

Nature's Revenge: The Ecological Adaptation of Traditional Narratives in Fifty Years of German-speaking Writing

Axel Goodbody

ABSTRACT

Though the environmental crisis is far from being a mere discursive construct, cultural construction plays a crucial part in defining it. This paper examines four German novels written in the last fifty years which present the end of the world, or the fate of a city or individual representing Western modernity, as an act of punishment by nature for human transgression: Max Frisch's classic *Homo Faber*, Christa Wolf's response to Chernobyl, *Accident*, Franz Hohler's satire *The New Mountain* and Karen Duve's feminist bestseller, *Rain*. Each work exemplifies a particular approach to the topic, and together they reflect the development of its treatment over the last fifty years. Literary strategies including narratives dramatising possible scenarios of the future, the adaptation of religious apocalypse, Greek myths, historical and literary symbols and motifs, and the construction of a web of intertextual allusions are employed with the common aim of alerting readers to environmental dangers and motivating them to change their behaviour. Stories of nature's revenge have served as a medium for a counter-discourse to the hegemonic understanding of nature as a resource to be freely exploited.

KEY WORDS

German literature, nature's revenge, apocalypse, ecology, environmental crisis, fantasy, myth, intertextuality, Max Frisch, Christa Wolf, Franz Hohler, Karen Duve



It is striking how often one finds narratives interpreting either the end of the world, or the fate of an individual, as acts of an avenging nature in German literature (and films) from the last half-century. This paper examines four novels, one from the 1950s by the Swiss author Max Frisch, two from the 1980s by the East German Christa Wolf and the Swiss Franz Hohler, and one from the 1990s by the German Karen Duve. A comprehensive survey would necessarily include Günter Grass's major novel *The Rat* (1986) and Hans Magnus Enzensberger's epic poem *The Sinking of the Titanic* (1978), alongside less well-known works by Carl Amery, Günter Eich, Ulrich Horstmann, Walther Kauer, Jurij Koch, Günter Kunert and Christoph Ransmayr. However, each of the works chosen here represents a different approach to the theme, and together they reflect the development in its treatment over the period in question.

They raise a series of questions: What lies behind their scenarios of destruction and fantasies of nature's revenge? On the one hand, what concerns over real socio-political and environmental developments do they reflect, and what power structures do they seek to expose or reinforce? On the other, what culturally constructed preconceptions about our relationship with nature are they predicated on (or, alternatively, critical of), and what role does the working out of psychological processes of guilt and redemption play in them? Then there is the question of their social function. To what extent do they serve a useful ecological purpose, alerting readers to the danger of environmental destruction, furthering ecological consciousness and motivating them to change their behaviour? How do their authors avoid the pitfall of furthering a fatalistic attitude, in their depiction of a

seemingly inevitable disaster? Do they envisage alternative ways of relating to the environment, and how are these presented? Finally, what literary strategies are particularly effective? What have fantasy, myth, symbolism, intertextual reference and the adaptation of familiar religious, historical or literary narratives to offer in these fictional contributions to the environmental debate, how do they complement the facts and arguments of journalism and popular science? And how do these German, Swiss and Austrian texts compare with international writing on the environment over the same period? Do they show special characteristics, which can be attributed to either the particular socio-political situation in Germany, or which draw on German cultural traditions? I suggest some tentative answers to these questions in the following.

I. Nature's Revenge as a Literary Trope: Franz Hohler, *The Reconquest and The New Mountain*

Hohler's short story "Die Rückeroberung" ("The Reconquest") (1991) provides a convenient introduction to nature's revenge as a literary trope. Published in 1982 by the Swiss cabaret artist and writer Franz Hohler, it tells how the city of Zurich is invaded, first by birds, then by animals, and finally plants. Hohler's story starts with the writer sitting at his desk and seeing an eagle land on the TV aerial of the house opposite. His first thought is that it must have escaped from a zoo or aviary—though native to the Swiss mountains, eagles are not normally found in Zurich. Then he remembers the wings of a captive bird would have been clipped. By the time he has called his wife to join him, it has gone.

The eagle returns a few weeks later, and starts nesting with a mate. Soon sightings of other birds of prey are reported throughout the city. A pair of antlers is found in the city centre, evidently shed by a giant stag, and a few months later, a herd of deer is discovered by a jogger in a city park in the early hours of the morning. The authorities attempt to fence them in with electric wire, so as to avoid disrupting the rush-hour traffic, but the animals break out, and block the streets in their hundreds. When

they enter a multi-storey car park, they are surrounded and shot at by marksmen. However, most of them escape, and from then on they roam the city streets in groups of two or three. Hampered by the danger of shooting innocent bystanders, the police are forced to lasso them individually.

These relatively minor disruptions escalate in the everyday life in the city when first wolves, then bears enter the city and start attacking people. Poisonous snakes are found in Sunday newspaper stands and luggage lockers in the train station. Gradually people come to recognise they may have to learn to live with these animals. Some move away from the city. What really brings everyday life to a halt is a sudden surge in the growth of plants. Creepers invade the pavements and streets overnight, and smother houses and underpasses. The leaves of coltsfoot plants are now big enough to cover a parked car, mares' tails grow as tall as birch trees, and ferns put whole streets in the shade. The police and other civil authorities cease to function, the rule of law breaks down. By now the airport runways are blocked, stations and motorway exits overgrown.

The role played by coltsfoot, an unprepossessing weed with small yellow flowers, links Hohler's vision of Zurich in the future with earlier scenarios of nature's revenge. In the mid 1950s, the poet and radio dramatist Günter Eich had written a radio play entitled *Die Stunde des Huflattichs* ("The Hour of the Coltsfoot") (1991). Eich traced the fate of a small band of survivors after civilisation has been brought to a standstill by an invasion of giant coltsfoot. Writing at a time when nuclear testing in the Pacific was generating much public anxiety, he reminded his listeners of the fragility of our control over nature, and the danger of assuming the permanent survival and privileged position of the human species. Though his lesson for his contemporaries regarded the future of humankind, his choice of scenarios recalled the past, reflecting the landscapes of Germany's bombed-out cities in the years after 1945—ruins overgrown with nettles, dandelion, and coltsfoot.

I suspect that the invasion of Zurich by nature in Hohler's story, which is not explained or resolved, reflects the youth protests, demonstrations and riots which shook the city between 1980 and 1982,

challenging public attitudes and forcing the authorities to change their policies on housing, drugs and cultural facilities for young people. But the narrative is also open to other interpretations. Zurich, one of the most discreetly affluent centres of world capital, is characterised by Hohler in another story published in the same volume, "Der Halstuch" ("The Neckerchief") (*Rückeroberung*: 57–75), as a city of guilty secrets, responsible for laundering money (including Jewish property appropriated by the SS during the Second World War) and financing the destruction of the environment. Hohler's image of the city as a sea monster sitting at the end of the lake, its tentacles reaching out into the world, extracting money from disorder and social injustice (Hohler 1991: 57f), suggests the blinkeredness of the affluent society towards the consequences of modernisation, and its blindness to forces which it will not be able to ignore in the longer term.

Hohler expanded and broadened his critique of modern civilisation, Swiss society in general and Zurich politicians in particular, in the novel *Der neue Berg* (*The New Mountain*) (1998). Here it is earthquakes and a volcano which threaten and ultimately destroy his home town. Rational, scientific reasons for this unlikely event are hinted at—a tectonic weakness may have been activated by seismic shocks caused by tunnel building connected with the city's constantly expanding suburban railway, the construction of a new shopping centre, or even test drilling further away to investigate a possible sink for radioactive waste (*Berg* 140f., 170f). But the volcano is really a surreal image for unacknowledged subterranean forces capable of sweeping away our cities and exposing the falsities they are founded on. Hohler attacks media manipulation, ugly commercialisation and simulated authenticity (146–48) as well as treatment of the environment as a resource to be ruthlessly exploited. A further target is the proverbial lethargy and unimaginativeness of Swiss bureaucrats, whose provisions for public safety in an emergency are ridiculed.

The fissures in the earth's surface which are the first signs of the impending catastrophe are first discovered by Roland Steinmann, a technician working in the local TV station. He lives in a soulless suburb

north of Zurich, “an unhappy mix of city and country which can only be described with the foreign word: agglomeration” (9). The disturbed nature of the local landscape, with its refuse incineration plant, shopping centre, nearby airport, its polluted river, channeled streams, sewage purification plant, and temporary housing for immigrants, is reproduced in the damaged relationships, loneliness and mental and physical ailments of its inhabitants. The children especially suffer from disturbed behaviour, allergies and asthma. The story is then a dramatisation of the “everyday catastrophes” of modern civilisation (169, 233).

The tension mounts: cracks in the ground widen, a sulphurous steam is found rising from them, and things come to a head over the Whit weekend, when many of the authorities are away on holiday. The eruption of the new volcano at the end of the book, which devastates the city and causes 20,000 to 30,000 deaths, is witnessed by Steinmann and his neighbour Monika from the safety of nearby hills (430). They have left the city on their bicycles, and now look back, in a scene reminiscent of the Book of Genesis, where Lot and his wives and daughters escape Sodom and Gomorrha, and see them “destroyed by brimstone and fire from the Lord out of heaven” for the unnatural sins of their inhabitants (Genesis 19), and of the pious old couple Philemon and Baucis in Ovid’s *Metamorphoses*, who survive the flood brought by Jupiter and Mercury over the hard-hearted people of Phrygia who had denied them rest and shelter.

The New Mountain is a provocation and a warning to Hohler’s readers: he suggests it is possible to change public consciousness, if the representatives of the media (Roland Steinmann) work together with environmentally and socially concerned politicians (Christoph Portmann), and if we are prepared to make a radical change in our way of life. Hohler’s perspective is, however, a one-sided one. He gives little insight into real political or ecological conflicts of interest, heroising environmental activists, and presenting the political and scientific authorities as either weak or corrupt. His emphasis on intuition rather than reason is also problematic: Steinmann derives the impetus for his action from a dream, which he describes as “a kind of

information which, so to speak, has not come via the usual worn-out channels" (411). In short, this is an entertaining book which conveys a serious, but not particularly insightful or original message in the form of an exciting story. It provides role models for ecological awakening in readers and makes its points effectively with satirical verve.

Hohler's novel is situated at the more fantastic end of German literary scenarios of nature's revenge, and contrasts with more realistic and explicitly environmental ones such as Anton-Andreas Guha's *Der Planet schlägt zurück* (*The Planet Strikes Back*) (1996). Written in the form of a diary starting on the eve of the millennium, Guha's book is, however well intended, little more than thinly fictionalised journalism. A compendium of environmental problems from global warming to the hole in the ozone layer have been competently researched, and their future consequences are extrapolated from current trends into a disaster scenario. More readable and exciting is Frank Schätzing's recent eco-thriller *Der Schwarm* (*The Swarm*) (2004). But Hohler's imaginative approach, in which invasion by animals and plants, or volcanoes, representing an irruption of the unexpected and secretly dreaded in our lives, may still be read as a challenge to anthropocentrism when more factual works like Guha's have become dated. His stories also acquire a certain suggestive power by echoing some of the oldest narratives of human transgression and divine punishment in Western culture, including the Biblical flood and the Apocalypse.

II. Apocalypse as an Environmental Master Narrative

Lawrence Buell has written in his study of Henry David Thoreau and the American environmental imagination, one of a handful of books which established Ecocriticism as a literary approach in the 1990s, that "apocalypse is the single most powerful master metaphor that the contemporary environmental imagination has at its disposal" (Lawrence Buell 285. See also Frederick Buell 2004 and Killingsworth and Palmer 1996). Pollution, both chemical and nuclear, the eutrophication of lakes, acid rain, the hole in the ozone layer, excesses

of carbon dioxide leading to global warming, and, last but not least, the “population bomb” have been described, not only in fiction, but also in countless works of non-fiction, as leading to the collapse of modern civilisation, and even the extinction of the human species. Underlying many fictional scenarios is the idea of nature, or the planet, as an organism wreaking vengeance on humankind for its mistreatment. This echoes ancient narratives of divine punishment for transgressing religious taboos and moral norms. If, as Greg Garrard has recently argued in the introduction to his *Ecocriticism*, it is the job of the ecocritic to examine the rhetorical structures and imagery of environmental discourse in order to throw light on the ways in which social consensus is shaped by ideology and rhetoric (3), catastrophism and apocalypse are prime subjects for ecocritical examination.

“Catastrophe” and “crisis” are, Garrard reminds us, cultural rather than strictly scientific phenomena. They are *concepts* with which events or situations are interpreted, relying on the presence of a particular set of values, models and norms. The presence of low-level radiation or DDT or BSE is a neutral scientific fact: it is journalists and writers who see barriers as having been passed and fundamental turning points having been reached. Though environmental crisis is far from being a mere discursive construct, cultural construction plays a crucial part in defining it. The distinctive structure of apocalyptic narratives that inflects much environmentalism today can be traced back to at least 1200 BC. However, the Biblical apocalypses, in particular the Book of Revelations, have dominated Western imagination. The prospect of an imminent end of the world was particularly popular in the two centuries around the birth of Christ, and a new literary genre emerged, designed to stiffen the resolve of the embattled community by providing a vision of sudden and permanent release from its captivity. In this underground literature, the consolation of the oppressed and persecuted, the day of judgement, is accompanied by violent destruction in a titanic struggle between the forces of good and evil. Corrupt and oppressive regimes are overthrown, and the righteous are installed for eternity in a New Jerusalem.

The 18th century saw two crucial developments in apocalyptic

narratives. The first was the secularisation of apocalyptic scenarios, that is the relocation of the power to punish the misdemeanours of humankind from the gods to the natural world. The second was the challenge to belief in divine providence and its secular equivalent, Enlightenment teleology, by pessimistic scenarios of the future. Jean-Jacques Rousseau's two *Discourses*, written in the middle of the century, were a powerful denunciation of "progress." What Klaus Vondung has called the "cropped" or "truncated" apocalypse (12), reflecting an absence of faith in a new start after the destruction of the old world, began to appear after the French Revolution, and gained ground increasingly in the late 19th and early 20th century.

Divorced from its religious origins and even its original function of consolation, apocalypse became a rhetorical structure freely available for use in a range of contexts. Its essential characteristics are totality and irreversibility: emotions are stirred up and as black a picture as possible painted in order to bring home the need for a radical change of consciousness. The assertion of imminent danger and the threat of catastrophic consequences—with the implication that reform is pointless, since the situation must deteriorate into complete destruction before a genuine change can be affected—are accompanied by moral heightening and a tone of absolute authority.

III. The German Propensity to Apocalypse

Klaus Vondung writes in his study *Die Apokalypse in Deutschland (Apocalypse in Germany)* of "a fundamental leaning towards the apocalyptic world view" which has shaped German political movements and ideologies over the last two centuries (10f). Apocalyptic visions have indeed been popular in times of historical change and crisis in Germany, on the political left as well as the right. They play a central role not only in the diaries and speeches of Joseph Goebbels, but also in the writing of Karl Marx, Friedrich Engels and Ernst Bloch. The apocalyptic trope is featured importantly in the writing of German philosophers from Friedrich Nietzsche to Oswald Spengler and Ludwig Klages, in the work of composers such as

Richard Wagner, and countless German artists and writers.

These apocalyptic leanings have traditionally been linked with the strong German strain of cultural pessimism, which is explained, at least in part, by socio-political circumstances in the last third of the nineteenth century, when Germany's late and rapid industrialisation, urbanisation and economic development, secularisation, the introduction of new forms of technology and the destruction of traditional forms of social cohesion demanded an often agonising adjustment (see Bennett 2001). Facing the rise of a new elite of businessmen, engineers and other specialists, the old academic and professional middle classes interpreted the erosion of their status in terms of a general cultural crisis. The principal arguments of cultural pessimism were formulated in this period, not least by Nietzsche, whose "tragic vision" looked forward to the complete destruction of an effete and corrupt civilisation which had reduced human existence to a slow form of suicide.

In the first half of the twentieth century, cultural pessimism dominated German conceptions of history. Oswald Spengler's *Untergang des Abendlands* (*The Decline of the West*, 1918–22), which interpreted the age as rotten to the core, developed a cyclical theory of history and argued Western civilisation was nearing the end of its own cycle, struck a chord with a generation that had seen technological "progress" applied to the relentless slaughter of millions in the First World War. Sigmund Freud's view of history in *Das Unbehagen an der Kultur* (*Civilisation and Its Discontents*, 1929) was equally pessimistic: civilisation was inevitably rendered neurotic by the repressions required to ensure its survival. Cultural frustration accumulated and threatened to explode into aggression and self-destruction. Writing during the Second World War in American exile, Max Horkheimer and Theodor W. Adorno argued in their *Dialektik der Aufklärung* (*Dialectic of Enlightenment*, 1944) that the Enlightenment project of liberating humanity from servitude and superstition had not only failed its aims, but actually given rise to new, more powerful myths and more absolute forms of domination. Reason, they wrote, echoing the turn-of-the-century sociologist Max Weber, had degenerated into

instrumental rationality. The economic organisation of capitalist society was the final realisation of this process, which was accompanied by a creeping commodification of human relations and a "disenchantment" of the world.

Since 1945 German cultural pessimism has divided into different strands, in critiques of technology (Martin Heidegger, Günther Anders), the media and the culture industry (Adorno, Horkheimer, Enzensberger) and environmental degradation (Klaus Michael Meyer-Abich, Günter Nenning). When the optimism which accompanied the postwar Economic Miracle began to wane in the 1970s and 1980s, observations of environmental decline were compounded by fears of the nuclear winter resulting from a war between the superpowers fought, at least in part, on German soil. The early 1980s saw a veritable flood of apocalyptic visions. Indeed, Delisle writes of the two decades between the German Student Movement in 1968 and the Fall of the Berlin Wall in 1989 as being marked by a catastrophic mindset (15). The feeling that the end of the world was nigh was omnipresent in the press, on television, and in non-fiction writing, as well as being reflected in the work of East and West German, Austrian and Swiss novelists, playwrights, poets and film-makers (see Lilienthal 1996 and Bullivant 2002).

German creative writing and film on nature and the environment from the 1970s onwards thus responded to contemporary public concerns. At the same time, however, it participated in the particular German tradition of pessimistic and apocalyptic visions of the future and scepticism towards technology which I have outlined. It echoed literary contributions to this tradition such as the Expressionist poems of Jakob van Hoddis, Georg Heym and Georg Trakl, which crystallised fears and longings in the years leading up to and during the First World War. And its apocalyptic scenarios conveniently met the psychological needs of a generation overshadowed by feelings of responsibility for what had happened in the Second World War, by suggesting the ability to wipe the slate clean and allow national and personal guilt to be written off.

Yet, before concluding that apocalypticism is a habitual

pathological concern of the Germans, we should remember the nineteenth-century prophets of decline were by no means all German, and that cultural pessimism has been a central feature of international literary Modernism (see Kermode 1967). The dystopias of Samyatin, Huxley and Orwell show how the disillusionment with the kind of world that the philosophies of progress had bequeathed was not restricted to national boundaries or individual cultures. The technological disaster scenarios and visions of eco-apocalypse published in Germany in the 1970s and 1980s similarly reflect an international trend, even if this was particularly pronounced in Germany (see Frederick Buell 2004, the essays on English, American, French, Italian and Latin American texts in Grimm, Faulstich and Kuon 1986, and Krah 2004).

The following examples of the trope of nature's revenge adopt narrative strategies which complement Franz Hohler's fantasy scenarios discussed above: firstly, the adaptation and recasting of Greek myth (Frisch); secondly, the use of intertextuality and apocalyptic metaphor to structure reflections on a technical disaster (Wolf); and finally, a postmodern reconfiguration of the Flood, shifting the focus from anguished analysis to aesthetic pleasure (Duve).

IV. Reconfiguring Myths of Hybris: Max Frisch, *Homo Faber*

Homo Faber reflects anxieties about technology common in German-speaking writing in the late 1950s. These related specifically to nuclear testing in the Pacific and public debate on the stationing of nuclear weapons in Germany, but also reflected the transformation of the German landscape and Central Europe by post-war recovery and Adenauer's economic miracle. Frisch's novel challenges an exclusively rationalist approach to life, and asserts the importance of chance and intuition. It is not humanity as a whole, or the population of a particular city, on which nature wreaks its revenge for disregard and exploitation, but an individual. Walter Faber, a Swiss civil engineer living in New York and working for the United Nations on dam-building projects in the Third World, is a modern man, characterised (as his nickname

Homo Faber suggests) by faith in technology, modernity and progress. He is never far from machines, travelling in planes, cars and ships, accompanied by his electric shaver, portable typewriter and cine camera. He believes in their superiority over humans: "The machine has no feelings, it feels no fear and no hope, which only disturb The robot perceives more accurately than man, it knows more about the future, for it calculates it" (81). He holds we can plan and manage our lives, and scornfully rejects the idea of either a benevolent divine providence governing the course of events, or a preordained fate, insisting the future is simply a matter of the laws of probability. Everything has a rational explanation, there is no place in his world for mysticism or an imagination—which he regards as effeminate. The moon is no more than "a calculable mass encircling the planet, a matter of gravitation" (26). But his engineering mindset and strictly rational approach to life lead to disaster. The stomach pain and fits of nausea and fainting he is subject to from the start, but suppresses awareness of, are revealed as the first symptoms of cancer, and the novel breaks off with him about to be operated on, with a fifty-fifty chance of success.

The echo of the myth of Prometheus here is one of many mythical allusions in the book. The dichotomy of civilisation and nature in *Homo Faber* echoes the Nietzschean antitheses of Apollonian clarity and form on the one hand and Dionysian intoxication and release on the other, of patriarchal order and matriarchal earth cults. Other points of reference in the novel include Icarus and Oedipus. Just as Icarus flies too high, and crashes to his death in the sea after his wax wings melt, Faber's overreach is symbolised by an emergency landing in the desert on his way to South America at the beginning of the novel. He and the other passengers survive unharmed, but this is the first in a chain of accidents and chance encounters which lead him to commit incest with his daughter Sabeth (unknowingly, but not entirely innocently) and finally bring about her death. Faber's incestuous affair with his daughter is a reworking of the Oedipus myth—though the daughter has here been substituted for the mother.

Faber is guilty of neglecting the emotions, history, tradition, culture and moral and aesthetic values. His most grievous sin is the

over-confidence in rationality which leads, as Hanna, the mother of his daughter, formulates it, to the belief he can abolish time and overcome the ageing process: "My mistake lay in the fact that we technologists try to live without death. Her own words: You don't treat life as form, but as a mere sum arrived at by addition, hence you have no relationship to time, because you have no relationship to death. . . . My mistake with Sabeth lay in repetition. I behaved as though age did not exist, and hence contrary to nature. We cannot do away with age by continuing to add up, by marrying our children" (184f).

Faber's relationship with both women and nature undergoes a significant change in the course of the novel, suggesting, despite the uncertain and unpromising ending, the direction Frisch considered modern man must develop in if he is to survive. At the outset, where we see him in a casual relationship with a married American woman who means little to him, he is scornful of women as weak and "hysterical" and seeks to avoid emotional demands. However, Sabeth reminds him of the existence of love and the richness of sensual experience, and she awakens in him an appreciation of the beauty of nature, art, poetry and the imagination.

His constant urge to shave at the beginning of the novel, disgust at the hair his body produces (10, 29) and dislike of sweat (41) come to a head in an unplanned trip in the jungle in Guatemala. The heat, humidity and smell of putrefaction cloud the brain, sap his memory and make him lethargic (40, 43). The fertile, oozing swamp symbolises everything in nature which disgusts and frightens him: copulation and decay imply our own subjection to the cycle of birth and death: "What got on my nerves was the newts in every pool, a seething mass of newts in every one-day puddle—all this procreation, this stench of fertility, of blossoming decay" (54f). He describes "pools in the red of dawn like pools of filthy blood, menstrual blood, pools full of newts, nothing but black heads with jerking tails like a seething mass of spermatozoa, just like that—horrible" (74). The jungle is a monstrous female threatening to swallow up the male, an organic world capable of engulfing the technological achievements of modern civilisation.

Faber, whose position at the beginning of the novel is summed up

by the statement: "What we reject is: Nature as heathen idol! . . . We live technologically, with man as the master of nature, man as the engineer" (115), is forced by his chance meeting with his daughter, his incestuous affair, her death, his conversations with Sabeth's anguished mother, and not least by his own illness to change his life. He renounces flying, saying he now wishes to savour reality: "The wish to smell hay. Never to fly again. The wish to walk on earth. . . . Everything goes past as though in a film. The wish to grasp the earth" (212). He has learnt to treasure life (215), and to appreciate beauty and the uniqueness of experience, in the knowledge of the inevitability of his own death: "To be alive: to be in the light. . . . The main thing is to stand up to the light, to joy . . . in the knowledge that I shall be extinguished in the light over gorse, asphalt and sea, to stand up to time, or rather to eternity in the instant. To be eternal means to have existed" (216).

However, the uncertain outcome of the cancer operation with which the book ends suggests that Frisch has doubts whether humankind and civilisation can be reconciled with nature. Ultimately, the narrative is one of nature as female principle avenging Faber's offence against Sabeth and her mother. The insights into the problems of our relationship with nature, and the tentative perspective of an alternative in this densely structured novel are matched by few works of German literature in the following decades.

V. Technical Disaster as Secular Apocalypse: Christa Wolf, *Accident*

Christa Wolf's *Störfall. Nachrichten eines Tages (Accident: A Day's News)* (1987) traces her personal response to the accident in the nuclear power station in Chernobyl on April 26, 1986, which has led to the deaths of thousands and the long-term contamination of a large area of the Ukraine. Listening to hourly news bulletins about the disaster on the radio, watching television, and gardening, shopping, cooking, reading, writing letters and speaking to her neighbours, she articulates her feelings and explores the wider significance of the euphemistically termed "disruption of normal operation" (a more accurate translation of

the German title) in Chernobyl. The accident has deprived Wolf of her confidence not merely in Soviet technology—her reference to news of the accident as “THE NEWS” in capital letters contrasts it ironically with the news of Jurij Gagarin’s successful first manned space flight in her earlier novel, *Der geteilte Himmel* (*The Divided Heaven*, 1963)—but also in science and invention in general. Indeed, it has shattered her faith in the socialist perspective of a future communist utopia, in progress and the future of the human species: “That goal in a very distant future toward which all lines had run till now had been blasted away, was smouldering, along with the fissionable material in a nuclear reactor” (9).

Wolf does not dismiss technology out of hand. Her thoughts alternate between “those kinds of technology whose hellish danger is part and parcel of their very essence” (27) and the benevolent technology of the doctors who, by chance, are operating on the same day on her brother in a Berlin hospital to remove a brain tumour. She comments, half ironically, on the difference between nuclear radiation and the thought waves through which she believes she is communicating telepathically with her anaesthetised brother. Nonetheless, she seems to be wishing that the surgeons probing the lobes of his brain could excise that elusive part in which the restless drive behind modern civilisation is situated, the destructive and aggressive human urge to invent things such as the so-called peaceful use of nuclear technology (31f and 36).

Wolf’s bleak views on the future of humanity are grounded in both cultural criticism and profoundly pessimistic reflections of human neurophysiology and anthropology. Modern civilisation is at fault, inasmuch as we have lost the values of modesty and frugality held by former generations (16). In several passages Wolf touches on the feminist critique of patriarchy developed in her earlier work, *Kassandra*. Male obsession with invention and destruction is contrasted with life-preserving, nurturing, caring female activities (38). Men are themselves the victims of modernity: the ability to recognise and express their emotions has been driven out of them, leaving them incapable of love and open to an obsessive preoccupation with

technology as a substitute (39).

The glimpses of an alternative way of life in Wolf's book, involving a balance between masculine and feminine qualities, are far outweighed by pessimism. With the acquisition of language, man has irretrievably lost his animal instincts (99). Wolf quips that perhaps dolphins were once offered the gift of speech, and declined, enabling them to preserve their playful existence and kindness to others (107). The human brain seems in any case to be hard wired such that we are condemned to live out aggressive urges which we have inherited in the process of evolution (47, 58). Man's brain, characterised by "immense excess energy" and "permanent excitement" (36), is simply too large (47). The manic-destructive hyperactivity of certain centres of the brain has led us to evolve ever new desires and to demand products satisfying them (80). Something has gone fundamentally wrong with evolution, she argues, quoting the astronomer and scientific populariser Carl Sagan, leaving the satisfaction of desires coupled with compulsion to destroy (73). The human race may ultimately have been an error of evolution: "Some branches of the vertebrate family tree have led to dead ends. It remains to be seen whether that branch which resulted in the human being will also lead to a dead end" (52).

At several points in the book, Wolf hints that the nuclear accident, which she thus sees as a logical and perhaps even unavoidable consequence of human development, is nature's revenge for our excessive development. She imagines the radioactive cloud, "wandering about angry and evil, in search of a weather situation which allows it to rain itself out" (45). And she reflects on the possibility of the existence of a God who has not created the world, and does not rule it benevolently, a strange, unknown God located in our own brains, rather than in the world outside or the heavens above. This abyss within us (46), this dark side of our nature (82), is a source of profound disquiet.

The crisis is at its most profound when it occurs to Wolf that, through her writing, she is herself implicated in the process of analytic, destructive modernity (55f). Language and reason have freed us from the limitations of the animal world, but in the process led us down a

path of self-exploitation, depriving us of real living (91). Reading the Biblical story of the Tower of Babel, Wolf reflects on the link between scientific hubris and language, and the world view we share.

Chernobyl stands for technical disasters in general, and Wolf compares it implicitly to the apocalypse, noting that the accident has coincided with the Christian feast of the Ascension, and likening it to the signs and portents mentioned in the Bible. This is, however, a truncated apocalypse, one bereft of hope for the future. Watching the sun set, Wolf feels that it is not so much beautiful as distant, foreign and unapproachable, and humankind is alone in space (95). The accident appears as a sentence on humanity pronounced by the pitiless law of nature.

She ends the day by reaching for a book to read in bed, and finds Joseph Conrad's *Heart of Darkness*. If, she reasons, he was able to plumb the depths of his age in his fiction and reveal its blind spot in exploitative colonialism, perhaps her own writing has a chance of breaking out of the conceptual prison of the ready-made linguistic formulations and thought-patterns of the times (99), and bringing to public attention the dangers to humanity which her premonitions and imaginative faculties conjure up (67). How, she asks herself, did Conrad succeed so admirably in identifying "truth, truth, stripped of its cloak of time" (118), and what means helped him to escape from the tyranny of concepts like "devices" and "effects." Wolf's book has been criticised for being devoid of literary shaping, written in a hurry to stimulate public discussion of the nuclear issue in a country where criticism of nuclear technology had hitherto been proscribed. (It is dated June to September 1986.) But leitmotifs, chains of metaphors and intertextual links give it a distinctive artistic unity. "Radiation," for instance, is a recurring motif. "Core" refers to the molten nuclear core of the damaged reactor, and the split atom, but also, figuratively, "the glowing core of our forbidden desires" (49), namely "our pleasure in splitting and smashing, in fire and explosions" (54). The cancerous growth in her brother's brain is similarly referred to as the "core of all evil" (25), and she comments that she has consigned the passions which led to a bitter childhood struggle with her brother to "that crater deep

down in each of us which serves as a deep depository for unacceptable radioactive feelings" (98). "Blind spot" and "heart of darkness" are related motifs which recur throughout the novel.

Accident is also given artistic coherence by its literary intertextuality. As well as references to contemporary writers on radiation (from Wolfgang Weyrauch and Stephan Hermlin to Max Frisch), there is a web of wistful allusions to folk songs, poems and songs on the purity of nature. Wolf adapts two of the Grimms' fairy tales and draws parallels with texts on ignorance of the dangers of fascism (Brecht) and, of course, the blind spot of the age (Conrad). This network of associative links constitutes a literary form paralleling the holism which she implies is needed in place of the narrowness, division and fragmentation of modern life.

VI. Postmodern Apocalypse: Karen Duve, *Rain*

The exemplary punishment of Leon Ulbricht, the protagonist in Karen Duve's novel *Rain*, which was first published in 1999, illustrates the theme of nature's revenge in what may be described as a *postmodern* variant. The depiction of Leon and other men as despicable, and of women as better than and, linked as they are to the powers of nature, superior to them in strength, may be fundamentally serious, but Duve's treatment of the theme is very different to Wolf's. The former boxer, Hamburg brothel owner and gangster boss Benno Pfitzner and his henchman Harry Klammt are brutal tyrants, who callously exploit women, men and animals, and get their just deserts at the end of the book, when they are burned to death after raping Leon's wife, Martina. Leon himself, the spineless, self-centred journalist and would-be writer at the centre of the story, seems initially to be setting out on a journey of self-realisation—he moves out of Hamburg with Martina and buys a small house on the edge of a nature reserve deep in the East German countryside. Here he plans to write a book and start a family. However, he is reduced by incessant rain and chronic lumbago to a semi-vegetative state, and finally meets his death in the bog behind his house.

The two most significant female figures in the book are Kay and Isadora Schlei, Leon and Martina's neighbours on the edge of the bog. The Schlei sisters are caricatures of opposing factions within the feminist movement. Kay, a self-confident, masculine-looking woman with an interest in machines, is a dab hand at household repairs. She teaches Martina various practical skills, despite the latter's rejection of her lesbian advances. Isidora is presented as a mysterious mother-earth figure, who personifies the boggy landscape, fertility and sensuality. Our first glimpse of her is a naked figure, squatting in the bog, as if she were an extension of it, submerged up to her waist in a pool of water (82f). Elsewhere, her hair is described as long and black, with leaves and bark tangled in it (146). When Leon is invited into her bedroom, he finds her head is a four poster, whose uprights are roughly hewn branches, still clad in bark, like a giant plant growing up to the ceiling (149). What Duve describes as "the swamp and the peat and the rotting leaves, the canker and sodden bark and all the creepy-crawlies which lived in it, the moor frogs and water frogs, the common toads and aquatic toads, newts and olms and everything else that crawled around there and shat and reproduced, all the tadpoles and spawn and not least the rain, the endless rain which dissolved everything which got caught in the bog" (152f) has taken human shape in Isadora.

Duve is less concerned to challenge readers' preconceptions with a by now familiar ecofeminist message than to inflect it with irony and black humour. Among the most striking aspects of the book are passages involving playful intertextuality and grotesque exaggeration. There are, for instance, allusions to the Biblical narrative of the Flood at several points, but these are ironic rather than prophetic in tone. The apocalyptic seriousness of the first of the three mottos with which Duve prefaces the book, citing God's intention to punish sinful man with the Flood, is for instance immediately relativised by the second: "There is no such thing as bad weather, only the wrong clothes." A third motto, the assertion that "evil thrives in damp places," is flippantly ascribed to "Sister Mary Olivia."

The secret of Duve's success lies not least in her skill in postmodern double coding, that is the strategy identified by the

architectural theorist Charles Jencks of appealing to both popular taste and the concerned minority of professional experts, by combining modern techniques with traditional forms, thus simultaneously continuing modernism and transcending it (Jencks 14). Duve has succeeded in attracting a readership used to raunchy popular forms and social satire with her frank descriptions of sexuality and elements of slapstick, but at the same time she offers pleasure to an elite of more sophisticated readers through allusions to cultural motifs and literary symbols.

The most obvious sense in which the novel is a narrative of nature's revenge is that Leon dies at the end, smothered in the icy embrace of the bog. It is not clear whether the outline of Isadora he reaches towards in the surface of a bog pool is more than a phantom conjured up by his half-erotic, half-childlike longing to regress to the mother's womb. This is the final stage in a process whereby he loses the inclination and ability to have sex, is reduced by back pain to crawling like a frog (196), and puts on so much weight that he resembles a slug. There is an echo of Kafka's Gregor Samsa in *The Metamorphosis* where Leon is compared with a giant beetle, a swollen body with thin arms and legs (211 and 231). The motif of punishment is reinforced by references to the Flood and the story of Sodom and Gomorrah (73, 198). The clouds of insects which immediately appear and reproduce noisily, seemingly singling out Leon for their attention, similarly recall the Egyptian plagues (199, 201, 208).

Throughout the novel, it rains unceasingly, reaching a climax towards the end in a torrential downpour followed by a dramatic storm. Leon's house subsides and breaks apart, its foundations having been undermined by rising ground water. Water, which is characterised as the female element and associated with Isidora (105, thereby linking her with forebears such as the mermaid-like French folktale figure Melusine, the German Romantic Fouqué's Undine, and Hans Christian Andersen's Little Mermaid), softens and dissolves the "solid" male (the bath water renders Leon's body soft and effeminate) (207, 283) and erodes the veneer of modern civilisation and rationalism. Duve here reverses the evolutionary sequence of a swamp stage of culture, in

which every creature devoured every other and communication was by means of symbols, via an age of matriarchy and myth, to logical, patriarchal society which is outlined in Johann Jakob Bachofen's *Das Mutterrecht* ("Mother Right," 1861). But far from idealising nature, she delights in disgusting the reader. Isidora, who is described as "a body without muscles—like a white slug" (155), begins her seduction of Leon by taking up a bucket of slugs which Martina has picked off the plants in the garden, and tipping it over him. When he throws one back at her, she eats it (218).

Leon's idyllic conception of life in the country at the start of the novel as a calmer, more serious and worthy alternative to the merciless rule of the strongest, most agile and brutal in the bars of St. Pauli (25), and more generally, to Hamburg, city of materialist superficiality, is exposed as utterly false. The bog behind his house, which is described as wild and jungle-like (85, 296), is invested with a complex of metaphorical values, and associated with the unconscious, imagination and death. Like the jungle in *Homo Faber*, it is a concretisation of the female principle, of fertility and the natural cycle of growth and decay, birth and death. It teems with amphibian and insect life, and breeds the slugs which invade Leon's garden and consume his young plants.

From his first sight of it, Leon is, however, fascinated by the bog. His wish to possess and control it is described in terms of a comically direct erotic intensity: "The sight of the bog filled Leon with helpless longing. You could deal with the beauty of a woman by sleeping with her. And a beautiful animal could be shot or bought or eaten. But what could you do with a landscape" (42). It is only logical that he should later succumb to the charms of Isidora, the elusive spirit of the bog, who appears out of it as if in response to an inner longing of Leon's (82f., 143). Sex with Isadora, Leon discovers, is like sinking his fingers into a soft paste or cake dough. She embraces him like a warm mist, trickles down him like rain water, yields like soft soil and rises again like the green juices in a plant. Her great hot body drinks him in, absorbing his fluids (152–54). Sinking into the bog at the end of the book is described in similar terms. A return to the source of all beings (88), it feels like being nestled against and sucked down: "How good it

was to be a decaying substance surrounded by decaying substances. Leon sank back into the womb of his true mother" (297).

VII. Conclusions

The literary presentation of catastrophes generates drama and the possibility of human interest, and one of the strengths of apocalyptic narrative is its ability to provide an emotionally charged frame of reference within which complex, long-term issues are reflected in practical conflicts between recognisably opposed individuals and groups. These examples show how narratives of nature's revenge in German prose fiction have served as a medium for a counter-discourse to the hegemonic understanding of nature as resource. They have challenged anthropocentrism, and in particular androcentric versions of anthropocentrism, i.e. versions privileging the male over the female. Despite leanings towards cultural pessimism, the overall thrust of Hohler's, Frisch's and Wolf's books is clearly to warn against the self-destructive forces in modernity, and to shock readers into action by exaggeration. Duve too seeks recognisably to promote a change of ecological consciousness.

However, the four authors share a preference for oblique approaches, either exploring the implications of events through suggestive juxtapositions or approaching them through mythical and biblical narratives. Though their novels are by no means free of totalising metaphors, they seek instinctively to avoid the more problematic aspects of apocalypse which led to increasing critique in the second half of the 1980s by commentators from Jacques Derrida to Susan Sontag. Was the inflationary exaggeration of apocalypse not perhaps an expression of an unwillingness to face the real challenges of the future? Did the apocalyptic perspective not have a crippling effect, spreading fatalism and blocking access to alternative solutions to our problems? Might it not work as a self-fulfilling prophecy? The Apocalypse is, as Greg Garrard has pointed out, traditionally associated with a social psychology of paranoia and violence, and extreme moral dualism dividing the world sharply into friend and

enemy (86). Rather than responding to the crisis, it tends to “produce” it (105). The use of rhetorical tools to whip up the sense of crisis to a proportion appropriate to the end of time has polarised issues, left little space for compromise, and devalued common-sense, pragmatic solutions.

Garrard has argued that use of the apocalyptic strategy must always be seen in terms of a play-off of its benefits as a rhetorical tool, in the interest of successful persuasion, against its long-term dangers. Drawing on Kenneth Burke and Stephen O’Leary, he distinguishes between “comic” and “tragic” apocalypses. These differ in their treatment of issues of time, agency, authority and crisis. While the *tragic* apocalypse conceives of disaster in terms of evil and guilt, followed by sacrifice and redemption, the *comic* conceives of it as error, to be followed by recognition and exposure of fallibility. Tragic time is predetermined, careering towards a catastrophic conclusion, while comic time is open-ended and episodic (86–89). The structural complexity of *Homo Faber*, *Accident* and *The New Mountain* precludes their simple classification as tragic apocalypses, but they can clearly be distinguished from predominantly “comic” works such as *Rain* or Enzensberger’s *Sinking of the Titanic*, or even from Grass’s *The Rat* (which embraces both the tragic and comic perspectives in the sustained dialogue between the eponymous rat and the narrator).

In the work of a series of German writers from Arno Schmidt to Peter Rosei and Matthias Horx, an inhumanism akin to that of biocentrism and deep ecology is detectable in scenarios of destruction as a purging from decadence and corruption, and in the dream of a world purified by human absence. Ulrich Horstmann’s essay, “Das Untier. Konturen einer Philosophie der Menschenflucht” (“The Un-Animal: Outline of a Philosophy of Flight from Humanity”) (1983), is an interesting example, for its call for us to acknowledge that our secret wish for the extinction of the human species is provocatively nihilistic. The revulsion against “posthumanism” is expressed more straightforwardly in Hans Magnus Enzensberger’s essay “Zwei Randbemerkungen zum Weltuntergang” (“Two Glosses on World Downfall”) (1982), and Michael Schneider’s book *Nur tote Fische*

schwimmen mit dem Strom (Only Dead Fish Swim along with the Current) (1984).

With the waning of the sense of impending doom since the mid 1980s, writers' and artists' interest in apocalypse has shifted. There has been a growing tendency to configure apocalyptic narratives in part-realistic, part-fantastic ways. In some cases, this has led to a return to the sublime, and a focus on the fascinating beauty of wild landscapes devoid of human trace. The Austrian Christoph Ransmayr begins and ends his novel *Morbus Kitahara* (1995) with images of nature avenging itself on a humanity which has brought about its own downfall and proved incapable of learning from its mistakes. However, he is less concerned to spur the reader on to action than to trigger an aesthetic catharsis. Karen Duve's treatment of the theme in the late 1990s also reflects the postmodern turn, but without subscribing to Ransmayr's melancholy fatalism. While adopting a stance of ironic detachment and expressing a consciousness of the problems associated with the trope of nature's revenge through grotesque exaggeration and symbolic heightening, she still writes from an unmistakably ecofeminist standpoint.

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“A Sort of America”: Ecology and History in Kim Stanley Robinson’s *Mars* Trilogy

Catrin Gersdorf

ABSTRACT

American science fiction and fantasy writer Kim Stanley Robinson’s *Mars* trilogy can be read as the epic story of post-catastrophic human life. This essay investigates the narrative intersections of history and ecology in *Red Mars*, *Green Mars*, and *Blue Mars*. On the one hand, the utopian significance of the trilogy manifests itself in the textual figure of the *landscape* which, as it changes its *gestalt* over the course of the trilogy, gestures toward possibilities of ecological rehabilitation and regeneration. On the other hand, the trilogy’s narrative trajectory, i.e., the imaginary history of conquest and settlement, heavily relies on the historical master narrative of America, including some of its ideological and racial blind spots, which jeopardizes the revolutionary implications of the ecological utopia.

KEY WORDS

science fiction, utopia, ecology, history, landscape, America



1. Introduction

Kim Stanley Robinson's monumental trilogy about the human colonization of Mars has been celebrated as one of the major literary science fiction events of the 1990s. Because of their overt critique of capitalism as "a version of feudalism in which capital replaces land, and business leaders replace kings," *Red Mars* (1992), *Green Mars* (1993), and *Blue Mars* (1996)¹ have attracted particular attention from critics on the left. Reviewing the novels for *Monthly Review* magazine in 1997, British historian John Newsinger (now senior lecturer at the School of Historical and Cultural Studies at Bath Spa University College) rejoiced:

At a time when the left seems to be on the defensive and in retreat just about everywhere, it is a cause of celebration to have a best-selling, award-winning fictional trilogy that celebrates humanity's ability to take control of its destiny and to establish a socialist community, a community and society organized to satisfy human needs, where diversity flourishes and it is possible for everyone to fulfill their full potential, free from the chains of class, race, and gender.²

Newsinger agrees with Robinson that in the post-Cold War era, "[I]t is very important not to throw the socialist baby out with the Stalinist bath water!" (143).

Gesturing in a similar critical direction, but perhaps with greater

authoritative clout, Marxist critic Frederic Jameson reads the trilogy as a successful literary exercise in reasserting the cultural power of utopian thinking. Drawing on the Althusserian concept of overdetermination,³ Jameson makes a point that Robinson's science fiction trilogy, although it elaborately rehearses "a host of topics that surely qualify as hard science,"⁴ should ultimately be read metaphorically: "we need to insist on the way in which any first scientific reading of the Mars trilogy must eventually develop into a second allegorical one, in which the hard SF content stands revealed as socio-political—that is to say, as utopian" (211). As a mode of thinking that finds expression in philosophical, literary, and artistic discourses which playfully examine alternative possibilities of social, political, and cultural existence, utopia remains a necessary component of postmodern intellectual culture—in spite of the fact that, as a result of its implication since the Renaissance in a history of colonization, subjugation, and ideological aberration, it has lost much of its historical and political credibility. Focusing on its socio-political dimensions, Jameson rehabilitates utopia by defining it "as a form [that] is not the representation of radical alternatives; it is rather simply the imperative to imagine them" (231). Like the university (another modern institution currently facing severe structural criticism, at least in Germany), although utopia has not outlived its cultural legitimacy, it needs to be re-invented or re-imagined as a location "enabling that most dangerous adventure called 'experimental thinking'" (Ulrich Beck).⁵

The emergence in the 1990s of ecocriticism as a methodology concerned with "the study of the relationship between literature and the physical environment"⁶ heralded an awareness among scholars of the correlation between the ways in which a culture *imagines* and *thinks* about nature and the ways in which it *inhabits* and *interacts with* its natural environment. SF and fantasy literature is a valuable source for obtaining a better understanding of this correlation. In the following paper, I want to examine Kim Stanley Robinson's *Mars* trilogy as a literary endeavor to renew the genre of socio-political utopia from an ecological perspective. Based on literary theorist Wolfgang Iser's assumption that fiction (or the fictive) is a playful, performative

figuration and concretization of the imaginary, I will concentrate my analysis on the narrative function of *landscape* as an articulation of a postmodern ecological imaginary that links the processes of history and ecology.

My critical interest in these problems is premised on a larger theoretical interest in the role art, literature, and, by implication, the humanities can play in processes of ecological modernization. That such processes are necessary can no longer be denied. The increasingly tangible effects of global climate changes, dwindling fossil resources, the volatility of nuclear power, the growing frequency with which “natural” catastrophes such as floods, droughts, heat waves and tsunamis occur world-wide, and screaming social and racial injustices between those who benefit from exploiting natural resources and those who are affected by the often hazardous environmental side effects of such exploitation—these are some of the most obvious indicators that we are in the midst of an environmental crisis. Robinson is acutely conscious of this. This awareness, combined with the author’s Blochian hope⁷ that a deficient present does not, by necessity, lead to an apocalyptic future, lends utopic propulsion to Robinson’s work.

2. The Narrative Network of Ecology and History

Red Mars, *Green Mars* and *Blue Mars* comprise a narrative that tells the imaginary history of roughly the first two-hundred years of human life on Mars. The first human contingent arrives on Earth’s closest planetary neighbor in the year 2027 after a nine-month (!) trip from Earth. They are the First Hundred, “an impressive group of experts in the relevant sciences and professions” (RM 27) who form the avant-garde of human settlers, and who “were crazy enough to want to leave Earth forever, but sane enough to disguise this fundamental madness . . . as pure rationality, scientific curiosity” (RM 27). At the time of their arrival, the Martian landscape exists as the double-image created by mythological projection and cosmological force. Robinson opens his saga with a brief account of the red planet’s symbolic presence in the human mind, for which Mars’ momentarily bright

presence in the night sky has always presented an object of epistemological desire. This human curiosity crested in the search “for signs of past or present Martian life, anything from microbes to the doomed canal-builders, or even alien visitors” (RM 3). Two chapters later, Mars’ coming-of-age as mytho-philosophical subject is juxtaposed with its actual coming into existence as a material object. The scientific imagination has represented the planet as the product of cataclysmic cosmic forces, of rocks banging, melting, exploding and being pressurized into a planetary whole, which was later showered with myriads of meteorites, all this forming a planet whose “landscape [is] a palimpsest of newer rings obscuring older ones” (RM 95), and crisscrossed by “flood channels, stream beds, shorelines, every kind of hydrologic hieroglyphic” (RM 95) left behind after “glaciers, streams, rivers, lakes” (RM 95) have long disappeared.

The arrival of humans in this primeval landscape as imagined in Robinson’s fiction will eventually turn out to be as cataclysmic in effect and proportion as the cosmic forces that created Mars in the first place. In order to emphasize this aspect, each book in the trilogy provides a map. Readers may disagree on the degree to which these cartographic aids really help to navigate unfamiliar territories. Disparities between maps and narratives are an old and familiar problem. However, these maps fulfill an important structural function within the trilogy, for they are a visual paraphrase of the narrative’s representation of human history as a gargantuan landscaping project. From the geo-cosmic palimpsest of *Red Mars*’ disorderly surface of meteor holes to *Green Mars*’ accentuation of mountain ranges, large crater holes (e.g. Hellas Planitia), and future shore lines and, finally, to *Blue Mars*’ definitive cartography of oceans, bays, fjords, inland seas, islands, mountain ranges, plains, highlands and major cities—these (and a few more additional maps inserted into the novel) represent the course of Martian history in cartographic terms, the transition of the planet’s surface from a landscape that speaks the “visible language of nature’s mineral existence” (RM 96) in *Red Mars* to the retro-pastoral scene of *Blue Mars* whose landscape is marked by “a patchwork of fields, orchards—irrigation canals and curving streams, lined by trees”

(BM 740), “wild” Alpine mountain ranges, settlements called Odessa, Cairo, Nicosia, and Montepulciano, and islands named after Kepler, Copernicus and Galileo. Reciting the historical translation of planetary topography into cultural geography, the maps underscore the structural importance and symbolic significance of space and its various figurations in Robinson’s novels. While these maps carefully register the transformation of the Martian landscape from primeval space to a geo-cultural place, the contours of political geography, as they manifest themselves in national borderlines, are conspicuously absent. I will return to this phenomenon later. At this point I would like to discuss in some more detail the trilogy’s narrative project of uncovering the correlation between the discourses of history and ecology.

The author employs two existing concepts—terraforming and *viriditas*—and makes them the metaphoric core of his Martian eco-utopia. Terraforming is a futuristic blend of literary conjectures, scientific thought experiments, and mathematical equations calculating physical conditions such as atmospheric pressure and CO₂-content. Terraforming names the assumption that ultimately it is possible to create an extraterrestrial, planetary biosphere capable of supporting human life.⁸ Narratively turning the idea of terraforming from speculative into “[a]ppplied science” and bio-transformative “technology” (GM 144), the trilogy validates present-day science as a tool for solving the ecological problems of planetary inhabitability and sustainability. In doing so, terraforming—the imaginary technology for the creation, or cultivation of inhabitable environments—is poetically imbued with historical meaning. Whether it results in the biospheric worlds of the tented towns of Green Mars (successful versions of the 1990s Biosphere 2, the sealed-off greenhouse in the middle of the Arizona desert in which scientist practiced extraterrestrial living) or in the breathable atmosphere covering the cultural landscape of Blue Mars—terraforming is the indispensable prerequisite for the continuation of human history on Mars.

The second concept, *viriditas*, ties Robinson’s Martian narrative to the other end of the historical spectrum—and solidly roots the story back into Terran soil. Translated into English as greening power,

viriditas came into prominence during the Middle Ages, when the German nun Hildegard von Bingen made it the key concept of her medical thought. Medical historian Victoria Sweet observed that for Hildegard, *viriditas* signified “the amazing ability of plants spontaneously to put forth leaves, flowers, fruits, and seeds” as well as “the obvious, but remarkable, capacity of human beings to grow, to give birth, and to heal.” In her analysis of Hildegard’s writings, Sweet concludes that the medieval nun assumed “an absolute identity . . . between the *viriditas* of plants and of people,” and between the practice of medicine and gardening.⁹

As a double metaphor, terraforming and *viriditas* simultaneously signify the historically productive power of ecology and the ecological driving force of human history. If terraforming is the quasi-divine technology that creates the life-sustaining exterior of human culture (the landscape of history), *viriditas* is the regenerative, reproductive life-force located in the mystical interior of all organisms. At the beginning of the trilogy, the two concepts are presented as opposites. Terraforming, most prominently embodied by Sax Russell, an unsentimental physicist and technician from Colorado and only marginally, if at all interested in the Red Martian landscape, starts working on terraformation as soon as he arrives. He embarks on some of his projects—the installation of windmills on the surface and of reflective mirrors in Martian orbit to raise the planet’s atmospheric temperature—in spite of the expressed disapproval of other members of the First Hundred. Sax’s reliance on machines as terraforming tools is juxtaposed with the bio-engineering methods preferred by another of the original Mars colonists, Hiroko Ai, an expert ecosystem designer originally from Japan. Like Sax, Hiroko is a strong-willed and somewhat eccentric character. A latter-day Hildegard, she becomes the matriarchal leader of a community whose members create a self-contained, bio-engineered world, carving their domed home into one of the polar ice-caps. The focusing of Sax’s scientific work on surface and orbit, and Hiroko’s disappearance into a sub-surface (or underground) existence repeats and underscores the initial juxtaposition of terraforming as the technology of the exterior and

viriditas as the (bio-)technology of the interior. In *Green Mars*, the trilogy's middle volume, however, this contrast is deactivated.

After the failure of the First Martian Revolution—which broke out, when political relations between the Martian colony and the home planet Earth deteriorated because Terran powers did not recognize Mars as “a nation” but treated it as “a world resource” (RM 516)—Sax, like many others, was forced to go underground and found refuge in Hiroko's alternative community. There, he finally realizes that Hiroko was “sympathetic to the basic goal of terraforming, and indeed her own concept of *viriditas* [was] just another version of the same idea” (GM 143). Sax finally became “confident that [Hiroko] too desired a Martian biosphere that would support humans” (GM 144). Against the background of a failed revolution and with a Mars that is more and more subject to the insatiable Terran hunger for mineral resources, Sax also realizes that the creation of a sustainable biosphere is no longer merely a scientific challenge but has become a matter of both physical and political survival. In a conversation with Ann Clayborne, a geologist, adamant preservationist, and tooth-and-claw opponent of *any* mode of terraforming,¹⁰ Sax insists:

The transnats can operate from tent cities, and mine the surface robotically, while we hide and concentrate most our efforts on concealment and survival. If we could live everywhere on the surface, it would be a lot easier for all kinds of resistance. (GM 147)

With the last sentence, Sax not only *politicizes terraforming as an act of resistance* against those human interactions with the environment that Val Plumwood characterized as being marked by high levels of “remoteness” and “dissociation”¹¹; he also consolidates the narrative's insistence on the existential correlation between an ecologically imbued epistemology and the history of political emancipation. In the light of this performative textual strategy, the landscape described in the concluding chapter of *Green Mars* as a terrain “dotted by scattered low plants, mostly tundra moss and alpine flowers, with occasional

stands of ice cactus like spiky black fire hydrants," and as an environment inhabited by "midges and flies" (GM 610) is more than just an aesthetically pleasing sight. It becomes a utopian symbol that measures the historical level of political and social emancipation.

Not surprisingly, Frederick Buell characterized the trilogy as speculative fiction's most serious "attempt to transmute postmodernism, a movement usually antienvironmental in character, into something genuinely Green."¹² However, Buell criticizes Robinson for the ultimate failure of his Martian utopia to "provide a model for earthly ecological reconstruction" (279) on the grounds that the alternative, ecologically imbued society envisioned by the author is located on another planet. I see Buell's conclusion as too literal a reading of a text solidly anchored in a genre—science fiction—whose narrative authority rests on strategies of (spatial) defamiliarization and estrangement. The characterization of Robinson's Martian utopia as an expression of ecological escapism and as a work that ostensibly diverts the reader's attention from pressing environmental problems down here on Earth remains unsatisfactory, because by implication such a reading simplifies the relationship between the fictive—according to Wolfgang Iser the medium in which the imaginary finds "a tangible *gestalt*"¹³—and the real. Since the Earth in Robinson's trilogy is as much a fabricated reality (*eine fingierte Realität*) as Mars; and since, as such, both planets are located within the textual horizon of the fictive rather than the experiential horizon of the real, the act of reading becomes a mode of figurative terraforming, which transforms an uninhabitable, alien territory into a terrain that is adapted to the vital needs of the human species (which includes a large diversity of other species with whom humans live in a state of co-dependence).¹⁴ For in order to survive in and make sense of the narrative space of Martian history, the reader has to translate the language of the original Martian landscape into a language inspired by the eco-cultural life support systems of Earth. As Sax insists at the end of *Green Mars*: human existence on Mars "will never be out of danger until Earth is calm. Is stabilized" (GM 622). Mars and Earth are codependent imaginary systems, with Mars signifying the ecological and political status of the

Earth.

However, like Buell, I am reluctant to unreservedly celebrate Robinson's *Mars* trilogy as a valuable "model for earthly ecological reconstruction." Yet the problem is lodged elsewhere, not in the extraterrestrial setting but in the seeming absence of familiar forms of the political on the map of *Blue Mars*. In the concluding section of this essay I will argue that the trilogy, although it gestures towards Mars as a post-national space, ultimately subjects the narrative of an ecological utopia to the historical paradigm of empire and presents Mars as "a sort of America" (BM 235).

3. The Narrative Paradigm of American History

Robinson's *Mars* trilogy belongs to a genre with a well-established international market and a decidedly international audience; and it focuses on subjects—the interdependence of ecology, democratic politics, and the course of human history—that are neither American in scope, nor can they be exclusively addressed in terms of the national, at least not in any meaningful way. Robinson honors these contextual aspects by drafting the colonization of Mars as an international project: the First Hundred are a group of international scientists; immigration to Mars, which commences a couple of decades after the First Hundred's arrival, is from all parts of Earth; and the crises that cause large-scale immigration from Earth to Mars—a Malthusian population surge and natural catastrophes—are described as global problems. Moreover, after the meta-narrative opening section in which the author rehearses "the history of Mars in the human mind" (RM 2), the trilogy's plot begins with a speech in which John Boone, "The First Man on Mars" who speaks with "a friendly Midwestern accent" (RM 5), beseeches a rapt audience to understand that the project of Martian settlement "wasn't like submarining or settling the Wild West" (RM 4). The semiotic paradoxes inscribed into this description are readily apparent: not only does John Boone's name clearly echo that of Daniel Boone, the legendary 18th-century American mythologized as "an explorer of unmapped spaces,"¹⁵ John's speech is

also marked by the accent of the region that his historical namesake opened up for US settlers. Readers familiar with this aspect of American colonial history will immediately become skeptical about the narrative truth of the claim that the fiction of Martian history fundamentally differs from the master narrative of US-American history. And indeed, throughout the trilogy, Robinson strategically employs references to major paradigms, concepts, and representative figures of US-American political and cultural history as instruments for the narrative self-authorization of his imaginary historiography.

The designation of English as the Martian *lingua franca* is an act "to accommodate the Americans" (RM 37) among the First Hundred; the narratively visible majority of that group is American, or even more accurately, white American, the Russians comprising their counterparts, with three of the other major characters, originally from France, Japan, and Trinidad, as token presences in an ostensibly multicultural, multiracial group of settlers. In this context, it is important to notice the culturally conservative character of the text's racial politics: While the trilogy's white characters are predominantly scientists, engineers, political visionaries, and diplomats, thus representing the scientific and political rationality, non-white characters such Hiroko Ai (Japanese) and Desmond "Coyote" Hawkins (Trinidad) may start out as scientists but eventually gain prominence in the narrative as disembodied or semi-disembodied mythological figures who represent powerful but mystical forces. This representational division between white as the color of rationality and black as the color of the "dark continent" of the cultural unconscious reinforces the political and cultural power differential inscribed into American history.

Addressing a similar problem from a somewhat different angle, Walter Benn Michaels critically comments on the narrative reinvention of Martian settlers as Natives, observing that

. . . the colonization of Mars (unlike the colonization of the Americas, or of Australia or of Africa) really is the colonization of empty space—those who call themselves natives are just the sons and daughters of the colonists. So to characterize the struggle of the

Martians as anticolonial is in effect to imagine a colonialism whose only victims are the colonists. This is like telling the story of the American Revolution and making sure once again that the Indians get left out, or rather (in classic American fashion), redescribing the colonists *as* the Indians, turning the children of Terrans into “the indigenous people of Mars.”¹⁶

In addition to such implicit forms of neo-colonialist inscriptions, Robinson punctuates his narrative with more explicit references to the political and ideological struggles of Anglo-American history, alluding to debates about mass immigration and turn-of-the-twentieth century Nativism, the dominant perception of unsettled territory as a social and political safety valve and as cultural frontier, the ideological conflicts between wilderness preservationists and resource developers, the negotiation of conflicting interests in the American constitutional congress, and the call for a Martian Lincoln who has both the political clout and stature to maintain or re-construct the ‘nation’s’ political union.

Let me conclude by saying that as a reader who was drawn to *Red Mars*, *Green Mars* and *Blue Mars* as novels that have been received and described as a major contribution to an ecocritical literary canon, I found the trilogy filled with a host of challenging ideas and was pleasantly surprised by its gender politics, which allow ample space for powerful women characters, a trait still not often found in most science fiction novels. However, I find the narrative trajectory of the trilogy’s racial and cultural politics dissatisfying in that it reinforces rather than resists the narrative dominance of Anglo-American, as opposed to, say, African American or Mexican American history. And while the paradigmatic references to US-American history do not invalidate Robinson’s proposals for shifting the ways we think about the interrelationship between history, ecology, and democracy, the framing of utopic ecological thinking in the pre-dominantly Anglo-American terms of the master narrative of US history limits the ideological scope and the political validity of a literary work that claims to address global problems. In that regard, Robinson’s *Mars* trilogy confirms an observation Ernst Bloch made more than half a century ago:

Die Nachbarerde Mars reflektiert in den Bildern der analogischen Einbildungskraft, welche sich auf sie richtet, geradezu den Stand, auch Rang der jeweils auf der Erde herrschenden "Amerika"-Utopien (*Das Prinzip Hoffnung*, Bd. 2, 916).

For Bloch, fantasies of Martian settlement reflect the utopian dream of America. This dream has always been measured against the social, political, and imaginative realities of race and territorial expansion, an approach that strongly recommends itself for critical readings of ecological utopias.

NOTES

¹ Quotations will be from the following paperback editions: *Red Mars* (New York: Bantam Spectra, 1993), *Green Mars* (New York: Bantam Spectra, 1995), *Blue Mars* (New York: Bantam Spectra, 1997). Quotes will be marked in parentheses in the text and abbreviated RM, GM, and BM, respectively, followed by the page number. The quote in this sentence is from BM, 143.

² John Newsinger, "Red Mars," *Monthly Review* (Dec. 1997). Online: http://www.findarticles.com/p/articles/mi_m1132/is_n7_v49/ai_20348065 (May 14, 2005).

³ Originating from Freudian psychoanalysis, the concept describes the fact that any single element in a dream can be referred back to multiple factors in the dreamer's real life. Althusser applied this concept to Marxist political theory where it describes the multiplicity of historical, social, psychological, and cultural contradictions within a society leading to revolutionary rupture. See Louis Althusser, "Contradiction and Overdetermination" (1962), trans. Ben Brewster. Online: <http://www.marxists.org/reference/archive/althusser/works/formarx/althuss1.htm> (May 14, 2005).

⁴ Frederic Jameson, "'If I find one good city I will spare the man': Realism and Utopia in Kim Stanley Robinson's *Mars Trilogy*"; Patrick Parrinder, ed., *Learning from Other Worlds: Estrangement, Cognition, and the Politics of Science Fiction and Utopia* (Durham: Duke UP, 2001) 208–32. Quote 208.

⁵ Ulrich Beck, "Wider den McKinsey-Stalinismus in der

Hochschulpolitik." Qtd. in Günter Altner and Gerd Michelsen, "Hochschule im Feldversuch." *Politische Ökologie* 93 (April 2005): 9–12. "Als Antwort auf die Welt globaler Gefahren—Weltbürgerkriege, Klimakatastrophen, Aids, Terrorismus, Weltwirtschaftskrisen—müsste Humboldt 2 auch wieder ein Ort werden, an dem das höchst gefährliche Abenteuer des 'versuchenden Gedankens' ermöglicht wird" (11).

⁶Cf. Cheryl Glotfelty and Harold Fromm, eds., *The Ecocriticism Reader: Landmarks in Literary Ecology* (Athens and London: The U of Georgia P, 1996) xvii.

⁷ Robinson acknowledges his philosophical indebtedness to Ernst Bloch and his philosophy of hope by naming one of the Martian settlements "Bloch's Hoffnung" (BM 378).

⁸ For a more detailed description of the emerging science of terraformation, see Robert Markley, "Falling into Theory: Simulation, Terraformation, and Eco-Economics in Kim Stanley Robinson's Martian Trilogy," *Modern Fiction Studies* 43.3 (1997): 773–99.

⁹ Victoria Sweet, "Hildegard of Bingen and the Greening of Medieval Medicine," *Bulletin of the History of Medicine* 73.3 (1999): 381–403.

¹⁰ The next generation of uncompromising preservationists "regarded terraforming as nothing more than part of the imperial process" of Martian colonization (GM 365).

¹¹ Val Plumwood, *Environmental Culture: The Ecological Crisis of Reason* (London and New York: Routledge, 2002) 71–74.

¹² Frederick Buell, *From Apocalypse to Way of Life: Environmental Crisis in the American Century* (New York and London: Routledge, 2003) 275.

¹³ Wolfgang Iser, "Toward A Literary Anthropology," in *Prospecting: From Reader Response to Literary Anthropology* (Baltimore and London: The Johns Hopkins UP, 1989) 277.

¹⁴ In this context see also Gabriele Schwab's theoretical reflections on "reading as an experience of otherness" and as a form of cultural contact in *The Mirror and the Killer Queen: Otherness in Literary Language* (Bloomington: Indiana UP, 1996), particularly 1–46.

¹⁵ <http://www.americanwest.com/pages/boone.htm> (May 22, 2005).

¹⁶ Walter Benn Michaels, "Political Science Fiction," *New Literary History* 31.4 (2000): 649–64; 659–60.