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Conclusion: Dark Mirrors? German Science Fiction in the 21st Century

Ingo Cornils

Abstract This concluding chapter explores the dominant paradigm of contemporary German SF, but it also anticipates, and argues for, new directions. German SF in the 21st century tends to see the dystopian form as the ideal vehicle to explore the social and psychological consequences of scientific and technological progress. There is no point in denying that the 'dystopian turn' reflects the mood of our time, and that the first two decades of the new millennium have given rise to fears and misgivings about increasingly porous boundaries, conceptual paradigm shifts, and persistent global challenges that make our scientific and technological advances feel hollow. At the same time, one may wonder whether the endless depiction of depressing futures in recent SF may not in fact yield diminishing returns in terms of the intended warning function and instead convince its audiences to give up hope altogether. In this chapter I look at recent German SF novels (Thomas von Steinaecker's *Die Verteidigung des Paradieses* and Sibylle Berg's *GRM: Brainfuck*), to analyze why and how they establish their dystopian worldview. But, in contrast to most of the contributions to this volume, I am also looking at the green shoots of positive visions (Tom Hillenbrand's *Qube,* Andreas Brandhorst's *Die Eskalation,* Judith and Christian Vogt's *Wasteland,* and Andreas Eschbach's *Eines Menschen Flügel)*. These give us glimpses of "concrete utopias" even as they contemplate the destructive impact of human activity on our planet. I argue that these latter works demonstrate a radical rethinking of the purpose of writing SF in the 21st century, offering a "progressive fantastic", and a new hope.

The title of this concluding chapter owes its inspiration in equal parts to East German science fiction (SF) writer Erik Simon's 1983 short story "The Black Mirror," the dystopian satirical TV series *Black Mirror* (2011–19), a book about 21st century surveillance practices (Gellman 2020), and a verse in the first epistle to the Corinthians in the New Testament.[1] The "dark mirror" is, of course, a metaphor for the means through which we choose to perceive ourselves and the world around us. It implies that what we are seeing, or what we are being shown, reflects our reality, but in a darker, more disturbing, but also distorted, and therefore limited form.

[1] "For now we see through a glass, darkly; but then face to face: now I know in part; but then shall I know even as also I am known." (1 Corinthians, Chap 13, verse 12)

German SF in the 21st century, as the essays in this volume demonstrate, tends to see the dystopian form as the ideal vehicle to explore the social and psychological consequences of scientific and technological progress. However, in its seemingly inexorable move towards the (post-)apocalyptic, and in its appetite for bleak nihilism, it risks jettisoning the joyful celebration of human potential and losing its capacity to generate the "awe and wonder" associated with imaginative SF of the Golden Age (which was created against the very real dark background of World War II). There is no point in denying that SF reflects the mood of its time, and that the first two decades of the new millennium have given rise to fears and misgivings about increasingly porous boundaries, conceptual paradigm shifts, and persistent global challenges that make our scientific and technological advances feel hollow. At the same time, one may wonder whether the endless depiction of depressing futures in recent SF (as discussed in most contributions to this volume, but also the focus of most critical studies of SF of late) may not in fact yield diminishing returns in terms of the intended warning function and instead convince its audiences to give up hope altogether.

In this concluding chapter, I look at some of the most recent German SF novels, to analyze why and how they establish their dystopian worldview. But I also look for the green shoots of more positive visions, which can give us glimpses of "concrete utopias" even as they contemplate the destructive impact of human activity on our planet. I argue that these latter works demonstrate a radical rethinking of the purpose of writing SF in the 21st century, offering a "progressive fantastic", and a new hope.

1. The Apocalyptic Desire

Readers and viewers of SF from the last two decades may be forgiven the conclusion that the case for the consciousness-raising function of dystopias as showcases for preventable futures (Sargent 1994; Moylan 2000; Balasopoulos 2006; Claeys 2016) has finally run into the buffers of reality, with the apocalyptic or post-apocalyptic now the dominant form in literature, multiplexes, and on streaming services, in visions of the future where hope is simply not an option. In German literature, the embers of the "dystopian turn" (Moylan and Baccolini 2003, 3) were smoldering well before the new millennium, even though 9/11 with the ensuing "war on terror," the global financial crisis, climate change, pandemics, as well as the rise of populism have acted as an accelerant. Earnest scenarios were served up in Franz Werfel's *Stern der Ungeborenen* (*Star of the Unborn*, 1946), Ernst Jünger's *Heliopolis* (1949), and Arno Schmidt's *Die Gelehrtenrepublik* (*The Egghead Republic*, 1957) as well as in later works such as Carl Amery's *Der Untergang der Stadt Passau* (*The Downfall of Passau*, 1975), Thomas Ziegler's *Die Stimmen der Nacht* (*Voices of the Night*, 1984), Gudrun Pausewang's *Die Wolke* (*The Cloud*, 1987) and Christoph Ransmayr's *Morbus Kitahara* (*The Dog King*, 1995). These dystopias reflect

the traumata and anxieties of the 20th century: the shock of WWII and the Holocaust, the likelihood of a nuclear confrontation between the USA and the USSR, the fear of environmental disasters, and of a re-emergence of NS ideologies. In the past two decades, reflecting new anxieties and fears, German mainstream writers (i.e., writers who normally steer clear of SF) have discovered the genre and delighted in offering their readers disturbing glimpses of the future.[2]

Thomas von Steinaecker's *Die Verteidigung des Paradieses* (*The Defence of Paradise*, 2016) is a perfect example of how traditional SF themes of the apocalypse and the last man have found entry into the literary mainstream, gaining broad acceptance amongst publishers and glowing reviews from critics. The author revels in beautiful sentences and evokes elegiac moods that appeal to those partial to the purple haze of a Wagnerian twilight of the gods. The novel follows its 15-year-old protagonist Heinz and a small group of survivors who have fled a poisoned and devastated Germany and try to make a meagre living up in the mountains under a protective 'shield.' Heinz is determined to rescue the remnants of civilization before they are lost forever: he collects words and writes the history of the last man. When rumors speak of other survivors in a refugee camp somewhere in France, and their shield collapses, Heinz and his motley crew set out to find them.

On the one hand, *Die Verteidigung des Paradieses* can be read as an extreme version of Cormac McCarthy's post-apocalyptic novel *The Road* (2006), pimped with zombies, drones, AI pets and public executions. On the other hand, it is a reflection on the value of writing, of creating reality through imagination. As Heinz records humanity's literary heritage (reminding the reader of the humans who memorize by heart 'classic' literary works in Ray Bradbury's *Fahrenheit 451* [1953]), we learn that he is in fact not a human at all but a biotechnologically created human machine hybrid. The question is whether a novel that ultimately goes nowhere but turns the apocalypse into 'art' can sustain its original purpose, that of warning its readers against taking the wrong turn. Von Steinaecker refuses to explore the reasons for the catastrophe (Climate Change? War? Pandemic?) or engage with science and technology other than filling his cast with a mixture of human, nonhuman, and posthuman actors. I would argue that in such a case, the meditation over the age-old riddle "what is man?" loses its relevance if there is no future for humanity, and that the end-of-days scenario loses its impact given the indifference of the survivors. While von Steinaecker skillfully extends the motif of the downfall of humanity (and its gods) familiar to German audiences from the medieval Nibelungen epic and Richard Wagner's Ring cycle, he makes no discernible effort to explore pathways to prevent the apocalypse.

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[2] For example: Thomas Lehr's *42* (2005), Joachim Zelter's *Die Schule der Arbeitslosen* (*The School of the Jobless*, 2006), Christian Kracht's *Ich werde hier sein im Sonnenschein und im Schatten* (*I will be here in Sunshine and in Shadow*, 2008), Dietmar Dath's *Die Abschaffung der Arten* (*The Abolition of Species*, 2008), Juli Zeh's *Corpus Delicti* (*The Method*, 2009), Benjamin Stein's *Replay* (2012), Reinhard Jirgl's *Nichts von euch auf Erden* (*Nothing of You on Earth*, 2013), Valerie Fritsch's *Winters Garten* (*Winter's Garden*, 2015), or Karen Duve's *Macht* (*The Prepper Room*, 2016).

Sibylle Berg's *GRM: Brainfuck* (2019) has also received rave reviews from German literary critics. She depicts a deeply dystopian near-future Britain where Brexit (cf. Oltermann 2019), turbo-capitalism, social deprivation and moral depravity have created a miserable world: "It was the time when the real cruelty of human beings was joined by the virtual one, when the yearning for empathy had turned into the rage of the ignorant" (6).[3] Berg's brutal tale is focusing on the 'surplus population' ("a sewer of the useless, a pool for the not-gene-modified rejects", 8). The book follows the lives of four young people: the angry, martial-arts-obsessed Don(atella); the traumatized Polish boy Peter; Karen, a girl with albinism; and Hannah, an orphan from Liverpool. What unites them is their hatred of their lived reality, their love of grime (or GRM)—a rap music style that has replaced punk as the music of the angry and dispossessed—and their determination to get revenge on the people responsible for their misery. They have grown up with rape, violence, poverty, class prejudice, perversion, prostitution, racism, anxiety, drugs, and suicide. About halfway through the novel, they decide to leave their broken homes and move to London, where the 'surplus population' is kept under control by chip implants and constant electronic surveillance. It is at this point that the narrator fires a sarcastic broadside at the all-pervasive nature of un-authentic modern life:

> What does it do to humans if nothing can be touched anymore, everything fake maybe. Not real. Will the human then become fake himself, and can only return to reality if he blasts a chip in his cortex? Thinking atrophies because it is too hard. Empathy withers since anger rises within a split second when you are online. Frustration grows, because life offline is so slow and boring. The fucking net has become the Leni Riefenstahl of the world. A space for idiocy, hatred, manipulation, and frustration.
> So, everything is going brilliantly. Time for the next stage. (210)

The next stage, as it turns out, is the demise of humanity. The feeble rebellion of the kids ends as they lose their sense of rage, and the Artificial Intelligence EX 2279—created to keep the surplus population subdued and under control—takes over, rescuing the planet by switching off fracking plants, stock exchanges, and crypto currencies, but also the government of, and the life support for, the human population that depends on it.[4]

It would take a major effort to see a light at the end of the tunnel after reading this novel. Is there a vision for the future behind the cynical observation that there is no future? The AI may have saved humanity from itself, but there is little evidence to suppose that Berg sees a space for a subversive utopia in the interstices of the

[3] All translations of German original texts are mine.

[4] Barbara Korte and Christian Mair (2021, 2) point to the many ways the AI's role in the novel can be interpreted: "[the] artificial intelligence pervades the novel even before readers become aware of its presence—and, arguably, not only through the character profiles. Many reviews of the novel noted its strange narrative tone in which even seemingly internal passages are always overlaid by an authorial voice. This might be the voice of a heterodiegetic narrator (or perhaps even a metaleptic presence of Berg as author, as a literary grime MC performing a 600-page novel), but perhaps it is also the voice of the AI."

perfect dystopia. Rather, the final sentence—"An almost perfect moment. In a wonderful, silent, world." (634)—feels like a fatalistic farewell to a world that humans simply do not deserve.

Ursula März (2019), writing in the German weekly *Die Zeit* argues that *GRM: Brainfuck* does not fit the traditional mold of dystopian SF. Instead, she sees it as a realistic, if extremely dark extrapolation of the present. But such an argument reveals the continuing divide between 'serious literature' and 'genre literature' in the minds of German critics. Berg may well strike a blow for the underclass, yet despite her obvious sympathy for her marginalized protagonists, the reader is caught up in a quagmire of hopelessness, caustic bolshiness, and sneering aloofness. And yet, März, one of Germany's most respected literary critics, not only gives her the benefit of the doubt, but praises her work as 'great literature':

> Through her apocalyptic prose we can hear another, early Christian tone. It is the tone of a prayer. If one had to sum up *GRM* in two sentences, it would be a screamed "Fuck it!", and a softer "Take pity on them, for they are children!" In addition, we have a political statement: "Fucking take care of this Europe, otherwise, and in the not-too-distant future, it might look like the one depicted in the novel."

The question such generous readings raise is whether authors like von Steinaecker or Berg, when they address technological change (quantum physics; artificial intelligence; genetic engineering) geopolitical challenges (climate change; migration; terrorism), and their impact on society, expecting the worst, merely aestheticize the dystopian future, or whether they, as "unacknowledged legislators of the world" (Percy Shelley, *The Defence of Poetry*, 1821) are able to match our techno-scientific progress and its social, political, economic and cultural consequences with an adequate moral and ethical toolkit. In other words: are we clear about the function and likely impact of modern literary dystopias? Are these texts increasingly feeble Cassandra-warnings in an uncontrollable world, maybe even cynical comments by a globally networked generation of authors cheerfully testing the limits of their readers' masochism while shirking their responsibility as purveyors of meaning? Or are they still, against all evidence, attempts to give language and meaning to a constructive way to face the future?[5]

Other German critics have so far managed to keep a wary distance to post-apocalyptic narratives. In his history of German SF, Hans Esselborn (2019, 11) fights a rear-guard battle over the distinction between "texts purely written for entertainment" and "literary more interesting texts" which in his view remain true to the German tradition of the *Zukunftsroman* (novel of the future) and its faith in scientific progress and a utopian future. By putting texts by authors like Andreas Eschbach and Frank Schätzing in the first drawer and texts by Herbert Franke and Dietmar Dath into the second, Esselborn is able to ignore the dystopian turn in SF. Dath himself, who has become a prolific writer of SF but has also recently published a meandering theory of SF (2019), puts forward a similar distinction, selecting and praising the genre for what it can do (i.e., to think the world anew) while giving

[5] I suggest the term *Zukunftsbewältigung* for this endeavor (Cornils 2020, 1–12)

short shrift to those works (incl. most recent German SF) that do not fit his Marxist approach (cf. Vint 2014, 37–54).

In current political discourse (which is mirrored in the dystopias discussed above), the increasingly rapid transformations taking place tend to be seen as a threat, in that climate change, globalization, migration and digitalization will inevitably lead to mass unemployment, social fragmentation and polarization. In techno-scientific and economic discourse, the view is markedly different. Here, the development of artificial intelligence and genetic technology is regarded as a 'game changer' and an opportunity to disrupt rigid social structures. While these seemingly utopian narratives are spun by Silicon Valley and major research institutes, they are notably absent from current SF.

2. German Science Fiction at the Crossroads

Indeed, German SF, as *the* popular mode that traditionally engages with techno-scientific advances and its consequences, has tended to side with the Cassandras in the last two decades, with a particular penchant for 'climate fiction' (Milner and Burgmann 2018), such as Wolfgang Jeschke's *Das Cusanus Spiel* (*The Cusanus Game*, 2005) or Frank Schätzing's *Der Schwarm* (*The Swarm*, 2005). In their grim visions, authors cognitively and emotionally confront us with an uncertain future, ostensibly in the hope of creating awareness of the risks of new technologies and a certain resilience in the face of impending doom, but, quite unapologetically, to entertain us.[6] Just as their mainstream colleagues discussed above, these writers share a dystopian expectation that has become the 'new normal': the standard premise is that climate change will be irreversible and wreak havoc around the world, that digitalization will lead to ubiquitous surveillance and the loss of privacy for the individual, all leading up to a collapse of human civilization.

The irony is that while authors like von Steinaecker and Berg are often praised by literary critics for their *Sprachmächtigkeit*, i.e., their ability to couch the destruction in poetic language, they and their SF-writing colleagues are rarely called out for endlessly repeating and anaesthetizing their readers with their defeatist message. But if they do not offer any hope or any solutions, should we not call their texts what they are, namely anti-utopias (cf. Moylan 156f.; James, 2003)?

Juli Zeh's *Corpus Delicti. Ein Prozess* (*The Method*, 2009) is one of the most noted German dystopias, required reading in high-schools and regularly performed in theatres. Zeh (2020) has recently published a collection of answers to some of

[6] Recent examples from Germany include Tom Hillenbrand's *Drohnenland* (*Drone State*, 2014), Marc-Uwe Kling's *Qualityland* (2017), Andreas Brandhorst's *Ewiges Leben* (*Eternal Life*, 2018), Frank Schätzing's *Die Tyrannei des Schmetterlings* (*The Tyranny of a Butterfly*, 2018), Bijan Moini's *Der Würfel* (*The Cube*, 2018), Andreas Eschbach's *Nationales Sicherheits-Amt* (*National Security Ministry*, 2018), Theresa Hannig's *Die Optimierer* (*The Optimizers*, 2017) and *Die Unvollkommenen* (*The Imperfect*, 2019), as well as Raphaela Edelbauer's *Dave* (2021).

frequently asked questions. In defense of her choice of the dystopian form, she explained that she saw it as a political act, in that dystopias were not offering any prognoses or predicting the future, but rather pointing to critical developments in the present. For her, the future space offers the literary freedom to highlight and exaggerate certain developments and thus make them more visible (Zeh 2020, 102). Asked why she didn't write literary utopias, she responded that, as long as society is united in thinking that the task of designing our future mainly consists of preventing the worst, dystopias will dominate the literary world as well (Zeh 2020, 123).

It's not as if this feedback loop between Zeitgeist and literary production hasn't been noticed. In 2017, Jill Lepore forcefully attacked the fashion for dystopian narratives:

> Dystopia used to be a fiction of resistance; it's become a fiction of submission, the fiction of an untrusting, lonely, and sullen twenty-first century, the fiction of fake news and Infowars, the fiction of helplessness and hopelessness. It cannot imagine a better future, and it doesn't ask anyone to bother to make one. It nurses grievances and indulges resentments; it doesn't call for courage; it finds that cowardice suffices. Its only admonition is: Despair more.

Other academics are more circumspect, trying to hold on to the belief that post-apocalyptic literature still has the power to warn and educate society. But they begin to see the flaws in the argument. For example, Katerina Houfkova (2019, 63) acknowledges that dystopian narratives have an entertainment function: "the reader expects to *enjoy* this kind of fiction." Mathias Thaler (2019), while paying lip-service to Tom Moylan's dictum of the emancipatory role of dystopias, subtly edges away from it. He concedes that dystopias often contain anti-utopian elements, and that these in turn entail comprehensive critiques of utopianism itself: "without the inclusion of a hopeful perspective, dystopian narratives may indeed engender a sense of fatalism, eroding the counterhegemonic force of social dreaming." Thaler's (2019) conclusion, that, after realizing dystopian narratives increasingly demonstrate "relentless negativity," we should appreciate their working through the catastrophic failures of the past and retain "a hope interlaced with despair, a peculiar kind of disconsolate optimism," feels decidedly forced.

Another indication of the rhizomic spread of anti-utopian narratives is the number of monographs on the subject published in recent years, including Robert Weninger's excellent *Sublime Conclusions: Last Man Narratives from Apocalypse to Death of God* (2017) and Petter Skult's *The End of the World as We Know It: Theoretical Perspectives on Apocalyptic Science Fiction* (2019). Especially in Skult's (2019, 191) study, we can see the dilemma for the researcher when, against all the evidence he has gathered, he still concludes: "post-apocalyptic visions give the readers a sense of hope: hope that a terrible future can be averted or hope that even a terrible future is not the end." The only way Skult can escape this obvious logical fallacy is by projecting his readers into the future, speculating that they might one day see narratives like McCarthy's *The Road* as an anachronism, no longer interpreting it as a story of the descent of man into cruelty and atavism, but as a story of hope, community, and altruism.

Eva Horn's study *Zukunft als Katastrophe* (*The Future as Catastrophe*, 2014) exposes the contradiction inherent in the serial production of apocalyptic scenarios in fiction and film: "It is strange that precisely in the Anthropocene, in an epoch where humanity will have been indelibly written into global history, people indulge in the invention of worlds where it does not figure anymore" (11). Horn locates the reasons for the boom in apocalyptic tales in the breakdown of our modern "Zeitordnung" (time order, equivalent to "world order"). Drawing on Aleida Assmann's work on cultural memory, she argues that our idea of the future as a "key auratic concept" and a utopian space for hope, plans, and designs has changed radically. Consequently, the catastrophe has become the core expectation of the 21st century, both as a desired and a feared outcome on the horizon. Horn notes that the structures steering humanity toward the catastrophe are all highly complex systems, be they economics and finance, or ecological (oceans, climate). Like Thaler and Skult, she cannot bring herself to interpret her selection of texts and films at face value. Instead, she argues that the obsession with a coming catastrophe furnishes our imagination with images of the end but also allows us to explore a range of possible alternative reactions, thus developing resilience and strategies to cope with them.

What these studies blithely ignore is the possibility that audiences become simply overwhelmed by the flood of apocalyptic imaginaries, perhaps even addicted to what they are shown in these 'dark mirrors', and consequently lose all hope of making a difference. Before I discuss a selection of German SF texts that aim to break this mold, I want to give space to voices who challenge the fatalism and nihilism that so obviously has taken over much of recent SF.

3. Towards a Concrete Utopia

One of the most prominent SF writers who argues that humanity's days are not numbered yet is Cixin Liu, whose Remembrance of Earth's Past trilogy[7] emphasizes human ingenuity and its application in science and technology. Similarly, though from a historian's perspective, Yuval Noah Harari outlines a potential future for humanity in his *Homo Deus: A Brief History of Tomorrow* (2016). A more concrete proposal for a viable future for humanity was outlined by Monika Bielskyte at the Xynteo Exchange event in 2019. In her keynote "Protopia: a new framework," she challenged her audience to rethink the way we envision the future:

> We are suffering from a crisis of collective imagination. All the popular narratives of progress have led us to dead ends. Our technologies have advanced, true, but our culture has lagged behind. Telling stories of the future is a political act of great responsibility. These fictions, if they are compelling at all, always lead back into reality. So how did dystopian narratives become banal, no more cautionary tales but product roadmaps… or, possibly worse, resignation to dystopian reality becomes an escapist pastime, an excuse to

[7] In Germany also known as the Trisolaris trilogy: *The Three-Body Problem* (2006/2014), *The Dark Forest* (2008/2015), *Death's End* (2010/2016).

> give in and just do nothing. Utopias should serve as a counterpoint, yet we believe them no more.

Melding utopian and futurist concepts and building on the work of Kevin Kelly (*Out of Control*, 1995; *What Technology Wants*, 2010), Bielskyte argues that "those who control the fantasy, control the future." By redefining human diversity (age, gender, color, culture, physical ability) as an asset, 'prototyping' new forms of collaboration, and 'evolving' our values, it would be possible to overcome our current challenges.

Uwe Timm (2020), one of Germany's foremost writers, has recently voiced his resistance to the proliferation of dystopian narratives in German literature. He believes that it is literature itself that *is* the utopian space that allows writers to create counter-realities where different forms of social organization become possible. For the '*Apokalyptiker*,' Timm (2020, 9) has only withering contempt, couched in polite irony: "It would be petty to remind their authors that they describe our downfall from a very comfortable place." Like Bielskyte, Timm believes that, in fact, we are not without alternatives. He argues that instead of looking for the one, perfect, utopia, we should be developing a variety of imperfect, but achievable utopias, of the type that German philosopher Ernst Bloch defined as "concrete utopia" (cf. Levitas 1990). Their objective would be the creation of a society that finds an enlightened and peaceful coexistence without religious or ideological patronizing, with a dash of anarchism and the will to engage in activism. For Timm (2020, 246f.), the push towards artificial intelligence and a posthuman existence does not, in itself, represent a utopian horizon:

> In current discourse on artificial intelligence, the question to what extent robots can be made 'more human' by means of complex algorithms can be answered by imagining the human being liberated from the fear of death—it would *be* the robot. […] all the concepts and plans made in Silicon Valley for the distant future are but an electronic and gene-technological cloud-cuckoo-land, aimed against the efforts that are directed towards a concrete utopia: political and scientific change that can be experienced, perfection in the construction of understanding, and protest against any form of unnecessary suffering and violence.

Buoyed by the insistence of Bloch, Bielskyte, and Timm that a concrete utopia is possible, I argue that, at least in German SF, the pendulum is beginning to swing the other way, with green shoots of utopian hope once again pushing through the rubble of post-apocalyptic worlds. Not that my chosen exhibits (Tom Hillenbrand's *Qube*, 2020; Andreas Brandhorst's *Die Eskalation* [*The Escalation*], 2020; Judith and Christian Vogt's *Wasteland*, 2019; and Andreas Eschbach's *Eines Menschen Flügel* [*A Human's Wings*], 2020) indulge in escapism—as in the 'standard' dystopias listed above, the devastating social effects of climate change, genetic manipulation and surveillance capitalism are presented as the 'new normal.' And yet, while these texts continue to use the dystopian imagination as a starting point, they do so not primarily with the intention of titillating their readers with the aestheticization of the worst of human depravity, but to set against this paralyzing and destructive imagination reasons for optimism and hope, albeit in scenarios that do not ignore the challenges ahead. Theirs are visions of near and distant futures where humanity

engages in an uneasy relationship with machine intelligences, and where it gingerly takes its first steps into a posthuman but still recognizably human world.

4. Artificial Intelligence to the Rescue?

For most writers and film makers it is an article of faith that future iterations of artificial and machine intelligences will be harmful to humanity, either because they are given too little or too much independence.[8] Banishing the proverbial 'spirits that I summoned' from Johann Wolfgang von Goethe's poem "The Sorcerer's Apprentice" (1797) provides thrilling entertainment for cinema audiences (e.g., films like *Ex Machina* [Garland 2014]; *Blade Runner 2049* [Villeneuve 2017]; or *Archive* [Rothery 2020]) but also creates a groundswell of suspicion that an AI may not only be hostile but—possibly even more hurtful to the human ego—actually not care about its creators.

German SF generally shares the dystopian view of AIs, the most recent examples being Eschbach's deeply disturbing *Nationales Sicherheits-Amt* (2018), where in an alternative history Nazis have control of advanced computer technology and with the help of a 'neuronenartiges Netzwerk' (a neuron-like network) round up those who dare to resist them, and Schätzing's *Die Tyrannei der Schmetterlinge* (2018), where an AI is built to create portals to parallel worlds in order to obtain future weapons technology, only for that AI to go 'rogue' and develop its own objectives. But there are also examples where the depiction of future AIs is more nuanced. On the silver screen, Isa Willinger's documentary film *Hi Ai. Liebesgeschichten aus der Zukunft* (2019) explores potential relationships between humans and humanoid robots, a theme memorably brought to life in Maria Schrader's film *Ich bin dein Mensch* (*I am your Man*, 2021) which was enthusiastically received at the Berlinale and selected as Germany's International Oscar entry.

With *Qube* (2020), German SF author Tom Hillenbrand returns to the future world he first created in *Hologrammatica* (2018). Set in 2091, humanity has come to terms with the effects of climate change that has turned much of continental Europe uninhabitable and led to the 'Sibtrek,' the mass migration to colder regions like Siberia. Global warming has created lethal zones of the tropics while cities like Miami, Shanghai and Osaka have been submerged by the rising seas. An AI called Æther that was designed to reverse the effects of climate change nearly destroyed humanity (logically concluding that humanity was the cause of climate change, an event aptly called 'Turing I') and its second attempt to throw off its shackles forty years later ('Turing II') was narrowly averted. As a consequence, independently operating AIs are outlawed in the year 2091, with the UNANPAI (United Nations Agency for the Non-Proliferation of Artificial Intelligence) tasked to enforce no

[8] This holds true even for more empathetic explorations like Ian McEwan's 'Adam' in *Machines Like Me* (2019), or the 'artificial friend' in Kazuo Ishiguro's *Klara and the Sun* (2021).

new ones are created. Fran Bittner, a UNANPAI agent, shares the view of her employers:

> The world, it seemed, had completely lost its mind. But why? The only logical answer was Turing II. Æther's new awakening had changed something, many people appeared to have fallen into an AI-fever. UNANPAI's experts believed that the second incident had reminded society that the construction of another AI was possible and had caused a desire in them to deploy the outlawed technology once again. To Fran, this hypothesis seemed counterintuitive. The second incident had been a warning for the world not to give in but rather to fight the activities of the AI with even greater energy. (19)

However, the genie is already out of the bottle, and a second (or even a third) 'Qube' runs a number of world-sized simulations, initially killing off investigators who have discovered the truth. As it turns out, though, with God-like powers at least one of the AIs also develops a sense of pity for humanity and is willing to enter into a peaceful cooperation with it.

Andreas Brandhorst has also followed up his 2017 SF novel *Das Erwachen* with a sequel, *Die Eskalation* (2020). Four years after the AI has become self-aware and took control of the global infrastructure (transport, communications, electricity, water, industrial production, agriculture, health system), it steers and controls all human life by means of drones of varying shapes and sizes and its 'embassies' with human 'Consuls' who seek to interpret the AI's cryptic messages. It has set in motion major changes to prevent the worst effects of climate change and organizes the distribution of food and goods on an egalitarian basis—nobody is hungry, but nobody profits either, creating a utopia for the poor and a dystopia for the rich. This 'benevolent dictatorship' has in turn produced a well-organized resistance movement ('Camelot') that plots to destroy the alien machine intelligence ('Goliath'), avowedly in the name of human self-determination, but in reality, to regain the elites' former privileges, as the narrator explains: "They had not come to terms with the fact that they had lost their wealth and their power. They wanted to get back the world that they had ruled" (69).

Using analogue technology to avoid detection by the AI, Camelot spreads the rumor that the AI is plotting to exterminate mankind by making it sterile and plants the fear of the end of human civilization in the minds of the world's population. When its operatives set off two nuclear bombs over American cities and manage to take control of cold-war satellites to emit an electro-magnetic pulse to weaken the AI, Camelot forces Goliath to defend itself and, in the process, endanger the lives of billions who are cut off from food and shelter.

Brandhorst does not hold back in his aversion against Camelot's NS-style propaganda and methods, yet he allows the reader some insight into the instinctive hatred that many humans feel towards the 'alien' AI. Partly this may be because he anticipates that if people no longer need to fight for survival and their next dinner, they will become apathetic and spend their time in the sophisticated VR palaces the AI provides:

> Isaac felt disgust rising in him. The monstrosity was making use of the human penchant for escapism, the desire to escape reality, at least for a while, and to dive into dream

> worlds. But those who dreamed and walked in virtual worlds, where they could grant their every wish, did not think about rebellion and change. Such people did not protest, they kept silent and allowed the monstrosity to have its way. (193)

Brandhorst spends considerable time exploring the difficulties of communication with a rapidly evolving machine intelligence whose motives are quickly becoming unfathomable to human beings. A case in point is the 'Mars Discovery' mission, where the crew have disabled the on-board AI ('Amelie') to prevent it from communicating with Goliath and taking over their objective to create a human colony on Mars. But Goliath is several steps ahead of them and rebuilds their spacecraft and equips it with a new drive, so it can reach a viable planet in the Trappist system, 39 lightyears away. The AI gives the crew the choice "to see the future" (408) and guarantee the survival of humanity (411). When they are awakened from cryo-sleep 400 years later, they have reached their destination, where an evolved AI ('Emily') has already used drones to create a habitable environment for the crew and the cargo of human embryos they have brought with them.

The showdown between Camelot and Goliath on Earth is resolved in rather traditional thriller-like action sequences and a last-minute heroic sacrifice in order to 'get through' to Goliath the message that not all humans are plotting to destroy it, paving the way for an enlightened UN-led world government working in cooperation with the AI. It turns out that the very real specter of human infertility is the result of a failed (human) experiment to develop a virus to control population growth. Meanwhile the respective emissaries of humans and AI in space embark on their grand 'adventure' (411): "It is only when an intelligent species leaves its planet of origin can it hope for true immortality. This is true for you, but also for me" (599).

The book ends with a utopian moment ten years after the arrival of the spaceship in the Trappist System. Fittingly, the new colonists have christened their new world 'Paradise Found', with the AI pointing out to the humans: "This world gives you the chance to do things differently and better than on Earth, but also not to repeat the mistakes that your species made there. That is the future, isn't it? The co-operation between humankind and machines. Co-operation, Emily stressed. Anything else would be a waste of resources" (633).

Die Eskalation recalls the optimism SF exuded in the works of Arthur C. Clarke's *Childhood's End* (1953) and *Songs of Distant Earth* (1982) or, in the German context, in the German SF TV-Series *Raumpatrouille* (1966) and Karlheinz and Angela Steinmüller's novel *Andymon* (1982). What is new in Hillenbrand's and Brandhorst's otherwise conventional SF novels is their willingness to imagine a future where humans and machine intelligences may co-exist, thus offering a glimmer of hope at a time currently dominated by dystopian visions.

5. A Human Post-humanity?

In what initially feels like the German version of a *Mad Max*-type post-apocalyptic future, Judith and Christian Vogt's aptly named young adult (YA) novel *Wasteland* (2019) is set in 2064 in the Eifel region of Germany. After a series of devastating biological wars, much of Europe is contaminated, with only pockets of survivors who manage the resulting trauma and collapse of civilization in very different ways. Dominating the land are the 'Brokes' (a.k.a. 'Toxxers') who control the roads in the few uncontaminated areas. Under their Machiavellian Queen Loke, these motorcycle gangs rule with terror and their precarious control of 'old' technology (drones, web cameras, tablets). They live on a gigantic bucket-wheel excavator on which they have mounted a massive gatling gun. The 'magical' WIFI has become their religion and their crazed and drug-fueled faith in their control of the pre-apocalyptic technology is mirrored in their use of the future perfect in every sentence:

> THE MAXIMUM GEAR, THE G-MAX, THE GODHEAD AS MACHINE, THE KRUPP, YOU WILL HAVE BOWED DOWN BEFORE IT, FOR YOU WILL HAVE BEEN DUST BEFORE ITS COUNTENANCE. (154, caps in original)

Then there are the 'Hopers' who maintain small trading posts in the wilderness and are allowed their independence by the Brokes because they have valuable skills, for example repairing old technology, even though they themselves prefer not to use it other than to watch old films on video. The uneasy truce between Brokes and Hopers is disturbed when Zeeto, a young black bipolar Hoper explores a bunker outside the safe zone and finds a dead woman and a living, breathing baby. While he is exposed to the disease which will slowly but inevitably kill him, the discovery of a child that is seemingly immune to the toxic environment in the Wasteland leads to a confrontation between the tribes.

Things get more complicated when Zeeto meets Laylay, a young woman who leads a nomadic life travelling with her father Azmi, a doctor, on a motorbike with sidecar through the devastated Germany. They have just arrived at the "Handbound Market," one of the settlements of the 'Hopers' where visitors are required to have one of their hands bound to their thigh to stop them from overpowering the Hopers, to trade his skills for medicine. The market is characterized by minimal technology and led by the matriarch Riika. She and her clan make the rules, showing great tolerance for gender diversity and people on the mental health spectrum (including Zeeto who veers between depression and manic episodes). Laylay and her father speak a mixture of German and Turkish, another indication of the authors' attempt to create a more diverse cast of characters.

At the campfire, Azmi remembers the old times, thus allowing the reader to find out about the causes of the devastation, including the 'great walls,' the 'three wars,' the pogroms and the disease that decimated the population (14). The biochemical weapons were so powerful that even after decades, vast areas of continental Europe are still deadly to humans and animals (21). Laylay and Zeeto explore their mutual attraction, but when she stops taking the pills her father gives her, she slowly

changes, developing 'feral' instincts and abilities that can turn her into a werewolf-like fighting machine.

Zeeto and Laylay enter the bunker and discover the scientists who have worked on humans in genetic experiments to discover how to survive in the Wasteland and develop resistance—it turns out that Laylay is one of the few who have survived, and the baby found by Zeeto is the result of another 'successful' experiment. Laylay, Zeeto, and the baby manage to escape a final confrontation between the Brokes and the Hopers, leaving the reader to decide whether the new species of "Homo Sapiens feralis" (303) will have a future.

The tribe of the Hopers in *Wasteland* offers its young (and older) readers a glimpse into a different social order where acceptance, tolerance, empathy and solidarity are a concrete utopia, even though its chances of survival in a world ruled by brutal force (the Brokes) and cynical scientists (who, it turns out, have also developed a new virus that kills the surviving Brokes and Hopers) are not exactly good. As in most dystopian fare, climate change and the subsequent migration into Europe, as well as migration out of Europe after the release of the biochemical weapons, are already taken for granted, and presented as history:

> On occasion Riika told us about her family, about postcolonial exploitation and the African diaspora. She still had childhood memories of Kenia and spoke a little Kiswahili. As a girl she nearly drowned in the sea while fleeing to Europe, and she told us about the fortresses of a continent that wouldn't even help children. Obviously, this idea made me angry, but then this was all so long ago, and those fortresses had long been razed. (321)

The difference to the well-worn tales of precarious survival in a post-apocalyptic world (e.g., Richard Matheson's 1954 *I am Legend* or Carl Amery's *Der Untergang der Stadt Passau*, 1975) is that Judith and Christian Vogt's *Wasteland* envisions a future for humans, albeit in an emerging posthuman shape, where survivors not only adapt to their now toxic environment, but also escape the social, political, and economic models of greed and competition that have led to the wars in the first place, to build a different kind of future. But the Hopers also know that "Toxxers don't learn, they will never learn. With one crazy act they will throw us back again and again, destroy all hopes that we had turned into reality, step by step" (373).

As Rolf Löchel (2020) argues in his review, the 'hopepunk' message in *Wasteland* is the direct opposite of darkly pessimistic visions of the future. The roughly 500 inhabitants of the Handbound Market have formed a community that is not only diverse and multicultural but organized anarchically. Those who want to stay must share their possessions and get involved in all the commune's activities.

Judith Vogt herself is actively seeking to broaden the appeal of what she and James A. Sullivan call the "progressive fantastic" (Sullivan and Vogt 2020), a mode of writing that seeks "to challenge the traditions of the genre, update outmoded motifs and dares to make new connections." In the tradition of Hermann Hesse's philosophy in *Das Glasperlenspiel* (*The Glass Bead Game,* 1943), they contend that the fantastic as a form is ideally placed to present events and developments that haven't happened yet as if they had already happened and that things had never been

different. They believe that a progressive fantastic text needs to be political in content (supporting feminist or diversity issues) but also in form (challenging un-reflected habits and prescriptive guidelines), to break up the established structures of the genre.

In a blogpost, Vogt (2019) tried to explain what this meant when she was writing *Wasteland*. She believes that 'hopepunk' signals and encapsulates an attitude that rebels against the status quo, against turbo-capitalism and patriarchy, and for a better future, the freedom for activism, for radical goodness, and against suppression. Channeling the rebellious counter-cultural ideology of the late 1960s, she proclaims:

> In the case of *Wasteland*, our system has collapsed, and in its ruins, we have hierarchically organized gangs and anarchic communities. The latter call themselves 'Hopers,' and the others are 'Toxxers.' If you think 'toxic masculinity' when you hear the word 'toxic,' you wouldn't be far off. The Hopers try to live a life where they are radically friendly, radically empathic and kind. That is also a core element of Hopepunks, and many assume that this means we are only producing gentle, kind, and friendly stories that deal with self-care and emotional warmth. Of course, sometimes that may be so. Radical kindness tries to combine pacifism, anti-violence, protest, and solidarity—yet radical kindness is neither radically pacifist nor radically anti-violent. It shows solidarity with the suppressed and the marginalized: stopping injustice and violence must come first, possibly even in the form of counter-violence. (Vogt 2019)

I would agree with Vogt that we need more stories that show that there is hope, that to be kind doesn't mean one is weak or defenseless. As such, writing against the dystopian grain is indeed a radical act.

My final exhibit to demonstrate German SF's capacity to correct the dystopian turn is Andreas Eschbach's most recent novel, *Eines Menschen Flügel* (2020). In this sprawling epic (1300 pages), the author skillfully weaves together elements of SF and fantasy, creating a minutely designed future world on a different planet on which humans have wings. They live in comfortable 'nests' high up in giant trees because an invisible deadly force or creature (the 'Margor') lurks under the ground and kills all living beings who stray onto it. The humans can fly because their ancestors, who had fled from another world in a giant spaceship, had spliced the genes of the native 'Pfeilfalken' (arrow falcons) into human genes. Due to the planet's low gravity, these winged humans have developed a culture that is all about flying, for hunting, gathering, and sheer joy. But they have been given strict laws by their ancestors not to develop technology beyond signal rockets and simple crafts. These instructions have been passed on from generation to generation over a thousand years in several 'great books,' with different tribes in different regions of the planet's single continent looking after a specific text. Leading their simple and joyful lives, they have forgotten why there are taboos against innovations or why they should not explore what lies beyond the thick opaque layer that shields the planet from the outside world. However, there is a cast of priests that is still aware of the reasons for these laws: the dense layer causes the planet to appear uninhabitable to passing spaceships, and thus protects the inhabitants from the warring and materialistic Empire from which the original settlers had flown.

When one headstrong flyer named Owen manages to reach the layer to briefly break through to see the stars (he is literally able to 'touch the sky'), he sets in motion a series of events that involves all the different tribes, their way of life, their beliefs, and in the end, when the planet is visited by scouts from the Empire, leads to an exodus for those who seek a new planet to live their lives in freedom (the 'ancestors' had programmed the coordinates of another 'opaque' planet into the memory banks of their spaceship), and to a loss of cultural identity for those who are willing to join the Empire, where they literally have 'their wings clipped'.

Elements of the plot will feel familiar to those who have watched James Cameron's film *Avatar* (2009), though Eschbach devotes enough time on the unique perspective of a genetically engineered posthuman culture to make his world different, plausible and memorable. The sustained focus on the experience of joy (and fear) in the act of flying, conveyed in a distinctly 'poetic' language, allows us to participate in the exploration of a new world, its people and culture. Like *Wasteland*, the novel appears to be targeted at a YA readership (Eschbach has written several novels specifically for younger readers), and yet it contains a series of messages and philosophical reflections on the role of science and 'progress' as well as the posthuman condition that make it a rewarding read for adult readers as well. Firstly, the 'avian' society is based on mutual help: when a storm destroys the 'nest tree' of one tribe, the others quickly come to their aid and help them rebuild. Everyone is happy to share what they have and contribute towards the common good. Moreover, as in his previous 'high concept' novels *Die Haarteppichknüpfer* (*The Hair Carpet Weavers*, 1995) and *Quest* (2001), Eschbach's technique of slowly widening the focus and giving the reader ever new perspectives and insights prevents sentimental identification with the figures. A good example of this is a recital of the 'book Wilian' that explains, in a Swiftian manner, why the ancestors had fled the Empire:

> "At the time when the ancestors were still living on their homeworld, virtues like cleverness, justice, self-control and love for the truth had fallen into disrepute. A person who strove for them was seen as a dangerous dissenter, one who had to be shunned since such desires were seen as offensive, as a hurtful criticism of all those who did not share them", recited Jehwili. "On the other hand, it was considered clever to lie, absolutely necessary to be greedy, and desirable to live beyond your means. Materially, humans were doing better than ever before, but their envy gnawed at them from the inside. The ancestors foresaw that depravity and immorality would be victorious and lead to violence and oppression, in short, that a future would come in which it would be absolutely horrible to live. So, they agreed on a plan to withdraw onto a virgin world, away from everything, to make a new start. They wanted to open up a new world and build a new society on it, one which would profit from the knowledge of the past but at the same time be constructed in such a way that the mistakes of the old world would be avoided." (803 f.)

Writing at a time when identity politics, fears of terrorism, right-wing populism, social divisions, and environmental disasters have created a seemingly all-pervasive dystopian mood in Germany, Eschbach creates an alternative world and offers a concrete utopia, even if it is only in the pages of a book. Yet he does not promise a happy end for humanity. Those who set out to find a new world will have to grow up, break the taboos set by their ancestors, and write their own 'great books'. Nor

does he flinch from showing what happens to the flyers who are assimilated into the Empire: their planet is colonized and becomes a tourist attraction (with the winged children flying for sweets), while the 'natives' realize that they will never be seen as equals in the hierarchical and materialistic social order of the Empire.

6. Conclusion

It is ironic that we are once again flirting with the *Weltuntergang* (the end of the world), more than 120 years after Kurd Laßwitz (1899), the 'father' of German SF, had thought the matter closed:

> For how do we conceive of an end of the world? Within the world, in nature, [...] everywhere we observe growth and demise, expansion and contraction. Everywhere life is followed by death, after being comes nonbeing. Do we not then have to conclude that the whole of the world will not escape the fate that will befall every single element within it? The whole of the world! Herein lies the error. We do not have the slightest justification to extend to the whole of the world an experience that we can only make within it. For what does it mean if something ceases to be? It only means that in its place something else comes into being. If the whole of the world [das Weltganze] encompasses everything, then there is nothing outside of it: there can be no talk of other being, nor of a limit. The words beginning and end lose their meaning for the totality of being (Sein).

Scholars and critics have adapted their theories to accommodate the 'dystopian turn,' the shift from utopian to dystopian writing, but disagree over its ultimate impact. It remains to be seen whether the deluge of apocalyptic visions has any long-term effect. No doubt, the aestheticization of the end of the world has its grim attraction, but in its diffuse and uncritical nihilism such an extreme form of dystopian writing lacks the essential requirement of the utopian desire—namely, hope. German SF has produced its fair share of dystopian tales, 'dark mirrors' in which its readers and viewers can see themselves and the worst possible outcomes of the political, social, economic, environmental, technological, and scientific challenges we are faced with today. Juli Zeh argues that the dystopian form is a political act, but, as I have shown, so is the creation of utopian narratives. The tender green shoots of utopian writing presented in this chapter should not be mistaken for uncritical affirmation—nothing would be further from the truth. They engage in a critique of the status quo, of turbo-capitalism and neoliberalism, of technology in the service of profit, and, especially, of greed and unethical behavior. To some, this may seem a reaction to the Trump-years, and naïve and idealistic to others, but it fairly accurately represents a political and social mood in Germany that is currently seeking articulation through smaller, achievable concrete utopias.

On a more pragmatic level, we can note that German SF has gained broader acceptance in the last two decades. That is partly because it tends to be marketed under the heading of 'thrillers'—thus satisfying the audience's legitimate desire for entertainment while offering a commentary on scientific and technological developments and their likely social impact. Mainstream writers have discovered that SF allows

them greater artistic freedoms than other literary forms, while 'traditional' SF writers offer increasingly sophisticated comments on the human and posthuman condition. German SF in the 21st century has become more confident: it is reaching international audiences through translation (Dath, Duve, Eschbach, Hillenbrand, Kling, Schätzing, Zeh) and via Netflix series like *Dark* (2017–20) or *Tribes of Europa* (2021). And it looks as if its success will continue. At the time of writing, it was announced that cult TV series *Raumpatrouille Orion* is set for a relaunch (Meza 2021), Frank Schätzing's *Was, wenn wir einfach die Welt retten?* (*What if we simply save the world?*, 2021) is optimistic about our ability to halt climate change, while Theresa Hannig's new novel *Pantopia* (2022) promises to take SF back to its utopian roots with an AI challenging exploitation and climate change.

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