9.3 Planetary Boundaries are Non-Negotiable: Kim Stanley Robinson and Elizabeth Carolyn Miller (JP)

Transcript

John Plotz

Hello, and welcome to season nine of *Novel Dialogue*, a podcast sponsored by the Society for Novel Studies and produced in partnership with *Public Books*, an online magazine of arts, ideas, and scholarship. The very day that we decided that this would be our TECH season, I actually think it was in the first five minutes of our discussion, one novelist's name came up as someone we would like to talk to, and here he is today. It's my great pleasure to introduce his interlocutor today, who is Elizabeth Miller, Professor of English and Chair of Gender, Sexuality and Women's Studies, and a leading scholar of environmental literature. Liz, you know I've been a raving fan of yours since *Slow Print: Literary Radicalism and Late Victorian Print Culture*, which is in 2013, and before it *Framed: The New Woman Criminal in British Culture at the Fin de Siecle*, which was 2008. But I think you are nowadays best known for your 2021 book, *Extraction Ecologies and the Literature of the Long Exhaustion*, and for your work, including many prize-winning articles, and also I would say a great deal of important but also unsung organizational work and collegial interlocution. So you're a mentor, you're a teacher, in the field that you are really responsible for helping to build, which is Environmental Literary Studies, and I wish I could sing your praises for all of that today, but I can't, so instead I will just welcome you. I'm so glad you're here with *Novel Dialogue* today and turn to you the honor of speaking about our guest.

Elizabeth Carolyn Miller

Great, thank you John. I'm so glad to be here for this conversation, and thank you for the invitation. It's now my great honor to introduce Kim Stanley Robinson, a leading science fiction novelist of our era, and a foremost voice in climate fiction. Stan is a *New York Times* best-selling author who's published, I think, 28 books, somewhere around there, and these include the *Mars* trilogy, the *Three Californias* trilogy, and *New York 2140*. His most recent is a non-fiction work titled *The High Sierra: A Love Story*, which speaks to his deep affection for California and exemplifies the centrality of California to his work. Stan once said in an interview that I read that he became a science fiction writer because he grew up in Southern California, which he called a science fictional place for a very long time. Before he moved to California, Stan's early years were in Waukegan, Illinois, which is just down the lakeshore from my own hometown of Milwaukee, Wisconsin.

Stan and I are both transplants from the Great Lakes, and we both now live in Davis, California, and we're both, in a sense, products of the UC system. Stan earned a PhD in English at UC San Diego, famously studying under the late, great Fredric Jameson, who was his dissertation

advisor. Stan has been honored with all the biggest awards in his field, the Hugo Award, the Nebula Award, the Locus Award, all of which he's received more than once, and the Robert A. Heinlein Award and Arthur T. Clarke Award for his body of work. So it's a great honor to have him here with us today to talk about his novel, *The Ministry for the Future*, one of the greatest, perhaps the greatest climate change novel ever written. It was published in 2020, and our focus today will be *The Ministry for the Future*, five years into the future. Thanks so much for being here today, Stan.

I'll just start off with a question about *The Ministry for the Future*, that it's, of course, set in the near future, which is January 2025, five years ahead of when the novel came out. Here we are in March 2025, and we seem to be going in the wrong direction. So five years on from the publication of *The Ministry for the Future*, I really just wanted to ask about your thinking about climate futures today, how it might have changed in the intervening years from the scenario that you imagine in the novel. John and I are both scholars of 19th century literature, so when I think about five years, I immediately think of the opening of Wordsworth's poem, “Tintern Abbey,” “Five years have past; five summers, with the length / Of five long winters!” It seems to me that five years is this temporal period that's long enough to see change, but close enough where the past still feels like the present. So it seems like a good moment, maybe to reflect back on the publication of your novel in 2020. And so much has happened since then. I think a lot of listeners would be eager to hear your thoughts on what now when it comes to climate change, to our imagining of climate futures. And related to this question, I was thinking about what you refer to as the “trembling ‘20s” in the novel. Do you think we're in the trembling ‘20s now? Or how would you describe the ‘20s now that we're five years into it?

Kim Stanley Robinson

Well, thank you for that, Liz. And thank you, John. Well, all the dates in *Ministry for the Future* were—are wrong. They've been proved wrong already in multiple ways. I don't usually put dates in near-future science fiction. That's a kind of a genre mistake. You want it to be vague and fuzzy, like “day after tomorrow.” So it stays always day after tomorrow. And I'm surprised I did that. But it must have been a kind of factoid to give more solidity to the founding of the Ministry for the Future. I wrote the book in 2019. I want to point out that in September of ‘24, the UN declared their pact for the future, which was inspired by my novel. And so they were ahead of time. And they're setting up an envoy for the future. And they had a, what was it called? Summit of the Future at Climate Week of 2024. So in a way, by accident, of course, things were on track as far as that went. But the book came out in 2020. And it had been written before the pandemic.

And one theory, one guess I would make is that the pandemic sped everything up and rearranged the landscape. When I wrote it in 2019, I thought Trump might win again in 2020. I was quite angry. And I was feeling scared that we weren't addressing climate change fast enough. And all of the news that was coming about “planetary boundaries” from Johan Rockström and others—this concept that our use of resources can break what he very usefully called *planetary boundaries* that are non-negotiable and physical and not fungible and not

something you can buy off later with money—was being ignored. It's wrong, I think, to call it existential danger, if you mean danger of human extinction. That's maybe not quite right. But it doesn't have to be that to be extremely bad. Like, the crash of civilization is not the same as extinction. But the crash of civilization is extremely bad.

So whether you need to be really fine-tuned in your language about how bad it is, you could just say*, look, it's very bad*. And ignoring it, sticking our heads in the sand, is not going to work. And so we'll pull our heads out again, maybe when we're drowning, but probably in a much more rapid fluctuation back and forth. As soon as the U.S. government returns to sanity, then the whole world is kind of watching. But the "green wave" of changing out the technological base is happening, led by China, led by the EU. And even in my novel, showing the U.S. as being the big baby that gets dragged into reality, even if that turns out to be true, lots of things are going on towards the transition that is in some ways, technologically or societally, not inevitable, but it's got a whole lot of momentum, no matter what happens in the U.S. So, a mess. [laughter]

JP

Stan, can I ask you just on that point about the need for precision in language and the danger of exaggeration, like the word "existential" or the word "extinction?" I've been thinking about that. There's the danger of not acknowledging anything, but then there's also the danger of the tech bro language of escaping to Mars because Earth is doomed. That feels like a version of the existential exaggeration, you know?

KSR

Yeah. This is just silliness on their part. And I say this as the guy who wrote the *Mars* novels, this is foolishness. And maybe just a few people holding that fantasy, but it becomes a meme. It becomes a story to tell, even though there might be only 10 people on Earth who are that deliberately provocative or silly to be talking about that anymore. But precision of language, what I would worry about is there is a kind of a moderate, Democrat, centrist who is what immediately will jump on so-called environmentalists or leftists saying, oh, you're exaggerating. You know, there's other problems too. There's poverty. There's this, there's that, the other. You're overdoing it when you talk about climate change as being so very, very important. And then they jump on any exaggeration as if it delegitimates the rest of the discourse by that crowd of people.

ECM

Thinking about, we're in this season of *Novel Dialogue* that's focused on technology and really about the way that your novel is thinking about the persistent power of this ancient technology of the written word, even in a future that's also, you know, shaped by AI and carbon coins and the internet of things and so forth. But could you say a bit more about the technology of the written word in the novel?

ECM

Yeah, sure. And I like talking about it as a technology because often I have to run people through the notion that technology includes software using the computer analogy and that therefore the softwares are critical. They have to work too. And you get to justice. You get to the rule of law as a technology and language as a technology, but you're already there, which is great. It's true that we've got these sentences and they add up to agreements and we're in a nation-state system where there's sovereignty. So the nation states have sovereignty and within their borders, they supposedly get to do what they want, but we're on one planet, one biosphere that's in a shared crisis. The nation-state system and capitalism are two global systems that are badly suited to reality itself, badly suited to a biosphere crisis, which involves our extended body. Which is to say, all the living creatures on the planet add up to one supra-organism that if it's to be healthy, all the individuals in it also have to be healthy. And we're the ones deranging that. And we're the ones that to a certain extent are in control of it. So it's up to us.

And then you've still got the nation-state system. Well, this is a quandary. It's why I mention in the book that the Paris Agreement was so important. If all the nations on earth, and almost all of them were signed up to the Paris Agreement, were to agree and then act on what they've promised, then we would have a chance of solving the climate crisis even within the nation-state system. And even though there are petrostates who are going to be losers if we decide to strand those assets and keep it in the ground, the fossil fuels. So we can afford to burn like 500 billion tons more of carbon dioxide into the atmosphere before we maybe trigger some really bad outcomes on the climate front, like releasing frozen CO2 and methane into the atmosphere. That wouldn't be by us burning it, but by us heating up the earth: That would be extremely bad. So we're getting close enough to that that our agreements as to what to do take on an exaggerated importance. But there's no mechanism of enforcement. There's still just promises. And so here you get to regarding international law: is it law? Because usually with law, if you break the law, you suffer penalties. You go to jail, you pay a fine.

For the international agreements like the Paris Agreement, these are more like promises in an extrajudicial situation. And that's not quite right. They are—it is—they have been written up. They are treaties. It's just that international treaties are weak in the legal sense, in the sense of enforcement: no sheriff, no penalties. We have to keep our promises. So after I saw what was going on at the COP in Glasgow in '21, I started comparing it to something like a marriage, obviously kind of a group marriage, which immediately gets weird, but it has that same voluntary aspect to it. Everybody's agreed to do these things, but they only are being held to it by their own feeling of fidelity to the agreement. And if they, and there are other people back in the nation state, in the government of that nation state back home are saying, there's no way we're going to keep that promise, especially in the petrostates.

So more and more, the COP system has looked like a somewhat desperate attempt to hold to a global response to a global problem in the nation-state system, where it's obviously contested in some of the nation states more than others. And now you have the current administration, the United States backing out again. I mean, this is, as I said, stupid, in that it's self-harm. So

self-harm to hurt others is not the most effective way to hurt others. But let's not go there. Let's just stick back to the level of the toothlessness of the international treaty system that the Paris Agreement is just one of.

So then when stresses appear—financial, political, you could say in the realm of capital and of power—then the weakness of those kinds of treaty agreements begins to become revealed because they just get ignored. And then it becomes a little bit of theater, you know, society of the spectacle. We hold these COPs. They're like a circus. And they have a circus-like atmosphere. And then when they're over, everybody goes back to reality. It's almost like going to church. You know, you go to church on Sunday and promise to be a good person. And then Monday morning, you're back to being a rapacious oppressor of other people without any feeling particularly of contradiction.

But in this case, because of the physical problems that will assault us as a species, if we don't solve this climate crisis, it gets—maybe it's always serious to be making promises for various kinds of behaviors, and then to break those promises. Maybe that kind of hypocrisy, structural hypocrisy is always serious, because it means that you're not thinking clearly. But on the other hand, we're so used to it. In this case, it's serious. And I don't know what will happen. I'm going to go to Brazil. I will be a—it would be fun to be saying, I am America in this situation, the United States of America at COP30. That's not going to be right. But I am going to be a representative of the UN and an individual as part of the UN and one of those people that is semi-desperately hoping that this process is still meaningful. And that's an ongoing—that's history at our time.

JP

So Stan, speaking of the things that are meaningful, I think you made passing reference to the fact that the phrase, the framework for the future for the UN might have been influenced by your novel itself. And I guess I have a question, just more generally: the last time you and I spoke, it was about the genre of science fiction. And we talked about it, how it fits in among other literary genres. But this discussion makes me think about what you think fiction can do in a world where the treaties are, you know, provisional marriage arrangements. I mean, do you see fiction generally, or your fiction particularly, as having a new role in that context?

KSR

Well, I think it's an old role. Liz and I, one of our colleagues, Tobias Menely, one of his earliest books was about how the way that we treat animals in the legal system was effectively a literary achievement, that first there were the fictions about animals as conscious, sentient beings. And then there were the laws and the Society for Prevention of Cruelty to Animals. So this has always been the case that we tell each other stories all the time. And that's what creates our senses of ethics or, what's right and what's wrong, what's interesting and what's boring, comes out of the stories that we tell. And fiction in general is just a really big and articulated story-system. And in some senses, you might say, therefore, the best stories, because they're

the most articulated and the longest. That's not automatically true, because being long and convoluted is not always the best thing. You can go too far with that.

And I fell in love with the eyewitness account when I was writing Ministry for the Future, which is not like fiction, different, different genre, different subgenre, and has the value of speed and cutting to the chase, which I quite loved, being a novelist all my life. But these stories seem to be important. What I think happens—and I've seen over the last five years—it's been an education in literature. What's going on there? That when you read a novel, you have co-created it. It's not like watching a movie where you're a witness, and it slaps you in the face, and you are forced to see it, but you don't co-create it as much. But with literature, you've got marks on a page, you live with it for 30 hours or so. And in that time, you have created an experience in your head. It's a generous act. It's a creative act. And it means that the reader has an investment in that text, because they made it come to life in their head.

So I'm more aware than I was ever before as to the power of literature and of the novel and what constitutes that power? Why is it so powerful? Why are people—I mean, this is somewhat of a category error. Why are people asking me to come to these UN conferences and talk as if I were an expert? It's not me that's the expert. It's these experts have read a novel that is about them, and they therefore make the category error, oh, this writer must have known, you know, more than these sentences, which is not quite true. I mean, I know less than *Ministry for the Future* knows. But I have had to spend five years getting a kind of an education in these processes. So I'm less ignorant than I was in 2019. I can say that.

ECM

Thanks for that. So recently, this, I think, connects to what you were just talking about, you know, with the problems of knowledge and thinking about the novel as a technology of knowledge. So recently, I went to the town hall for our mutual congressional representative, Mike Thompson. And he said in the, in the context, or in the course of the town hall, that he thought the two biggest challenges that we are facing right now are climate change, and mental health. And I was surprised to hear him say mental health, because, you know, in the context of all the threats to democracy and so forth that we're living with, it seemed a surprising choice. But when I was, you know, going back to *Ministry for the Future*, I was really struck this time by how much of the novel is about how ill-equipped humans are in a lot of ways to confront climate change, both cognitively and psychologically. So I think one of the things that I take from your book is a reminder about how impossible it is to really think about addressing climate change without addressing all of our various pathologies about it and our inabilities to really conceive of it.

So you talk about Götterdämmerung Syndrome, for example, in chapter 61, which is kind of a narcissistic accelerationism—that feels very familiar in this moment since January 20th. But really, it's just one of a lot of different pathological responses to climate change that we see in the novel. There's a lot of discussion of PTSD, for example. I imagine you must have done a lot of research into some of these conditions as well, along with the research into climate treaties

that you were just talking about. And that passage in chapter 61, it's written in the style of a scholarly article from presumably a psychology journal. So it's another one of the genre experience that we see in the novel too. I just wondered if you could talk a little bit more about how you engage with these kind of psychological, cognitive dimensions of climate change in the novel. And I don't know if this is connected or not, but I was also just thinking about how the novel itself in its huge scope, huge cast of characters, all these different genres, in a sense, part of what it's trying to do is to kind of reshape readers' capacity to grasp something like climate change, it seems to me.

KSR

The novel is a melange of genres. And so it tries to create the impression that you're getting a broad spread of opinions and seeing the totality in a kind of a cognitive mapping, as my teacher, Fredric Jameson, used to call it. So it's a kind of cognitive map, then you feel better oriented to what's important in reality, after you've read the book, if it works right. And that was definitely a part of my intention. And yes, there is a lot about mental health in the book, partly because of Frank, the main character, or one of the two, being afflicted by a really powerful case of post-traumatic stress disorder. And I've had occasion to think that all humans at some point or another become post-traumatic, mainly because of the premature deaths of people whom we love, I would say that's a trauma. And we all, almost all, of us run into that at some point in our lives. And then after that, though, hardly any of us fall into the stress disorder part. We cope with it. And we limp along. And we're post-traumatic, but not PTSD. So why the SD? What happens to those people who are caught in that bad moment?

Well, that's too long of a topic to get drawn into right now, because I want to stick to your larger question, and why Mike Thompson would talk about mental health. I'm seeing a lot of *climate dread*, young people who are basically feeling it's game over, and they see a society that's too screwed up to cope, and that they are beginning a life where the dread is that they won't be as comfortable or secure, even, as they are now. And I guess I'm talking mostly about middle class American young people, because that's who I run into. And even though they feel precarious and scared now, that's because they feel that it won't even be as secure as it is now later on. And they may be right, they may be wrong. And one of the reasons I think people have taken to *Ministry for the Future* is the book is saying that even without a plan, even without superheroes, we can bash our way forward to a pretty good result, given where we are now, that it isn't game over, that we aren't in a runaway greenhouse effect yet, that if we were to control fossil fuel emissions and kind of hang together, then we won't hang separately.

So, there's this ferocious crosscut between dread and hope, and hope's very natural, especially amongst the young, but really all humans, hope is kind of at the cellular level, as an aspect of being alive itself, because you hope to live and keep living. So it's always there. But when it's endangered by this feeling, or crosscut with this feeling of dread, then you've got a new emotion, you've got a new—and it could easily be tagged as a kind of a mental illness, maybe not permanent or severe, like some of them are, but persistent and always itching at the corner of your mind. This is provisional and we aren't safe. My life is not something I can take for

granted that it'll hold together. So the old sense of social security or the four freedoms that FDR promised, freedom from fear—well, we might not have established that. We are back in a culture of generalized fear and anxiety and dread.

So, as I say, I've seen it now hundreds, if not thousands of times, people having read *Ministry for the Future*, they have a cognitive map that allows them to feel a little less dread. They're more aware of the hundreds of thousands to millions of people who are working hard to come to grips with the climate crisis and to get civilization through it successfully. And that there are ways that that can be done. And they are not only that, they are industries. I'm talking about solar power, or clean, advanced batteries, the technologies that are advancing so quickly are also businesses. And nation states, the diplomats that keep on struggling, even in this awkward situation, to make the nation states get together around the same page and agree to do things together. Nation states that are nevertheless quite frightening to us, I'm thinking China, Indonesia, and so on.

These are, in the current world context, hopeful signs that there are, there's a general world agreement that the climate crisis could hammer civilization. Therefore, we have to do something about it. Therefore, we have to fight fossil fuel powers, who are indeed in a Götterdämmerung, the mental illness that *if I have to go down, if I have to change, I'm taking everything down with me,* a kind of murderous narcissism, which we also see. So a gigantic battle of the moment, our moment in history, and then if there's a, if there's a novel that describes the battle in realistic or accurate, but also hopeful terms, well, that's of value. I can, I can definitely see that.

ECM

So, you know, now we've just recently lived through the LA fires, which weren't as deadly as the storm that you're imagining in the novel, but they did wipe out many parts of the city. So I just wondered if you wanted to say a bit about Los Angeles and Southern California, and the way that growing up there shaped your imagination as a writer of science fiction. I know you've spoken about this in other interviews, but I'd love to hear your thoughts on that.

KSR

Yeah, sure. And I was just down there, and I'm not often down there. I just spent three days in Orange County in LA. And of course, I was looking around thinking, what would a flood do? Would a flood work? Is it right that the freeway systems are elevated above the landscape and would become places you go? So I was checking it out from the novelist point of view, because I haven't been down there very often in the last 10, 15 years. And it was shocking to me how shoddy and junky Southern California is in the infrastructural sense. It was built out after World War II with a complete disregard for human social life, mostly cars, but also real estate scams. And the teeny little villages that were there, tucked amongst the orange groves in those early days, they had no political power to resist the county. The board of supervisors for the county as a whole were in the pockets of the real estate industry.

And so the whole thing got built up as warehouses, small condominiums and apartment complexes, little ticky tack suburban things that are now, I mean, these places are worth millions, but they're still junky and asocial, in that you are isolated and alienated. And then you're next to the malls or the 7-11s and the gas stations, the kind of automotive—the *autopia* that I described in *The Gold Coast* is quite there. And it'll take decades, if not centuries to rebuild Southern California into a sane and beautiful landscape, which is too bad because in the natural sense, it's quite gorgeous. The slight hilliness, the beaches, the backdrop of those peaks, there was snow on even Saddleback, which is only 6,000 feet high and is only about 10 miles from the ocean and yet it was snow topped, and the big mountains behind were really snowy.

So it's beautiful, but it's been semi-destroyed in a social sense, not forever, but for decades by a grasping and stupid planning process so that plywood and concrete junk was put in place. And now you have to get in your car and spend hours in traffic jams to get to another unsatisfying place from the one you started at. No, poor old Southern California and yet expensive and desirable, maybe because of its weather and its beaches. I don't know. It's a sign. It's a sign of the work that remains to us to make a decent civilization. And I would contrast it to long-term civilizations like the coast of Greece or Southern France, anywhere that had…These are places that I've seen where it looks like Southern California and yet something quite beautiful and humane has been constructed there, partly because there's a long-term history going back that is still marking the land that meant that it wasn't able to just be quickly wrecked in a kind of post-war frenzy of money-making.

So yeah, that's me and my relations to Southern California—nostalgia for sure, but also dismay. So much is revealed when you look at Southern California about what the great acceleration has been, which is really a great acceleration of profit-making first and everything else in terms of technology has been entrained to that in bad ways. It wasn't like we got together after World War II and said, oh, we've got a chance to make a decent new civilization here. Let's design it. And, you know, you had Garden City designs out of the British industrial moment, et cetera. There were, it's not as if ideas were completely lacking. They were there, but they weren't put to use.

JP

So those British designs had their problems too. Like if you look at England, they aspired to, I mean, Stanley Unwin and people like that, they had their vision, but yeah…

KSR

Yeah. Yeah. Well, that's true. I've been to those. Those are funny little towns. Something organic and natural would be better, but if you were gonna—a design, any design is better than just let's make a buck off this acre and to hell with the rest of it. Any design would be better than no design, I feel.

JP

You're really making me want to go back to the *Mars* trilogy, because what I love about it is the sense, although they're very long books and there's three of them and it takes place over centuries, but there is a sense of, I don't know, the validity of the terraforming project in those books. Is that how you see them or do you see them as more about an intentional corrective to like the chaos of Southern California?

KSR

Yeah. So it's interesting that you say that because what I remember is one of the great pleasures of writing the *Mars* trilogy was I, in quotes, “designed,” or I described, let's say, about 10 or 20 little cities or city states that were necessarily intentional because they were being constructed from scratch and they had to defend themselves against the Martian environment one way or another. But cities on top of plateaus, or mesas, cities dug into mesas, so they're like gigantic cruise ships, cities in the interior of mole-holes and cliffsides. And I was thinking back to the Ancient Greeks, but also at that time, so we're talking the nineties, there was a lot of utopian design, not fiction, but nonfiction. There was utopian nonfiction, the integral urban house, or I would see articles in science news, short ones about the way that you could cast a single dwelling place with just a concrete mixer and a good idea, the Sattelmeier house, the Bareiss columns. You know, I was just throwing everything into the hopper. I felt free to make up a civilization from scratch and it was fun.

And I thought if you did it mindfully with the idea that it should be functional for human sociability and also beautiful. And I must say between the writing of *Pacific Edge*, the utopian “let's make Orange County right” book and starting the *Mars* trilogy, or starting *Green Mars* anyway, I moved into Village Homes, California. And saw a designed community that was working quite well as a kind of European village model of sociability, so that suburbia was, with just a few minor tweaks that were actually legal, or could be argued in front of a city council successfully, a few tweaks turned alienated suburbia into European village life, social life. Wow. I saw it and I was living it. And so writing the Mars books, I got more excited about design. And I mean like urban design, living design, including architecture, but also the larger scale stuff of communal, micro-political or nano-political organizations of self-governance of little communities. I was actually living it as well as reading about it. So there's a particular energy and enthusiasm, I think, that I see in *Green Mars* and in *Blue Mars* that is unusual in my work. I got to say, a lot of things came together quite nicely then.

ECM

I wanted to ask also a question about the Alps in your novel. I think since I'm an eco-critic, I'm always paying really close attention to setting. And I really love the chapters that take place in the Alps in *The Ministry for the Future*. And they make me think of Mary Shelley's *Frankenstein*, which is a novel that I teach quite a bit and that also makes incredible use of Alpine settings. And I'm really struck by how, you know, you represent the Alps as this very dangerous place,

very inhospitable to humans, but also crossed by these paths that have been traversed since the medieval period or even earlier. And you describe these passes as hallways in the novel, a hallway from one world to another, so they take on this almost extra planetary portal to another universe quality. So I wondered if you could talk a bit about your representation of mountain settings, and maybe this is also an opportunity to talk about your new book on the Sierras as well. I know that you're someone who loves going to the mountains and has been, you know, backpacking in the Sierras for many years. What do you take from these spaces? And you could talk about this in the context of *Ministry for the Future* or other work.

KSR

I just finished a nonfiction book about Antarctica and the trans-Antarctics are another mountain range that I have been in. So mostly I'm a Sierra person and that conditions my experiences of the other mountain ranges of the earth because mountain ranges are mountain ranges, but they have distinct differences and characters, I would call them. And I spent, my wife and I spent two years in Zurich and it was a joy to put *Ministry for the Future* in Zurich because I'd never really been able to use my knowledge of and my love for that city in any of my novels to speak of. And then suddenly I could, so it all poured out. And in those two years, I went up to the Alps a lot and had adventures, and you might say misadventures, because I would first understood them to be like the Sierra. And I only learned by painful experiences that they're not like the Sierra, and they're more dangerous, steeper with wilder weather and with more of a coating of ice, especially back 40 years ago, such that I was shocked by my own inexperience and naivete that what I thought was going to be quite like my Sierra adventures turned out to be in many ways, unlike. In exciting ways, ‘cause I was getting an education in comparative mountain range and I loved it dearly.

And then also, you know, if we don't solve the fossil fuel problem, there won't be any glaciers anywhere. And then that becomes dangerous and a topic in and of itself, which is another strand in *Ministry*, the sucking of the water out from underneath the great ice sheets of Antarctica is an important strand of the plot there and in our world as well. So that's something I've been pursuing since the book came out. Or, what I can say is, the people who are working on that project have noticed that I wrote about it and I've been entrained as, what can you call it? Press agent or publicity person or fellow traveler or publicist, part of the team of people working on this possible Antarctic project. So, you know, the Swiss, they're aware of *Ministry for the Future*. There are very few novels set in Zurich, especially written in English by other people. And they're pleased to be represented. And one in general, I can say people are pleased to be represented in novels, especially if they're not usually. So, you know, the scientists at NSF or international diplomats or the people who live in Zurich, they're all pleased with this or other of my books. And so it's one advantage of doing science fiction is to pay attention to your source material as being new and new to fiction and interesting as such, new stories in the world. You don't have to keep on repeating the old modernist plots, not to mention the old realist plots. You can actually bring in something new by way of science.

ECM

I love the moment in the novel where the scientists who are working on the glacier project realize that they're not pumping water out anymore and that it's actually worked. And then another moment like that is the first moment where they realize that the CO2 parts per million are going down. And then this sense of excitement that all of these people have made it their life work to make these changes and ameliorations to climate change and that it's exhilarating when they finally see some success and, it's a moment in the novel that makes you hope that we will get there and experience this.

KSR

I believe that our children, or my grandchildren, who are hypothetical, but I believe those generations will in decades to come, have these experiences and it will be a kind of VE Day, a kind of greatest generation moment of*, oh my God, we did it*. And it was hard. I believe there will be those moments coming and they will be celebrated because it's going to be hard and take some decades of work.

JP

So maybe I could take this hopeful moment to turn towards that signature question that we like to ask everyone, um, in, in the season. And this question is, so Stan, if you could spend a year anywhere, where and when, and how would it be?

KSR

Well, my wife and I sort of, now that she's retired, we have this kind of fantasy game we play with each other, that is sort of that game in a modified form of "where next?" with the limited time that we have left. There was a lot of places we'd like to be. We've been talking about Zurich. If we were to spend a year in Zurich, it would be base camp for Europe and we would see friends in Scotland and friends in Greece on the Island of Crete. And so maybe the way to say that is Europe, so rich, so dense with culture and landscapes and interesting things to see and people that we already know. So, for sure that would quickly jump to the, if you're playing this game, that we have a variant on this game, which is since my wife has been teaching herself French and is getting quite good at it, instead of Zurich, we're thinking more perhaps Lausanne and then we'd be close to Zurich and probably we shouldn't try to repeat our past of 40 years ago anyway. And so, you know, the articulations of this game can go on forever.

JP

We're so grateful to the Society for Novel Studies for its sponsorship, to *Public Books* for its partnership, and to the College of Humanities and Social Sciences at Rowan University for its crucial support. Beck Daly is our production intern, Connor Hibbard is our sound engineer, and please, if you like what you hear on *Novel Dialogue*, check out past episodes and the whole of this TECH season. So from all of us here, Liz, thank you so much for being such a wonderful

host and interlocutor and Stan, thank you. Thank you for your time and everything you had to say.

KSR

A pleasure.