliche Reise*, Matthias Horx portrays a similar encounter between Jonathan and Larissa, two figures who strive to desperately reaffirm their potency in the face of the hostile environment of a post-nuclear world. Their act of love making (123-4) serves as evolutionary extrication from the shackles of radioactivity and its harmful effect on

procreation and genetic stability, celebrating the exchange of body fluids and the hope for progeny. By exclaiming "Ich bin fruchtbar..." (123) Larissa wants to break free yet eventually fails as she does not conceive a child. The nuclear apocalypse has all but done away with human sexuality and love as an integral part of life by rendering it dysfunctional and useless on an evolutionary level.

The Adam and Eve formula, that Paul Brians identified in many pieces of American nuclear fiction (62), does not figure as prominently in German fiction.

Whenever a couple of nuclear survivors come together in German texts, they fail to fulfill their mission as Adam and Eve, rendering the biblical couple an evolutionary laughing-stock in the modern age. The frantic lovemaking and the successful escape of a couple into the freedom of a fresh start with offspring in Aldous Huxley's *Ape and Essence*, a prime example for American nuclear fiction, does not recur in German accounts. In Hans Wörner's *Wir fanden Menschen*, the destructive force of the nuclear blast mars the features that elicit sexual attraction. The breasts of a naked woman "waren vom Prall jener tötenden Lichtwalze zu schwarzen, schrundigen Hautbeuteln zersengt" (87).

In Arno Schmidt's *Schwarze Spiegel* and Marlen Haushofer's *Die Wand*, the protagonists live in isolation, unable to entertain a long-lasting relationship. Haushofer's female protagonist encounters one single human being in an otherwise depopulated world. However, instead of approaching her, the deranged man attacks her and seeks to kill her. When Schmidt's protagonist encounters the mysterious female traveler for the first time, both approach each other like warring enemies. It is only slowly that they reach amicable terms. Even then, their coming together is short-lived and brittle. The Adam and

Eve formula fractures as the protagonists prefer their loneliness over the complications of entertaining a sexual or a love relationship.

In Hans Henny Jahnn's *Die Trümmer des Gewissens*, fertility and sexual joy become a hallmark of the brute people who do not understand the fatality of a world polluted by nuclear agents. Those characters who understand the terror and the totalitarian nature of Jahnn's fictitious dystopian state lose interest in their sexuality. Especially the young generation, represented by Arran, Tiripa, and Chervat's effete son Elia, stay away from sexual relationships with women. Instead they form an ascetic coalition opposing the ruling ideology and borne by their homophile feelings for each other. However, these feelings do not come to fruition and only serve as an agent to reinforce the group's cohesion. Sexuality has become an object of revulsion by the opposition in Jahnn's play as it only serves to maintain the desperate status quo by feeding the government new human material.

The loss of the importance of sexuality is not only a hallmark of the post-nuclear world, it can also occur before or even outside a nuclear disaster. In Gabriele Wohmann's *Der Flötenton* sex becomes an activity used for numbing the all-pervasive ennui that the oversaturated homo technicus endures. Anton, one of the novel's protagonists, is a man disappointed by life and indolent towards others, absorbed in his own neurotic musings. As the Chernobyl accident happens, Anton follows up on the events through the media, reinforcing his pessimistic world views. He then drowns his sorrows in alcohol and women. His affair with Sandra is not motivated by romantic wishes but solely serves the purpose of whiling away the terror of time whose slow passing tortures him. The novel demonstrates an inability of many of its protagonists to commit themselves to a serious

love relationship. Chernobyl, a symbol for the overpowering force of technology, ruins the hope for a better future, a prerequisite for a successful relationship. Anton represents the modern *homo technicus*, driven by harrowing ruminations about the world's problems and hampered by an innate feeling that he cannot change this technologically overly complex world. The frustration with his own inability in the face of a catastrophe translates into his depressed lack of sexuality and love, erecting around him the cage of his inner isolation. These strong feelings of depression are symptomatic of a society that has turned listless in a world where technology is no longer perceived as the bearer of the torch of Enlightenment. Anton is representative of an entire society that has lost its faith in unmitigated social progress through technology. Moreover, this loss in faith comes along with psychological damage. Wohmann's ironical message is that those who do not even suffer the true consequences of the nuclear catastrophe, the various Germans that she portrays, seem to betray such strong symptoms of a general apathy.

Beset by the same apathy, humanity has lost interest in sex and love in Günter Grass's *Die Rättin* as well. Nonetheless, Grass has not abolished the power of the sexual but transmitted it to humanity's successor, the new rat people, the "Watsoncricks." Their sexual potency guarantees them the necessary force to take over the earth from the humans. Propagation is essential for political prowess because only if the rats are numerous enough will they vanquish the humans and endure the damage done by nuclear radiation. Only if they appear in throngs will they survive, therefore making boundless sexual activity the chief tenet of their political agenda. Grass amalgamates this vision of fertility with human sexual desire into the depiction of a hybridized rat-human towards the end of the novel, a perversion of the Nieztschean superhuman that Grass named the

Watsoncrick, alluding to the discoverers of the double helix as the founding fathers of what Grass regards as willful genetic manipulation:

Die Rättin, von der mir träumt, trägt ihr Haar gelockt und wird zunehmend menschlich. [...] In immer neuen Einfällen gefällt sich ihr Haar. [...] Ich fand sie auf der Orgelbank ... Sie präludierte mit Händen und Füßen, als wäre ihr das Orgelspiel wie Ein- und Ausatmen gegeben worden; all das hatte mit drei Buchstaben die Zauberformel DNS möglich gemacht. [...] Ich finde dich immer noch schön. Mehr noch: ich träume dich körperlich, mit Haut und Haar sozusagen. Richtig eingesponnen bin ich und verschmust, auch wenn ihr Nippels etwas zu kleinwüchsig geraten seid. Ich gewöhne mich, passé mich an. Sogar dein rattiges Antlitz kann meine Liebe nicht schrecken. Wir sollten näher, noch näher zusammen, damit wir in Fleisch, wenn nur die Orgelbank nicht so winzig und dein Löchlein so eng ... (431-5)

The utmost perversion of human life is a hybrid capable of physical survival through her infusion with rat genes and yet human enough to hold sexual allure (long curly hair) and to celebrate human cultural achievements (Bach's organ music as the epitome of German culture). In the end, however, this creature turns out to be a mere figment of the narrator's imagination, and as it falls apart, the chances for human survival through sexuality are diminished. Humans and rats remain divided. In a similar fashion, Horx's *Glückliche Reise* suggests that only a new way of procreation will ensure survival. Unlike the mixing of genes in Grass's novel that is still stimulated by feelings of lust, Horx paints a picture of desexualized breeding: "Menschenzucht" (168) with "gentechnologische Möglichkeiten" (170) – a eugenics program that tries to eradicate damages done by the nuclear age. Procreation is now completely devoid of feelings of individual romance: "Der biologische Prozeß von Wachsen und Sterben ist nichts anderes als ein sehr, sehr kompliziertes Programm – ein veränderbares Programm" (170).

Lovemaking penetrates nuclear fiction in many ways. Love in the romantic sense, however, has almost completely ceased to exist. What often remains in nuclear fiction is a rudimentary vestige of love in the classical sense. In Fred Denger's Bikini Boy Bills love for the admiral's daughter Joan is a heartfelt feeling in the teeth of the futureshattering prospects of the nuclear explosion. As the boy pursues his love interest, he at the same time feels the destructive impact of an all-embracing fear hovering over the crowd of Americans while the nuclear test draws closer. Although his love for the girl cannot flourish under these strains, it nonetheless provides some comfort during the bomb's countdown. While the boy is kept from starting a true love relationship with the girl, he holds her hand and infuses her with solace, the vestigial remainder of love. In Alfred Gong's *Die Stunden Omega*, two romantic lovers, called the *Herr* and the *Dame*, represent a classical, almost outdated form of medieval love. Once the bomb has accidentally – a "technische[r] Zufall" (234) – struck their domicile, an old castle, their charred bodies remain in an embrace, documenting the departure of deeply ideal romantic love in the nuclear world: "zwei Leiber aus Kohle" (225). However, the lovers meet again in the afterlife and deplore the inability to enjoy their love in the real world: "Das Feuer trank uns aus..." (225).

In Oskar Wessel's *Hiroshima*, the industrialist Tagota cannot realize his love for the cloakroom attendant Michiko as both are killed by the atomic bomb. He woos Michiko in order to find a purpose for his life during times of war and to fulfill his emotional desires that the war has created. In Günter Weisenborn's *Die Familie von Makkabah* two animate shop window dummies chosen to be the guinea pigs in an atomic test experiment that seeks to explore the effects of nuclear war on humans, decide to

develop feelings of love, get married and want to pursue a romantic life. However, these dummies who ironically possess more human qualities than the humans themselves, will be sacrificed on behalf of nuclear research, thwarting their romantic future by eradicating them shamelessly. These four pieces are early works of nuclear fiction originating from the 1940s to 1960s. Here, the belief that love once existed is still present but is extinguished for good by the course the nuclear catastrophe takes. Most pieces of nuclear fiction ever thereafter do not pursue questions of romantic love anymore. It has become a superseded concept whereas lovemaking remains – an act of desperation and evolutionary necessity.

When the nuclear physicists depicted Gretchen at the spinning wheel as an innocent nubile ingénue in the *Blegdamsvej Faust* in 1932, nobody could know that the depiction of sexuality and love in nuclear fiction should change fundamentally in the future. While the Gretchen figure, symbolizing the newly discovered neutron wooed by Faust the physicist, is a completely innocent and humorous depiction of ideas of love and sexuality, nuclear fiction later focused on these aspects in a more serious way, fleshing out the sensual and sultry facets of the topic but also showing the limitations of these evolutionary principles during a nuclear apocalypse. The terrifying conclusion is that the nuclear apocalypse is powerful enough to unhinge the laws of evolution and to maim the fundamental principles on which life on earth is based. Furthermore, it is powerful enough to take from humanity the ability to love, one of its hallmarks.

## The Apocalyptic Afterlife – the Post-Nuclear World?

Georg Wilhelm Friedrich Hegel proclaimed that the end of history would come about through the triumph of bourgeois liberalism and economic progress (cf. Brantlinger 60). The idea of freedom and prosperity in unity seemed to promise a final end and purpose of history that the bourgeoisie was pursuing. The end of history in Hegel's terms then meant the end of all possible developments once an ideal society had been achieved through the dialectic forces of the bourgeoisie and economic progress that would not rest to produce social motion until there was nothing left to be moved or further improved. Little did he know that, *ex negativo*, the nuclear age could produce a similar vision that would be capable of bringing the historical developments of humanity to a final end. It did not happen without a reason that philosophers like Jean-François Lyotard announced the end of history during the heyday of the atomic age. What this postulation and its molding into the term *posthistoire* meant was not the absolute end of history (after all, human history has outlived the *posthistoire*) but the ultimate end of the possibility of coherent narration of history.

While Hegel and in his wake Karl Marx and many others propagated a periodic thinking of history, shored up by the belief that history followed the path of logical progression, the nuclear age not only foils such hope but redefines the notions of what comes after the end of history. In the teeth of the nuclear age, the political scientist Francis Fukuyama promulgated in his 1992 book *The End of History and the Last Man* that the dialectic movement of history had ended and that liberalism, capitalism and democracy had vanquished its rivals Nazism, fascism, and communism. He refers to this process as the "worldwide liberal revolution" (39-51). While Fukuyama's theses are very

blunt and almost irrationally optimistic they nonetheless are the product of the nuclear age and its pessimistic outlook on the end of history. Even though Fukuyama sees the implementation of the liberal revolution as a milestone in world history, one could rebut that his theory leaves no space for further development: society has reached an impasse in the nuclear age. Based on a criticism of Fukuyama's theories, Patrick Brantlinger argues in his 1998 essay "Apocalypse 2001; or, What Happens after Posthistory?" that perhaps history has not ended "but historiography, or the ability to explain social change" (59).

German nuclear fiction deals with all of these questions but offers a fresh outlook on the future of history. Can there be a life after the possible end of all life? Is the pessimistic belief in the power of the unleashed nucleus stronger than the will to survive? Or is history just impossible because it has lost its subjects, as Zwerenz's narrator in *Der Bunker* argues: "... was kann wohl Geschichte bedeuten, entlaufen ihr die Subjekte und Objekte?" (443). Hard scientific facts and literary imagination usually take different approaches. In answering this question, however, they take a similar stance. German nuclear fiction does not give a definite answer to these questions. Some works end in the presumable end of the world, but the lion's share of these texts attempts to construct a post-apocalyptic world in which we can witness the true consequences that have not become evident at the time of the blast. Naturally, literature's love for continuation might be to held responsible for the construction of an apocalyptic afterlife in nuclear fiction. However, these texts also answer to questions that have been raised in the wake of various historical theories on the continuity or discontinuity of history.

As I have already discussed in chapter one, in his 1988 book *The Apocalypse in Germany*, Klaus Vondung described the modern apocalypse of the twentieth century as a

"truncated" or "docked" version of the original biblical apocalypse (5).<sup>77</sup> This terminology has since become common ground for all things literary apocalypse. Vondung argues that the promise of a continuing world that comes into being after the apocalyptic cleansing is over remains irredeemable. The biblical promise of bliss and boon for those who made it through the great cleansing has been given up in modernity, leading Vondung to question the term apocalypse within German culture and its future applicability:

Why, then, do we still speak of the apocalypse, when we actually mean a final, total cataclysm with no prospect of salvation? Apparently the interpretations of the current situation and the future prospects of our world as apocalyptic arise from our need to deal symbolically with this situation and from our fear of what is coming. [...] And the traditional virulence of apocalyptic thought in Germany is certainly one of the reasons that such interpretations are again being taken up, although their meaning has changed. (5-6)

The final crowning sequence that grants spiritual reward to the steadfast believers fails to appear, thus provoking the change in meaning. In a nutshell, modernity is left with all the dirty and disastrous aspects of the apocalypse but has forfeited the prize for its sufferings, the promise of an afterworld: "When the threatened destruction of mankind by a nuclear conflict is termed 'apocalypse,' then the defining feature of *apocalypse* in its traditional sense – that is, the creation of a new, perfect world after the destruction of the old – can no longer be meant" (36). While the trauma of twentieth century carnage has

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<sup>&</sup>lt;sup>77</sup> In light of the rejection of post-apocalyptic redemption in modernity, Detlef Kremer tried to rescue the lost second part of what Vondung calls the "docked" apocalypse in an aesthetic sense: "Ästhetische Inszenierungen der Apokalypse sichern die Doppelbewegung aus Untergangsvision und Auferstehung, wenn auch nur in einem sekulären und formalen Sinn. Bereits von ihren medialen Voraussetzungen her handelt es sich um eine verzögerte, verschobene und virtuelle Apokalypse, eine, die vollzogen wird, ohne stattzufinden, eine, die von der Zerstörung und vom Ende des Körpers und der Zeichen spricht und die Wiederauferstehung des ästhetischen Körpers verspricht" (246). The real consequences of the modern apocalypse are resurrected in an aesthetic body. Kremer's ideas remain vague, but they suggest that the artistic creations of nuclear fiction proper become the new second part, the aesthetic afterworld, of the docked apocalypse.

eaten up the carrot in the course of two World Wars, the atomic stick keeps dangling in front of humanity in the nuclear age, suggesting the probability of a Third and final World War. Vondung's thesis holds true for nuclear fiction insofar as there are no accounts of a positive afterworld. However, in its essence it suggests a far too narrow outlook on catastrophic writings. Many pieces of nuclear fiction offer a glimpse into the post-nuclear world, a world that has been devastated by war or an accidental catastrophe on a grand scale. In "Katastrophenliteratur oder Die Lust am Untergang – auf dem Papier," Gert Üding offers a more refined definition of the apocalyptic end of the world in the atomic age as the infinite story of slow downfall that is reminiscent of the Nietzschean concept of eternal return (*Also sprach Zarathustra* 466):

Für den eschatologischen Geist, der die Apokalypse als Durchgangstor, den Untergang der alten Welt als Voraussetzung für den Aufgang der neuen Welt begreift, besteht in der Permanenz des Niedergangs die eigentliche Bedrohung. Es wird kein Ende mehr erwartet. Das Ende ist vielmehr selber eine unendliche Geschichte, die diejenige des Tausendjährigen Reiches aus der Offenbarung des Johannes ins Endlose perpetuiert. (Üding 170)

I argue that nuclear fiction proves two things: 1. the postulate of the *posthistoire* as the end of all history is only partially true and 2. the positive outlook on the end of traditional history as expressed by thinkers like Hegel or Fukuyama metamorphoses into a caricature in nuclear fiction.

One of the most optimistic perspectives of all of nuclear fiction is offered by Oskar Maria Graf's *Die Erben des Untergangs*. The work, while subtle and dramatic in its initial apocalyptic beginning where the reader witnesses a global nuclear war, becomes forced very quickly when it tries to resurrect a post-nuclear war society in accordance with the ideas of the United Nations. The novel turns highly tendentious,

fueling its post-apocalyptic story from topical ideas of a strong world government and a philosophy of global peace. One might speculate why Graf felt forced to give the novel a positive ending. Maybe he sought to incorporate problem-solving mechanisms and grant his readership a gleam of hope that human civilization would heal and renew itself. Or maybe he just shrank back from ending the human world in writing because it caused him fear. 78 Yet the personal motives behind Graf's decision are irrelevant if one looks at the novel in the context of the dialectic of history and the arguments of the posthistoire thinkers. The survivors in the novel are strong believers in the logic of history. While trying to erect a new functioning world government, the members of Graf's grand committee struggle with the hardship and the destruction of their environment (they meet in New York) and are plagued by illnesses and desperation. However, they adamantly adhere to the idea that the restoration of a logic-driven human history is possible, thereby thwarting the argument that the thinkers of *posthistoire* should make about two decades later. Conversely, the novel zooms in on the commoners, those survivors of the nuclear war that live in distress scattered across the entire world. Here, life falls apart at the seam, and although the new world government sends out military troops to restore order and bring back logic and routine to the victims' life, these measures go constantly wrong. Time and again, the resuscitation of communal structures remains a futile attempt at recreating moral spirits and a sense of functioning community. The figures of the novel

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<sup>&</sup>lt;sup>78</sup> Beliefs about realistic survival abounded even in military or scientific studies. Carl Sagan was skeptical about total extinction of life on earth even though he did not share Graf's optimistic outlook on the resurrection of a democratic society: "There is so much life on Earth, with so many diverse adaptations, that we cannot destroy it all. Cold comfort for us – because it is well within our powers to destroy the global civilization, other species, and perhaps ourselves. […] With the technological base in ruins, and accessible key resources depleted, recovery of the global civilization after nuclear war is in doubt … Destruction of the global civilization is very different, though, from extinction of the human species. … Human extinction is by no means excluded. But the issue is of such complexity and is so alien to our experience that it is beyond our present ability to predict reliably. We simply do not know" (*A Path Where No Man Thought*, 63, 73-4).

are kept in thrall by an unsolvable struggle between renovation and disintegration. The conflict shows that the novel does not identify with either: history's logical course versus the end of historical development.

Nuclear fiction is – physically speaking – a cloud chamber of history, showing the absurd state of inner conflict that humanity faces at the end of the traditional definition of history as controllable history. Yet what will history look like after the great blast? Will it continue or cease to exist? Presaging the future has been one of the central questions of mankind ever since we have learned about our mortality. This question becomes even more pressing in the face of what Günther Anders had called the total mortality of humanity. The Book of Revelation is nothing but that: a look beyond the present and into a new historical epoch. While nuclear fiction carefully adopts the language of revelation, it also attempts to fathom the future after an apocalyptic nuclear scenario.

Paul K. Saint-Amour called the possibility of an absolute nuclear war an "apocalypse without revelation" (80), an argument that Klaus Vondung had already described as an act of truncation in fiction. Saint-Amour's socio-psychological argumentation is based on Freudian ideas as he seeks to distill a notion of the nuclear uncanny from the two atomic explosions on Japanese soil. What Saint-Amour described as the uncanny was the idea that "the present survival and flourishing of the city were simultaneously underwritten and radically threatened by its identity as a nuclear target" (60). Human survival in the Cold War was obviously as uncertain as the life of a nuclear particle in a cloud chamber. The likelihood of destruction was a given, especially for major cities that were important military targets. However, the moment of the actual attack could not be plausibly anticipated, which Saint-Amour shows in the many cases of

petrified stupor in Japanese bomb survivors: "the literally preposterous phenomenon of traumatic symptoms – denial, dissociation, fragmentation, repression, the compulsive repetition of extreme violence – that exists not in the wake of a past event, but in the shadow of a future one" (61). While Saint-Amour in his study aims at the psychological analysis of victims before an atomic attack, claiming that just the anticipation of such effects a plethora of psycho-social changes in people, nuclear fiction transcends this idea and tries to project the post-nuclear world. For a psychologist like Saint-Amour, there is indeed no "revelation" after the fact, yet for nuclear fiction there is. What is behind this wall of post-apocalyptic disenchantment? Is it bare nothingness or could one imagine something else? While the real-life encounters with atomic bomb survivors left indeed no room for revelation and speculation, the realms of nuclear fiction occupy this blank space.

Just a few texts of nuclear fiction follow Saint-Amour's path by focusing on the increasing tension and its ensuing psychological and social problems and expectations before the blast. Texts like Fred Denger's *Bikini*, Oskar Wessel's *Hiroshima* or Günther Weisenborn's *Die Familie von Makabah* and Günter Grass's *Die Rättin* grant the preapocalyptic climax center stage. The actual nuclear explosion is the dramatic Big Bang — "den Großen Knall" (*Die Rättin* 129) — with which these stories end without giving the reader insight into the post-nuclear world. Even Hans Hellmut Kirst's *Keiner kommt davon* focuses mainly on the pre-apocalyptic buildup, yet provides the reader with a small section of nuclear war unfolding in Europe. The final showdown, the all-engulfing global escalation, however, remains encapsulated in the final passage: "... Es gab kein Deutschland mehr. \* Und so endete der sechste Tag. / Den siebten Tag überlebte Europa

nicht. Die Stunden der Menschheit waren gezählt" (638). Although in these works (except Kirst's) there is no depiction of a nuclear afterworld, they reflect the constant obsession of their protagonists to envision such. The crew members aboard the American warship in *Bikini* are involved in constant speculation of how the world will look after the test explosion of a hydrogen bomb. Their fears vacillate between assuming the worst case in which the explosion would engulf the earth and eradicate everything and half-heartedly shrugging off any danger in the hope that the explosion will not change much, beyond inflicting permanent damage on the world. The imagination of such an afterlife or afterworld is not fueled by spirituality but rather by a dire need for hope. The protagonists' imagination gyrates around possible fantasies of the post-detonation world as they desperately seek reasons for living on in the nuclear age. None of them finds solace in the idea of a Christian afterworld but almost everybody wants to live on in the physical world. However, the physical afterworld transmutes into a biblical Paradise under the threat of nuclear annihilation. In other words, the Paradise in the atomic age is now the idea of a – once again – livable and sustainable mundane world rather than a transcendental Christian concept.

All other pieces of nuclear fiction, those from the 1950s and 1960s, and especially the later works from the 1970s and 1980s and thereafter do not shy away from the immediate depiction of the post-apocalyptic world. In fact, many works even start out with the atomic explosion and then focus on envisioning what comes in the wake of the catastrophe. I argue that there is what I call an apocalyptic triple jump that pervades nuclear fiction. Naturally, one can distinguish and divide the portrayal of the nuclear apocalypse in three discrete parts: before, during and after the catastrophe. We might also

call these three parts prequel, turning point, and sequel. The turning point, the nuclear strike proper, is the most dramatic event but also the hardest to mold into a convincing narrative. Its brevity and magnitude defy literary elaboration and embellishment. The prequel, however, lends itself to building suspense and can be harnessed in the classical way of raising suspense like e.g. in a crime novel. It is the most conventional part of the triple jump in terms of literary imagination. The sequel, the final part of our tripartite scheme, however, is the most imaginative and demands the most originality and inventiveness from the authors. It is, after all, something that cannot be taken from history (at least not on a global scale) or reality. It remains speculation and Delphic prognostication. The apocalyptic triple jump might serve as a scale upon which we can look at nuclear fiction. Most works do not cater to all three steps equally. Rather, their focus is often slanted to either end. In the following I will focus on those works that dedicate themselves mainly to the final part, the post-apocalypse.

The world after the nuclear strike is a world of plight, dire survival, death, and disease. It is a world filled with the misery of olden times (plague, wars) paired up with the daily fight for hope. While those who, for instance, suffered through the Thirty Years' War, gave up all their hope for a mundane well-being and dedicated themselves to their Christian welfare in Heaven, the post-apocalyptic scenarios in nuclear fiction do away with this spiritual loophole. Even though Guha in Ende describes the chaos of a nuclear war as "wie bei Grimmelshausen" (159), he has no firm hope in an afterlife that

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<sup>&</sup>lt;sup>79</sup> Jan Knopf is very critical of the prognosticating power of literature. He argues that the laws of science enable us "Zukunft zu planen und Voraussagen zu machen" while the humanities are obviously "mit dem Vergangenen belastet" and even if they produce utopias/distopias, they only speculate (14).

Grimmelshausen's contemporaries strongly anticipated. <sup>80</sup> Instead, hope for survival rises and falls with the possibility of physical survival. In Gerhard Zwerenz's *Der Bunker*, the world's downfall does not adhere to a preordained scheme. Rather, hope for the protagonist and his female companion exists only in the effort to flee the polluted Europe and to produce offspring. They both know that with their personal death, chances for the survival of humanity are diminished. What counts is not the faraway prospect of God's grace but the feasibility of carrying on human life. The narrator is the chronicler of this history of survival. All steps that this history undergoes are created and perceived by him only (143).

While any sense of poetic justice and the infallible trust in a better future has almost exclusively departed, the hope for continuity in the post-nuclear world dedicates itself to to a sober-minded act of recycling the technical remnants of the pre-apocalyptic posterity. Instead of prayers and supplications, the survivors in nuclear fiction seek to rearm themselves with technology in order to brave the persistent radioactivity. Hence the Geiger counter is the ubiquitous tool of survival in almost all pieces of nuclear fiction. It is a staple for the nuclear survivor that guides him or her through a landscape that has turned into a ragbag collection of more or less polluted areas. Moving within the landscape of destruction in order to find a livable niche is the first and foremost goal now. The three expeditioners in Hans Wörner's *Wir fanden Menschen* are constantly toying with their Geiger counters in order to keep the progress of their expedition stable. In Harald Mueller's *Totenfloß* and Alex Gfeller's *Swissfiction*, the Geiger counter is the

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<sup>&</sup>lt;sup>80</sup> The name Grimmelshausen is an eponym for the greatest catastrophe imaginable, even though his picaresque writings are not very comparable to the lugubrious tenor of nuclear fiction. One could argue that this eponym rather refers to the chronicler of a period of human plight. Franz Josef Görtz refers to Günter Grass in his capacity as the author of *Die Rättin* as the "Grimmelshausen aus der Kaschubei" (463).

epitome of the futility of human life. It symbolizes the slow convergence of human life towards death. As all characters are heavily radiation-sick, it is only a matter of time until their lives will come to an end. The Geiger counter – more than simply a motif – is thus the atomic clock of the post-nuclear world. The readings of the counter put the limited life expectancy of their users into rational and abstract numbers, an ironic scenario, as these numbers indicate the presence of death: the higher the readings, the shorter human life will be. Technology prolongs life but it is not able to restore it. It figures as a crutch that offers makeshift solutions.

Humans can survive as long as their gear holds up under the duress and as long as they have access to energy. In Matthias Horx's novels Es geht voran and Glückliche Reise, energy supplies take center stage. In Es geht voran nuclear survivors hibernate in a fully equipped bunker until the most aggressive level of initial radiation has subsided. This bunker is fitted with various supplies that deliver electricity, heat, water, and clean air. The post-nuclear survival turns into an adventurous strategic role-playing game. Once the survivors leave the bunker, they are constantly on the hunt for new sources of energy, be it an old car or a supermarket depot. The protagonists have given up their role as creative and productive members of the human society but have turned into carrion-eaters of civilization's remnants. In Glückliche Reise, Horx shows a protagonist who lives as a technological hermit in the midst of post-nuclear Luddites. A sinister nuclear war has devastated the world and subsequently split humanity into small tribe-like groups that are no longer interconnected through technology. Outside of these religious communities, the protagonist lives as a dissident in a abandoned airport tower, hoarding the remnants of technology that the war has spared. Horx does not reject the notion of history. He mocks

the course of history in many ways instead of claiming – according to *posthistoire* – its absolute end. History has gone backwards by a few centuries in the course of a short war. The achievements of modern civilization and Enlightenment philosophy have been abandoned in favor of an early ritualistic form of Christianity that strongly resembles paganism.

In Es geht voran, Horx develops another ironic take on history. Germany is now "reunited" after the nuclear war: "Deutschland ist wiedervereinigt, das dürfte es heißen' Wir müssen lachen" (118). The power of the nuclear age has not only razed everything to the ground but also annulled former borders and evened out political and cultural differences. The nuclear tabula rasa has thus implemented the reunification of Germany, something that decades of East and West German policies and diplomacy could not achieve. The problems of a divided Germany bulk large in Gudrun Pausewang's Die letzten Kinder and Gerhard Zwerenz's Der Bunker as well. Nuclear fiction thus portrays history not so much as a finite concept but rather as something gone terribly awry. What remains of the principles of history can only be cast in bitter sarcasm and utter irony. The protagonist in Grass's *Die Rättin* loses control of history as well. He is shown in a space capsule which represents the control of human technology with all of its panels and buttons but which has been rendered quite useless through the upheaval of the rats and the hybrid Watsoncricks. Technology, as the depiction of a post-nuclear world in the novel suggests, is only operable in a larger system. The single implementation of technology can only momentarily aid the quest for survival strategies, yet it cannot rebuild civilization. As the last man slowly awaits his demise in his capsule, so does technology which perishes with him. The post-nuclear world redefines the concept of the

mass. The pre-nuclear world is depicted as a world of masses: the mass media, the masses of humans, the mass of technological equipment, the mass of weapons.

Everything in the modern world is plentiful and exists in numerous and often identical copies. The nuclear blast pulls the rug from under this mass-oriented society's feet by destroying the infrastructure that connects the masses and makes them functioning tools. Furthermore, it also eradicates the multitude of beings and objects, thus turning large numbers into small ones. Survivors in nuclear fiction are only few, and such paucity in human resources will not suffice to restore human civilization to its pre-apocalyptic level. Not only has the nuclear catastrophe forced human development backwards, it has reduced it to a level that might have permanently disabled recovery.

On a more physical level, the earth in the post-nuclear world is often burned. Signs of civilization have been pulverized, and nature's fertility has been destroyed. Nuclear survivors return to tending to the simple needs in life, food and shelter.

And what now develops, in the space of hardly a century, is a drama of such greatness that the men of a future Culture [...] will hardly be able to visit the conviction that "in these days" nature herself was tottering. The politics stride over cities and peoples; even the economics, deeply as they bite into the destinies of the plant and animal world [...] But this technique will leave traces of its heyday behind it when all else is lost and forgotten. For this Faustian passion has altered the Face of the Earth. (II: 503)

What seems like an adequate description of the post-nuclear world, was written in 1922, shortly before the advent of the nuclear age. The source for the above quote, Oswald Spengler's *Decline of the West*, has been treated as the work of a great prophet. I argue, however, that the prophetic aspect is irrelevant in this context. The question whether Spengler had the power to presage the future is not ours to decide. However,

Spengler clearly identified the immense power of the industrial age and its capability to permanently alter the earth on a grand scale. His observations, I argue, are rather based on his astute social perception than on some dreamy act of clairvoyance. The reader of nuclear fiction will find an adequate if metaphoric description of the post-nuclear world in Spengler's quote. In essence, the authors of nuclear fiction envision the world after an atomic catastrophe as a severe aggravation of previously existing destructive phenomena. In other words, the example of the industrial society and its destructive elements foreshadows the face of the post-nuclear world in miniature. The atomic bomb and its destructive power are thus true representatives of more than a century of industrialization. The befuddling and disturbing element, though, is the exponential growth of energy that the nuclear age has produced and that eclipses any feasible or imaginable amount of energy that could previously be gained from burning fossil fuels like coal or oil. While the human mind easily imagine simple mathematical multiplications (e.g. the amount of coal that is burnt for energy generation has been increased 20-fold within a certain period), it balks at the steep growth of exponential energy releases as found in atomic weapons. Exponential growth can be mathematically understood, but the true visualization of its increase is almost impossible for the human mind. This is the crux that nuclear fiction faces when depicting the post-apocalyptic world. What authors then do is to depict a burnt planet and the severe alterations of the face of the earth, its structure, landscape, and geological setup that the release of nuclear power has caused.

In Hans Wörner's *Wir fanden Menschen*, the landscape at the epicenter resembles a moonscape deeply pitted with gargantuan craters – "zu Kratern und Löchern zerstampfte Landschaft" (150). In Gudrun Pausewang's *Die letzten Kinder von* 

Schewenborn, the formerly fertile soil of Hessen turns into a barren wasteland that refuses to yield crops for human survival. The strongly romanticized notion of Mother Earth in Spengler's work – he deems nature feminine and uses the possessive pronoun "her" – has been given up in nuclear fiction. While the post-nuclear world is a disenchanted place of cosmic chaos, nature likewise has been deprived of her – or shall we say its – personality. Nuclear survivors have grown weary of addressing nature proper. For them, the destroyed landscape in which they now live is a blank space, a surface that has been cleared of its previous inscriptions. In some instances, the vestiges of human civilization are still visible as at best a palimpsest underneath the layer of atomic chaos. Spengler could not foresee the impact of the nuclear age but nonetheless his obsession with the tremendous traces inflicted upon the earth by modernity is a keen observation that in essence applies to the post-nuclear world which is flush with bites and scars in its surface just like a lethally wounded animal.

Many pieces of nuclear fiction, especially those from the 1970s and 1980s, are filled with ideas of *posthistoire* thinking. It would be wrong to argue that they completely depart from the claim of the end of history. However, they playfully question the absolute end by exposing the reader to an open ending. In Gudrun Pausewang's *Die letzten Kinder*, the earth reawakes slowly after the dead of the nuclear winter has passed. Plants sprout again and a marginally slim silver lining sparkles behind the atomic clouds. However, this sign of hope might also be fallacious as the narrator does not know whether humanity will survive. While nature seems to be slowly recovering due to its power to reproduce and reinvent itself time and again with an irrepressible will to bring forth life, this recovery might actually be too late for the few human survivors. It is the

irony of the untimely nature of the recovery that thwarts any idea of the rehabilitation of nature. A rehabilitated nature without humanity in it remains worthless from a human standpoint. It is ironical at best to imagine an immaculate nature without anyone to behold it. The demise of humanity is thus the most pressing question in nuclear fiction. It is – symbolically speaking – humanity's self-inflicted ouster from its world. Whether this ouster occurs by human death or by physical removal does not matter. Günter Grass physically removes the last human in *Die Rättin* from the earth. The protagonist ends up as a traveler outside his former world (and possibly trapped in a nightmare on a meta narrative level), but we do not witness his demise. Furthermore, the earth does not turn back into the barren orb it used to be at the beginning of the Book of Genesis. It remains a limitless bedlam populated with ghastly creatures. Nuclear ficition is filled with visions and anticipatory musings.

In Christa Wolf's *Störfall*, the narrator sinks into sleep at the end of the book, presumably dreaming of the future. We do not know if this will turn out to be a nightmare or a pleasant dream. However, what remains is the desire to imagine or – more daringly – to presage the future. This latent wish collides with and infringes on the principles of *posthistoire*. It does not matter if we call it mockery or an attempt at transcending the idea of the death of history. What counts is the irrepressible will to glimpse beyond the finite.

Even in Lutz Seiler's 2008 narrative *Turksib* in which the first-person narrator describes his train travel through the polluted and barren wasteland of Kazakhstan, the reader witnesses the struggle between the finite and the infinite. In his growing obsession with a Geiger counter, the narrator, a Westerner, presumably a German, constantly tries

to assuage his guilty conscience and his fear of the invisible and infinite dangers of radioactivity with the finite possibilities of measuring the amount of actual radiation. The counter once again is more than a motif. It is the epitome of an age that can find temporary peace only through obsessive repetition. Seiler's text can be loosely associated with nuclear fiction in as much as it deals with the nuclear waste that the Russians carelessly discarded. However, this post-nuclear is not one that tells about utmost destruction or the end of the world. Rather, it is the never-ending – read: infinite – story of a dead landscape in which humans survive against all odds. It is not the end of history that Seiler demonstrates but its eternal continuation – a torturing eternity in which humanity can only exist by either becoming indifferent or waxing compulsive by emulating the endlessness of the tragedy with an endless series of repeated actions.

Oddly, in Seiler's text there is no mention of the remaining world which is still intact. The narrator is hermetically encapsulated in this bizarre nuclear realm which offers no connection to the outside world. The isolation is even more mind-numbing as the ongoing travel, the constant locomotion through an atomic desert, does not bring relief: The nuclear world defies any attempt to successfully flee it. If we imagine history as a progressive curve with amplitude modulations on a monitor, we might regard the idea of history as an empty flat-lining screen. As nuclear fiction passes the threshold to the twenty-first century, the "patient" history lives on in time, yet betrays no visible vital signs anymore. If nuclear fiction's pursuit is worth a label, we might call its imagination of a life thereafter the post-posthistoire.

#### The Depopulated Planet – Boon or Bane?

Alan Weisman's 2007 study *The World Without Us* takes a look at what would happen to the earth if from one day to the next humanity would cease to exist. Weisman draws a panorama of a world without mankind that could indeed be a happy world, not the ever dreaded apocalyptic downfall that was on people's mind during the heyday of the Cold War. Weisman's sleeper hit provoked a debate on whether mankind is irreplaceable or just a freak of nature that will have to vanish in the course of the universe's history anyway. Interestingly, nuclear fiction precedes this recent debate in the wake of the dangers of destruction that have been demonstrated in the 9/11 attacks. It contributes to the recent discussion by examining the value of a world without mankind or a mankind without a world respectively. While Weisman takes an ironically dispassionate stance when it comes to the value of human culture or morals, nuclear fiction often does not remain neutral. These texts are either very pessimistic or – following an impetus to radically escape this pessimism – turn cynical and transform the end of the world into a comical all-out downfall. In that respect, the central issues of nuclear fiction resemble the debates on possible nuclear apocalypses by terrorists that followed in the wake of 9/11.

While the rigorous division of the Cold War era into two spheres, communism and capitalism, leads to heavily moralized or equally heavily caricatured stances in nuclear fiction, the discussion of nuclear terrorism between the Western and the Eastern world has reached a very similar state. The doubtful stance with which the lack of understanding between the East and the West in the post-9/11 world is regarded mirrors exactly the situation that nuclear fiction describes. On the one hand, one can find the proponents of hope who defend a better future and the ability to solve the existing

problems in the face of an overwhelming amount of pessimism, on the other hand, the cynics have ceased to take the positivist attempts at solving problems seriously and have started to anticipate the worst case scenario in their thinking of the end of the world. In a nutshell, the discussion of the post-9/11 world and the nuclear world vacillate between the same two poles – boon and bane.

Where does the bane stem from – the end of the world as an ominous and dreaded scenario, as a portentous and somber vision of the final destruction of our world? In the two decades following the end of the Second World War, nuclear fiction is clearly in line with a classical perception of the downfall of culture as Oswald Spengler defined it in Decline of the West. As Spengler's pessimism was seen as a prognostication of the Third Reich, nuclear fiction carries on with this culturally laden concept of mankind digging its own grave. Not only is the nuclear threat an outcome of the catastrophes that had been caused or set in motion by the Nazis, it also is a portent that endangers human civilization. Such endangerment, however, is looked at with the gravity of those authors who just survived a devastating war and now have to face the possibility of a new one. Authors of nuclear fiction from that time mostly deplore and mourn the loss of culture and knowledge that already occurred during the Second World War. They are preservers and protectors who seek to entrust the cultural products of human civilization to the safekeeping of the young generation. Their works admonish the young to wisely protect what they have. They regard human culture as a valuable which has to be defended against possible destructive onslaughts. In that respect, these authors resemble the monks of the middle ages who preserved knowledge and wisdom in the teeth of the inroads that militarism and technology have made upon humanity. Günther Anders, Alfred Gong,

Heinar Kipphardt, Fred Denger, and Oskar Maria Graf are examples of such authors who try to utilize nuclear fiction as a vehicle against surrender to the impending downfall. Their pure-bred pessimism, which was strongly influenced by Germany's past history, experiences a quick dilution with fresh aspects, trying to introduce humor and distance to the all too grave subject by watering down the importance of preserving human culture. Very swiftly, nuclear fiction loses its seriousness and looks at a potential nuclear catastrophe with an arch smile. By introducing a Martian as an external and uninvolved bystander, Gilbert Merlin's *Ein Marsmensch reist durch unsere Zeit* disregards the anthropocentric fear of losing human culture to the nuclear age by demoting it to a freak of nature. In the face of other stellar or planetary civilizations and their culture, the heritage of human civilization is not unique anymore. Therefore its loss would not mean the total loss of culture in the universe. As Merlin's Martian points out:

"Denn wir haben zwar nicht das geringste dagegen, daß sich die Bewohner der Erde selbst vernichten, ja wir hielten das sogar – in Übereinstimmung mit dem übrigen Weltall – für völlig belanglos, wenn nicht sogar für begrüßenswert, aber wir möchten selbst keinen Schaden erleiden und wollen deshalb wissen, woran wir sind. (19)

Not only has human civilization lost its unique character, it even becomes a threat to other civilizations that seek to protect themselves from the humans. Of course, Merlin does not want to make his readers speculate on whether there are other forms of life in the universe. Rather, his extraterrestrial being is a literary means to gain distance from the ever pressing need to preserve human cultural heritage: The earthlings are taking themselves too seriously and therefore easily overlook possible solutions for the problem of nuclear armament while being trapped in the ideological battle of communism versus capitalism. Later, Friedrich Dürrenmatt would pick up on this motif in his *Winterkrieg in* 

Tibet and introduce an anonymous phalanx of extraterrestrials who rediscover the vestiges of human civilization. Ironically, so it seems, the narrator, purportedly an extraterrestrial being, describes the relics that the humans have bequeathed as their cultural heritage before they extinguished themselves: engravings of modern science and technology inside of protective caves that they had used as hideouts during nuclear war. The bequest consists of blueprints of the very same technology that caused humanity's downfall in the first place. This ironic play with the legacy of human civilization does not poke fun at the downfall of humanity and the destruction of human culture but rather at its absurd and completely unnecessary ways of eradicating itself. For Dürrenmatt, the loss of human culture is not strictly bane anymore but also a bit of a boon. It is part of a larger cosmic scheme of birth and decay and as such occupies a rather small place amidst the infinitude of stars and planets. Accordingly, it can only be properly described as what it is by removing the element of human tragedy from it: "... der Zufall, der uns als Gattung schließlich schuf, wird kaum ein zweites Mal eintreten" (120).

Later in nuclear fiction, when the immediate danger of a nuclear threat seemed to have dissipated in the wake of the Cold War, the nuclear nemesis left center stage. A more playful and oftentimes sarcastic attitude prevailed that did not see man's departure as something important. Rather, those that had lived under the nuclear threat for three decades had unlearned how to be frightened all the time. This loss of fear leads to sarcastic mockeries in the 1980s like Ulrich Horstmann's *Das Untier* or Gerhard Zwerenz's *Der Bunker*. While these authors do not seek to deprecate the seriousness of a nuclear war, they nonetheless develop a grim gallows humor that looks forward to a depopulated planet. According to such texts, the eternal struggle between humans will

then finally be over and the world will find dependable nuclear peace. This kind of boon is – mutatis mutandis – a scientifically updated version of the ironic peace that Immanuel Kant suggests in his treatise "Zum ewigen Frieden." Once humanity has been removed and the departure of the unholy human advancements has been achieved, the world and the cosmos are pacified and "life" can go on unperturbed by nature's freak accident, humanity. This form of humor has unburdened itself of the weight of the Second World War and the moral responsibilities it carried. It is not that German nuclear fiction would call upon humanity to eradicate itself. However, the finding that it is not the world of the Nazis anymore that endangers the peaceful co-existence of peoples but the world of those who liberated the world from the Nazis is the cynical cherry on top of the nuclear cake. The formerly good have now turned bad or at least irresponsible and careless. In the midst of this strange occurrence, Horstmann's or Zwerenz's humor seeks to alleviate the insanity behind this idea by grossly caricaturing the event. The voices of admonishment who uttered warnings about the end of the world have not resonated with the world, so these texts suggest. Now, nuclear fiction attempts the opposite: going beyond the threshold of moral decency and looking behind the façade of the real nuclear catastrophe by accepting the likelihood of its occurrence. These texts prey and play on the desire to observe destruction, nuclear rubbernecking so to speak. Indeed, this is a thought that has long been repressed in nuclear fiction. Admitting to the fun of watching the world tumble into chaos was a moral no-no in early texts of nuclear fiction. However, in colorful metaphors, these early texts already admitted to a possible aesthetic pleasure that would come out of a detonation. Just like a sun set, it might look bright and beautiful, a gigantic festival of nuclear lights, a doomsday firework.

When Alan Weisman gathered impressions of how New Yorkers experienced 9/11, quite a few respondents described a certain satisfaction while watching the towers crash: "God, it was so much fun watching the city fall apart like that" (Lennard Goehner/Winters Kegan 113). He rightfully explains that this and other voices are not traitors of their own country but that they were inspired by an inexplicable joy of seeing a modern Sodom fall apart. We live in a world that constantly fleshes out the negative impact that the presence of humanity poses to nature. There is nothing really admirable about us as our each and every move will harm the environment inevitably. We can try to reduce this impact but we cannot annul it without annulling ourselves. It is therefore that Alan Weisman addresses the odd joy people feel when their own culture falls apart. From a similar vantage point but infused with the cynicism of the late Cold War era, in 1986 Martha A. Bartter portrayed the destruction of Western society as a renewal of the cultural ballast that had been created by the outgrowths of urbanization:

<sup>&</sup>lt;sup>81</sup> In this context, it is important to see the connections between notions of destruction during the Cold War and the new apocalyptic frenzy in the wake of 9/11. The term "Ground Zero" that has been used to describe the site of the former World Trade Center, originates in the nuclear age, denoting the site of the nuclear The point on the surface of the Earth at or vertically below or above the center impact: "ground zero of a planned or actual NUCLEAR DETONATION. Also called actual ground zero." (The Facts on File Dictionary of Military Science 210) A term that stands for the utmost destruction of the nuclear age is now reapplied to another era that is – not surprisingly – very susceptible to apocalyptic fantasies. German nuclear fiction often describes the crater-like depression of nuclear ground zeroes in great detail. In his 1992 monograph Letter Bomb, Peter Schwenger questions the meaning of the term: It suggests a level surface but rather refers to a considerable indentation (25). He elaborates on the issue in "Circling Ground Zero": "Ground Zero is itself a somewhat oxymoronic term. Ground melts away at the point of an explosion, and the figurative ground of our conceptual system disappears as well, swallowed by the yawning zero. It is that zero which, more than anything else, serves as sign for what is, or is not, at the blast's center" (251-2). The rat figure in Grass's Die Rättin offers a German translation of the term "ground zero": "Nach den Vernichtungsschlägen auf Hiroshima und Nagasaki, die uns überraschten, nahmen wir die neue Gefahr in unser Vorwissen auf. Deshalb haben uns die Atom- und Wasserstoffbombenversuche der Amerikaner, Franzosen und Engländer, die einige Südseeinseln zum Bodennullpunkt hatten, nicht unvorbereitet getroffen." (79) - here the ground zero - the "Bodennullpunkt" - is literally at zero as the surface of the water remains level even though the tests engulf various smaller isles that disappear just to be covered by the "zeroness" of the ocean. The penetrating power of the bomb that reaches far underground cannot harm the rats that hide out even farther down in the ground.

Since Sodom and Gomorrah, cities have been identified with sin. Now we spend much of our time and energy trying to make our cities "habitable," while seeing them as a prime target for atomic bombs; they sin by their very existence. For us, the underground "shelters" that simultaneously protect and confine the fictional survivors of "nuclear" war metaphorically represent the most feared features of the city: crowded, dark, technologically dependent, complicated prisons, they are necessary only because the city itself exists. The city is both womb and tomb. (148)

Bartter toys with the notion that urban "renewal" through nuclear war might be something that we indirectly desire to clean up our dark culture. Both Weisman's and Bartter's arguments are made tongue-in-cheek. However, they nonetheless show that boon and bane are inseparably tied together: The bliss of reducing humanity's sinfulness or its harmful impact on nature has to be paid for with the demise of human life and all of the suffering that comes with it. In this context, nuclear war could also be regarded as a gargantuan collective suicide that tries to rid humanity of itself. Nuclear fiction has shown early that the strategic ideas behind a possible nuclear war were unattainable in real life: no country could completely eradicate its enemies without running the risk of being met with a fatal retaliatory act. The strategic uselessness of nuclear war then quickly turned into the realization that the nuclear age had turned all humans into possible Kamikazes. The will to sacrifice one's own life in an effort to help one's country is a thought that is anothema to Western culture. When Japanese fighter pilots killed themselves in order to weaken the American forces in the Pacific theater of the Second World War, the Americans could not understand this practice. When terrorists kill themselves today, borne by their deep-seated hatred of Western values, the Western societies cannot handle such desperados. We just have no option of developing measures against this practice. I argue that when looking at nuclear fiction, we might be able to

spot the irony inherent in our own state of befuddlement. While it is morally correct to reject any form of Kamikaze attack as an inhumane act against human life, we should not overlook the collective Kamikaze spirit that we have – nolens volens – accepted during the nuclear age. Western society places great emphasis on the sacrosanct nature of individuality. Nuclear fiction, however, shows how this protective focus on individuality has been totally neglected during the nuclear age where all of a sudden all individuality is endangered.

Why then ultimately consult literature for its insight into catastrophic scenarios? What bearing could a handful of literary texts have on the course of the world? I argue that when looking at these ultimate questions it is truly legitimate to consider fictional texts. In many ways, nuclear fiction is comparable to the Cold War and its military strategies as both realms toy with fantasies and fictitious scenarios rather than real events. Nuclear fiction also relates well to real nuclear catastrophes (like the bombings on Japan or the reactor explosion at Chernobyl). In both instances, the joy of experimenting with the course of history is very evident despite the depressing topic. The pleasure these authors find in experimenting also grants us a pencil-thin ray of hope. Where there is experimentation, there are multiple options. And where there are multiple options, there is choice. And where there is choice, there is either boon or bane. In Günter Grass's Die *Rättin* there is no end to the question of boon or bane. Simply speaking, history repeats itself in various ways. It is powerful enough to recreate itself before its ultimate destruction could happen. Even when mankind becomes extinct, there will be other creatures who will supplant it and do as humanity has done: continue the tragedy. As we see the last human sit in his space capsule, we wish for him that he is part of a computersimulated game in which he can push a button and destroy all the ghastliness that he has to witness. Grass's novel screams for deliverance from the ugliness that takes place on earth. It is this same desire, the wish for deliverance from the mundane plight of the physical world that frequently occurs in nuclear fiction – the desire to be all done with it, to finally wipe the slate clean. As Peter Sloterdijk argues, humanity has served itself up its own means of cleaning the slate. When mourning the possibility of total global annihilation, one must consider that humanity has – unwittingly perhaps – worked towards this possibility in the course of thousands of years of its technological evolution:

Man muß sich hüten, die Nukleartechnologie unserer Tage als Ausnahmeerscheinung zu betrachten. Sie ist in Wahrheit nichts als die konsequente Fortsetzung des mineralogisch-metallurgischen Angriffs auf die vorhandenen Strukturen der Materie, reinste Steigerung polemischer Theorie. Es gibt hier *keine* Diskontinuität. Der transzendental-polemische Rahmen unserer Technik umschließt das Bronzeschwert ebenso wie die Neutronenbombe. (2:648)

At the end of nuclear fiction, one crucial fact becomes evident: humanity has lost its self-ascribed status of preeminence in the universe. It has dethroned itself by tripping over the pitfalls of its own inventions. However, the loss of the former glory is nothing like the expulsion from Paradise anymore. The language of the Bible is now a flimsy substitute for describing a situation that defies description. The dramatic moment that inhabits Adam and Eve's primordial ouster has been lost in the modern ouster whose dramaturgy is now thwarted by the abolition of those meta-structures of theater and literature that used to promise a regular development that climaxed and would ultimately come to a denouement. Whether the depopulated planet is boon or bane hinges upon such a development, be it in the early phase that tried to prove that the departure of humanity

would be an absolute bane or be it in the later phase that tried to show that man's eternal death could only be regarded as an ironic freak show. Both phases have been reflected in nuclear fiction. Unfortunately, neither of them can pass as the sole verdict. After more than sixty years under the influence of the nuclear age, the decision whether we live in a world that is either boon or bane has not been made. Nuclear fiction ultimately fails at conquering this frontier. However, that might also be its greatest strength – the detailed description of an unsolvable crux.

# III.

# Warring Between Logic and Chaos

### **Concepts of War and**

## Communicative and Narrative Strategies of the Rational and the Irrational

Der Krieg ist nichts als ein erweiterter Zweikampf. Wollen wir uns die Unzahl der einzelnen Zweikämpfe, aus denen er besteht, als Einheit denken, so tun wir besser, uns zwei Ringende vorzustellen. Jeder sucht den anderen durch physische Gewalt zur Erfüllung seines Willens zu zwingen; sein *nächster* Zweck ist, den Gegner *niederzuwerfen* und dadurch zu jedem ferneren Widerstand unfähig zu machen. ("Erstes Buch, Erstes Kapitel: Was ist der Krieg?" – Clausewitz, *Vom Kriege* 191)

"Nuclear weapons are the dominant military fact of our era, and yet we know practically nothing about how they would actually work in war when used in large numbers. [...] but it does mean that strategists discussing nuclear war are like virgins discussing sex." (Gwynne Dyer, *WAR – The Lethal Custom* 293)

Carl von Clausewitz is arguably the most famous European war strategist of the nineteenth century. His ideas on the purpose of war go back to the beginnings of human strife and its most primal and essential form, the duel or "Zweikampf." In Clausewitz's philosophical rendition, war is a continuation of politics with other means, a goal-ridden temporary recourse to fighting and violence. In his view, it is illogical to go to war if one cannot benefit from it. It is equally illogical to start a war if one cannot control and confine it. *Vom Kriege* is a compendium of almost evolutionary proportions: pre-Darwinian survival and strengthening strategies for European nations. The treatise, however, is not an invitation to an illimitable and mad free-for-all. Warring, according to von Clausewitz, becomes a purposeless enterprise if it rages unnecessarily and

extinguishes and eradicates human lives and resources in vain. The war leader, therefore, needs to be a skilled strategist who is able to oversee the development of a war at any time and make necessary changes to keep the war useful. By the same token, the origins of the Cold War are deeply rooted in traditional reasoning and strategic thinking, not in madness and aimlessness. The tactics of mutual nuclear deterrence and retaliatory action seem to remain in line with Clausewitz's stipulation, ironically giving new meaning to the concept of "Zweikampf" as the Cold War world is dominated by two nuclear *Zweikämpfer*. The military engineers and chief strategists in the situation rooms in Washington and Moscow are the modern heirs of Clausewitz's legacy, putting survival on the top of their strategic agenda.

The traditional strategists are now equipped with new weapons that they cannot handle, as Gwynne Dyer argues in his study *WAR – The Lethal Custom*. The nuclear strategists always tried to uphold notions of logic and predictability, yet not only have they not fully understood the features of their weapons but they are indeed completely inexperienced, ironically referred to by Dyer as virgins without a sexual track record. Traditional logic and modern innovation pose a fatal mismatch that blazes the way for a nuclear apocalypse. <sup>82</sup> The initial safety that traditional strategic thinking promises turns out to be treacherous gamble in the nuclear age.

German nuclear fiction responds to the problematic relationship between traditional strategy and the nuclear age by showing the transition that the concept of war has undergone since 1945, touching on Clausewitz's description of war and

<sup>&</sup>lt;sup>82</sup> How vigorously the Cold War strategists tried to apply reason and logic is shown in the idea of "limited nuclear war" (Dyer 301; cf. 294-304), proposed by one of the chief strategic thinkers of the Cold War, Yale-educated scholar Bernard Brodie. In the Clausewitzian sense, the nuclear strategists wanted to establish a twentieth century counterpart to war as a contained strategy that could ideally be controlled at any time.

demonstrating its impossibility in the Cold War. Many plots situate the beginning of a nuclear war in Europe, putting it into the context of old-style European history. Even though the two superpowers – the U.S.A. and the Soviet Union – pull the strings in these narratives, they remain in the background.

Hans Hellmut Kirst's *Keiner kommt davon* describes the escalation of a third world war as a concatenation of events taking place in Europe, with Germany as the focal point. In the beginning, this war does not seem to be much more than a modernized version of a nineteenth-century war: a bi-national conflict within the divided Germany that spreads to the neighboring countries. Kirst then shows, however, that every attempt at logic and strategic containment breaks away, opening up the stage for a global escalation. The novel is studded with characters that talk the language of the military past in a setting that continuously belies their arguments. Even though Kirst never overcomes the Eurocentric perspective in his version of nuclear war and though the global implications remain a vague concept in the book, the contradiction between human logic and the irrational unfolding of war is presented as the gravest issue that prevents peace. Kirst's characters do not want war, and yet they can do nothing to prevent it, tied as they are to their old-fashioned handling of military strategy.

In the beginning of many other texts of nuclear fiction the setting is that of a traditional war between two nations that quickly grows into a bedlam that reveals the old definition of national states as outdated. Nuclear fiction therefore sabotages this thinking by showing that a war between discrete national states will not be possible any longer. In fact, the nationalization of nuclear war only exists at its outbreak. Shortly thereafter, the boundaries and borders, the demarcation lines and frontiers blur and fall into oblivion.

War turns into a global event that engulfs these traditional concepts and renders them worthless.

Oskar Maria Graf's Die Erben des Untergangs shows this transition from national to universal war. The novel is not as pessimistic as other texts as it grants humanity a post-nuclear survival. It is also inspired by the then popular idea that the United Nations Organization might become a world government, replacing the need for national governments. Graf's depiction of survivors shows them as groups of people who try to rebuild small decentralized settlements. Allied forces slowly equip them with the necessary means such as seeds, fertilizer, and raw material. These allied forces, however, are not the ones that were present at the end of the Second World War, divided into different national camps but rather an undefined conglomeration of soldiers of various national descents. After the devastating nuclear strike, the rebuilding campaign consists of countless local projects all across the world, aided by allied troops that are governed from the headquarters of a provisional world government. National ideals and national cultures have been radically abolished by nuclear war. The novel argues that the revival of nations will not only be detrimental to the restoration of civilization but that it was responsible for the all-out escalation in the first place.

Günther Anders has extended this notion of outdated logical thinking by formulating a philosophical definition. He calls the predicament of being trapped between traditional strategic thinking and the nuclear age a "kopernikanische Drehung" (*Mann auf der Brücke* 11). Unlike Kirst and Graf, Anders argues from a scientific rather than a political point of view. He questions the traditional scientific experiment and the observational acumen that it mandates. Anders argues that the logic of observation and

the conclusions that we draw from them can often be wrong. For instance, the world remains a flat landscape to us humans who live on its surface and yet we know about its spherical nature as part of our theoretical knowledge. Anders then claims that the handling of atomic weapons happens with the same double-standard logic: Although we live in the illusion that we can make decisions that do not relate to the presence of nuclear weapons and their dreadful possibilities, virtually all of our actions nowadays can no longer be thought independent from them. Anders claims that we isolate certain logical thoughts away from the nuclear problem and the illogical prospect of all-out war is an assertion that also shows up in nuclear fiction.

As Oliver G'schrey points out in his study *Günther Anders*. Endzeit-Diskurs und Pessimismus, for Anders the demarcation line between peace and war has become blurry during the nuclear "Endzeit:" "Gegenstand des Diskurses soll die 'Endzeit' sein, und Anders meint damit einen Ausnahmezustand, dem jeder Teilnehmer dieses Diskurses schon ausgeliefert ist, noch ehe er begonnen hat zu sprechen" (24). For Anders, the issue is not whether humanity will be able to avoid nuclear war but that we are already embarked on it. G'schrey then defines this pessimism in Anders's thinking: "'Pessimistisch' ist daran das gesteigerte Bedrohungswissen, das sich von nun an einer Totalität gegenübersieht, die weit größer ist als nur 'der' Mensch" (89). The total war in the nuclear age is not only limited to acts of warring proper, but has become a totalitarian ideology that dominates the world and keeps people enthralled.

In Dürrenmatt's *Der Winterkrieg in Tibet*, the reader rediscovers the totalitarianism that Anders describes. Here, the single soldiers follow a universal military doctrine that ignores the the consequences of a nuclear war. The actions of the warriors

are geared towards the idea that there is no outside war that supersedes their every move. Hiding the totalitarian concept of nuclear war from the soldiers is a strategy that both keeps them afoot and willing to fight and maintains their motivation. Dürrenmatt's text suggests that by creating a labyrinthine web of uninformed foot soldiers, nuclear war has now developed strategic double standards that are not interconnected anymore. The strategy of withholding information from those involved in a nuclear war, however, is a futile one, as those who mysteriously planned this have become invisible. The reader and the foot soldiers alike do not know about those who triggered the war. It seems as if the war has become a controlling monster that now runs humanity. The strategic gamble on multiple levels has derailed and led to an anonymous free-for-all without coordination and leadership.

In nuclear fiction, the loss of leadership is dangerous and turns into a major reason for the uncontainable nature of the nuclear apocalypse. Throngs of literary characters are sent out by their authors to rediscover the leadership and the logic that they implemented before the nuclear bomb becomes a self-propelling force that sustains itself. These characters are often on a scientific expedition, trying to unearth said buried knowledge. In Wörner's *Wir fanden Menschen*, the two protagonists attempt to advance to the epicenter of a fatal nuclear explosion that destroyed a nameless country. They want to uncover what happened. The nuclear blast, however, has taken away all evidence and most findings about the war remain speculation. Hans Hellmut Kirst's *Keiner kommt davon* switches frantically between episodes in which various protagonists speculate on why a nuclear war is about to break out. The fast-paced change of locales and characters obfuscates the root causes and concludes with the message that the sources of this

paraphernalia results in the discovery of old nuclear bunkers filled with equipment and corpses. All traces of logical programs and strategic plans that once drove these dead humans and their equipment are irretrievable, and establishing and imagining their actions is an act of virtual reconstruction. Nuclear fiction often depicts people at the center of the nuclear apocalypse, absorbed by the cataclysmic chain of events. The centers from which the nuclear bombs emanated are irrelevant and the margins now are the main sites of war: the nuclear age has caused a strategic "red shift." Most accounts portray the nuclear inferno from the victim's perspective. This adds to the decentralization of nuclear war that only in its beginning retains some notions of central organization (the strategic places from which the weapons are launched).<sup>83</sup>

In Anton Andreas Guha's *Ende*, the reader witnesses this decentralization. Guha's protagonist who slowly awaits his death through radiation sickness is one of many victims trapped in a Germany destroyed by nuclear war – incidentally, he lives in Wiesbaden, but the locale is arbitrary and has no implications on the course of his account. In his diary he chronicles his daily life, hysterically trying to retrace the concrete actions and long-term historical development that must have led to the culmination of nuclear war. However, the protagonist in his misery is disconnected from history. He does not know which national and international decisions caused the disaster. He then

<sup>&</sup>lt;sup>83</sup> How much this decentralization and obfuscation has also been part of the actual Cold War is documented in research literature. William R. Thompson explains that the absence of information about the possible coordination of nuclear war is the hallmark of the Cold War period. Motives and intentions on both sides remain blurry even many years in hindsight, clear communication between the powers about the concept of mutual deterrence was not intended, and thus nobody really knows whether it was effective or not: "... we really have no idea whether the possession of nuclear weapons deters aggression. Cold War warriors were quick to point to the 1945-89 record in which neither the Soviet Union nor the United States attacked the other overtly. But we still lack evidence that either side intended to attack the other side and decided not to because of the potential horros of nuclear war. In the absence of such evidence, it is possible to interpret the relative absence of major power war during the Cold War in several alternative ways" (229).

clings to German and European history as he knows it – "die europäische Kultur ist eine Kriegskultur" (109), brainstorming the major events and theories of modern history and philosophy. His diary turns from a personal tale of woe into an attempt at reconstructing human history, told by an amateur historiographer who is not distant or poised enough to render a logical explanation. Guha's protagonist has an ingrained desire to know and to learn. He longs for clarification and insight and cannot stand the thought of being thrown off logical explanation. As radiation sickness gradually weakens his body, the failure of traditional logic debilitates his mind and deprives him of any hope for survival. For Guha, nuclear death is a twofold issue, occurring simultaneously on a physical and mental level.

The nuclear threat is doubly disguised by distorting jargon: scientific and military speak. The language of formality and alleged clarity envelopes the handling of nuclear bombs into a shroud of inconspicuous peacefulness and placid harmlessness. Nuclear fiction seeks to tackle these different speaks and make them accessible through exposure. Fictional texts, although not written by atomic physicists or the military and the political world, try to investigate the modes of logical thinking of these groups, breaking up the jargon that prevails on either side, and then revealing the differences and similarities.

Carl Zuckmayer in *Das kalte Licht* reflects the sentiments of the atomic scientists in a colorful poetic language flush with images that invite interpretation on many levels. In the play, a group of physicists in the United States that have just prepared a nuclear weapons test sing the so-called "Nuclear Blues:" "Pi-Meson, My-Meson, Positron, Zyclotron, Diffusion, Explosion – Was bleibt dann? Ein kleiner Massenrest, der sich nicht fassen läßt. ... Beim Elektronenfest... und gar kein Sinn / steckt da noch drin..." (107). The scientists are obviously in a giddy mood, excited about their experiment and

anxious about its possible consequences. Zuckmayer lets the scientists reveal their thoughts and concerns through their own words in the spheres of music and rhyme, a world that the reader would not suspect to exist within the bounds of nuclear research. The travesty, however, brings out the absurdity of the logic of the nuclear age. Concepts of war and war strategy have been literally atomized in the wake of the discovery of fissile atomic particles. There is "kein Sinn" left in the pursuit of the discovery of various sub-worlds below the atomic. The scientists lose control of these sub-worlds that they cannot properly understand. On a larger level, what can be done with technology resulting from this sub-atomic research, the waging of nuclear war, is equally senseless. War is slipping out of the hands of humanity in two different ways: On the one hand, the physicists, the maker of the bomb, have lost themselves in the sub-atomic microcosm of volatile particles; on the other hand, the military strategists have been lost in trying to contain and limit a war in theory. Nuclear war is thus running off the scale of the measurable world on both ends simultaneously.

Both worlds, the microcosm as well as the macrocosm, have in common the absence of clearly defined borders. These missing borders, however, conceal the true magnitude that the scientific findings have on both worlds, the atomic and the global one. New quantities and qualities become unpredictable sources of confusion and danger. The seemingly unimportant "Massenrest" is the remainder of a nuclear explosion that is equally as incomprehensible as the grand scale of destruction that it leaves behind. The verbal play in *Das kalte Licht* and the images it elicits cannot only be *separately* understood on two levels – the scientific and the political – they are meant to be *directly* taken from the scientific world and applied on the redefined strategic understanding of

war. Zuckmayer uses the language of literature to flesh out the similarities between both spheres. The consequences of atomic science for political strategic thinking are in fact the same as for the scientific understanding of the matter: senselessness, obfuscation, and immeasurability. The strategies of the nuclear scientists have lead to a logical impasse as the scientists' nuclear blues shows. Zuckmayer then claims that this impasse directly translates into the larger sphere of society and war if the scientific findings are harnessed and taken into this world for instance by planning a nuclear war. The play argues that early Cold War thinking fails because it tries to detach the different logical levels of atomic science and military or political strategy. In the end, the connecting figures who could responsibly understand both spheres are not present in the Cold War.

As Zuckmayer shows, the state of being trapped in one's jargon has a limiting effect on one's ability to think logically. His fictitious scientists thus have an advantage as they can express themselves in a poetic metalanguage. Mostly, though, nuclear fiction shows characters that attempt to break out of their logical confines, their mental ruts. The narrator in Helga Königsdorf's *Respektloser Umgang* pursues such an escape by pointing out the motivating force behind fear in the nuclear age: "Angst aus Wissen ist eine produktive Angst." (70) It is exactly these disrespectful dealings with the nuclear dilemma that enable us to develop an exit strategy. Königsdorf, however, suggests that only those who are truly informed by both, the science that composed and technically enabled the nuclear bomb, and the Cold War strategies that try to appropriate and abuse it, can help to avert the catastrophe. Calling for a social-scientific *Doppelbegabung*, 84

<sup>&</sup>lt;sup>84</sup> While Zuckmayer and other authors of nuclear fiction simply point out the disadvantage of creating various compartmentalized groups in Cold War societies that are disconnected from each other (e.g. the scientists vs. the military vs. the politics vs. the ordinary people), Königsdorf is the only author who takes this next step and calls for an amalgamation of various social roles in one person, reminiscent of Plato's

Königsdorf at the same time shows that her protagonist is not fit to fulfill this function as she is lying in her bed, severely sick. Nuclear fiction develops characters that offer an exit strategy based on their personal intellectual strengths but that are ultimately barred from implementing their ideas. Kipphardt's Oppenheimer figure is removed from his responsibilities as the director of the Manhattan Project by a political committee while Königsdorf's figure lacks the physical strength to disseminate her thoughts. Nuclear fiction shows that whenever characters emerge that seek to overcome such one-track strategies, they are turned into the modern-age versions of the tragic heroes of classical drama, unable to assume a useful position in the world despite their tremendous potential. The nuclear age demands individuals who can function on many levels of logic and in different modes of thought simultaneously. That demand, however, pushes humans to the limit of their mental capacity, leaving them sick, disabled, and morally crippled.

Nuclear fiction shows humans grasping at the straws of mathematics and quantifiable physics. While professional scientists appear in Königsdorf's and Kipphardt's texts, pointing out the crux of solely relying on logic, the characters in many other pieces of nuclear fiction are often laymen or laywomen who do not have scientific training but who are infused by a very rough understanding of science that manipulates their convictions about the nuclear age and gives them the impression of the reliability of scientific logic. Richard Kast, a character in Wohmann's Der Flötenton, misleads himself by trying to classify the imponderable risks of the Chernobyl explosion through mathematical calculation: "Mein Krebsrisiko ist um ein Zehntausendstel gestiegen" (189). Wohmann criticizes the apparent safety that this thought creates. In her novel, all

idea that the philosophers should be kings. In modern terms, one could call this a de-compartmentalization attempt.

characters are informed by the mass media's presentation of scientific evidence that seeks to invalidate concerns among the population by spreading meaningless statistical tables or unreasonable comparisons. Mathematics is abused in order to dispel fear and panic, not to give a sober-faced evaluation of actual risks. The strategies of science, however, do not work, as the novel reveals, since those who absorb them are unable to interpret them correctly. Wohmann does not seek to sabotage the importance of scientific logic but shows that old-fashioned scientific strategies are unable to provide an understandable explanation of real dangers. Richard Kast and other fictitious characters begin to toy with numbers that lead to a wrong perception of the nuclear age.

The logical evidence of science is turned into an abstract number code that seems to serve a strategic purpose, the health of the public, but that in fact comes to nothing. The narrator in Wolf's *Störfall* compulsively checks herself for symptoms of radiation sickness. While her calculable risk is miniscule, she nonetheless performs these exams as if she could obtain certainty by repeating them: "Im Bad habe ich mich zu den gleichen Handgriffen gezwungen wie jeden Abend, obwohl ich so müde gewesen bin, daß ich nur schlafen wollte. Gingen mir mehr Haare aus als sonst? Welches waren überhaupt die ersten Symptome?" (109). The traveler in Lutz Seiler's *Turksib* is occupied with a similar obsession about mathematical precision. His strategy is to collect as much data with his Geiger counter as possible in order to recognize nuclear risk zones, the "meßbare[n] Werte" (7) that create an illusion of safety. However, since he is traveling by train through the vast expanse of former Soviet republics, the readings from his counter do not result in increased protection as he is forced to stay on the train for his journey. The train serves as a symbol of the inevitability of danger as it cannot change its course and must

follow the tracks, no matter what parts of the world of Soviet nuclear waste they cross. While the narrator handles his Geiger counter with ease and great skill, the results have no practical consequences for his physical protection but merely serve a psychological purpose: symbolically speaking, the prototypical human being of the nuclear age has accepted the obsessive compulsive act of reading his Geiger counter as a surrogate strategy.

One wonders why the characters of nuclear fiction so readily accept simplified strategies for dealing with the nuclear catastrophe. Hans Magnus Enzensberger speculated on this question in his essay "Zwei Randbemerkungen zum Weltuntergang." He claims that a generalized "Untergangsstimmung" has led to a dubious mystification of the world, impairing our ability to think strategically and lucidly (342). Here, Enzensberger realizes that humanity is depriving itself of a true exit strategy for the nuclear age by distorting traditional strategy into a panacea for the nuclear age. Most of nuclear fiction then shows the repetitive practice of such strategy as a makeshift attempt to cope with the consequences. By reassuring themselves time and again, the characters in *Der Flötenton* and *Turksib* eventually fall victim to the illusion that they have created.

In *The Body in Pain*, Elaine Scarry argues that in the history of classical war in the vein of Clausewitz, weapons are often portrayed as means to "disarm" the enemy, whereas, more often than not, they "injure" the human bodies of the enemy. The terms are confused on purpose, one of the greatest errors in discussing war (67-8) as Scarry claims: "...our very conception of nuclear war may itself be understood as the culmination of the history of this confusion" because nuclear weapons are the epitome of weapons that are "in fact incapable of not inflicting that massive injury" (68). While

nuclear fiction does not provide an answer to the impasse that traditional strategy and logic have reached in the nuclear age, it clearly points out that traditional concepts of war and warring no longer apply and no longer are able to resolve or defuse the nuclear threat. Rather, nuclear fiction supports Scarry's argument that the products of the nuclear age cannot but inflict mass damage and mass trauma and have left human strategy in its wake.

## Risk Communication and Miscommunication

We now return to our point of departure, the distinction drawn between risk and danger. In the case of risk, losses that may occur in the future are attributed to decisions made. They are seen as the consequences of decisions, moreover as consequences that, with regard to the advantages they bring, cannot be justified as costs. [...] Nuclear power generation is a risk, even if we may be certain that a serious accident will occur only once every thousand years – although we do not know when. In this question it is a matter of the degree of sensitivity to probabilities and the extent of loss – that is to say social constructs subject to temporal influences. (Luhmann, *Risk* 101)

In his magnum opus on risk as a sociological concept, Niklas Luhmann distinguishes between risk and danger. Risk, it seems, is the more modern term, defining mathematical "probabilities" that are embedded in a performance-based social system. 85

<sup>&</sup>lt;sup>85</sup> Nuclear fiction often toys with Luhmann's concept of accidental war as societal risk. As opposed to German nuclear fiction that takes a very pessimistic stance on keeping such accidents under control, American fictional accounts often celebrate accidents as a test of courage for brave and determined rescuers who prevent escalation in the nick of time such as in the 1978 movie *The China Syndrome*, where virtuous and hard-nosed investigative journalists risk their lives to save society. However, the notion that accidents could devastate an entire society or even the world is not only alive in fiction but also in current political science and war research as T.V. Paul in his 2006 article "The risk of nuclear war does not belong to history" claims: "... I argue that, in the post-Cold War world, the probability of the outbreak of an advertent or premeditated nuclear war among the major powers has declined while the danger of an inadvertent nuclear war still exists. Although the occurrence of major wars involving nuclear weapons is of

Danger, in turn, Luhmann argues, is an older term that relates to the effects that external forces have on our life. Luhmann also argues that modern societies are based on the evolution of communication and its subsequent diversification and refinement into many sectors of society. Communication becomes a ramified web of roots that pull together different areas of society, resulting in a complicated structure that from now on requires communication as an essential tool for the functioning of a modern society.<sup>86</sup>

In Social Systems, Luhmann more directly points out how closely he regards acts of communication as concrete actions, not just as weak symbolic acts: "Thus we give a double answer to the question of what comprises a social system: communications and their attribution as actions. Neither aspect is capable of evolving without the other" (174). While Luhmann does not mention nuclear war as an escalation of technology, he includes technology – more specifically nuclear technology in the quote from Risk – as one major operative mode of modern society. For Luhmann, technology is part of an optimization process that strives to harness as many natural forces as possible for the good of society. Yet even though his ideas on risk are less concerned with situations (such as war) that are not regulated by societal norms, his definition of communication and risk communication as an all-pervasive concept is present in nuclear fiction as well: The seemingly perfect logic of strategies of deterrence through massive retaliation can derail when the systems fail and the communication channels refuse to function. Almost all fictional works are informed by this notion of failed risk communication. The exchange of information is crucial for the stability of the Cold War system. When this equilibrium is just minimally imbalanced, the resulting communicative errors and blanks cause disproportionate

low probability, war-generating situations are likely to emerge both at the regional and global levels as the international system evolves from a near-unipolar to a multipolar system" (113).

<sup>&</sup>lt;sup>86</sup> This is my interpretation of Luhmann's definition. The root metaphor is also mine, not Luhmann's.

damage. For instance, important phone connections break down (Guha, Pausewang) and lead to a communicative blank that is erroneously interpreted as a sign of war. In other cases, the powerful refuse to negotiate with their enemies while strictly adhering to their political ideology (Kirst), thus purposefully undermining the communication process, or sensitive computer systems derail and war is quickly in the offing (Zwerenz, Grass) as the computers signal wrong codes to the enemy. The communication process in nuclear fiction decides upon life or death, upon war or peace. The reasons for flawed communication are many, and nuclear fiction is not in agreement whether a potential nuclear world war is manmade or caused by glitches of complex electronic control units. However, communication is always present as a universal interface between factions and people. It occupies a central position in fictitious scenarios of the nuclear age. <sup>87</sup>

If one interprets Luhmann's mathematical definition of risk to the fullest extent, then one must conclude that the mathematical probability eventually leads to a catastrophe: "... even if we may be certain that a serious accident will occur only once every thousand years – although we do not know when..." (see above). Luhmann has accepted the fate of mathematical certainty and thus assumes that the evolution of a risk into a full-blown catastrophe will eventually happen. Luhmann then points out that the mathematically calculable risk (which might be extremely low and thus relatively safe in his interpretation) is not perceived as predictable in the public eye. It is rather influenced by "social constructs" such as sentiments and feelings. The risk thus has two sides: one scientifically predictable – to which in Luhmann's view society formally responds with

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<sup>&</sup>lt;sup>87</sup> Rainer Schützeichel distinguishes between three different general modes of communication in Luhmann's theory that also apply to communication processes during the nuclear age: "Sprache" (verbal communication), "Verbreitungsmedien" (script, books, all forms of mass media, electronic media etc.) and "Erfolgsmedien" (such as money, power, truth, love, belief etc.) (270-2).

"crisis techniques" and "emergency laws" (*Trust and Power* 166) – and one humanemotional.

Herman Kahn, the first head of the Hudson Institute, a well-known American think tank that was founded during the Cold War, may serve here as an example for a formal response of society to a crisis. In his 1970 essay "Issues of Thermonuclear War Termination" he tried to explain the possibility of a derailed crisis with words that betray cool strategic thinking or "crisis technique" as Luhmann calls it: "First of all, highly apocalyptic expectations. It seems quite reasonable that war, if it occurs, will come about as the result of accident, miscalculation, blind and/or relentless escalation, or sheer irrationality and/or insanity. Such a war will be the opposite of controlled" (136).

Nuclear fiction depicts the duality of technical response in the vein of Herman Kahn and emotional response, usually shifting its perspective towards the human-emotional side. In almost all works the reader learns about an "official" attempt to control or prevent the nuclear apocalypse (such as the governments of various countries sitting entrenched in their bunkers in Dürrenmatt's *Winterkrieg in Tibet*, Zwerenz's *Der Bunker*, or rumored in Gfeller's *Swissfiction*) that quickly becomes indomitable and turns into an emotional situation. Among the inmates of such bunkers, feelings of calculation and power are replaced by anxiety and general despair. Nuclear fiction shows that the perception of risk as a mathematical phenomenon only remains abstract and scientific as long as a society does not face it. In his essay "Katastrophen und Katastrophenbewußtsein," Rüdiger Bubner describes this prestage to the nuclear doomsday:

In der Perspektive schrumpfen die Katastrophen auf den puren Zufall. Die Katastrophengewalt ist im Prinzip ursächlich erklärt und durch anspruchsvolles Instrumentarium gemeistert. Der einzige blinde Fleck, der noch übrig bleibt, ist der acute Zeitpunkt. Damit stufen wir Katastrophen herunter und bauen sie glatt ein in den alltäglichen Lebenslauf, wo Zufälle uns unablässig begegnen, so daß wir einfach damit zu rechnen gelernt haben. (49)

Whenever a crisis in nuclear fiction emerges, however, the rational perspective – the formalization of the catastrophe – cannot be maintained, and humanity is left with confronting the problem in an emotional fashion. Nuclear fiction also argues that the fear of the nuclear apocalypse as a social construct is an evolutionary reaction that tries to ensure survival. In many texts, the reader encounters war survivors who by all means try to prolong their lives with intuitive actions rather than scientifically motivated ones (such as in Jahnn, Gfeller, Horx, Haushofer, Pausewang, Zwerenz).

While nuclear fiction mirrors Luhmann's argument of the relevance of risk communication, it is at variance with his strict separation of "risk" and "danger" and seeks to renegotiate the definition of these two terms. For Luhmann, danger and risk are discrete terms:

The distinction of risk and danger permits a marking of both sides, but not simultaneously. Marking risks then allows dangers to be forgotten that could be earned if risky decisions are made. In older societies it was thus danger that tended to be marked, whereas modern society has until recently preferred to mark risk, being concerned with optimizing the exploitation of opportunity. (24-5)

Risk and danger cannot be present at the same time but are divided from each other by historical development (danger is part of an older societal concept) and mutual exclusion (danger comes as an uncontrollable force from the outside whereas risk comes as a defined force from within a society). I argue that nuclear fiction not only opposes

Luhmann's historic separation of the two terms but that is also shows that they become two inseparable edges of one sword within the context of the nuclear apocalypse. While this is not intended to juxtapose Luhmann's theory with nuclear fiction and prove either one or the other wrong, one cannot but ask why nuclear fiction breaks with this conceptual safety that Luhmann's theory of multi-layered systems, that are deeply involved with each other, grants.

For one, the nuclear threat in fiction is often depicted as an external concept, perfectly fitting Luhmann's description. In Weyrauch's *Die japanischen Fischer*, the nuclear fallout encroaches on the fishermen like a mythical dragon, in Wessel's *Hiroshima* it is an intrusive stranger, the "schreckliche Sonne" (221) that raids and kills humanity without any prior notice, in Jahnn's *Trümmer des Gewissens* it hangs over society like a dark cloud subsequently imprisoning everyone in its spell. In "Der Mensch im Atomzeitalter" Jahnn furthermore underlined the notion of the external intrusion by calling the atomic weapons "termonukleare[.] [sic!] Ungeheuer" and "Vernichtungsmaschine[n]" (427).

In "Am Abgrund," another essay on the dangers of nuclear destruction, Jahhn continued his argument of nuclear war as an external force – an act of crime: "Man kann mit vielen Zehntausend Atom-Sprengköpfen und Wasserstoffbomben keinen Krieg führen. Man kann nur noch einen Überfall planen" (537). Even in much later pieces of nuclear fiction, this element of inimical invasiveness remains: the Chernobyl accident aggressively penetrates the layer of safety into which the characters of Wohmann's *Der Flötenton* or Wolf's *Störfall* have enveloped their consciousness. Gudrun Pausewang's depiction of danger in *Die Wolke* and *Die letzten Kinder* is that of a surprising force that

stops average people dead in their tracks and interrupts their everyday life. The protagonists in both of her novels are caught in the midst of decidedly normal activities by a rude awakening. Even Günter Grass has crafted the advent of the nuclear catastrophe as a dangerous development with the rat as the harbinger and immediate personification of doom. In Luhmann's description, all these phenomena would all be considered a "danger" rather than a risk.

The immediate danger in nuclear fiction is often very symbolic, catering to the literary narrative and trying to create vivid images. Even though the advent of danger in nuclear fiction evokes a *deus ex machina* effect at first, this impression is thwarted by the investigative power of most narratives that seeks to establish to what extent and how exactly a previous calculable risk has morphed into an exorbitant danger. Transformation and metamorphosis are indeed two key concepts in nuclear fiction, and they are used to show that risk and danger are one and the same thing, albeit perceived at different times or under different circumstances.

The narrators in Guha's *Ende* and Zwerenz's *Der Bunker* muse about the inexplicable transformation that precipitated and then escalated nuclear war. They know that what in the narrative present time is a full-blown war has originated in Cold War risk management. Kipphardt's *In der Sache J. Robert Oppenheimer* can be interpreted as a theatrically spiced up disquisition of the potential metamorphosis of risk into danger. The main character, the physicist Oppenheimer, tries to convince a jury that such a transformation is possible. The jury refuses to fully acknowledge this view, even though one jury member (Evans) who is incidentally a scientist, silently agrees with Oppenheimer's scientifically rooted argumentation. The central criticism that Kipphardt's

play argues time and again is that the refusal to see risk and danger as two related concepts will further increase the likelihood of an escalation of the nuclear age into allout war. Oftentimes, nuclear fiction does not differentiate between danger and risk. When that happens, risk has already turned into acute danger, and the theoretical return to a definition of risk has become a moot point for the characters. In Wörner's *Wir fanden Menschen*, Horx's *Glückliche Reise*, Gfeller's *Swissfiction* or Mueller's *Totenfloß* the protagonists navigate through a post-apocalyptic nuclear world, primarily struggling to survive. Risk and danger are so closely tied together that the survivors remain always alert towards possible threats.

The three expeditioners Peer, Naul and Mike in *Wir fanden Menschen* decide to circumnavigate highly radioactively polluted zones in their quest for the epicenter of the atomic explosion and later on their way back to the expedition headquarters. While they see radiation as a risk that they try to avoid, unpredictable outbursts of radioactivity occur on their tour, posing an imminent danger that prompts them to alter their route time and again. Risk and danger in Wörner's text are interchangeable and indistinguishable, and their constant onslaught haunts the protagonists. A vague risk can rapidly change into a lethal danger. The situational changes between risk and danger vacillate as wildly as the indicators on the protagonist's Geiger counters: The expeditioners enter a town with brutalized nuclear survivors, and having carefully planned their investigation, they seek to capture one of the survivors in order to interrogate her about the history of the town.

Despite perfect planning, the situation derails as the locals attack the expeditioners and kill one of them (104-10). Later in the book, the two remaining expeditioners carefully try to reach and research the epicenter, working their way with special equipment through

a moon-like landscape covered with craters. Again, the planning proves to be incomplete, and a sudden and unpredictable increase in radiation forces them to give up on their plan, endangering their life. Risk calculations only work in a limited and dissatisfactory way as the expeditioners explore a no-man's-land with a foreign civilization and unknown territory. Characters in nuclear fiction are often forced to experience such an amalgamation of danger and risk as nuclear nomads outside the familiar network of their society. Luhmann's definitions only work within the clearly defined framework of social rules and regulations. Nuclear fiction shows, however, that this framework does not exist anymore and that its parameters and terms now dissolve.

There is no information in the nuclear age that would enable the characters of nuclear fiction to phrase a valid distinction between risk and danger. The nuclear age has led to a dearth of flow of information between different social groups, turning risk communication into miscommunication. Nuclear fiction thus argues that the nuclear age, contrary to Luhmann's thesis, annuls important venues of communication on which the entire modern society – in Luhmann's definition resting on complex communicative structures – is based. Protagonists in nuclear fiction find themselves in lack of information all the time. When the blast hits they are cut off from the rest of the world. Even simplest forms of communication such as face-to-face negotiations fail. Distrustful farmers in *Die Wolke* shield themselves from the protagonist's family, not only unwilling to help them, but ready to kill any intruder that might threaten their food reservoir or contaminate their shelters with fallout dust. Interpersonal communication rarely occurs between survivors, while mutual hostility is present everywhere. A peculiar communicative silence hovers above the post-nuclear battlefield in Pausewang's texts. In

a similar way, the world turns silent and does not answer to human needs anymore for the monomaniacal loners in Schmidt's *Schwarze Spiegel* and Haushofer's *Die Wand*. "Ich trat gebückt über den Graben, und sah aufs leere Moor, wilde Weite, süß und eintönig, in der schwarzen Strahlung, bis ich die Schultern in der Jacke rieb" (188) and "jetzt herrschte nur noch der Mond" (205) as the protagonist in *Schwarze Spiegel* describes the cosmic silence that corresponds with the human silence: "Seit fünf Jahren hatte ich keinen Menschen mehr gesehen, und war nicht böse darüber" (187). In his 2007 article "Erleiden – Begreifen – Erzählen. Fiktionale Technikkatastrophen und die Ungleichzeitigkeit von Wissen und Nicht-Wissen," Karl R. Kegler acknowledges this egregious absence of knowledge as a typical element in literary portrayals of technical disasters:

Technische Katastrophen haben mit Kriminalfällen gemeinsam, dass Opfer und Schäden unmittelbar zutage treten, Ursachen und Verantwortlichkeiten dagegen erst später offenbar werden – mitunter erst nach Ermittlungen, die Monate und Jahre dauern können. Katastrophenberichte sind daher zugleich von der unmittelbaren Betroffenheit wie durch ein spezifisches Nicht-Wissen gekennzeichnet. Der literarischen Verarbeitung von Katastrophen kommt in diesem Zusammenhang eine besondere Funktion zu, da Erzählen Sinnzusammenhänge konstruiert und rekonstruiert, die in einer tagesaktuellen Berichterstattung fehlen. (58)

Kegler argues that narratives of the catastrophic try to bridge this information gap by constructing a story around it. Nuclear fiction responds to this claim as it explicitly analyzes the disruptive elements in unsuccessful forms of communication or a failure to communicate at all. In other words, nuclear fiction turns into conclusive communication about inconclusive miscommunication. There are various levels of miscommunication or communicative failure in nuclear fiction: The victims of atomic bomb attacks are not

only struck by the fatality out of the blue but are also rendered unable to communicate after the bomb has wreaked havoc upon their fragile world and leaves people shell-shocked and mute.

Wolfgang Weyrauch's radio drama *Die japanischen Fischer* shows the isolation the protagonist Susushi finds himself in. After accidentally being hit by the debris and the fallout from an H-bomb experiment, he brings himself and his fellow fisherman back to the coast. In the following he develops a feeling of guilt because he has also brought back radioactivity and thus "communicated" it to the women and children in his village. The consequence for him is that he has to break of communication and sequester himself away from the rest of the community.

Nuclear fiction not only shows how risk communication has become flawed or non-functional but goes one step further by arguing that communication as a philosophical concept has become absurd and meaningless not only in the wake but also in the face of the nuclear threat: In Günther Weisenborn's *Die Familie von Makabah*, communication fails in the face of the nuclear blast. A peculiar "family" of test dummies who have been transformed into feeling human beings by virtue of the ingenious scientist who made them, try to spare themselves the fate of being abused as guinea pigs in a nuclear test explosion. However, any effort to communicate their sorrows and fears to the outside world bounces back at the dummy family. The dummies are cut off from the rest of the world, and despite their best efforts their communication turns into a verbally incestuous lament that bounces off the walls of their little huts inside a cordoned-off test village. Their words are useless hulls that do not reach those who could call off the test explosion. The family squanders their emotions into dead-end communication. On

another level, free communication has ceased to exist within the community of nuclear researchers and politicians, the very people whom the test dummies try to reach with their message of despair. In the laboratories, a silent atmosphere of suppressed fear and uncertainty prevails. Unnaturally pale researchers are unable to speak up and establish an ethical agenda that would prevent human disaster. The physicist Cricot, the scientist who created the test dummies, is the only character in the play who describes this absence of communication in the nuclear age. For him, the root cause of the problem is the inability to communicate pressing problems clearly. For one, this is the result of a lack of a commonly accessible platform where scientists, politicians, and victims could encounter each other and negotiate. The physical world in the play is compartmentalized into the sphere for those who launch nuclear weapons and the confined test sites for those who will be the victims. However, of much more importance is the physical inability to communicate as the world is plagued with the "altes babylonisches Sprachgewirr" (64) as Cricot claims. This is not so much a linguistic inhibition but a logical and emotional one: finding the communicative mode that enables people to engage in a de-escalation process.

Even though humanity has perfected killing and warring, it has done nothing to avoid miscommunication and improve failed communication attempts. Communication has become superfluous, as it cannot achieve a thing anymore. Ironically, the nuclear blast strikes when the dummy family's effort to communicate their fear reaches its most intense stage. While the dummies frantically emote about their mortal fears, exchanging fast-paced sentences filled with anxiety and doom, stepping up their need for passing on their longing for life, their fate has already been decided by those who were unable to

hear their pleas: The orgiastic accumulation of words and emotions comes to an abrupt end when the bomb eradicates the dummies, accompanied by dispassionate stage directions from the off: "Der ferne Donner einer Explosion übertönt jedes Wort" (64). What seems to be a physical disconnect, an empty black box between the sender and the recipient of a message, is more precisely an emotional disconnect on part of those who launched the weapon. The recipients of the dummies' plea are far away from their victims, but even if they were able to receive the message, the reader can safely assume that clemency would not be granted. The disconnect is profound on many different levels. Restoring communication in the world of Weisenborn's play is not merely a technical act of engineering but a complex procedure that requires human skills.

Nuclear fiction also renegotiates spatiality in the context of failed communication. In *Der Mann auf der Brücke*, Günther Anders claimed: "Unser Zeitalter hat den Begriff der Ferne annulliert. Nicht nur Zeitgenossen sind wir heute, sondern Raumgenossen" (7). What Anders described in a broader philosophical context as the closeness of all human beings in the teeth of the nuclear age that pertains to us all and that prompts us to react to the prospect as one large community, attains an even more specific meaning in the fictional scenarios of nuclear war. Here, people are thrown out of the regular communicative context of their everyday lives. The spatial notions of those who could previously chose their location and their partners in communication are now stripped of this selection process. This forced communication does create further difficulties as the survivors in Harald Mueller's *Totenfloß* demonstrate. Checker, the brutish mutant, cannot suppress or mitigate his aggressive sexuality through discussion and negotiation with his fellow survivors but suffers outbursts of violence which eventually lead to the rape of the

only female within the group. People are thrown into arbitrary social contexts that demand free-flowing communication to develop working relationships. Instead, the nuclear survivors are depicted as speechless characters who are unable to function in social groups. The character Kuckuck who lost his family in the nuclear war, is now struck by an "Atomtrauma" that leaves him speechless and disables communication with his fellow survivors. His speech turns into a monolog: "Immer, wenn er davon spricht, versinkt er in eine Schreckensbilderwelt und nimmt nichts mehr wahr" (90). Often, protagonists are in search of words to restore communication but they cannot reach their previous level of linguistic refinement. The new communicative modes in the nuclear post-war world have regressed to a primitive stage: emotional outbursts, gestures, facial expressions.

Failed or flawed communication processes trigger war in many works of nuclear fiction. In Dürrenmatt's *Die Physiker*, Möbius's urge to talk to his nurse Monika and his fellow inmates is an act of risk communication. His human need for communication, that is in this specific situation sharing the knowledge of a terrible secret, unwittingly drives him to disclose his research to outsiders and spies: "Ich habe einen schweren Fehler begangen. Ich habe mein Geheimnis verraten, ich habe Salomos Erscheinen nicht verschwiegen" (319). Möbius cannot escape his urge as a human and a scientist that forces him into talking: "Ich mußte die Wahrheit sagen." (315). When the sensitive material leaves the circle of trust in a risky situation, it is intercepted by Mathilde von Zahnd who now presumably launches a global catastrophe in her search for absolute power. <sup>88</sup> This is a classical case of Cold War risk communication gone awry, turning the

<sup>&</sup>lt;sup>88</sup> Although Dürrenmatt never expressly mentions nuclear weapons, it is clear from the context and the time in which the play originated that Möbius's mysterious world formula addresses the destructive possibilities

lost knowledge against him who spilled it. Mathilde von Zahnd triumphs when she is able to elicit the secret from the three physicists' communication: "Ihr Gespräch, meine Herren, ist abgehört worden; ich hatte schon längst Verdacht geschöpft. Holt Kiltons und Eislers Geheimsender..." (346). While Dürrenmatt stresses Möbius's mental exhaustion and his failure under psychological duress, the actual risk communication is set up straightforward: The coveted secret is passed from person A to persons B and C (the spies), then eventually caught by person D who incapacitates all prior participants A,B and C and can now make unrestricted use of it. This situation is reminiscent of a ball game where those who do not hold the ball anymore are penalized and suspended from the ongoing play. In other words, it is a symbolic and rather oversimplified depiction of risk communication that eliminates the complexity of the process. In Dürrenmatt's play the reader knows exactly whom to blame for the catastrophe. Frequently, nuclear fiction rather blurs the role of the communicators and their responsibilities.

The process of risk communication is an unreliable apparatus that takes in messages and distributes them in a haphazard fashion to unknown recipients while at the same time it distorts the message. Nuclear fiction argues that this is a process in which humans have completely lost control of the outcome. The most absurd case of such communicative randomness is a war that nobody wants and that nonetheless comes about: How can a nuclear war break out when there is nobody who initiated it? This fundamental question crops up in Günter Grass's *Die Rättin*. The novel depicts a civilized world surprised by nuclear war like a sleeper startled from his dreams by the rude

of the nuclear age. Also compare the description of the earth in Möbius's final monolog: "Nun sind die Städte tot, über die ich regierte, mein Reich leer, das mir anvertraut worden war, eine blauschimmernde Wüste, und irgendwo um einen kleinen, gelben, namenlosen Stern kreist, sinnlos, immerzu, die radioaktive Erde. Ich bin Salomo, ich bin Salomo, ich bin der arme König Salomo" (351-2).

acoustic intrusion of a siren. The human protagonist and his mocking rival, the talking she-rat, try to fathom the roots of war. While her human counterpart is baffled and petrified, unable to come to a conclusion in the teeth of the escalation of war, the rat gleefully lets him in on the secret that what started it all was a mere computer glitch, ironically caused by rats whose fecal droppings interfere with the integrated circuits of a computer motherboard, therefore sending out wrong signals that launch nuclear weapons. Grass himself baffles the reader by suggesting that all it takes for the world to come down is a little computer error, brought about by seditious rodents.

Hör dir das an, Freundchen, rief die Rättin: Nachdem kein Erst- und Zweitschlag mehr zurückzunehmen, keine Grenze mehr kenntlich, kein Feind mehr auffindbar war und selbst in Kürzeln kein Lebenszeichen mehr hörbar wurde, als das ehrwürdige, gute alte Europa endgültig befriedet war, fand man in jenem wieträumigen Computerzentrum der westlichen Schutzmacht, das aufs globale Endspiel programmiert und deshalb wie ein Amphitheater gestaltet worden war, verblüffende Fremdkörper, Unvorhergesehenes, das Nichtauszudenkende: zuerst wenige, dann mehr und mehr kleinfingernagellange Partikel, die als Dreck, Losung, Kot, schließlich als Rattenköttel, ohne nähere Beweisführung als Rattenköttel bezeichnet wurden. (*Rättin*, 120)

The rats, however, are not the true triggers of war. They merely demonstrate that humanity itself has created a labyrinth of informational technology that lends itself to malfunctioning due to its overwhelming complexity: "Das alles geschehe unwiderruflich, weil man die allerletzte Befehlsgewalt Großcomputern übertragen habe" (122). One might just shrug off Grass's argument as an all too typical, oft heard lamentation that evil modern technology and the misleading messages of the mass media have caused a deterioration of human morality. That is true to a certain extent as Grass is only one of many who condemned technology and the media discourse in the 1980s and who branded them as social evil doers. Beyond this superficial notion, however, there is to be found a

more complex argument that describes the failure of communication as a more general failure of logical thinking during the nuclear age.

The world that precedes the nuclear apocalypse is one controlled by electronic transmitters in nuclear fiction. It is a world filled with TV screens, computers, and recording devices that reiterate the same messages time and again. The human message, the word that once was transmitted from mouth to ear, is now trapped inside the boxes of a gigantic recording and broadcasting apparatus that controls all of humanity.

Martin Buchhorn tried to capture this glut of electronic representation of communication in his made-for-TV adaptation of Grass's *Rättin*. <sup>89</sup> The film visualizes Grass's criticism of the meaningless unidirectional acts of communication that do not serve an exchange of information or verbal negotiation but that are harnessed to send instructions to the masses. Backdrops everywhere in the film are lined with TV screens that are constantly turned on, dinning messages into the heads of the viewers. Moreover, not only are these acts of communication lopsided in as far as no feedback is desired from the viewer, but they are also distorted, manipulated and even forged. The protagonist Oskar Matzerath in his final appearance in Grass's works has now grown into a delusional media tsar who controls a huge broadcasting apparatus. The makers of opinion and TV reality, however, are not figures who purposefully wield their power. They are misinformed, self-absorbed, and disconnected from reality. The media system has forced on them its own ways of communication and has made them part of the system.

<sup>&</sup>lt;sup>89</sup> The made-for-TV movie *The Day After* gives a much more realistic view on the nuclear apocalypse than Buchhorn's film. It also depicts acts of communication and communicative failures in a real-world setting. Even though the special effects for simulating the apocalypse were limited in the 1980s, they are much more realistic in *The Day After* than in Buchhorn's film. Buchhorn tries to present the nuclear catastrophe on a symbolic level, thus using special effects that are immediately recognizable as such and do not try to create an illusion.

Matzerath appears to be as controlled by his apparatus as is his audience. The sense of communicative authority that the media system creates is an illusion that controls both sides, those who feed it from the top as well as those who are fed by it at the bottom. Communication is an act of the blind leading the blind without any awareness of the handicap. Matzerath aspires to become a forger of history by broadcasting staged filmic features that show the world of tomorrow in Matzerath's view. This communication process is meant to daze its audience and disconnect it from reality. In Buchhorn's filmic adaptation, the narrator smashes the TV screens in his studio in an attempt to escape the televised brainwashing. His return to natural communication unfortunately comes at a point when the world is already on its way into the nuclear catastrophe. In Die Rättin, the computer glitch is a symbolic reference to the fallibility of electronic communication in its totalitarian approach. Technology, Grass claims, has taken the act of communication away from human beings and placed it into a totally different context. While the novel as well as the film show single acts of resistance to this monopoly, they claim that a successful return to truly "communicative" acts of communication is barely possible.

Most pieces of nuclear fiction portray Cold War emergency rooms filled with computers (e.g. Grass, Zwerenz, Gfeller, Dürrenmatt, Horx). Communication during an emergency can only happen through electronic transmission as shown for example in Zwerenz's *Der Bunker*. However, these electronic renditions are often false and inadequate. While the bunker inmates await an end of the nuclear war, they try to observe the outside world through cameras. Computerized communication here always means filtered communication. The electronic equipment only passes on images with a certain resolution and a certain color spectrum, distorting it in the process of transmitting it.

When some of the bunker people start an expedition to more accurately evaluate the real damage, they are surprised to find their own observations to be radically different from the electronically imparted images. The gravest form of communicative disconnect in nuclear fiction happens in such emergency situations where people depend on electronic communication. Nobody knows whether such electronic systems would be functional in an actual crisis, but the images of emergency rooms filled with computers and control boards are not just a creation in the minds of the authors, they are real inspirations drawn from actual Cold War technology.<sup>90</sup>

War can be described as a series of acts of communication and miscommunication. The transmission of information and instruction is crucial for the success of traditional strategic war. Military divisions need to be instructed and updated in order to be effective. Nations at war need to maintain communication with each other during a war so that when a certain point is reached, a truce can be negotiated.

Communication during a war is also often encoded in order to remain valuable as the military success in a war depends on successful communication. In turn, miscommunication leads to defeat and loss. For instance, the ability of British counterintelligence forces to finally break the encoded messages of the German-made enigma encrypting machine is believed by many historians to have turned the tables on Nazi Germany and to have shifted the fate permanently in favor of the allied forces. The opponents during the Cold War had learned from the risks of the Second World War and developed an intricate communicative system which they believed to be secure and

<sup>&</sup>lt;sup>90</sup> West Germany's largest government-funded project, a huge bunker system near Bad Neuenahr-Ahrweiler was intended to protect high government officials for about three months and ensure its ability to act in a nuclear war. Its command center was filled with electronic units that not only controlled the security of the bunker but that was also meant to enable the chancellor to govern the country and communicate with the outside world (cf. Diester, esp. 106-10, 159, 226-7, 250-4).

reliable during a crisis. The famous direct telephone line between the presidents of Russia and the United States tried to corroborate the notion that the Cold War could always be kept under control and regulated by its parties. Ironically, nuclear fiction remains very skeptical about the communicative apparatus. It places little trust in the reliability of technology and even less trust in its operators. Nuclear fiction claims that while the technology of the Cold War tried to make communication more secure it was in fact weaker and more susceptible to failure. The free-flowing and undistorted exchange of information has become an impossibility with fatal consequences.

For the reliability of any given social system, Niklas Luhmann proposed a concept that he called "second-order observation." This mandates the presence of a metasphere of observation beyond what Luhmann called the basic-level observer of the first order. Observation is necessary to evaluate the state of a society and to find distinctions between different states, objects, or persons. The second-order observation thus is an additional controlling element that places the direct observation under an additional layer of observation. The most important function of any kind of observation for Luhmann is the identification of "distinctions." For the observation of the second order that means: "If we wish to observe observation we must be able to draw distinctions between distinctions" (223). One could probably call Luhmann's concept a sociological version of checks and balances. It depends, however, on the free communicative flow between first and second-order instances. Nuclear fiction shows that this concept of discrete

<sup>&</sup>lt;sup>91</sup>In *Risk*, Luhmann defines the act of observation as follows: "... makes it advisable to define the concept of observation relatively formally, to place it, as it were, above the battlefield of opinions. Observation shall thus be understood to mean the use of a distinction to indicate on side (and not the other) [...] In these terms observation is the operative use of distinctions" (223). Luhmann then designs a staggered system of observational order. A first-order observer could be anybody who witnesses an action that happens in society. Such an observer could be part of a certain professional group, e.g. an inspector. The observer of the second order, however, has a more demanding job as he or she needs to observe the first level observers and make an informed judgment about their quality.

observation and the secure vantage point that it requires are absent during the nuclear age. The narrators in fictional texts are often observers of the first order, imparting their direct observations of catastrophic events. Already at this stage, they often mourn their own insufficiency in observing the world and the events of nuclear war or nuclear catastrophe. The magnitude of nuclear war is too high and overwhelms the senses of the observers. Furthermore, they are trapped in their confined places, unable to oversee the situation and subsequently to report their observations. The misinformed and uninformed<sup>92</sup> characters in Pausewang's, Wohmann's, or Wolf's texts represent best these types of individual observers who then seek to transform their account onto a metalevel but in the same breath acknowledge their inability to do so. There is a need for distinction, clarification, and understanding of the events in nuclear fiction but the communicative disconnect prevents the characters from undertaking this. Nuclear fiction then emulates ironically the presence of second-order observation in absurd shapes that indicate their impossibility: The narrator in his space capsule in Grass's *Die Rättin* or the Martian in Merlin's Ein Marsmensch reist durch unsere Zeit demonstrate the absurdity of second-order observation. While they travel, they are disconnected from their fellow people and can thus not pass on their observation.

The thinking of the nuclear age has destroyed institutional observation. Most observation in nuclear fiction is individual and thus decidedly subjective. Many texts are very suspicious of institutions per se as those are often associated with the start of the nuclear catastrophe. The German government in Zwerenz's *Der Bunker* does nothing to stymie the crisis before it develops into an all-out war. Likewise, the Swiss government

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 $<sup>^{92}</sup>$  Both terms – misinformed and uniformed – are important in nuclear fiction as the premeditated dissemination of wrong information has the same consequences as the sheer lack of information.

in Dürrenmatt's Winterkrieg does not even appear directly on the scene. Rather, its members sit entrenched in a bunker in the Alps, cut off from communication and helplessly waiting for the end of the war: "Schon vor dessen [i.e. the Third World War's] Ausbruch hatte sich die Regierung, die Staatsbehörde und die beiden Parlamente in die großen Bunker unter der Blümlisalp zurückgezogen...Unter der ganzen Riesenanlage die Tresorräume mit den gehorteten Goldbarren der halben Welt, und unter diesen ein Atomkraftwerk" (128). 93 Institutions are extremely helpless or unwilling to perform possibly helpful acts of observation in nuclear fiction although they attempt to brace themselves for the hardship by collection of material wealth. Ironically, in Dürrenmatt's text the same force that brings about the destruction of Europe, nuclear power, also serves as an energy provider for the embunkered government. The Swiss government here hoards its pre-war riches but is unable to closely observe the status quo during the war, rather directing its controlling power towards matter from the past. In conclusion, nuclear fiction reduces Luhmann's concept of observation to a crippled first-order observation and a non-existent second-order observation. 94

## **Narrative Strategies of Chronicling the Unthinkable**

Nuclear fiction creates abject visions of a world at total war and of human civilization coming to an absolute or near end. These visions are rife with images of irrationality and obfuscation beyond comprehension. Despite the confusion that the nuclear apocalypse

<sup>&</sup>lt;sup>93</sup> The hoarding of the gold can also be read as an acrimonious side blow directed towards Switzerland's ignoble role as the banker of the Third Reich. Furthermore, it might also allude to the *Rheingold* myth.

<sup>94</sup> For Luhmann's take on the institution's role in observation and their hierarchical make-up, cf. the chapter "Decision makers and those affected" in *Risk* (101-23).

necessarily entails, the authors of nuclear fiction need to present this concept in a convincing way. The old-school war narrative that organizes and structures its subject into a cascade of episodes that are wrought together into one consecutive strand no longer suffices to represent an all-out war effectively. However, representing chaos with a chaotic narrative concept is an equally inadequate way. The authors struggle to supercede classical literary narration with new approaches. The unreasonable and unthinkable has to be molded in a shape that shows thorough reflection of the topic and convinces the readership of its gravity. The unreality of such a nuclear inferno needs to metamorphose into a comprehensible narrative that satisfies the reader's need for coherence and yet expresses the notions of discontinuity and finality that the topic presents.

Nuclear fiction is a paradox as it attempts to tie together the irrational with strategic stitches. This quest starts by renegotiating the role of the traditional narrator, be it in first or third person: How, for instance, can a story be credibly told by a human being when there are none anymore after a nuclear apocalypse? Keeping with traditional techniques, this could mean that the author for his or her audience would merely continue to narrate in the third voice. If the author is lucky, nobody will notice the contradiction, the rupture between the narrator and the narrated and the irreconcilable differences between their two spheres.

While the third-person narrator possessed absolute authority and governed the story by controlling and pulling the strings up until the late nineteenth century, his god-like power had long been undermined if not annulled by the advent of early twentieth-century literary innovation such as stream of consciousness. Multi-perspectives and the dissolution of authority, however, are not just literary novelties yet were concurrent in

science as well. With the discovery of atomic science, the notion of the non-participating observer was laid to rest. The world could not be told or observed anymore according to one exclusive vantage point. Early notions of this fraying super strand that contained all sub-narratives are already visible in the work of Ernst Mach. In his approach to science, he claimed that the act of sensual apperception is one of a multitude of sensual impressions that are finally channeled into one coherent fabric or stream, by tradition erroneously perceived as permanent authority. In place of this objectifiable permanence, Mach sees the world as an eternally undulating fluctuation of perceptions without clear delineations and borders:

Colors, sounds, temperatures, pressures, spaces, times, and so forth, are connected with one another in manifold ways; and with them are associated dispositions of mind, feelings, and volitions. Out of this fabric, that which is relatively more fixed and permanent stands prominently forth, engraves itself on the memory, and expresses itself in language. [...] Absolutely permanent such complexes are not. (117)

While nuclear fiction does not reinvent the modernisms of early twentieth-century literary movements, by reiterating them it traces them back to their scientific origins. The story of the nuclear apocalypse is one that cannot be told conclusively as one single strand but that needs to be chopped up into an array of myriad single perceptions that revolt against the reader's need for coherence and conclusion. This conclusion also pertains to the history of twentieth-century science, its endless ramifications and its loss of central authority. In nuclear fiction, filmic techniques of frequent intercutting between multiple scenes and locales are used to create this multi-perspective and to destroy any sense of logical coherence and universal historical meaning. Kirst's *Keiner kommt davon*, Oskar Maria Graf's *Die Erben des Untergangs*, and Dürrenmatt's *Winterkrieg in Tibet* 

use intercutting throughout, but it can also be found to a lesser extent in many other texts. Incidentally, by opening up a whole panorama divided into various subplots, nuclear fiction creates traditional suspense as the reader seeks to hold on to various strands and their continuation, similar to an episodic novel. The main effect, however, is the disintegration of narrative coherence. Denis Bousch finds fault with the narrative structure in *Die Erben des Untergangs* but also acknowledges the fragmentary nature of the entire project:

Es ist kein einfaches Werk. Eine klare Struktur fehlt. Die Handlung zerfällt in Einzelepisoden, eine Vielzahl von Personen erscheinen auf den verschiedenen Handlungsebenen und verschwinden wieder. Das Bild der Zukunft bleibt fragmentarisch trotz oder gerade wegen des grandiosen Ansatzes, die Zukunft der Menschheit so realistisch wie möglich zu schildern. (95)

In *Die Rättin*, we witness the same change of locales and plots but without the cinematic quality of relentless speed as Grass steeps the single episodes in an essayistic and thus lengthier style. Grass further increases the unreliability of these single scenes by weaving them into a convolution of sequences that might potentially be the product of the narrator's dreams. At the end of the novel, the question persists whether the entire nuclear apocalypse was just a dream. This might be seen as a matter of subjective interpretation for the reader who can reflect on philosophical notions of reality and unreality yet it is first and foremost a narratological strategy: by relegating the entire story into the realms of the unconscious, it is not subject to logical conclusions anymore. The laws of logic do not apply in the impenetrable areas deep inside the cerebrum from where the dreams originate. While Sigmund Freud regarded dreams as the entryway into the unconscious, thus worthy of analysis as they would yield psychological explanations for the problems

of a patient, Grass rejects this notion. In both situations, the dream serves as a key. In traditional Freudian concepts, this key has the ability to unlock, whereas in *Die Rättin*, it is used to do the exact opposite: to lock up the inner sanctum of logic. Thomas W. Kniesche interpreted this uncertainty dilemma as a chance for the reader to become a productive interpreter of dreams in the Freudian sense:

Die Urform jeder Erzählung – der fiktive Traum – hat ihre Vorbilder in den biblischen Geschichten und Gesichten vom Weltuntergang. Apokalypsen waren schon immer Traumvisionen... Durch die erneute Verwendung dieser Urform wird der Leser der *Rättin* zu einem Traumdeuter in der Nachfolge der biblischen Seher gemacht... Gleichzeitig heißt das aber, daß die Sinngebung ohne Hilfe von oben geleistet werden muß. Stattdessen kommt die Erklärung des Geschehens jetzt von unten, von den aus der Erde sprechenden Ratten... (*Genealogie der Post-Apokalypse* 130-1)

While Kniesche's interpretation of the dream as a narrative vessel of the apocalyptic is plausible, his claim that the reader turns into a post-biblical modern-age seer is not borne out by *Die Rättin*. The dreams might lead to blurry insight into the nature of the nuclear apocalypse but they disable rather than enable the dreaming protagonist who is powerless and unable to counter the catastrophe. Also, the novel resists the notion that events and sequences can be logically interpreted and categorized within a broader scheme, and openly protests against this with its staggered sequences, nested into a metaconcept (the narrator as sleeper or as traveler in the space capsule). While the dream sequences in *Die Rättin* support the notion of open-endedness, Grass's text is preceded by many other pieces of nuclear fiction that feature open-endedness as the new narratological hallmark of the nuclear age. Gunter E. Grimm argues that Dürrenmatt's *Winterkrieg in Tibet* remains an open narrative as it cannot be realistically completed by its author: "Aus der Unmöglichkeit, Wirklichkeit mimetisch

wiederzugeben, folgt der Verzicht auf die Geschlossenheit des Kunstwerks. Absichtlich ist die Erzählung selbst als verwirrendes Labyrinth angelegt..." (325). Both, Dürrenmatt and Grass, depart from realism and embark on labyrinthine narratives with a confusing multitude of strands. The more strands there are, however, the more difficult it is to unify them in a satisfying moment of closure.

Just as there is no moderation in setting up a plethora of narrative strands, there is no moderation of time and speed in nuclear fiction either. Time becomes a subjective concept that loses the social and historical importance that it once held. Many texts employ excessive speed as the driving narrative force through rapid intercutting. In turn, equally as many works try to halt time by creating a narrative standstill or gridlock in order to make the unbearable consequences of timelessness perceptible. Human beings are overwhelmed with unrealistically high or low speeds of time. Large-scale destruction within milliseconds and the eons of nuclear winter that follow in its wake push the understanding of time to new limits. Through its narrative strategies, nuclear fiction illustrates these new extremes. In a 1986 interview with Heiko Ernst, Günther Anders theoretically summarized the challenges that the nuclear age pose:

Vor allem spielt die *Dauer* eine große, sogar eine doppelte Rolle. Man kann sich die Gefahr nicht dauernd vorstellen. Selbst während der Bombennächte im Zweiten Weltkrieg hatten die Deutschen nicht ununterbrochen Angst – das war einfach nicht zu leisten. *Das Verhältnis von Emotion und Zeit, beziehungsweise Dauer, müßte einmal untersucht werden*. Wir sind an Unglücksfälle gewöhnt, deren Dauer relative kurz ist – ein Erdbeben dauert Sekunden, höchstens Minuten, dann ist es schon

<sup>&</sup>lt;sup>95</sup> This discussion started first with the introduction of trains during the industrialization of the nineteenth century. These rather slow-moving trains of old set off panic among people who feared to become mad over the inability to cope with the speed of steam engines. As the further increase in speed of transportation technology has shown, this fear has not become true (cf. Sloterdijk, "Interview"). However, nuclear fiction toys with the thought that the nuclear age has brought about a further increase in speed that lies beyond human comprehension and that has once again stirred panic among us.

<sup>&</sup>lt;sup>96</sup> The whole interview is entitled "Die Atomkraft ist die Auslöschung der Zukunft" and appeared after the Chernobyl accident.

wieder vorbei. Diese zeitliche Begrenztheit von Katastrophen ist nun vorüber – wir haben Tausende von Jahren vor uns, in denen eine Atomkatastrophe wirksam bleibt. Und das übersteigt die Vorstellungsund Emotionskraft der Menschen. Man kann nicht Angst haben vor Jahrtausenden, so sind wir psychisch nicht gebaut. (Schubert 130)

Nuclear fiction harnesses this unimaginability of events and processes that Anders describes in order to show the paradoxical nature of the nuclear age. Arno Schmidt's *Schwarze Spiegel*, Haushofer's *Die Wand*, Oskar Wessel's *Hiroshima* or Udo Rabsch's *Julius oder der schwarze Sommer* and Christa Wolf's *Störfall*, for instance, represent time by showing the monotony of excruciating slowness. The narrative in these texts is unwilling to budge to the reader's longing for change. This change is usually envisioned as the restoration of the status quo before the catastrophe: "Die Nerven, Bruder, was immer das sein mag. Bloß die Nerven. Soll doch diese verfluchte Wolke sich auflösen oder abregen oder ich weiß nicht was. Sollten doch deine verdammten Ärzte endlich von dir ablassen. Soll doch alles wieder so sein, wie es vorher war – " (*Störfall* 56).

The uniformity of endless musings and reflections, of desperate soliloquies and everlasting brooding bears down on these narratives and turns them into torture chambers not only for the protagonists but also for the reader. <sup>97</sup> The problems of the nuclear age are depicted as unsolvable and effectively passed on through narratives of suffering. The narrator in Wolf's *Störfall* spends large parts of her account on the description of her psychological breakdown. The reader accompanies her, tormented by the stationary account. While Wolf's narrator is only trapped in her own psychological world, the

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<sup>&</sup>lt;sup>97</sup> Dieter Bahr wonders whether the narrator in Schmidt's *Schwarze Spiegel* tries to make the reader forget about the previous catastrophe by spinning his monomaniacal musings: "Aber hat denn der Text, der hier weitergeschrieben wird, die Kraft, das offenbare Ende noch zu überlisten, indem es dieses zum Vergessen bringt? Wäre dann nicht jede apokalyptische Schrift wesentlich der Gestus einer Verhüllung des Endes?" (31). Bahr questions if the stretched-out narrative could blur the discussion about the apocalyptic end.

narrators in Schmidt's *Schwarze Spiegel* and Haushofer's *Die Wand* also suffer from a physical isolation as they are the last human beings in an empty world. Here, the stretching of the narrative is not only motivated by psychological moves but also directly embedded in the plot. *Schwarze Spiegel* not only expresses the slowness of human decay but also the disintegration of our civilization's infrastructure: "in zwanzig Jahren findet niemand mehr Straßen auf der Welt" (205).

A denouement imbued with poetic justice in nuclear fiction is mostly withheld from the reader. They are often ineffective and cast the disproportionate magnitude of the event into comical relief. The story of nuclear war is one of infinitely long time intervals. There is no real beginning and end to the nuclear apocalypse that can be obviously perceived by humans as the annihilation of human society also destroys its idea of time. Nuclear fiction tries to sabotage the cultural function of the clock that neatly divides human perception of time into discrete units with every swing of the pendulum.

In Fred Denger's *Bikini*, time is slowed down by stretching the relationship between the narrated time and the actual time that the narration occupies. As the countdown towards the nuclear blast comes ever so closer to zero, the reflective monologs of the characters become lengthier. Time, it seems, is a painful element in nuclear fiction. It either evaporates when a nuclear explosion occurs or it decreases to absolute slow-motion before and after the nuclear blast. As time not only is critical in the staging of the nuclear explosion, nuclear fiction recreates this sense of humanity running out of time. Nuclear fiction describes the sense of time in the nuclear age as a time warp, a purely subjective handling of time. The elapsing of time now is an arbitrary notion that disturbs the reader as he or she cannot rely on an orderly passing of time anymore. As a

result of this "timelessness" and the subsequent lack of timely organization of the narrative, nuclear fiction often refuses to accept a classical denouement approach. Not only do the problems of the nuclear age remain unsolved, furthermore, this state of disarray is mirrored in the narrative structure towards the end. Hans Hellmut Kirst's *Keiner kommt davon* handles time as a changing concept, speeding up the passing of time in the process of the reader's imagination. This is measurable with a quick quantitative overview of the novel's set-up. The chapters become shorter while the plot turns more apocalyptic, transforming the flow of time from a sluggish inching forward in the beginning of the text into a torrential current at its end:

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Day 1: 7-125 =118 pp.

Day 2: 127-258 =131

Day 3: 259-375 =116

Day 4: 377-499 =122

Day 5: 501-595 =94

Day 6: 597-638 =41

Day 7: 638 =0 (just insinuated during day 6)
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Anton Andreas Guha's *Ende* just breaks off, after its narrator dies of radiation sickness and after his narrative voice has gradually grown weaker. The closer he moves towards his own death, the shorter the diary entries in *Ende* become. The novel is petering out on the same level as the narrator's physical strength, tying the narrative and its producer inseparably together. While one can regard Guha's narrative structur as an attempt to consolidate form and content, Hans Krah has criticized this monotonous loss of momentum as a major flaw of the narrative structure in his monograph *Weltuntergangsszenarien und Zukunftsentwürfe* (cf. 316-9): "Das Problem des Textes ist also, dass die Katastrophe, die Atombomben auf Deutschland, als sie (endlich) eintritt (nach 120 Seiten Text), nicht mehr den Eindruck einer Steigerung der Bedrohung und des

Grauens hervorzurufen vermag. Das rhetorische Pulver ist verschossen" (318). Krah's criticism shows that the standard curve of suspense in traditional narratives that are geared towards a climax at the end often cannot be applied successfully to nuclear narratives that feature a reverse curve, climaxing early and then continuously declining from there. The abrupt breaking off of the narration often occurs at the pinnacle when the nuclear blast is erupting. Wessel's *Hiroshima*, Weisenborn's *Die Familie von Makabah* and Denger's *Bikini* follow this pattern. This conveniently relieves the author of fleshing out the details of the blast. However, on a deeper level this suggests that all possible narrative ends with the advent of the atomic bomb and that every possible narratological concept of a post-nuclear age is too absurd to be imagined.

In other accounts, notions of mere chaos and disorganization remain. The world has been plunged into deep distress and the narrative is virtually unable to sort through this chaos and bring it back into shape. Dürrenmatt's *Winterkrieg*, Alex Gfeller's *Swissfiction*, and Mueller's *Totenfloß* show characters who resign their survival efforts as they have been wearied by scraping together the remains of pre-war civilization. These characters are nuclear garbage collectors who continue their survival by living off the glut of supply that industrialization produced, such as tools, instruments, canned foods. However, as they are unable to establish production of goods and as there is an end to previous supplies, their survival is limited also.

Some works of nuclear fiction harmonize the topic with a happier denouement, trying to provide solace and hope through what I would call narrative semi-closure. However, these endings can still be perceived as inconclusive or dissatisfying makeshift solutions. At the end of *Die Rättin*, the reader could perceive the dreaming of the narrator

as proof that the nuclear apocalypse did not take place at all and that was merely the figment of the narrator's imagination. Grass tempts the reader to take the easy route by assuming that our nuclear age is just a dream from which we can eventually awake and find ourselves unharmed. However, this narrative loophole adds a twist to the novel but it does not relieve us of the discussion of the nuclear age in the book save bring closure to it. In Wolf's *Störfall*, the narrator cleanses herself in an act of culturally motivated weeping at the end. There is closure and harmony to this catharsis, reminiscent of ancient Greek tragedies and their search of moral betterment through purging of guilt.<sup>98</sup> The shedding of tears brings psychological relief to the narrator who can now fall asleep and prepare for the next day. Nonetheless, this is merely a strategy to quell the narrator's stream of emotions and her need for reminiscence. It does not bring permanent closure to the novel's narrative.

The only blatantly positive moment of closure in nuclear fiction is the ending of Graf's *Die Erben des Untergangs*, where humanity is shown as capable of overcoming a global nuclear war and rebuilding its civilization to verdant beauty and lasting peacefulness. Graf was a proponent of the idea of a strong world government, wielded by the United Nations, a utopian thought that expresses how strong the yearning of Graf's generation for long-lasting peace was. While the novel's happy ending is not intended to be a parody, the text desperately tries to suppress notions of utter defeat and loss. Graf's narrative closure is motivated by a deep-seated fear that Germany not long after the exhausting and destructive nature of the Second World War could receive a final blow

<sup>&</sup>lt;sup>98</sup> Axel Schalk sees the protagonist of *Störfall* trapped in between two periods, a classical-romantic era that longs for harmony and modernism that seeks to destroy such harmony. Schalk argues that Wolf wrote a "realistische Geschichte" in which she poses "individualistische Fragen des 19. Jahrhunderts" connected with the "atavistische[n] Sehnsucht nach einer heilen Naturwelt" (210).

that would annul all efforts of rebuilding the country. While the ending of Zwerenz's *Der Bunker* shows two survivors in an Adam and Eve setting, at first reminiscent of Graf's take on the nuclear age, there is no paradisiacal bliss or future hope for survival hovering over this scene. The nuclear age's rendition of Adam and Eve is that of a marred and possibly infertile couple that has been brought together by the throes of war, not by a romantic concept. This type of closure is rather a parody of traditional endings, and by mixing it into the history of total nuclear destruction, it turns into an absurd and unbelievable joke rather than a viable finale to a text of nuclear fiction.

In conjunction with its broken story line, nuclear fiction constructs imaginary narrative positions that enable its narrators to "govern" the story of the earth's destruction from a far-away vantage point, positions that at the same time ironically mimic the traditional omniscient narrator and exposes him to ridicule. In Grass's *Die Rättin*, the narrator sits in a space capsule, virtually assuming total narrative authority as he watches the world spin underneath. While the narrator is safe and removed from the battlefields of the nuclear apocalypse, he is equally powerless as his capsule confines him and does not enable him to wield the sword of authoritative narration. In him, Grass parodies the demise of coherent narration as a concept of the literary past.

Creating insecurity and uncertainty is a major goal of nuclear fiction. Some main narrative strategies that we have already analyzed are intercutting, the rhetoric isolation of the narrator, and the emulation of extreme time warps. Another method to increase the unreliability of the narrative voice is the sabotage of narrative authenticity by pitting differing accounts against each other. Grass in *Die Rättin* has merged the weakening of authenticity into a dual narrator by juxtaposing a human protagonist with a speaking

animal, the she-rat. Whenever the human narrator develops his ideas, the rat immediately contradicts his statements, constantly proving herself as a thorn in his side and haunting him in his search for firm ground:<sup>99</sup>

Überall hat sie Duftmarken gesetzt. Was ich vorschiebe – schranktief Lügen und Doppelböden –, sie frißt sich durch. Ihr Nagen ohne Unterlaß, ihr Besserwissen. Nicht mehr ich rede, sie spricht auf mich ein. / Schluß! Sagt sie. Euch gab es mal. Gewesen seid ihr, erinnert als Wahn. [...] Doch ich halte gegen: Nein, Rättin, nein! [...] So viel weiß meine Rättin. Sie ruft, daß es hallt: [...] (7-8)

Illogical verbal moves and absurd language switches are also geared to a further destruction of narrative comfort. Grass, throughout the novel, applies the special subjunctive in order to mark large parts of the text as indirect speech. This has a destabilizing effect on the story as it unsettles the reader and undermines the veracity of what is told. The absence of reliable facts casts the reader into a quagmire of fiction where the difference between what is real and what is not has become indistinguishable. The novel thus demonstrates that the human language(s), our primary tool to negotiate culturally and politically and especially in times of pending war, is now an arbitrary instrument that has shed its linguistic discreteness. In the "Rattenwelsch" (120), the language of the rats, Grass then shows that human language proper has grown illogical and useless, too, and that the absurd and incomprehensible rodent gobbledygook now stands in its stead:

Oxtemosch schemmech dosch taram! rief sie. Was heißen sollte: Die Angst machte uns Beine. (93)

Die Rättin kicherte. Das Wort [i.e. Rattenköttel] machte sie kicherig. Sie wiederholte es verschieden betont, sprach auf Rattenwelsch von kaporesch

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<sup>&</sup>lt;sup>99</sup> Johann Siemon points out how the dialogical structure of the narrative keeps open "the question of who is telling the story" (186). By contradicting the human narrator, the rat slowly dismantles his narrative power; at the end there is total annihilation of narration (188).

Rottamosch und vergnügte sich sprachspielerisch, indem sie die fatale Fundsache albern variierte: Kattenröttel, Tarrentöckel, Lettöknettar und so weiter. (*Rättin*, 120)

Grass here argues that the creativity of language is on par with the general creativity of its users or speakers. Humans, in the novel the true triggers of the Third World War, have lost this creativity and are trapped in the roots of their own language. The rat, by denigrating human culture and exposing it to ridicule, breaks free of the stiffness of human language and creates a new linguistic structure that is, again, on par with her creativity. Ironically, this creativity suffices to ensure the survival of the rats while the humans face extinction. However one wants to interpret Grass's little language parable, one cannot but acknowledge the importance that Grass ascribes to language in general as a survival tool, deeply embedded in our entire civilization as a central implement of interconnecting all areas of life. Grass, however, was not the first who tried to torpedo the logic of language in nuclear fiction. In Arno Schmidt's KAFF auch Mare Crisium, language is distorted by an innovative phonetic spelling that destroys the orthographic patterns and makes an immediate visual recognition of words difficult. The illogical punctuation further challenges the reader by thwarting the hierarchy of the sentence structure:

: "Das war 1 Unheilstag!" flüsterte George entgeistert: "Dieser 10. September 19 Hundert=Mumm=unn=Sechzich .....": "An dem die Russen sich nicht widerschtanzlos mit H=Bomben zudecken ließen, sondern rüstich zurück=warfen," ergänzte ich bissich: [...] "[...] vor die Wahl gestellt: entweder amerikanisch – aber uff'm Mond. Oder russisch – und auf der Erde .....?" (18)

Wier sint gäschützt. Vor Erd=Weh: vor ätt=waiejär Attohm=Schtrahlunk (237).

Herbert Achternbusch in *Die Sintflut*, also dismantles the logical coherence of language by destroying its collocations, the order in which single words can be connected with each other to yield a meaningful narrative. Instead, Achernbusch plays with morphemes, the smallest units of meaning in a word, and connects new words that he derives from minimal changes of other words – for instance "welke[n] Wolken"(260), "schiefe Schiff"(288) or "Hallo Halo"(296). The piece severs the logical ties between words as philosophical concepts and reduces them to mere linguistic conglomerations. Achternbusch then tries to recreate the same illogicality of language on a visual level by inventing absurd scenes that are physically impossible and unimaginable.

The dissecting power of Achternbusch's language relates to how David Dowling describes the role of language in *Fictions of Nuclear Disaster*: "Fictions of nuclear disaster, as well as extending the horizons of fictional technique, call on the power of the word to de-fuse the power of the fused atom" (218). Furthermore, Achternbusch extends his linguistic experiments into entire images of utter illogicality: *Die Sintflut* shows a modern-day version of the biblical Ark, symbolically carrying a few survivors through the deluge of the nuclear age, sticking out of a vertical wall of water. The ocean breaks off like a cut-off concrete wall and exposes the ark to an inexplicable empty space beyond (288-90). Achternbusch calls this the "schiefe Schiff" (288), referring to the impossibility of logic on a verbal and narratological level. The figure of the author (capitalized as "AUTOR") finally comes to the conclusion that logic is a blank space, an undefined emptiness: "Doch der Verstand ist ein Loch" (267). The figure of the author creates a double perspective as it puts a narrator within a narration (told by Achternbusch as the external author/narrator), thus enabling Achternbusch to sabotage the illogicality of

traditional narrative elements by a figure from within the play rather than from the outside.

Max Frisch's *Die chinesische Mauer* is fuelled by the same notions of illogicality, showing that the traditional literary narrative will be inadequate in the nuclear age.

Frisch, though, does not dismantle traditional narrative concepts as Achternbusch does, but rather undermines tradition by using it in an absurd montage that brings together centuries of literary culture. Frisch collects famous hackneyed phrases from European literature, removes them from the original context and relocates them in the nuclear age.

By distorting and manipulating this tradition, the piece shows that adequate advice and a correct description of our age cannot be expected from classical narrative structures. *Die chinesische Mauer* culminates in the futile hope nurtured by Romeo and Juliet: "O sel'ge Welt! O Bittre Welt! O Welt / Wir lieben dich; du sollst nicht untergehen"(215). 100

A principle generic form in nuclear fiction is the diary. It is less a genre issue but rather a strategic narratological element, enabling the narration of a nuclear war story in incremental steps. The writers of such diaries are often sufferers who live through a nuclear winter or onlookers who describe a nuclear catastrophe from a distance. From a narratological point of view, diary entries are separate entities that can be pieced together to form an overarching story. The diary entry enables the authors of nuclear fiction to draw up a little microcosm and to stress one by one various aspects of life in the aftermath of nuclear war. The entries remain more organized entities although necessarily short and incomplete. Texts such as Guha's *Ende*, Merlin's *Ein Marsmensch reist durch unsere Zeit*, Haushofer's *Die Wand*, and Wolf's *Störfall* are entirely structured as diaries

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<sup>&</sup>lt;sup>100</sup> Gerhard Zwerenz's *Der Bunker* was originally entitled "Die letzten Tage der Deutschen," alluding to Karl Kraus's *Die letzten Tage der Menschheit* (Bullivant 106), suggesting the same kind of mockery of classical literary culture revisited in the nuclear age. Zwerenz finally chose the more direct title *Der Bunker*.

while many other texts such as Wörner's *Wir fanden Menschen*, Denger's *Bikini*, Kirst's, Graf's *Erben des Untergangs*, Horx's *Es geht voran*, Pausewang's *Die letzten Kinder von Schewenborn* and *Die Wolke*, Mueller's *Totenfloß* and others make use of the episodic nature of diary entries, harnessing the diary form more loosely. The diary is especially appropriate for the story of the nuclear war survivor, as it documents well the interruptive force on the narration process that the nuclear catastrophe wields.

The loss of conclusive narrative energy is twofold: First, the diary adds to the imagined reality of nuclear war as the narrator does not physically possess the energy to produce a coherent and coherently literary story. Secondly, on a more theoretical level, it indicates that all that is left of human civilization in such a pre-nuclear war setting is fragmentary and vestigial. The diary is at the same time an amateurish historiography of the nuclear apocalypse as it chronicles the events in their successive order, although not from a general viewpoint but from a very individual and thus necessarily biased perspective. The diary form as a narratological choice in nuclear fiction shows that traditional historiography has come to an end and that the diary now figures as a cultural remnant of much larger intellectual human enterprises such as narratology or historiography that were in bloom before the nuclear age but that have since departed. The diary, in sum, is a fragment of previous human cultural achievements. It poses a challenge to the reader as he or she needs to assemble the overarching story line in the process of reading. This opens up the stories of nuclear fiction to broader interpretation as the reader is forced to fill in the intermittent steps that the diary often skips. In other words, the stitches that keep the different narrative patches together are now the reader's responsibility as nuclear fiction remains more incomplete than other literary fragments.

Although Dürrenmatt's *Der Winterkrieg in Tibet* is not a diary per se, it creates similar notions of how information in and after nuclear war is passed on piecemeal. The story shows how the palimpsest of pre-war writings are partially cleared and then filled with the stories of war sufferers. Cultural information is passed on in fragments interposed on top of other fragments, creating a multi-layered archive. Reconstructing history is now an archeological act for the nuclear survivors who long after the global nuclear war rediscover the vestiges of human history:

Der Söldner hatte ... mit seiner rechten Prothese die Inschrift in die Wand und auf größere Steine geritzt ... ein 150 m langes Band von rechts nach links, von sehr kleinen, oft fast nicht entzifferbaren Buchstaben, ohne Lücke zwischen den Wörtern und ohne Interpunktion... Doch diese Inschrift ist widersprüchlich. [...] Von der Inschrift existiert nur eine Abschrift. Verschiedene Forscher glauben, die Inschrift sei von zwei "Ichs" geschrieben. (177-8)

The amateurish process of writing history in *Der Winterkrieg in Tibet* harks back to prehistoric mural inscriptions whose author or authors remain unknown. The message is disconnected and linguistically reduced to its minimum. The stories of the nuclear age remain inconclusive and impossible to narrate from a universal vantage point. Gabriele Wohmann's *Der Flötenton*, a novel that describes the Chernobyl accident from the faraway perspective of Western Europe, presents this inconclusiveness of the nuclear apocalypse as the absence of narrative conclusion. The protagonists aimlessly flounder through their meaningless and self-centered lives governed by depression and ennui before the backdrop of the atomic apocalypse. The lack of development is part of the narrative agenda. There is no coming to terms with Chernobyl as there is no coming to terms of humans with their own inconsequential lives. The old principle of poetic justice that assigns a beginning and an end to events and actions has been radically removed. All

that is left is an infinite stream of consciousness that will not lead to results anymore. Wohmann's novel is one of the least radical texts in the body of nuclear fiction as it does not narrate the end of human civilization by all-out war but merely indulges in a portentous vision of the future, yet it radically expresses the end of a harmonious civilization that allegedly improved and advanced through the rational interpretation of the world. The novel shows that the scientific idea of cause and effect that has informed our thinking and that has shaped our life in all respects is in dissolution. After the nuclear accident, the characters wonder whether their robinia are blossoming more powerfully through nuclear radiation or whether their headaches are triggered by raised levels of radioactivity (106-7). Superstition and scientific evidence are melded into a random pool of opinions about the consequences of Chernobyl. The outer world blurs into the vagueness of trivialities, accompanied by the languid narrative flow of the various characters who lose themselves in the continuous spin of their own limited inner world. Wohmann assigns each character his or her limited reservoir of vocabulary whose component – words, catchphrases, idiomatic expressions – are then constantly pitted against themselves. No exchange of words takes place even when the characters enter discussion with each other. The constant repetition of a limited vocabulary describes the predicament of humanity in the nuclear age on a narratological level. Wohmann's character suffer multiple outbreaks of a generalized neurotic fear of life that thwarts all rationalization. Just as the radioactive mass has been irrevocably ejected from the faulty reactor into the atmosphere, so have all notions of meaning and logic, altogether dissipated and atomized. The strategies and rules that keep a cultured Western society

like Germany alive are now uncontainable, drenched in "Abschiedsmüdigkeit" and "grimmigen Kulturpessimismus" (75).

Wohmann interprets the Chernobyl catastrophe as a parallel development to the disintegration of the "nuclear," the core elements of civilization. The actual nuclear catastrophe, however, does not only serve as a symbol for the social disintegration, it is part of the same development, leading to a multi-level dissolution of our world. Even though the protagonists Anton and Sandra question whether the world is only controlled by accident (100), the course of their discussion demonstrates that they have accepted the accidental power that seems to direct the world and also given up on retrieving control. As *Der Flötenton* describes the failure of human civilization on both an emotional-human and a rational-scientific level, it shows that the world has been altered permanently: "nichts kann mehr so gedacht werden wie vor dem Ende dieses Aprils" (33).

Der Flötenton and Störfall share a similar narrative technique as they both engage in isolating the narrative perspectives of their protagonists, casting them into relief against their environment. This is done by setting apart the narrators through a style that vacillates between classical inner monolog, the more straying and more daring stream of consciousness and free indirect speech (Erlebte Rede). While there is no one distinct narrative technique that is present in all works of nuclear fiction, most texts use techniques that symbolize the inner separation from the world that most characters suffer. In early nuclear fiction, the more traditional inner monolog is often applied to show characters contemplating their sorry conditions (e.g. mourning their loss or sickness or anticipating the future plight of imminent war), such as in Weyrauch's Die Japanischen Fischer, Wessel's Hiroshima, or Denger's Bikini.

Whenever nuclear fiction has recourse to traditional narrative elements, those are usually steeped in irony and sometimes even sarcasm. Ein Marsmensch reist durch unsere Zeit is such a traditional first-person travelogue, narrating the unfolding of a nuclear catastrophe from the vantage point of a Martian who is quite "human," that is reasonable and logical. Strictly speaking of the logic within the narrative framework, the alien will be able to leave earth and return to his fellow Martians, therefore he will be able to pass on his account to others who might learn from humanity's failure. Outside of the circle of inner logic, however, the narrative makes no sense, as we humans are the intended audience, learning about our own wrongdoing at a time when it is already too late and the nuclear age is a fait accompli. The protagonist in Ein Marsmensch therefore steeps his account in a mixture of eager curiosity and bitter pessimism, indicating that this traditional narrative should not be taken at face value. The question that nuclear fiction often raises is the illogical production of narration. It seems that couching one's thoughts in words is futile as these words will be engulfed during a nuclear apocalypse together with their author.

Thought from within the narrative framework of these stories, one wonders what the purpose is of those who write them. Is it the faint hope to pass on one's account to a posterity that might not be there? Is it the ingrained need to express oneself in words to allay one's desperation? Or is it an enterprise that is from the very beginning imagined as useless, just a senseless product of one's free-wheeling imagination? These questions, though, pertain mostly to narratives that directly depict nuclear war and not those that are based on a present where there is no immediate fear of total extinction. Wolf's *Störfall* can be considered as such an account that describes a very limited event, the Chernobyl

catastrophe, but even in this obvious limitation, the novel creates an oppressing feeling of threatening totality.

In Lutz Seiler's *Turksib*, this threatening totality is not only expressed through the desperate landscape polluted by the nuclear waste of the Cold War but also by narrator's loss of narrative power. The human being as the story teller is replaced by his Geiger counter: "Alle Widrigkeiten meiner winterlichen Reise verblaßten vor dem, was die Stimme des Zählers mir offenbar mitteilen wollte" (9). The *counter*, a mere technical device, turns into a *re-counter*, taking over and recounting the story and at the same time controling the human narrator: "Am Kopf des Zählers, meines kleinen Erzählers, wie ich das schnarrende Kästchen jetzt halb scherzhaft nannte..." (11). Seiler anthropomorphizes the Geiger counter by granting it human features like "Kopf" and a "schnarrende" voice. Even though the narrator does not fully trust his Geiger (re)counter, he cannot but subject to the "drängenden Einfluß des Erzählerkästchens" (12-3).

Although the entire body of German nuclear fiction consists of a multitude of different genres, it is my claim that many innovative narrative strategies appear in all or almost all pieces, regardless of their genre. In this chapter, I have been less concerned with old-style genre definitions as they will not show the unique novelty of works of nuclear fiction. For a more traditional genre perspective, suffice it to say that the idea of the man-made end of the world has appeared in a plethora of literary genres. Classical novels such as war novels, spy novels, and adventure novels are juxtaposed with various dramatic forms such as traditional theatrical plays, radio plays, and closet dramas that are not meant to be staged. Parables and symbolic tales as well as shorter narratives often crop up.

Especially many early pieces of nuclear fiction are realized as theatrical plays. <sup>101</sup>
Early pieces of nuclear fiction from the 1940s up to the 1960s are often more shortspoken, conservative, and stylistically pregnant than their later successors. Theatrical
plays meant for actual performance in front of an audience strongly work with symbolism
in order to avoid overly excessive special effects that could easily turn a nuclear
explosion into kitsch. Altogether, nuclear fiction is hard to divide into standardized genre
categories as it creates hybrids between two or more genres such as classical novel-length
pieces with dramatic passages (e.g. Kirst, *Keiner kommt davon*), dramatic pieces with
lyrical (e.g. Gong, *Die Stunde Omega*) or epic influences (Kipphardt, *In der Sache J. Robert Oppenheimer*), epic pieces with essayistic components (e.g. Guha's *Ende* or
Grass's *Die Rättin*) or even philosophical treatises with literary influences (e.g. Anders's
writings).

In conclusion, nuclear fiction utilizes a plethora of unorthodox narrative strategies in order to constantly torpedo notions of security in the reader. While nuclear fiction is able to stir unease in the reader, it does not completely reject traditional narrative strategies that create suspense and keep the reader involved in the development of nuclear

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<sup>&</sup>lt;sup>101</sup> For Rolf Müller the theatrical play as a literary form was predestined to carry "den engen Zusammenhang zwischen der existentiellen Situation des Menschen und der jeweiligen dramatischen Ausdrucksform" (7). In Komödie im Atomzeitalter, he argues that the existential fear lent itself to effective dramatization on the stage. Since this fear reigned supreme in many early pieces of nuclear fiction (from the 1940s to the 1960s), this might be an explanation why so many authors then chose to write plays. Robert D. Hostetter argues that the dramatic moments of the nuclear age lend themselves well to a dramatization: "The nuclear age is replete with dramatic terminology and theatrical metaphors. Sometimes the 'drama' of the nuclear age is a narrative device used by historians to describe a succession of real life events having a dramatic progression somewhat characteristic of a play" (85). Robert Jungk in his popular scientific biography of the nuclear scientists involved in the Manhattan project, Brighter Than a Thousand Suns (1956), compares the lives of scientists to the literary form of a drama. Especially Oppenheimer's case gave Jungk reason to see an immanent literary structure (tragedy) attached to the physicist's life: "The last act – for the time being – of the Oppenheimer drama is reminiscent, in its simplicity, of the popular ballads and traditional spectacles of earlier centuries, in which Marlowe and Goethe discovered the materials for their tragedies on the theme of Faust." (329) – Jungk here anticipates the dramatic content of Oppenheimer's life that should inspire Heinar Kipphardt eight years later to write his theatrical drama about the physicist.

war. <sup>102</sup> However, nuclear fiction mostly refuses to give closure to the story of humanity's nuclear downfall. The open ending and the tangible inability and unwillingness of the authors to bring an end to such an endless and irreversible process infuse the reader on a psychological level with long-lasting disturbance. Although the role of the narrator in texts of nuclear fiction is often weakened, Heinz-Peter Preusser points to the fact that the narrative power over the annihilation of the world gives the author an unprecedented power over the outcome (26) that is perhaps greater than in most other literary genres. With a streak of existentialist isolation in the vain of Sartre, Camus, and Beckett, nuclear fiction shows vignettes of single human beings in direct confrontation with their own fate. There is no mitigating element that breaks open this monotony. <sup>103</sup>

## Total War – "Wollt ihr den totalen Krieg?"

Der Kriegsplan faßt den ganzen kriegerischen Akt zusammen, durch ihn wird er zur einzelnen Handlung, die einen letzten endlichen Zweck haben muß, in welchem sich alle besonderen Zwecke ausgeglichen haben. Man fängt keinen Krieg an, oder man sollte vernünftigerweise keinen anfangen, ohne sich zu sagen, was man mit und was man in demselben erreichen will, das erstere ist der Zweck, das andere das Ziel. Durch diesen Hauptgedanken werden alle Richtungen gegeben, der Umfang der Mittel, das Maß der Energie bestimmt, und er äußert seinen Einfluß bis in die

<sup>&</sup>lt;sup>102</sup> Paul Michael Lützeler identifies a narratological crisis that literature has undergone from modernity to postmodernity: "Nicht nur das Mittel des Erzählens, sondern das Erzählen selbst wird überprüft [during postmodernity]" (351). This reevaluation of the narrative is especially present in newer pieces of nuclear fiction from the 1980s onward, even though the early texts already indicate that traditional narration malfunctions in the nuclear age.

<sup>&</sup>lt;sup>103</sup> References to French existentialism are quite frequent in secondary literature on nuclear fiction. For instance, Wolfgang Ignee in "Apokalypse als Ergebnis eines Geschäftsberichts" interprets *Die Rättin* as a return of the existentialist tradition: "In diesem Roman, der kein Happy End braucht, vertraut Grass ganz offenkundig nicht mehr dem Fortschritt, so kurzbeinig er auch sein mag, sondern er setzt wieder auf das Bild von Sisyphos, der den Stein wälzt und dabei die Götter verhöhnt; Rückkehr zu Albert Camus, einem frühen Leitbild des Erzählers" (397). Also compare Theodor Adorno's essay "Versuch, das Endspiel zu verstehen" in which Adorno links the debate about the end of the world to Beckett and Sartre and my discussion of Adorno's stance in chapter one.

kleinsten Glieder der Handlung hinab. ("Achtes Buch, Zweites Kapitel: Absoluter und wirklicher Krieg" – Clausewitz, *Vom Kriege* 952)

Carl von Clausewitz, the proponent of rational and utilitarian war, had a deep-seated conviction that war needed to be controlled at all times in order to avoid escalation. Clausewitz feared what he defined as "absoluter Krieg," a self-reliance and an inherent logic that would enable any war to become a hydra, an uncontrollable monster.

Welches ist nun aber die nicht leitende Scheidewand, die das totale Entladen verhindert? Warum geschieht der philosophischen Vorstellungsweise nicht Genüge? Jene Scheidewand liegt in der großen Zahl von Dingen, Kräften, Verhältnissen, die der Krieg im Staatsleben berührt, und durch deren unzählbare Windungen sich die logische Konsequenz nicht wie an dem einfachen Faden von ein paar Schlüssen fortführen läßt; in diesen Windungen bleibt sie stecken, und der Mensch, der gewohnt ist, im großen und kleinen mehr nach einzelnen vorherrschenden Vorstellungen und Gefühlen als nach strenger logischer Folge zu handeln, wird sich hier seiner Unklarheit, Halbheit und Inkonsequenz kaum bewußt. ("Achtes Buch, Zweites Kapitel: Absoluter und wirklicher Krieg" – Clausewitz, *Vom Kriege* 953)

It is noteworthy that Clausewitz and his contemporaries did not (and perhaps could not) deliver a definition of this adverse logic of war. The chaos in Clausewitz's definition was not entitled to receive its own laws yet. It was just that, unorganized chaos, and the time had not come to surmount the intellectual uneasiness of defining chaos. All that Clausewitz could describe was the barrier that bordered on chaos, the "Scheidewand" that separated reason from bedlam. He then names the degenerate forms of war a "totale Entladung." The notion of a total discharge is nothing that would shock a reader of the twentieth or twenty-first century as it remains tied in its metaphorical guise to contemporaneous weaponry. The worst single part of warring in the early and mid nineteenth century could be the total discharge of a cannon or a blunderbuss – a very

limited and almost harmless image compared to the possibilities of nuclear weapons and other weapons of mass destruction. Clausewitz's rhetoric remains within the confines of reason but it is noticeable that he purposefully avoids embarking on the other side of what he calls the separating wall between real and absolute war.

The National Socialists took on Clausewitz's notion of absolute war and redefined it for their own purposes. The main strategic goal for defining "total war" was in fact to de-strategize it. While Clausewitz's absolute war remained within the boundaries of the logical, total war needed to transcend logic. Moreover, it even needed to abolish notions of controlled logic and turn war into a national gut-feeling, an emotional outburst that did not question the meaningfulness of war. Logic and strategy were chains and ball for what the National Socialists intended to achieve with their total war: turning the tables on their enemies in a last-ditch attempt that mandated that Germany sacrifice itself if need be:

Die Engländer behaupten, das deutsche Volk wehrt sich gegen die totalen Kriegsmaßnahmen der Regierung. Es will nicht den *totalen Krieg*, sagen die Engländer, sondern die *Kapitulation*. Ich frage Euch: *Wollt ihr den totalen Krieg?* Wollt ihr ihn, wenn nötig, *totaler und radikaler, als wir ihn uns heute überhaupt erst vorstellen können?* (Speech at the Sportpalast in Berlin on February 18, 1943, *Goebbels-Reden* II: 172-208; here 204-5)<sup>104</sup>

In his infamous speech, Goebbels pushes the traditional notions of war and tries to synchronize the Germans with Hitler's war plans. He is also directly appealing to visceral feelings as he claims that this new total war might be far beyond what the human mind can imagine. The speech is aimed at demobilizing the logic skill of realistic imagination:

Do not even try to paint your own portrait of the war as it will be wrong anyway. Leave the imagination to the leaders and simply follow! It is for a reason that Goebbels

<sup>&</sup>lt;sup>104</sup> Italics are original.

juxtaposes his appeal for total war with England. The British were the epitome of a people that tried to stymie the Nazis' expansion with appeasement policy, hoping that they would eventually subject themselves to reason and logic. Despite the notions of irrationality and euphoric obsession that are always connected with Goebbels's views of war, there was also some reason left in his interpretation. When Goebbels delivered his speech, the stage area sported a large banner that read "Totaler Krieg – Kürzester Krieg" (Reuth 518). Goebbels's promise was that if the Germans obediently followed their leaders, they might be rewarded with fewer casualties and a quicker ending of this consuming war.

Even though the Second World War has been deemed an absolute war in many respects – ideologically motivated by the rhetoric of Goebbels's Sportpalast speech, and realistically assessed by the roughly fifty million casualties – it remained yet a war among nations, albeit an extreme one that Clausewitz would have called absolute far beyond the "Scheidewand." Ironically, the political motto of the Sportpalast speech – "Totaler Krieg – Kürzester Krieg" – should assume an unholy and radical meaning in the nuclear age and blaze the way to nuclear war as a super-national concept. The figure of Edward Teller in Kipphardt's Heinar Kipphardt's *In der Sache J. Robert Oppenheimer* expresses the new concept of brevity:

Gott allein weiß, ob nicht über einen Atomkrieg, der wie jeder Krieg schrecklich war, der aber, beschränkt oder unbeschränkt, nicht unbedingt mit mehr Leiden verbunden sein muss als vergangene Kriege, wahrscheinlich aber heftiger und kürzer wäre. (110)

Nuclear war was and still is the most destructive version of total war, even surpassing Nazi Germany's destructive power – at least in theory or fiction. The new

attribute of the nuclear war is also its brevity. Frequently in nuclear fiction, the war is already over when it begins as the character of nuclear warfare is defined by the release of gigantic amounts of destructive atomic heat energy in fractions of a second. I thus argue that there is a traceable lineage of war, a hereditary connection that led from classical concepts of war to the nuclear age. I also argue that nuclear fiction is aware of this kinship and tries to describe the logic of nuclear war based upon its predecessors.

Early texts of nuclear fiction from the late 1940s to the early 1960s are particularly obsessed by the thought of nuclear war as a continuation of previous war. The state of emotional shell-shock from the Second World War might be an obvious reason for it. However, beneath the layer of personal war experience and philosophical pessimism, these texts apply a very dense historical thinking. The rapid series of world wars is not just an arbitrary course of history but is linked by mathematical elements.

Fred Denger in his play *Bikini* describes an exponential growth of victims that will occur in ever-decreasing time steps from the First World War to a possible nuclear war. The wireless operator aboard one of the ships that controlled the Bikini weapons tests expresses historical links between past, present, and future wars in numeric terms: "Dein Vater fiel in Flandern? Interessant. / Dein Bruder vor Paris? Wie interessant. -/ Und fallen morgen vor Bikini tausend / und auf der ganzen Kugel die Milliarden - / zum Teufel, was ist dann? Wie? Interessant?" (15). In increments, from the four battles of Flanders during the First World War to the occupation and liberation of Paris, to the weapon tests at Bikini that might potentially kill those who studied them, and finally to the world-wide eradication of most or all human life, this is a fast-paced history of the end of humanity. Interestingly, the casualties of the First and Second World War remain

individuals in the radio operator's account: personal tragedies and losses that tore holes into families and generations but that are not on the same level as the casualties that loom in future nuclear battles. For Denger, the nuclear weapon test is not merely an isolated test but rather an intermediate step between the "traditional" previous world wars and global nuclear war. The exponential growth defies logic and imagination: from 1 to 1000 to 1.000.000.000. Three zeros are added in the first step, then six in the second step. A third step (adding 12 zeros) is unnecessary because its logic implications will not be applicable on earth. Denger does not want to mitigate the tragedy of the First and Second World War. Rather, his account of Operation Crossroads, the Bikini tests, seeks to show the incomprehensible magnitude of future warring by putting it into a strategic perspective where the most severe wars are now the lowest comparable means. Only by reducing their impact on an imaginary severity scale will the proportions of nuclear war become visible.

In Kirst's *Keiner kommt davon*, nuclear war is also depicted on the level of exponential growth that eclipses the Second World War:

Die Zahl der Wasserstoffbomben, die an diesem Tag über Mitteleuropa abgeworfen worden waren, lag zwischen achtzehn und einundzwanzig. [...] In kaum mehr als zwölf Stunden war das Vielhundertfache jener Kraft entfesselt worden, die in den fünf Jahren des Zweiten Weltkrieges Deutschland an den Rand der Vernichtung gebracht hatte. Das bedeutete: den Tod von zwanzig Millionen Menschen. Das hieß: Verwüstung des Landes durch radioaktive Verseuchung auf Jahre hinaus. Das Abendland, die Heimat der Christenheit, war dem Untergang nahe. [...] Die Menschheit war dabei, sich auszulöschen. (594)

In *Endzeit und Zeitenende*, a collection of essays on the nuclear age, Günther Anders alludes to the affordability, the "Preiswertigkeit" of the nuclear end of the world

(14). When Denger published his play in 1948, nuclear weapons had not yet entered mass production. Most of Anders's writings on the nuclear age, however, originated from the 1950s and 1960s when this had been achieved. While the events at Bikini are still a singular event in Denger's play, for Anders the affordability of the nuclear age rendered single nuclear tests uneventful. The industrial standardization and serialization in the mass production of death-inducing technology now guaranteed low prices and lower attention. Anders alludes to the idea that the industrialization of death and war under the Nazis bore the same ideological imprint: the killing of the Jews was an economical process as it pooled resources to optimize death and to kill as many individuals with as little resources as possible. Total war thus mandates the maximum capacity of resources to achieve the greatest impact.

Anton-Andreas Guha's *Ende* references the term "totaler Krieg" (90-1, 103-4), alluding directly to Nazi Germany's war philosophy by claiming that the Nazis could not fulfill the truest sense of the totality in "totaler Krieg." Also, Guha repeatedly alludes to the idea that the Second World War serves as a ghastly inspiration for the Third World War (24, 31, 34). According to Guha's narrator it took the plunge into the nuclear age to completely realize the deep connections between both wars. He also claims that the eruption of nuclear war will lead to conditions and measures that had already been implemented by the Nazis, such as censorship and the oppression of intellectual freedom (91-8). Furthermore, Guha's narrator fleshes out a complete historical theory that spans three periods of German history, from nineteenth-century monarchy to its downfall after the First World War through the rise of the Nazis, their downfall at the end of the Second World War and the Cold War. The wars in this rendition always serve as a capstone that

puts an end to the previous period. According to Guha, the development of war follows a perverted logic that seeks to achieve the "total" war: 105

Moltke: "Der ewige Frieden ist ein Traum, und nicht einmal ein schöner, und der Krieg ein Glied in Gottes Weltordnung. In ihm entfalten sich die edelsten Tugenden des Menschen, Mut und Entsagung, Pflicht, Treue und Opferwilligkeit, mit Einsetzen des Lebens. Ohne den Krieg würde die Menschheit im Materialismus versumpfen.

45 Jahre später Ludendorff: "Der totale Krieg erfordert, die seelische Kraft zu haben, den Selbsterhaltungswillen in sich selbst zu überwinden."

15 Jahre später Goebbels: "Wollt ihr den totalen Krieg?"

Abermals 50 Jahre später: Der wirklich totale Krieg, der letzte Krieg in einer endlosen Kette von Kriegen, steht unmittelbar bevor. Ist so gut wie unausweichlich. (90)

In Guha's account, the term "euthanasia" assumes a new meaning in the nuclear post-war setting. In Goebbels's rendition of total war, it was better for Germans to fight to the end of their lives than to surrender to the enemies and subsequently endure the shame. As the narrator in *Ende* awaits his death, tormented by the severe physical pain of radiation sickness, euthanasia, the painless premature death, is a viable resolution.

Euthanasia, the euphemistic term for the Nazis' killing of their ideological enemies, is now a universal concept that offers a last-resort relief from the woes of human misery.

Guha's general argument is that notions of the past, especially of Germany's Nazi era, experience not only a revival in the nuclear age but a utter degeneration to the maximum of their capacity. In *Die Rättin*, Günter Grass acknowledges the same ideological distortion in the nuclear age that lead to the expansion of total war coined under the Nazis. As humanity blames the rats for triggering nuclear war by manipulating Cold War

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<sup>&</sup>lt;sup>105</sup> The theory that previous wars created the breeding ground for the ultimate destruction in a possible Third World War is still popular and widespread. In his 2003 monograph *From Chivalry to Terrorism.* War and the Changing Nature of Masculinity. Leo Braudy claims that the technological advances of the First World War and its notion of totality hitherto unknown in the history of war have continued into the nuclear age: "The culmination of this new style of war would come with the development of the atomic and hydrogen bombs, with their ability to vaporize whole populations" (384).

computer systems, so did the Nazis by blaming the Jews of undermining the Arian society by infesting it with Jewish conspiracy thinking and moral turpitude (123-4). One of the ideological motivations for Nazi Germany's warring was the idea to rid other countries and eventually the world of unworthy human life. These global aspirations of the Nazis eerily foreshadow the global extent of the nuclear age.

In Helga Königsdorf's *Respektloser Umgang*, the narrator, a female GDR physicists, revisits her childhood during the Third Reich and draws direct connections between the nuclear age and Nazi Germany. In her account as a scientist and a historical witness, the National Socialists paved the way to the nuclear age: During the war, the Gestapo stores boxes filled with classified material at her father's residence that are rumored to contain information about the German atomic bomb project. The narrator then ponders how science was transformed from an elixir of life to a harbinger of death.

Subsequently, she reflects the term "Totaler Krieg" and how it could have assumed a completely new quality, had the German nuclear plans come to fruition (66-7).

Königsdorf's narrator then concludes: "Was Faschismus einst anrichten konnte, war ein Klacks" (70), pointing to the lethality of the Third Reich that the nuclear age has continued and grown exponentially. Both, Grass's and Königsdorf's novels clearly expresses the reemergence of the German past on a much grander scale.

In his article "Ordnung und Entropie. Götterdämmerung nach Wagner," Gert Mattenklott links the sequence of world wars from the First World War to an imagined Third World War to the Wagnerian twilight of the gods: "Für das Abenteuer der Götterdämmerung scheinen die Impulse des Überbietens und Überholens, der maximalen Steigerung und des Exzesses … geradezu die Bedeutung eines ästhetischen Imperativs

gewonnen zu haben, dem er [i.e. Richard Wagner] die eigene Arbeitskraft wie ein Märtyrer dem Schicksal unterstellt" (146). 106 Just like the myth demanded from Wagner to outdo himself time and again, this eerie concept has also programmed the world wars to outcompete their predecessor. 107 Nuclear fiction follows this thought of continually expanding excess and sees the new total war as the successor to the war of the Nazis and its inherent perverse will to outshine the level of catastrophism in the Second World War: "Aber der Zweite Krieg war schon mehr der Vorläufer des Dritten als ein Nachfolger des Ersten. In ihm bereiteten sich die Massenvernichtungen des atomaren Zeitalters oszillierend vor, wenn auch die Beteiligten das Bild nicht begriffen, das sie selbst mit darstellten" (Zwerenz, *Der Bunker* 401).

Nuclear fiction draws a continuous history of war and warring, showing that its inherent logic has changed dramatically from the philosophy of reasonable war in the nineteenth century through the expansion of recklessness and the concurrent decrease of rationalism during the First and Second World War and eventually the possible Third World War in the nuclear age. <sup>108</sup> Most texts retrace the history of (mostly European) war

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<sup>&</sup>lt;sup>106</sup> Axel Goodbody sees the strong traditions of German catastrophism from Friedrich Nietzsche, Ludwig Klages, Richard Wagner to Oswald Spengler continued in the environmental catastrophism of post-war German literature (cf. 163).

<sup>&</sup>lt;sup>107</sup>Werner Heisenberg in his autobiographic book *Der Teil und das Ganze* links the "Götterdämmerungsmythos", the philosophy of "Alles oder Nichts" to the history of nuclear research. The absoluteness of the unwavering belief in the *Führer* would have induced the Germans to take the last desperate step: "[in den] Weltuntergang schreiten" (217).

Historians have always taken a critical stance on cyclical thinking such as nuclear fiction here suggests. J. M. Winter warns of promulgating something that does not exist in history: "But what is not so harmless is the use of so-called historical laws, derived from the collation of evidence about the past, as predictive tools. No one could object to the statement, 'what was can tell us something about what will be'. But it becomes unacceptable in the form, 'what was is built into human nature and describes an immutable force against which it is futile to struggle'" (200). Many conservative scholars, too, reject the notion of a complete change in the nature of war. In *Another Bloody Century*, conservative political scientist Colin S. Gray argues: "No matter whether the weapon is thermonuclear in the megaton range, or whether it would struggle to achieve 100 tons, it is held to be different, unconventional, and in the opinion of many people beyond the pale of civilized warfare. Indeed, nuclear weapons, generically, are held widely to have changed the nature of war, since, allegedly, they fracture the Clausewitzian connection between the military grammar and the policy logic of it all. War with nuclear weapons would not be war, and strategy for the

as one that has been marred by the gradual loss of inhibition, they eventually express a deep-seated fear of further escalation.

The most extensive stretching of the term war in nuclear fiction occurs when the Chernobyl accident is portrayed as an act of inimical intrusion and warring, most notably in Alexander Kluge's treatise *Die Wächter des Sarkophags*, a documentary-cum-literary

employment of such would not be strategy, so the argument insists" (259). Gray later continues his argument: "There is some merit in the argument that the 'M' in WMD destroys the very basis of the Clausewitzian theory of war. War, allegedly, can hardly be an instrument of policy if it would entail mass slaughter, especially reciprocal mass slaughter. Alas, that all too reasonable point of view is not correct. Nuclear strategy is not an oxymoron... The strategy may be poor, not to mention morally and legally indefensible, and it may not work well, but strategy there will be" (290). A. J. Coates in The Ethics of War further defends the principle of the just war against the total war of the nuclear age: "The perception that the just war approach has become an anachronism, that the reality that lent the tradition credibility and may once have established its relevance no longer exists, is another common source of criticism. One form of this criticism argues that the reality of modern war places it outside the scope of just war thinking. In some cases this judgment is driven by a preoccupation with the nuclear issue, so that it is the 'nuclear age' in which we are now seen to live that has made just war thinking irrelevant. This was the prevailing view of things throughout the period of the Cold War, and it had a damaging impact not just on just war thinking but on the ethics of war as a whole. The monopoly of the moral debate about war by the nuclear issue led to the extensive neglect of the moral investigation of conventional forms of warfare, despite the fact that these forms of war, including the more novel varieties of guerilla warfare and terrorism, continued to proliferate throughout the period in question" (5-6). Uwe Steinhoff doubts whether the tradition of war has changed so radically as to justify the advent of a new barbarism that allegedly did not exist in previous wars: "There is a widespread belief, promulgated in journalistic accounts as well as in some scholarly works, that wars ... have become more 'barbaric.' The barbarism of these 'new wars' ... allegedly differs from the civility of the 'old wars'..." (101). In opposition to Gray, Coates and Steinhoff, Chris Hables Gray in Postmodern War makes a strong point for the change of the concept of war in the late twentieth century. The absurdities of postmodern war have upended humanity's striving for peace, have given up strategic thinking for all-out destruction – a system that is only held together by the empty rhetoric of the warmongers: "All these contradictions stem from the central problem of postmodern war - war itself. Unless war changes radically it will be impossible for war and humanity to coexist. So the old and conservative discourse of war has become wildly experimental and it has institutionalized innovation to an amazing degree. This process has included the colonization of much of Western science and technology as the war system keeps seeking ways to keep war viable. If weapons are incredibly powerful, make them smart. If combat is unbearably horrible for soldiers, make of them machines or make machines soldiers. [...] Most horrifically, always be ready to destroy the world. If war is impossible, if peace seems to make sense, make ready for the most impossible war - nuclear. But what gives the system its coherence? It seems that that coherence is not structural but rhetorical. Seen as a discourse system, it's clear that certain key ideas, called tropes in rhetorical analysis, hold the system of postmodern war together" (170). Michael C. Kearl in Endings. A Sociology of Death and Dying radically claims that the term "war" has been redefined in the nuclear age. The new technology that is introduced during a war will render "obsolete the rules of war" (356) and "impose a logic of its own upon the course of conflict" (357) Nuclear fiction is clearly in line with Hables Gray's and Kearl's positions and does not recognize the arguments that Gray, Coates and Steinhoff make. The new warfare and the ensuing barbarism in nuclear fiction is always portrayed as the inheritance from the past that has metamorphosed into a new era. Nuclear fiction carefully traces the lineage of war and does not just claim the advent of a radically new era, where Gray, Coates, and Steinhoff in their rebuttals rather juxtapose the old and the new for the argument's sake.

hybrid report on the 1986 reactor catastrophe. Kluge argues that the catastrophe at the Chernobyl powerplant resembles war in many respects: "Die Öffentlichkeiten Rußlands und der damals als Parteibezirk geordneten Ukraine waren völlig unvorbereitet und ungeeignet für die Wahrnehmung und Verarbeitung einer solchen Explosion. Sie faßten den technologischen Unfall als eine Kriegserklärung gegen das Land auf" (10-11). Also, in hindsight, the damaged reactor has become the empty yet still dangerous battlefield of a war that needs to be guarded and that extends the reach of its noxious legacy to a global society: "In diesem Sinne ist Tschernobyl heute ohne Wächter, der Sarkophag ist in gewissem Sinne herrenlos und damit zu einem Objekt der Menschheit geworden" (22).

## The Logic of Disaster

Nuclear fiction often describes the advent of disaster as a concatenation of events that cannot be stopped. Humans look helplessly on, as the world before their eyes is crushed into oblivion by an invisible force that apparently follows no logic and seems chaotic. And yet the chain of events is often such a dramatic force in fictional accounts and its mysteriously inherent logic is the force majeure that propels the nuclear apocalypse. Most authors have already laid to rest human logic together with its alleged aspiration to reign over and control the world. They have also undermined the notion of a traditional divine apocalyptic force. However, they have created the idea that there is an anti-logic that responds to human logic in that it annuls and turns around human rationality. I do not understand "anti-logic" as a concept that rejects logic as a force in general. Rather, anti-logic is a logical system directed at thwarting and destroying human logical thinking and

any actions based on this. In his 1959 essay "Das Wort," Hans Henny Jahnn describes the destructive power of this anti-force as a war that produces a cultural black hole and a negation of human culture: "Man sagt dem Krieg nach, er sei der Vater aller Dinge; das ist eine einseitige Fibellehre; – er ist nicht einmal geschichtsbildend. Er ist das Symbol der Negation, der rückläufigen Bewegung, der Kulturbeseitigung" (597).

Besides its use in nuclear fiction, the concept of such a higher logical force that acts *ex negativo* is something that has been researched extensively from mathematical and psychological angles. The theoretical psychologist Dietrich Dörner not only analyzes the logic of catastrophic events on different scales, he also argues that its unfolding is preceded by human error: "Failure does not strike like a bolt from the blue; it develops gradually according to its own logic" (10). Many pieces of nuclear fiction, however, portray just that: the atomic blast strikes with the suddenness of Dörner's bolt from the blue. This showy event usually is flanked by passages that describe or reconstruct the chain of events that lead up to the conflict. Even though nuclear fiction exploits the aggressive spontaneity of nuclear war for literary purposes, the authors spend most of their time with the description of the underlying forces. In the following we will look at how these forces are prominently pictured in some texts.

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<sup>109</sup> In "Am Anfang des Atomzeitalters. Die Menschheit spielt um ihre Existenz," Jahnn slightly rephrased this negation of culture as "Zerstörung aller Werte, die wir bisher als Kulturgüter bezeichnet haben" (451). 110 Incidentally, the first edition of Dörner's study appeared in 1989, a year which should mark the beginning of the end of the former East Bloc and the Soviet Union and also a time that had enabled researchers to develop a closer look at the Chernobyl accident. Dörner deals explicitly with the processes of failed logic that led to the reactor explosion in Chernobyl, blaming human and not technical failure as the reason for the disaster. He then specifically explains that it was not just a wrong action that caused the explosion – such as pushing the wrong button. Rather, the engineers who eventually pushed the wrong buttons were guided by an illusion of logic and the reassurance of safety that had organically grown within their community. Dörner thus blames socio-psychological phenomena that had planted the notion of insurmountable expertise in these people that subsequently put their logical thinking into a context where it would not apply. I especially chose Dörner here because his ideas are tied to the nuclear age not only through his interest in Chernobyl and its causes but also summarize the thought strategies of the pre-1989 period well and offer an outlook into the future beyond the Cold War.

Dietrich Dörner, in an attempt to illustrate his claims about the gradual development of failure, uses the chess game as an example for derailed logic. He argues that although one single wrong move early in the game does not pose a severe disadvantage for the player at the time when it is made but might become a decisive force during the later stages that could bring defeat (cf. 50-4). Logical thinking, and rational decision making, however, are only parts of all of human brain activity. Dörner argues that our understanding of the supremacy of logic is essentially flawed because we make assumptions that our logical decisions are purely logic-driven. Dörner then claims that all rational decision making also undergoes an emotional treatment. This is the single most important aspect that sets our operational brain processes apart from those of a computer. While the computer is exclusively propelled by logic decisions, humans pretend to be able to act like computers, but in the end they will produce failed logic by denying the involvement of emotional force (cf. 28-35).

Wiebe E. Bijker argues that failed logic can easily be observed within discrete technical systems or societies that are technically highly organized. He transcends Dörner's game metaphor by defining such societies as bodies or entities that are vulnerable, i.e. whose routines can be harmed if a foreign element enters its body:

Technologische Systeme sind verwundbar. [...] Der Begriff "verwundbar" wird in der Regel in Bezug auf Lebewesen und Ökosysteme angewandt und bezeichnet die Möglichkeit, durch Schmerz oder Verletzungen betroffen zu werden. Damit verknüpfte Bedeutungen sind: wehrlos, unvorbereitet, schwach und schutzlos. In diesem Sinne bezeichnet der Terminus "verwundbar" die Eigenschaft eines Lebewesens oder Systems ganz unabhängig von einem gegebenen Kontext. (37)

Zwei wichtige Überzeugungen in Bezug auf "Verwundbarkeit" (vulnerability) stellen die Grundlage meiner Überlegungen dar. Zuerst, dass die Verwundbarkeit moderner Gesellschaften am besten an der Verwundbarkeit von technologischen Kulturen untersucht werden kann.

Die heutigen Gesellschaften können als eng vernetzte Systeme verstanden werden, in denen Technik allgegenwärtig ist. Technik ist nicht allein ein alltägliches Hilfsmittel, sie ist auch eine wirkungsmächtige Größe, welche das menschliche Handeln und seine Deutung beeinflusst. (38)

Nuclear fiction supports Bijker's argument as it portrays the emergence of the nuclear catastrophe from the vulnerability of highly complex technical societies. Oftentimes, the overly technical character of such societies has encroached on its members and transformed them into mere mechanical devices. The blind atomic scientist, Jänsson, in Günther Weisenborn's Die Familie von Makabah, embodies Dörner's representation of human logic that rejects its own emotional components and thus becomes an isolated entity acting without being connected to the physical world – "die ganze Beschränktheit des totalen Fachverstandes" (33). Jänsson is completely surrounded by and caught in the trappings of a technological society that, to argue with Bijker, lures him into giving up his human impulses and blindly following the prevailing logic of science and technology that his society imposes on him. The scientist Cricot, a more enlightened and less blinkered character in Weisenborn's play, realizes that unquestioned conformity with the logic of science, coupled with the notion of scientific superiority, will lead to disaster. He struggles with the rationality-driven discourse of his peers, and by including a good measure of emotional outburst, postulates "eine neue Denkweise" (39). 111 Cricot, or for that matter Weisenborn, owe the reader a concrete description of this new mode of thinking, but it is clear from the context of the story that this needs to be a mode that includes logic and emotion in equal proportions.

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<sup>&</sup>lt;sup>111</sup> Incidentally, Werner Heisenberg predicted that the developments in atomic physics could cause deep changes in human thinking which would "weit in die gesellschaftlichen und philosophischen Strukturen reichen" (*Der Teil und das Ganze* 222). Heisenberg, like Cricot, advised a new way of thinking about the atomic age.

Dietrich Dörner's interpretation of the chess game as a basis for simple strategic moves that lead into a complex situation correlates with its depiction in nuclear fiction where it is harnessed to show the boundaries of logic and the defeat by a countering logical force. Carl Zuckmayer's Das kalte Licht describes precisely such notions of chess as a maelstrom of the inseparable convolution of logic and emotion and puts them in the context of the nuclear age. The protagonist of the play, the scientist Wolters, is a believer in the reliability of logic as found in hardcore science such as mathematics and physics: "Aber es gibt etwas – in der Welt der Zahlen –, das ist Idee und Wirklichkeit zugleich. Das ist nur hypothetisch, nur geistig zu beweisen – und trägt doch unsere ganze Existenz" (13). Numbers and the way they are interconnected by logical operations represent deep insight into the universe, Wolters claims. He then argues that this innate wisdom of a higher reality that these numbers carry cannot be proven in practice. This theory is somewhat reminiscent of Plato's Theory of Forms, which regards the idea of a thing in the spiritual realm as the highest and truest representation of such thing but which then argues that the actual things in the physical world must necessarily remain poor representations of the ideas and can never aspire to perfection. While Plato's theory shows a deep divide between the theoretical and the practical world, it nonetheless bridges the gap and offers a makeshift solution that roughly connects the two worlds. Wolters's attitude in Das kalte Licht represents a scientific belief that cannot offer a bridging devise between these two worlds. The logical coherence that is visible to the theoretical scientist remains "nur geistig zu beweisen." However, Wolters at the same time entrusts the existence of the entire world into the power that the mathematical

numbers hold. For him, the theoretical proof of their validity is enough to take this leap of faith.

Wolters theoretical beliefs are eventually put to the test on a ship passage to Canada where he encounters the Jewish intellectual Friedländer with whom he plays a game of chess that he eventually loses. While Friedländer plays with "Glück" and "Seele" (25), Wolters rigorously implements his carefully planned strategy, perfected by mathematical exactitude. Ironically, by a mere and seemingly harmless oversight in the beginning, Wolters has created a disadvantage for himself that no strategic perfection can undo. Friedländer, the jovial and unscientific dreamer, wins through his visceral feelings and outdoes Wolters's scientific approach. Chess here can be seen as putting the theory of mathematical operations to the test when applied by humans. There is no doubt that the logic of chess is flawless. It is only when humans apply this logic that failure occurs. The question that this scene poses is whether there is a hidden logic underlying Friedländer's playing or whether he only wins by accident. After all, Friedländer did not even care to attain mathematical perfection when playing Wolters. On a more symbolic level, the trust in scientific logic is not only shattered by Friedländer's win, it is also possibly beaten by a mysterious anti-logic that easily puts traditional logic to rout. Wolters is bested not so much by Friedländer, whom Zuckmayer portrays more like fate's stooge than an independent character, as by a higher power that thwarts his own strategic power. Zuckmayer then juxtaposes this power with the moral plight that the nuclear age exerts on humanity: Wolters is a haunted and helpless figure, at the mercy of the consequences of nuclear science and the anti-logic that tax him both mentally and physically. Prior to their game of chess, Wolters, Friedländer, and another traveler, Buschmann, have a

discussion about freedom in science and in human life. The conversation vacillates between the belief that freedom can be defined as a scientific and thus quantifiable concept and the conviction that it is indeed an inalienable and inexplicable ideal: "Buschmann: ... die Freiheit ist ein Prinzip, und somit unteilbar." – "Sie denken, Herr Friedländer, wenn man sie [i.e. freedom] etwa als eine vorhandene Energiequelle auffaßt, nur quantenhaft abgegeben und empfangen werden kann, das leuchtet mir theoretisch ein." (22) While Buschmann is the idealist, Friedländer thinks intuitively yet Wolters, the only scientist among this group, frantically grasps for a scientific explanation. At this juncture, the reader already knows that Wolters's transmogrification of philosophical terms into scientific concepts will have to fail as his chess strategy failed.

In Udo Rabsch's *Julius oder der schwarze Sommer*, chess is used in a slightly different fashion, introducing the "strategic" power of chaos as the counterpart of the human player. While the inexplicable anti-logic in *Das kalte Licht* only exposes the physicist Wolters as an errant human, indicating that a science-ridden society might fail in the future, in Rabsch's novel this anti-logic has taken over the entire world. Julius, the struggling survivor, finds himself in the midst of a world that has turned into a chaotic rubble pile. He realizes that there is a force behind this chaos which is not divine in nature but resembles a natural law or a strategic concept. Even though Julius instinctively tries to survive, he acknowledges the presence of this powerful force with a chess metaphor: "Es ist wie bei einem Schachspiel, das bereits verloren ist. Aber trotzdem die Figuren ziehen bis zum Matt" (184). Nuclear fiction is unable to define this force more clearly. It might be strategy, a logic that is at work but that cannot be grasped to the full extent just as all possible moves in chess cannot be completely understood in their

entirety by humans. One is under the impression that the literal and figurative chess players of the nuclear age are modern representations of the Roman stoics whose mantra "Ducunt volentem fata, nolentem trahunt" (Seneca, *Epistulae morales ad Lucilium*, 107<sup>th</sup> letter) – fate leads the willing but drags the unwilling – (cf. Frede 179-205) already acknowledged the presence of a higher force that one should not resist: Those who were willing enough to accept fate were guided by fate, those who resisted were forced by fate.

The Stoics reduced the role of human presence and its importance for the course that the world would take to a minimum. Even though many characters in nuclear fiction experience the same force – being driven *nolens volens* – unlike the Stoics, they rebel against the frictional resistance that the anti-logic produces. The comparison between the anti-logic of the nuclear age and the Stoic ideas of the fates whose will could not be helped by human intervention is necessarily an incomplete one. Most importantly, the acts of active wanting (*volentem*) and not wanting (*nolentem*) seem to have lost their distinction in the nuclear age: By eagerly wanting one thing (winning through mathematical perfection) Wolters in *Das kalte Licht* unwittingly provokes what he does not want (losing the game). The diametrical opposition of wanting and not wanting (or rejecting) does not exist anymore. Rather, they are arbitrarily assigned by the anti-logic – an act that appears like gambling.

While Christa Wolf does not use chess metaphors in *Störfall*, she portrays the struggle between the power of science and fate as a pure gamble. While the protagonist's brother might or might not survive the invasive brain surgery, people in Chernobyl might or might not survive the reactor catastrophe. While for Wolf any allusions to divine power are improper in this context, this fateful anti force in her book has a cold and

inhuman touch. It is merely a law of probability or nature that cannot be envisioned or borne by a feeling human: "Warum ertragen wir es nicht, dem Zufall ausgeliefert zu sein" (84).

In conclusion, one might ask whether the search for an anti-logic is based on the fear of losing all meaning in the nuclear age which has already given up its religious sentiments and its belief in Enlightenment rationalism. Does nuclear fiction adhere to the presence of anti-logic forces out of sentimentality or do the texts pursue the description of a new sober-minded world view? Nuclear fiction does not see anti-logic as a principle purposefully directed against humans. Rather, it is a course of events that ineluctably occurs, driven by an unidentifiable logic beyond human comprehension. Even though many pieces of nuclear fiction depict humans in emotional crises when facing nuclear war or a nuclear catastrophe, they do not assert or suggest that this anti-logic is an emotional phenomenon. Humans might perceive it as such, but it seems to occur far beyond the rational level of human feelings.

### **Paradise Lost?**

## **Summary and Conclusion**

Has humanity ever since the nuclear age been expelled from the Paradise of infinite innovation, knowledge, and physical ease that the modern sciences have afforded us? German nuclear fiction – that is, fictional texts from Germany, Austria, and Switzerland dealing with catastrophic fantasies of the end of the world produced by the nuclear age – portrays the atomic age as an era of disenchantment. It leaves traditional depictions of theodicy and apocalypse shattered and creates a philosophical emptiness, a void that seemingly cannot be filled. Is the real possibility of the nuclear end of the world even imaginable? How will it affect the survival of human culture? Has humanity reached a dead end, trapped by the ingenuity of its inventiveness and creativity? When looking at these ultimate questions, it is legitimate to consider fictional texts.

In many ways, nuclear fiction resembles the mode in which the thinking of the Cold War's military strategies took place: fictitious scenarios about the end of the world that sprang up in the heads of humans. On an individual level, reflections about man's own mortality have always fueled human culture. Nuclear fiction takes these reflections and catapults them to a dimension of utmost terror, depicting something that seems to defy depiction: the complete destruction of our planet and the humans that inhabit it – the nuclear holocaust.

The single most devastating event in the history of the twentieth century is the Holocaust of the Jews. However, the term "Holocaust," referring to Nazi Germany's systematic murder of roughly six million Jews and its plans to extinguish all Jewry

altogether, did not reach widespread attention in academic and public discussion until the early 1960s. Ironically, the world had been aware of the possibility of a nuclear holocaust before it started to come to terms with the Holocaust of the Jews. The nuclear holocaust thus was the first holocaust to be talked about extensively. In German nuclear fiction, the historical and philosophical links between the *imaginary* nuclear holocaust and the *real* Jewish Holocaust are omnipresent.

Nuclear fiction is deeply embedded not only in Germany's own fateful history but also participates in many powerful discourses that have shaped the face of the twentieth century and that will continue to shape the twenty-first century as well. These discourses are the revolutionary findings of nuclear physics, the philosophy of morality and evil, the sociology and psychology of mass death, the resurgence of apocalyptic images during various periods, the ideological differences and similarities between the Communist and Capitalist worlds, the clash of democratic principles and the paradoxes of the nuclear age, and the change of war culture in a possible Third World War.

At the end of the texts of nuclear fiction, one crucial fact becomes evident: humanity has lost its self-ascribed status of preeminence in the universe. It has dethroned itself by tripping over the pitfalls of its own inventions. The loss of the former glory is nothing like the expulsion from the biblical Paradise anymore. The language of the Bible is now an insufficient substitute for describing a situation that defies description. The dramatic moment that inhabits Adam and Eve's biblical ouster has been lost in the modern ouster whose dramaturgy is now thwarted by the abolition of the protective metastructures of literature that used to promise a predictable development with a certain denouement. Nuclear fiction radically questions the continued existence of the human

world as we know it, turning this type of literature into a holistic literary experience that touches upon the most fundamental issues of our existence – not just a good read.

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Immanuel Kant juxtaposed the raw and insuperable force of nature – the so-called sublime – with human morality. Ever since the advent of the atomic age, this distinction between the human realm of morality and the natural realm of physical power does not exist anymore. The possibility of the manipulation of atomic matter has enabled humanity to transfer the formidable power of nature into the human realm. Nuclear fiction analyzes this process and tries to formulate a response to the power shift.

I argue that the atomic bomb is an anthropomorphized and refined embodiment of what Kant deemed nature's force. Nuclear fiction extensively compares the nuclear holocaust to the Jewish Holocaust, being struck by Germany's role as the chief perpetrators of the Second World War and the somber outlook of a tradition of evil that seems to live past the Nazi era. The nuclear holocaust has essentially the same potential to reach and even transcend the gruesome horror of the Jewish Holocaust as it has enabled humanity to wield the greatest physical power imaginable against human life. Nuclear fiction discusses this moral impasse and while trying to depict the possible catastrophe, these texts show that the horrors of an atomic threat are as hard to portray as the horrors of the Holocaust.

The prospect of nuclear war means that in terms of morality, nuclear fiction sees all of humanity as the victim and the perpetrator, as prey and predator, at the same time, whereas during the Nazi era, the roles of victims and perpetrators were more easily recognizable. Nuclear fiction shows that this distinction is blurred in the nuclear age. The

reason for moral discussion in nuclear fiction is mostly no longer based on religious grounds. While many texts use religiously enriched language when expressing the evil of the nuclear age, they become increasingly disconnected from religion and disenchanted with it. While the conceptual devastation that the contemporaries of the Lisbon earthquake suffered was the first major event to undermine the credibility of the Enlightenment tradition and the power of reason, the nuclear age and its possibilities might as well be seen as the last event.

Theodor W. Adorno regards the Holocaust as the final event that proves the fallibility of the Enlightenment, carefully pointing to the nuclear age as a possible step beyond the last step. The Holocaust and the thinking of the nuclear age are similar in their structure and systemic set-up. Nuclear fiction extends Adorno's argument, claiming that the evil energy inherent in the process of the mass murder of millions of people in concentration camps was not destroyed in 1945 but transformed into a new form of evil in the nuclear age.

The atomic bomb has become the symbol of terror in the twentieth century, carrying a strong notion of devastation. While the bomb is the materialization of evil in nuclear fiction, its sheer size compared to the gargantuan effects of its detonation defies adequate portrayal in literature: the bomb's size is disproportionate to its power. The bomb proper is rarely depicted in fictional texts, rejecting visualization in literary fantasies, but at the same time raising the issue of visibility and invisibility.

Many authors of nuclear fiction use Christian terms charged with morality.

Referencing the biblical apocalypse becomes an effective literary technique to approach the moral question of what evil is in the nuclear age. Most texts refer to the tradition of

Christian morality through the terms *apocalypse* or *nuclear apocalypse*. The appearance of the term *Holocaust* is extremely rare in works of nuclear fiction; the apocalypse is generally a much more widespread concept. The use of religious metaphors is not exclusive to German nuclear fiction. The nuclear scientists involved in the Manhattan Project used the language of religion to describe the moral predicament in which they found themselves. Many works of nuclear fiction, especially the ones from the late 1950s onwards, abandon the concept of a divine being and focus on the void that the departure of God has created. This divine void turns the nuclear apocalypse into a senseless event for which there is no cure. The question of good and evil also becomes meaningless as the nuclear age renders the sources of evil anonymous: There are no clear culprits any longer who can be identified as rogues. While the biblical apocalypse vouched for the advent of a better world, the modern nuclear apocalypse destroys such hope. The nuclear apocalypse in German literature, as Klaus Vondung argues, will be total and final without the promise of a spiritual afterworld (5).

Nuclear fiction has reached a predicament in its discussion of the morality of good and evil. The texts betray a disenchantment that has taken place through the advent of technology and that has changed the world. Initially used as a crutch for depicting the modern apocalypse through the lens of tradition, the language of religion is finally jettisoned in nuclear fiction of the 1980s and onward as it does no longer adequately represent the moral predicament of the twentieth century. The nuclear evil thus transcends the language of Christian morality.

I distinguish between two strands of nuclear fiction, *engaged nuclear fiction* and *disengaged nuclear fiction*. While the engaged texts depict the nuclear apocalypse as a

problem that has been created by humanity and can only be fought and thus revoked by humanity also, the disengaged texts reject any claim for solving the moral conflicts as they see them as futile in the overall scheme of history. While engaged nuclear fiction (1940s-1970s) still tries to implement traditional morality in order to solve the problems, the disengaged strand that sprang up in the 1980s has largely lost its faith in the power of human reason and depicts the nuclear age as the consequence of a disenchanted highly scientific world that has annulled the philosophical progress of the Enlightenment. The authors of engaged nuclear fiction describe the world as driven by rationalism and predictability; they seek to reveal the irrational and unpredictable undercurrents within a world of apparent reason.

Disengaged nuclear fiction tries to overcome its predecessor. Opposing evil is seen as a dreamy and unrealistic strategy that is misplaced within an era that is now pervaded by moral listlessness and survival fatigue. These texts also try to shed the traditional concepts of evil by adopting a new and fresh language that is pragmatic, sober, seemingly emotionless, and even brutal or satirical. While the authors of engaged nuclear fiction regard themselves as augurs of the future and heralds of doomsday, the authors of disengaged nuclear fiction divest themselves of the power of prognostication. They see the disaster coming, but they refuse to adorn their fantasies with the warning voice of moral authority. They acknowledge the lack of morality in the atomic age and supplant it with sarcasm and irony.

Former East German literature has literally no substantial contributions to early nuclear fiction, whereas former West German authors were relatively early infected by budding nuclear fears. One might speculate that this has to do with the positive attitude

towards Cold War technology that the GDR administration tried to create among its population. In the 1970s and 1980s, though, East German literature has added some critical texts to the canon of nuclear fiction. In general, there is a stronger tendency for disenaged nuclear fiction in the former West Germany.

In conclusion, nuclear fiction is in opposition to Gottfried Wilhelm Leibniz's postulation of the best of all possible worlds, as it shows that the nuclear age can hardly be the best of all possible worlds anymore. The fictionalizations show that a nuclear apocalypse not only creates a physical rubble pile but also destroys all human culture and concepts of morality.

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German nuclear fiction not only draws on the tradition of apocalyptic imagery but also adheres to the goal of apocalyptic representations in describing the indescribable. It is thus part of a long literary tradition. Furthermore, nuclear fiction vacillates between tradition and modernity. It incorporates the tremendous scientific advances that have changed the face of the apocalypse and have led to the possibility of a nuclear holocaust.

Nuclear fiction is trapped between the heavy burden of tradition and the mind-boggling prospect of the possibilities of modern science. Even though there is evidence of a strong incorporation of science and technology in German nuclear fiction, it lacks the innocent playfulness of American science fiction, focusing on a more culturally inspired and less "technical" apocalypse. German nuclear fiction contains ancient apocalyptic drama thoroughly coupled with scientific evidence based on a cultural foil. The apocalypse in nuclear fiction is trapped between concepts like the biblical apocalypse and the deluge on the one hand and the sobering rationality of technology and science on the

other. Traditional biblical ideas are often taken up and then integrated into the modern setting. The authors clearly need these traditional apocalyptic images in order to shape their own version of the nuclear catastrophe. As they recycle a millenia-old concept, they often do so with an awareness of their own dissatisfaction, acknowledging that the traditional images are only prosthetic.

The integration of ideas of physics into nuclear fiction enables the authors to call into question the traditional concepts of catastrophism without trivializing the tragedy. Theories of nuclear physics serve as conceptual underpinning for many works of nuclear fiction. They also supplant the idea of a manipulative divinity that controlled catastrophes in previous centuries. The laws of physics do not differ from this divinity as they are just as equally omnipresent and omnipotent. The apocalyptic universe, however, is no longer ruled by an individual God but by a set of eternal laws of physics that not only govern our life on earth but also continually shape the universe. Nuclear fiction places the apocalypse beyond human controllability. While the traditional biblical apocalypse is anthropocentric, the modern one is not.

The atomic apocalypse is limited in its ability to be literarily reproduced. As the atomic detonation happens so fast, authors of nuclear fiction struggle with effectively capturing this moment of catastrophic brevity. As the modern apocalypse has stripped away religious illusions of sense and meaning behind the sufferings, nuclear fiction describes the reality of war with unmitigated harshness. Nuclear fiction destroys the possibility of further storytelling by telling the last story possible, the final account. The physical deformation of the landscape that accompanies war narratives of nuclear fiction is followed by the deformation of the narrative memory. The atomic blast inflicts scars on

multiple levels that penetrate the narratives: the physical injury that human beings and the earth suffer extend on a psychological level into the marred meta structure of the narrative and the persona of the narrator.

I argue that Tobias Jersak's term "landscape of death" (171) coined to describe the consequences of the Second World War, represents even more the totality of destruction of the post-nuclear landscape in nuclear fiction. Nuclear fiction faces difficulties when visualizing the apocalypse. The atomic detonation's exponential growth can be mathematically understood, but a true visual representation of its development is almost impossible for the human mind. In order to overcome this issue, authors depict a burnt planet and the severe alterations of the face of the earth, its structure, landscape, and geological makeup that the release of nuclear power has caused. The nuclear apocalypse not only causes destruction of the material world, it fundamentally distorts the concept of morality and other values that define humans and that distinguish them from animals, the nuclear double whammy that wreaks havoc in a universal way.

W. G. Sebald's depiction of the interplay between nature and mankind suggests that humanity's intention to invent destructive weapons is a counter-reaction to nature's destructive threat. Sebald claims that nature forces destruction as a universal principle on mankind. Nuclear fiction portrays both aspects of destruction, the immediacy of the nuclear explosion and the long-winding aftermath of nuclear contamination, lasting eons and reminiscent of Sebald's description of nature's slow destructive perseverance. While the biblical apocalypse shows man as a sinner who is to suffer for his moral corruption, it does not divest mankind of its status as creation's crowning glory. Nuclear fiction,

however, often depicts humanity as deprived of its former state of humanness and humaneness and thrown back into sheer animal life.

Many authors of nuclear fiction rely on religious locutions taken from the Bible and other religious writings. They invoke the fantasies of the end of the world in the Book of Revelation. Works of nuclear fiction that followed closely in the wake of Germany's alleged *Stunde Null* (the *Zero Hour*) rely heavily on Christian imagery and religious number symbolism. Religious imagery at times seems archaic in nuclear fiction, but is a means to express the inexpressible in lack of a more forceful and dramatic language. It can also be regarded as a literary rite to humanize the nuclear apocalypse and to give it a face that can be comprehended.

Nuclear fiction's worst-case scenarios, although filled with apocalyptic imagery, admit that the modern doomsday is a disenchanted event. Nuclear fiction toys with the biblical concepts of apocalypse but it abstains from insinuating that deeply felt religious beliefs in doomsday and Armageddon could be connected to the nuclear apocalypse. Wherever spiritual thoughts are at work in nuclear fiction, they serve as a stopgap measure to temporarily bridge the spiritual void that the advent of the nuclear age has created. Frequently in nuclear fiction, the religious language of doom and desperation is juxtaposed to a different jargon, often influenced by science and modernity. This shows a serious clash between two worlds, the oxymoron of the old and the new that is a common issue in nuclear fiction, a hybrid, torn between the old and the new, the religious and the disenchanted.

There is a strong desire for carnal joy in the face of death in nuclear fiction. The opportunity to really live it up before one has to pass on, unbridled by social norms and

moral impediments, is not only a common theme in catastrophic literature but is frequently used in texts of nuclear fiction. Sexuality becomes an indicator for human frustration, destroying its main features, romantic love and reproduction. The laws of evolution are mainly rendered useless after the atomic apocalypse. Furthermore, the end of humanity's ability to love exposes sexuality as a shere act of violence, void of any redeeming function.

The previously established distinction of engaged and disengaged nuclear fiction is also caused by different inspirations for the apocalypse that these texts portray. Texts which take the catastrophe at face value as a real event and base their fictional description especially on events of the Second World War, in particular the nuclear bombings of Japan (from the late 1940s to the early 1970s), mostly belong to the strand of engaged nuclear fiction. Texts which see the catastrophe as a well thought-out mind game, inspired by the politics and the discourse of the Cold War and using irony and cynicism while regarding the possible catastrophe as a fait accompli (from the 1970s onward), strongly tend to fit into the description of disengaged nuclear fiction.

Nuclear fiction does not shy away from portraying the human suffering, the naked animal fear and the unmitigated cruelty of the morally and conceptually devastated survivors who either become insane or return to the Darwinian concepts of the survival of the fittest, thus severing all ties to former human qualities.

German nuclear fiction often lacks the adventurousness and suspense of classical science fiction literature. While especially American or English science fiction writings have an unbroken optimistic trust in the abilities of technology and science, in German literature technology mostly leads to disaster, destruction and chaos and almost never

offers up the chance for a better future. Authors of German nuclear fiction tend to be more distrustful of technology, the closer their texts are to the end of the Second World War. Nuclear fiction also remains dissatisfying for the reader who expects elements of suspense as they appear in science fiction. The apocalyptic scenarios in nuclear fiction and the torture that it exerts on the reader are programmatic. Although many texts build suspense – very often in the form of a countdown – it is not meant to be a truly enjoyable form of suspense.

Although the nuclear apocalypse is portrayed as a global phenomenon, the actual plot of most pieces of nuclear fiction remains limited to one or a few locales. Not surprisingly, German authors see Germany at the center of the apocalypse. Nuclear war or a nuclear accident starts on German soil, often triggered by the failure of Cold War strategies. The rationale of the Cold War clearly informs these texts as Germany serves as the powder keg of an escalating Russian and American conflict. By choosing locales that are based in German-speaking or European countries or that are fictitious countries reminiscent of German or European landscapes and civilizatory phenomena, authors of nuclear fiction seek to make the danger of a nuclear apocalypse more vivid and more relevant for German-speaking readers. Pieces of nuclear fiction that in turn depict the nuclear apocalypse in other regions of the world mainly do so based on history's account but less so for effecting dramatizations or immediate emotional closeness. Nuclear fiction that deals with Hiroshima, Nagasaki, the bombings at Bikini or in North American deserts, tends to be more restrictive and sparser with literary fantasy. These real historical events have infused the writers with awe and have stifled their literary imagination. Nuclear fiction responds to historical theories that aim at predicting the future or at

establishing a cyclical or periodical thinking. It rejects the postulate that the *posthistoire* is the end of all history. Furthermore, it undermines the idea of a positive outlook on the end of traditional history as expressed by thinkers like Hegel or Fukuyama.

Nuclear fiction contains what I call an apocalyptic triple jump. The portrayal of the nuclear apocalypse consists of three discrete basic parts: before, during and after the catastrophe, or prequel, turning point, and sequel. The turning point, the nuclear strike proper, is the most dramatic event but also the hardest to mold into a convincing narrative. Its brevity and magnitude defy literary elaboration and embellishment. The prequel can be used for classical suspense building. It is the most conventional part of the triple jump in terms of literary imagination. The sequel is the most imaginative part and demands the most originality and inventiveness from the authors. It cannot be taken from history, remaining literary speculation. The apocalyptic triple jump serves as a scale for interpreting nuclear fiction. Most works do not cater to all three steps equally. Rather, their focus is often lopsided to either end.

The authors of nuclear fiction harshly criticize the conditions of twentieth-century industrial culture, envisioning the world after an atomic catastrophe as a severe aggravation of previously existing destructive phenomena in the present. Thus, the industrial society and its destructive elements foreshadow the face of the post-nuclear world in miniature. The atomic bomb is seen as the embodiment of more than a century of modern industrial development. Although Western society sees the sacrosanct nature of individuality as one of its cultural pillars, nuclear fiction, however, shows how this protective focus on individuality can be endangered or even lost quickly during the nuclear apocalypse.

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Nuclear fiction points to the impasse that traditional strategy and logic have reached in the nuclear age, demonstrating that traditional concepts of war and warring no longer apply and are no longer able to resolve or defuse the nuclear threat. Nuclear fiction claims that the nuclear age inflicts mass damage and mass trauma and has left human strategy in its wake.

Niklas Luhmann separates the terms "risk" and "danger" as two different concepts that cannot be used interchangeably. Whereas danger enters society as an uncontrollable force from the outside, risk comes as a defined force from within a society. Nuclear fiction not only opposes Luhmann's claim of the mutual exclusion of the two terms. They are now simultaneously present within the context of the nuclear apocalypse. Nuclear fiction also reduces Luhmann's concept of staggered multi-level observation to a crippled first-order observation and a non-existent second-order observation in its narratological structure: the nuclear age brings about a loss of perspective and destroys the order that the process of narration bestows on the texts.

Nuclear fiction attempts to tie together the irrational with strategic techniques. The role of the traditional narrator is renegotiated in a context where a story cannot be credibly told anymore by a human being who is also the victim of a universal nuclear apocalypse. The texts of nuclear fiction create insecurity and uncertainty, harnessing literary techniques like intercutting, the rhetoric isolation of the narrator, and the emulation of extreme time warps, illogical verbal moves, absurd language switches, or the sabotage of narrative authenticity by the juxtaposition of various deviating accounts

with each other. The diary, a frequent narratological element in nuclear fiction, enables the narration of a nuclear war story in incremental steps.

Many early pieces of nuclear fiction from the 1940s to the 1960s are realized as theatrical plays or are otherwise often more short-spoken, conservative, and stylistically more pregnant than their successors. They strongly work with symbolism in order to avoid kitsch through nuclear special effect. Nuclear fiction creates hybrids between two or more genres such as classical novel-length pieces with dramatic passages (e.g. Kirst, *Keiner kommt davon*), dramatic pieces with lyrical (e.g. Gong, *Die Stunde Omega*) or epic influences (e.g. Kipphardt, *In der Sache J. Robert Oppenheimer*), epic pieces with essayistic components (e.g. Guha's *Ende* or Grass's *Die Rättin*) or even philosophical treatises with literary influences (e.g. Anders's writings). It also utilizes unorthodox narrative strategies in order to torpedo notions of security in the reader.

Nuclear fiction, although it does not completely reject traditional narrative strategies that create suspense and keep the reader involved in the development of nuclear war, nonetheless refuses to grant closure to the story of humanity's nuclear destruction. The open ending and the tangible inability and unwillingness of the authors to bring an end to such an endless and irreversible process infuse the reader with long-lasting psychological disturbance.

Nuclear fiction draws a history of war and warring, showing that its inherent logic has changed dramatically from the philosophy of reasonable war in the nineteenth century through the expansion of recklessness and the concurrent decrease of rationalism during World Wars One and Two and eventually the possible Third World War in the nuclear age. Most texts retrace the history of (mostly European) war as one that has been

marred by the gradual loss of inhibition and eventually express a deep-seated fear of further escalation. The term "total war" – "Totaler Krieg" – warrants special attention. Authors of nuclear fiction frequently point out the link between the concept of total war during the Nazi era and in the subsequent nuclear age. Nuclear fiction suggests that the term has now reached its maximum destructive capability and its maximum mode of escalation. While Clausewitz regarded total war as a taboo last-ditch attempt that infringed on the laws of war and on the efficacy of warring in general, the term has turned into the only valid war concept in the nuclear age. It has thus been accepted as an integral part of our times.

The sudden chain of events in nuclear fiction that trigger the unstoppable apocalypse is the propelling force in fictional accounts. The mysteriously inherent logic of this concatenation is the force majeure that fuels the nuclear apocalypse. Most authors abandon the presence of human logic in favor of a new force that thwarts human enterprises. This is no longer a traditional divine apocalyptic force but the vague idea of an anti-logic that responds to human logic in that it annuls and turns around human rationality. Anti-logic is not a concept, though, that rejects logic as a force in general. Rather, it is a logical system directed at undermining and destroying human logical thinking and any actions based on it.

#### Outlook: The Future of Nuclear Fiction

Even though the Cold War has officially come to an end, its fears of a nuclear apocalypse have lived on and have undergone a transformation in the latest outburst of apocalyptic fiction since 9/11. Contemporary German-speaking authors like Kathrin Röggla, Tanja

Dückers and Lutz Seiler have expressed their interest in the links between the Cold War and its apocalyptic fantasies and the new millennium. In her 2006 treatise *disaster*, *awareness*, *fair*, Röggla states that the nuclear age – the "phantasma der atomkatastrophe" (7) – is central to her generation. Röggla argues furthermore how the nuclear age has spawned what she calls the "katastrophengrammatik" (50) – a powerful language of its own through which the nuclear age speaks to us.

In Röggla's 2009 lecture "Gespensterarbeit, Krisenmanagement und Weltmarktfiktion," the authors links the catastrophic of the nuclear age to the new economy and shows how it has been broadened into an emerging totalitarian concept that does not need the atom bomb any longer – a nuclear economy, so to speak: "Die Katastrophenbewältigung ist nicht mehr alleine an den Ausnahmezustand gebunden, sondern ist in den unternehmerischen Alltag gerutscht … Die Zeitlichkeit der Katastrophe bestimmt den wirtschaftlichen Takt, wir stehen unter dem Diktat des plötzlich Hereinbrechenden" (20)

In *Dialektik der Aufklärung*, Adorno and Horkheimer had called the progression of historical negativity a "Lawine," (250) a forceful avalanche that adapts its shape to the ground underneath as it advances and buries its victims along the way. One might wonder if authors like Kathrin Röggla have picked up on the avalanche's power to metamorphose into new shapes. Cold War fantasies of the "plötzlich Hereinbrechende[s]" are now part of our daily routine and not exclusively tied to war anymore. The avalanche that penetrates nuclear fiction seems to crop up in new places. Maybe it is now time to get our philosophical snow shovels out and dig our way out of this avalanche. But that, of course, would only work if the avalanche came to a halt.

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