

**DIALOG:** Mr. Pirling, when technology and ecology collide in modern science fiction literature, we invariably seem to end up being presented with dystopian scenarios. Where does all this pessimism come from?

**SP:** I think the question pretty summarises what science fiction has done in the last decades, which is to extrapolate from the picture we have of our present right now. From that viewpoint, the reflective gaze turns back to the present and how humans access the world with their lifestyles and technology. A degree of pessimism and disillusionment can certainly be observed here!

I believe this tendency is embedded in a certain zeitgeist. With the beginning of the atomic age, it became possible to interfere with the innermost structure of matter and to make it submissive, in the literal sense of the word. At the same time, the development of the atomic bomb was accompanied by a kind of global shuddering. The euphoria of progress, something that previously determined our willingness to strive, as a matter of course, has since been lost to us.

New questions arise: What is progress? Is this the kind of progress we want? What are we doing to the environment? What are we doing to each other? What are we doing with technology? These questions can be asked about many areas, including artificial intelligence, environmental technologies, energy economics, and so on. Where technology, business and politics are thought of as the future, we see this disillusionment manifest itself. That strikes me as a fundamental, dominant paradigm.

**DIALOG:** The better we understand the world through technology, the stronger our sense that things are connected and that what we do today will have a global impact tomorrow. From technology to legislation and to new streams of philosophy, there is a desire to understand the key environmental connections and interactions. Science fiction is also part of this evolution. Where once a flight to the moon was simply that, environmental perspectives have increasingly come to the fore. There is a realization that everything we do has consequences, that there is no escape from the consequences of our actions. Does this understanding also lead to a dystopian picture of our existence?

**SP:** I would absolutely underline the idea of interconnectedness. That also forces a much more complex and concrete narrative, a stronger reflection on what it's like to actually be here today. You can see that very well in the works of an author like Kim Stanley Robinson, for example, who became very famous with his Mars trilogy. In it, he painted a grand, panoramic picture of Mars colonization, including terraforming and geo-engineering – planetary scale activities , in other words.

But Robinson's books are now moving away from distant worlds and ever closer to our own planet. In his latest work, 'The Ministry of the Future', he writes of a near future in which environmental collapse is already beginning to occur. It begins with a scene in a village in India, in which temperatures suddenly rise so high one summer that only a few people, those who manage to dive into a nearby lake, survive. From this point, he thinks very specifically about what a world might look like in which the worst predictions about climate change have come to pass. The realization that there is no Plan B for humanity is a major thread in the current genre of sci-fi literature. It's a departure from the 'frontier' concept: i.e. the idea that in order to survive we just have to conquer more and more of space, moving ever further out into the galaxies. Now it's starting to dawn upon us that, no matter how far we travel, we always take ourselves with us. That we first have to solve our current problems in the here and now. This 'pausing' of outlook is also evident in current science fiction themes, which increasingly approximate our environmetal, political and technological present.

**DIALOG:** Let's take this thought further. There is a whole series of more recent science fiction narratives that either operate with technologies that are already there - as in the novels of Daniel Suarez or Andy Weir - or that turn increasingly to environmental themes. Here a line can be drawn between Robert Heinlein's very speculative 1950 story 'The Man Who Sold the Moon' and Richard Morgan's very 'concrete' 2004 novel 'Profit'. What makes the present suddenly narratable as a science fiction scenario?

**SP:** Yesterday's futures are increasingly encroaching on our present. I think that's why there's a feeling spreading in the genre that we are running out of future themes. The last great conquest of 'space' in science fiction was perhaps cyberspace in the 1980s. And that space was already so close to us that fiction has strongly influenced the present and technology. From William Gibson's 'Neuromancer' to Ronald Reagan's cyber-security program and the commercial Metaverse, there's a clear line of influence.

But what are the themes today? Artificial Intelligence has been the subject of many science fiction drafts, such as the short story 'The Machine Stands Still' by E. M. Forster, written over 100 years ago. And now we have Chat GPT!

So, the future as an arena of dreams, is being taken out of our hands to some extent. We only have to go around the corner to find a room waiting for us that we don't really understand yet, but in which buttons can already be pressed. That seems to me to be an important reason why stories are moving closer to our here and now.

**DIALOG:** In science fiction, generally speaking, there seems to be little belief that democracy can endure. There's hardly a future world portrayed in fiction that isn't ruled by despots, or under the dictates of global corporations, tech-dependent administrators, or fascist regimes. At the same time, environmental and political dystopias often seem to correlate with the narratives. How do you explain this staggeringly pessimistic perspective?

**SP:** It is partly rooted in the narrative structures. Democracy is very much of the present but, at the same time, it's also always a balancing act. And science fiction usually tries to envision what it's like when the status quo encounters a crisis and we slide off the horse, from one side or the other. This quickly leads to very gloomy predictions. Democracy, as an essential aspect of, at least, Western reality, often comes under attack.

But there are also 'undercurrents' in fiction that are trying to free themselves from this dystopian maelstrom. They are guided by the idea that we must continue to think about the preservation of democracy as a contemporary challenge, but not stop doing anything when we realize the seriousness of our situation. In the process, by the way, the genre boundaries are also becoming more fluid, encompassing fantasy and classic fairy tales, as well as more 'traditional' scientificallybased scenarios.

**DIALOG:** Let's take a closer look at this new 'frontier' opening up ahead. We see technological, but also societal changes happening so fast that the boundary between today and tomorrow is blurring - a new kind of 'transition zone' is emerging where speculative storytelling and strategic management meet philosophical and scientific analysis.

And we see that global challenges that lie in this zone cannot adequately be dealt with, or even described particularly well, using our functionally differentiated approach. Is this one of the reasons for the resurgence of interest in science fiction literature among decision-makers in business and politics?

**SP:** I'd like to say two things about that. First, we need to clarify the difference between extrapolating futurology, on the one hand, and what science fiction actually represents, on the other. Both are in the 'future-gazing' business but bring completely different perspectives. For example, futurologists looking at the rise of the motor car back in the 1950s, the golden age of Hollywood predicted, 'Someday there won't be movie theaters, there will be drive-in theaters.' Science fiction writers took the same starting point and instead foresaw the coming sexual revolution!

So, it's about non-linearity, about taking the technological extrapolation back to the subject of humanity, to the ethical, political and psychological questions that arise from a technology-driven scenario. So instead of asking 'What if we could go to Mars?', you then move to questions about how well we would be able to live with each other there, or what it would mean if a human were born on the red planet?

This movement of thought is central to science fiction. And that is why the views of authors within the genre, on technological or political issues, is becoming increasingly interesting and relatable to grander strategic discourses, those that have to deal with growing uncertainty and the limitations of classical extrapolation.

## **DIALOG:** What is the second aspect?

**SP:** It concerns the so-called heterotopia, a term coined by Michel Foucault. He used it to describe spaces that are in our midst and yet function according to fundamentally different rules. Take, for example, a cemetery: we visit one and suddenly completely different rules apply there, it's a different sphere. I think this also applies to many ideas and themes in science fiction.

For example, the superintelligence that Nick Bostrom talks about in his book of the same name, describes an idea that has been haunting science fiction for decades. It asks how we would deal with an alien being that we may have created but which has now outgrown us. This extends to a singularity that radically tilts our lives, a new 'Oppenheimer' moment. This can be horror, as in Harlan Ellison's 'I Must Scream and Have No Mouth', or an absolute technological utopia.

But the crucial thing is the heterotopian perspective, the awareness that something like artificial intelligence is already here. The transition zone between the future and the present could therefore be much broader and more permeable than we think. Analysing this with classic forecasting tools doesn't seem to work very well. And that may explain why the specific approach of science fiction narratives is so fruitful.

**DIALOG:** Our view of the environment, its complexity, interdependencies and feedback, is beginning to fundamentally change, a change that is being accompanied by frictions and difficulties. How is science fiction dealing with this transformation, away from themes like terraforming and engineering euphoria towards a more holistic perspective?

**SP:** The narrative of 'we're going to go out into space and rebuild everything we discover' was indeed a dominant one, for many decades. In effect, a kind of expansive 'cowboy tames the Wild West' philosophy, extrapolated into outer space, the opposite of systemic, environmental thinking. The thinking was that there are infinite resources, if not on Earth, then certainly in space...we just have to reach out and get them. The mainstream in science fiction followed exactly the same paradigm as mainstream economics and politics.

But there have always been alternative narratives, such as Ursula Le Guin's 'The Word for World is Forest'. Here a group of colonist engineers on a planet learns that the vast forest is not a degradable resource, but that the world itself is an intelligence, a counterpart. And that the indigenous population of the planet knows that an action against the environment is an action against the world itself.

Sebastian Pirling, editor of publisher Heyne Verlag's science fiction program

"The realization that there is no Plan B for humanity is a major thread in the current genre of sci-fi literature" This perspective is becoming very important today - the realization that resources are finite and that we cannot leave the world behind. That we need to make the true cost of resource consumption the basis of political and economic decisions. That seems to me to be an interesting line of thinking, one where science fiction has a lot to offer.

**DIALOG:** Frank Herbert's legendary Dune cycle, created in the mid-1960s, begins with a dedication: "To the people whose occupation goes beyond the realm of 'realistic projects'; to the dryland ecologists, wherever they will work or at whatever time, this attempt at prediction is dedicated in recognition and reverence."

What do you think moved Herbert, at that time, to place ecological concerns at the center of his fictional world's construction?

**SP:** Frank Herbert immersed himself in the detail of the landscapes he created for the desert planet of Arrakis, along with its coveted Spice deposits. And as a very holistic thinker, he also began to think about being in that world and its ecology. One overarching question that runs through the Desert Planet cycle is whether the planet should be preserved as a desert, or instead transformed into a thriving landscape. Central to this is the idea that Spice is a resource that can only emerge from an intact desert ecology. The book itself does not clearly answer this question.

It seems particularly interesting to me that ecological issues are never treated as a purely factual subject in Herbert's work. As the narrator, he asks, "What does this world do to people - and what do people do to this world?" And he considers the resonant effects of this interaction, and the critical risks that can arise from the resulting ripples.

That is his great skill, and the important lesson that I take away from his books: truly environmental thinking always asks the most important question: how do we want to shape our place in the world?