IMAGINARIES OF CARE AND SCIENCE IN ANTHROPOCENE UTOPIAN FUTUROLOGY. THE SOCIOLOGY OF SCIENCE IN KIM S. ROBINSON’S THE MINISTRY FOR THE FUTURE

The article analyzes climate fiction utopia ‘Ministry for the Future’ by Kim S. Robinson. The analytical method relies on the framework of sociotechnical imaginaries proposed by Sheila Jasanoff and Sang-Hyun Kim and combines it with the critical history of science and feminist studies of care. Since in the process of writing the novel its author went through numerous consultations with scientists, in the article this oeuvre is analyzed both as a piece of science fiction and as a futurology essay. It is examined how the institutions of science are portrayed, how society of citizens is imagined and how this vision of the future remains trapped in the misconceptions regarding science that result from the Cold War modernistic propaganda of science. On the basis of this analysis, the article offers a discussion of how the imaginaries of Anthropocene are likely to repeat such tropes, unless history of science and sociology of science during the Cold War becomes a necessary part of the Anthropocene studies.

Key words: Anthropocene; sociology of science; discourse analysis; science fiction; futurism; modernity

Introduction

Two glaciologists went to Switzerland to attend two conferences about Antarctica. Both had the same scientific interests and country of origin, a mid-sized country in Europe. Sławek, a Slavic name written in Polish, was the name they both had in common. Both shared some obscure contacts with an acclaimed science fiction writer, but there was no other material link between them.

The first glaciologist was Sławomir Tułaczyk from the University of California Santa Cruz, and the second was Sławek. The latter is a fictional character, as written in The Ministry for the Future, a science fiction novel that grips with the theme of climate change (Robinson 2021). The former is

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a real-world scientist who provided scientific consultation for the book. He is one of 40 scientists, activists, and conservationists who helped Kim Stanley Robinson, who is the author of the fiction-futurology. Through this consultation, individual experiences of scientists, engineers and other practitioners, were woven into the fabric of climate fiction.

*Ministry for the Future*, as a novel, is work of literary fiction. This paper analyses this fiction, although with less emphasis on the issues known from sociology of literature. Instead, the paper takes it as a material for sociology of science, as understood through the lens of socio-technical imaginaries (Jasanoff, Kim 2015). The fictional story deserves closer analysis through the lens of the sociology of science, not because of its public reception but because of two aspects that set it apart. First, it is a purposely built utopian story. More grizzled than rose pink at first, it is still a story with a relatively happy ending. Further, utopian proposals in relation to the climate’s future are rare, especially if they are written by authors from social sciences and humanities (Bastani 2020; Malm 2020). The second reason for closer analysis comes from the involvement of scientists and conservationists in consultation and the near-future perspective of the book.

It is a positive imaginary of the future of climate crisis. It is a futurological fiction written with the support of scientists and other experts in various aspects of climate crisis. It was also highly endorsed by Barrack Obama and others. The last issue is important, as this endorsement likely brought at least some interest in the book to people responsible for shaping climate policy of the United States of America.

Another reason may sound trivial but remains most personal to me. The author of the book, Kim Stanley Robinson, dedicated the novel to Frederic Jameson. This gratitude is easy to understand, as Jameson mentored Robinson’s early PhD work in English literature. For wider debate on the Anthropocene, Jameson is often cited as the author of this saying: “It is easier to imagine the end of the world than the end of the capitalism.”1 As a result, *The Ministry for the Future* is both a beautiful paradox in social theory and a homage made by the student for the tutor. From this paradox comes my personal motivation. For me, the relative beauty of this paradox lies in the rhizome of its internal contradictions. It is a form of fictional–futurological polemic that challenges the pessimism that once made the Robinson’s tutor a classic in the debate on the Anthropocene.

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1 Jameson (2003) wrote the similar phrase in the essay “Future City”, which was then popularised by Marc Fisher (Fisher 2009). This saying was also popularised by Slavoj Žižek during his numerous talks. It became a popular bon mot in openings of various books on the Anthropocene.
Fiction and futurology should not be taken from the interest of sociology. The tension between them contributes to a larger theoretical question about the legacy of Jameson’s influence on the Anthropocene’s imaginary. This tension is also in the theoretical triangle between bygones of modernity\(^2\), critiques of capitalist modernity, and imaginaries conveyed through Anthropocene debates (Bonneuil, Fressoz 2017; Czapliński et al. 2019; Haraway 2016; Napiórkowski 2022; Nijakowski 2019). This is why sociological analysis of the book may shed new light on otherwise tacit assumptions taken in Anthropocene debate.

For these reasons, I will approach the premise of the book with full sincerity instead of suspicions taken from critical theory tradition in literature studies. Robinson consulted various papers about climate sciences and the economy to propose alternatives that initially at least looked plausible. To match this stance, I will also approach them with good intent and my best professional knowledge in the sociology of science and science and technology studies (STS).

After believing in a genuinely optimistic climate crisis scenario, let me ask which imaginary of scientific institutions and policies is offered through this fiction? What is the interplay between climate sciences, climate engineering, conservation, and various levels of democratic systems?

One can read *The Ministry for the Future* as an example of attempt at the futurology of the climate crisis. The book itself opens itself up to such an interpretation. Literary fragments are mixed with fictional technical documents and narratives from posthuman agents, such as the sun, market, or soil. I have little training in literary analysis; however, I still noticed that the story fragments were dry and almost perfunctory in envisioning the future. This is the secondary argument for analysis that is closer to hypothetical sociology than literary analysis. This is also why I will not be particularly interested in literary analysis.

My approach will be through the sociology of science and feminist theory of care. Both perspectives rely on reflective turn in anthropology and sociology, so the paper deliberately eschews pretentions for “objectivity” in favour of openly showing sources and elements of interpretation.

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\(^2\) Within this paper, I believe that any analysis of imaginary of scientific institutions should acknowledge and theorize on two shifts. Firstly, the scientific institutions known in societies in 2023 developed in response of scientific and technological challenges of both World Wars. Secondly, this pathway was changed as an effect of various free market philosophies often understood in sociology as New Public Management around 1980s and 1990s. Failure to acknowledge the first one leads to missing relation between state, military and science. Failure to acknowledge the second one leads to missing the role of science in capitalist market systems after 1990s. Failure to acknowledge and reflect on both leads into the idealization I call “bygones of modernity” / pogrobwcy nowoczesności. This recognition, while seemingly obvious for contemporary sociology of science may be less clear in other fields. This also justifies using tools from sociology of science in this paper instead of tools and methods of literature analysis.
Analytical and Theoretical Perspectives

This paper is interested in futurological imaginaries of institutions of science. This paper investigates the interplay of science and society; therefore, the tools for interpretation will benefit less from the sociology of literature (Griswold 2012) or the classical studies of science fiction (Suvin, Canavan 2016). I wish to explore fictional sociology of the policies, institutions, human actors and issues such as planning, doubt, mistakes and care. This also means that this paper is less interested in issues such as language, general plot structure or literary depictions of other aspects. Instead, I wish to examine this book from two classical theoretical perspectives from sociology of science.

The first perspective is the concept of technoscientific imaginaries. Sheilla Jasanoff and and Sang-Hyunn Kim (2015, p. 3) define them as follows:

Imagined forms of social life and social order reflected in the design and fulfilment of nation-specific scientific and/or technological projects. These visions and policies can shape technology, public spending, and access to technological progress.

In the next pages, authors of the terms openly invite science fiction as a source for analysis of imaginaries (Jasanoff, Kim 2015, p. 3–6, p. 337–338). This makes this concept particularly useful for me, as it links the imaginary theory of institutions and politics with STS analysis of technoscientific projects, policies, citizenship, and proposals regarding progress. Imaginaries in relation to institutions of science or politics are understood as factors that shape and are shaped by both science and politics. Such factors can be understood as narrative or discursive structures. Imaginaries serve as more than propaganda or justification for institutional actions, as they create a part of institutional agency in the sense of what science or politics could realistically do (Jasanoff, Kim 2015).

As the conceptualization improved, I became more aware of inherent limits of this framework. It lacked critical sensibility to inequalities in power, gender, class, ethnicity and other sources of conflict in global scale. I also decided that the initial framing mirrored zeitgeist of modernity in placing put too much emphasis on the issue of development in lieu of sustenance, maintenance and power imbalances as I mentioned in footnote 2.

To intersect the conceptual framework of the imaginary, I added a concept from feminist STS as a diffractive net to my reading (Engman, Ennser-Kanaenen, Saarinen 2023). Further, Maria Puig de la Bellacasa’s (2011) concept of the matters of care weaved with the examination of American science fiction through a feminist perspective by Lisa Yaszek (Yaszek 2008). The first should serve as a counteracting force for gender-power bias in STS and in the technosocial imagination, whereas the second should serve as a sensitivity concept for science fiction. Technoscientific imaginaries often stay within “high modernity”
visions of science policy; therefore, diffracting it through gender and care in science and science fiction is almost an intuitive pairing.

As an ethnographer of scientific work, I interpret that de la Bellacasa’s matters of care are a critique of Bruno Latour’s matters of concern and other concepts from the ethnographies of laboratories. In addition, de la Bellacasa used a well-recognised concept from feminist philosophy (Tronto, Fisher 1990) to show that previous approaches took little interest in maintaining, nurturing, caring, and providing for all things necessary for existing and thriving in the shared world. Yaszek’s research reveals that American science fiction literature from the “golden age” had greater emphasis on care or queerness compared to the previous findings of Darko Suvin and Gerry Canavan (2016). Yaszek’s work contributed to the rereading of science fiction authors such as Judith Merril and Octavia Butler in a new light. Instead of treating them as exceptions in an otherwise male-dominated field, Yaszek read them as voices from an otherwise marginalised multiplicity. American science fiction only became interested in feminist, queer, or non-male perspectives after the 1970s. The topics and voices have always existed long before this date.

In this paper, I will show them as both sides of just one sociological effect. The effect is the systematic negligence of the portrayal of care workings and care knowledge in the representation of science and the imagined futures of science. In response to this blind spot, after the work of de la Bellacasa and her colleagues, care was understood in terms of intimacy – emotional and bodily – while requiring expertise, community, and shared knowledge.

This is why I wish to pay special attention to all relations of care. It may sound counterintuitive, as care is usually not associated with statistics, models, or engineering but with bodies, cells, emotions, and touches. However, Joan Tronto and Berenice Fisher (1990) never explicitly limited care to the biological or direct interpersonal dimension: “Everything that we do to maintain, continue, and repair ‘our world’ so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment, all that we seek to interweave in a complex, life-sustaining web.” (Tronto, Fisher 1990, p. 39 and further). Feminist philosophy includes science and remoteness in care, even if intuition would argue differently. This should be of little surprise, especially to sociology, as a constant dialectic of proximity and remoteness is the founding principle of sociological imagination (Mills 2000).

I decided to forsake a sociological analysis of climate depression and individual mourning. Examples of the former can be found in psychology (Marczak et al. 2023) and examples of the latter in works of literature (Szaj

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3 Following debates in science history and science memory studies, I define “high modernity” around history and imaginaries between Sputnik and Apollo 11 Moon Landing.
2022). For a broader understanding of the unmentioned issues of the Anthropocene, I relied on widely known readings on the Anthropocene (Bińczyk 2018). In reconstructing the postcolonial critiques involved with the term, I relied on one of the most common critiques (Bonneuil, Fressoz 2017). While both sources may not be the latest in the specialised debates, I did so since understanding STS and futurology takes enough cognitive toil.

**From Plot to Threads**

*The Ministry for the Future* is long and polyphonic. Both traits make it hard to analyse it chapter by chapter. It would be equally hard to analyse all elements of the story in relation to science, as that would likely require going far further than length of this paper.

Plot of the novel revolves around actions taken by the Ministry for the Future. Ministry is the fictional United Nations institutions tasked with leading global actions on climate change and climate crisis. The Ministry is lead by Mary Murphy, Irish diplomat and labour lawyer. Mary is accompanied by the loyal team of economists, lawyers, IT specialists and scientists. As the staff of Ministry, they act on disaster response to reduce effects of heat wave. Ministry also leads global policy changes, like reforming agriculture in India towards lower CO2 emissions. In terms of economic and monetary policies, Ministry proposes new currency and lobbies in central banks of bigger countries. It is also highly suggested that the Ministry has “black ops” division, responsible for spreading new religion, preparing blackmail against climate deniers, laying grounds for pro-climate uprisings and other climate-related covert operations. While Mary has some personal arcs, related with kidnapping and losing friends due to assassinations, the policies are the main elements of the book. As it was present in 1950s science fiction: whole pages focus on terraforming and geoengineering with paying little notice for the people responsible for them. In this aspect, Ministry for the Future resembles other works by KS Robinson like Red / Blue / Green Mars novels’ trilogy.

Because of cornucopia of policies and their developments through the plot, analysis of the whole plot would require much more space than this paper has. Instead, I decided to focus on selected threads from the general plot. In this section, I outline the threads, their role in the plot, and justifications for my selections.

For the first thread analysis, I follow Sławek’s idea mentioned at the beginning of the review. Antarctic glaciologists and polar engineers experiment with geoengineering to slow down the drift of the glaciers of the sea by pumping water from beneath the glaciers. Water comes from melted ice and
acts as a water slide for glaciers, making their glide into the sea easier. This slide is made of water mixed with bottoms of glaciers, so water blends with rocks and remains of ice and glacial material. After humans drilled holes in specific locations, the weight of the glaciers forces the bottom water-rabble fluid to shoot up to a considerable height and makes it easier to pump. When the water is pumped out to the colder regions of Antarctica, the movement of the glaciers changes in nature to a slower kind (a non-viscous flow), as if the water has run out of the water slide. The result is the slowing down of the process of the Antarctic glacier movement into the sea and the slowing down of the rising seas. Since this particular form of geoengineering operates on a smaller, more tailored scale than pumping the water out of the sea into glaciers, the whole process is much more energy efficient.

This thread is interesting, as it is most closely connected with the development and execution of the scientific project, from the “back-of-the-envelope” phase to the “network of successful nodes and evaluation”. It spans several chapters and decades but has a few named heroes. Its plot has the most “science in action” (Latour 1987); hence, it may serve as a useful testbed for the examination of care, discovery, and institutions. This thread also contributes to the analysis of the imaginaries of geoengineering (Augustine et al. 2019).

For the second thread, I picked the ministry’s negotiations with central banks about changes in monetary policy and the establishment of a new negative emissions-based carbon coin. Mary, as the head of the ministry, conducts a campaign to convince powerful leaders of central banks to include climate policy in the central banks’ duties. Arguing that the growing instability of the climate poses a danger to monetary policies, Mary eventually gathers support for the establishment of a global currency whose value depends on the amount of carbon not emitted into the atmosphere. While the whole concept may sound counterintuitive at first glance, the objective is to provide an economic incentive to countries possessing oil and coal deposits so that they will not mine them, at the same time providing a source of financing for the ministry. The second case is loosely based on ideas from modern monetary theory, economical theory that is critical for neoclassical paradigm in the field (Kelton 2020).

This case is closer to the economic venue of STS (Mirowski 2018) as well as its policy–organisational analysis (Jasanoff, Kim 2015). Assessing policies from this science fiction book seems unfruitful; therefore, my interests lie not as so in economy or in the policy itself but more in the portrayal of the debates leading to the policies and of the responses garnered after their implementation. I am less interested in the details of the science fiction of the science of economy than in the portrayal of institutional antecedents and the effects of such policies.
Thread Analysis

Ice drilling is presented by the glaciologist to other glaciologists and the carbon coin by an economist and the ministry’s AI to the ministry director. From the beginning, ideas are framed as technical solutions. During initial discussions, possible issues are understood in terms of success or failure rather than as unforeseen consequences, risks or rewards, or the costs of alternatives. Both carbon coin and ice drilling details are separated from public input at this stage; however, while the carbon coin at least acknowledges human psychology and politics as factors, ice drilling is framed as purely technoscientific. The issues of funding, workforce, and sustenance in Antarctica are taken for granted – not as negotiable or as issues that will be a potential source of conflict. Moreover, labour for the project is presented as a pure mobile resource, easily relocated to one of the most hostile regions on Earth. The initial funding for the project is delivered via a single-case scientific grant. In both cases, ideas are presented as technocratic, “behind the door”, outside of public supervision, and shaped as a problem–solution framework.

Additionally, ecological institutions or other political actors are erased from the picture, as ice drilling happens in a typical scientific fairy tale – starting from the back-of-the-envelope calculations to the field testing, with little attention being given to funding, personnel, or sustenance.

The same applies to the carbon coin plot line. It is framed as a classical heroic tale with a “wise technocrat push against backward bureaucrats”. Again, similar to a science adventure, public scrutiny is not taken as something serious, as it does not even exist as a point of reflection among characters. Care, however, is understood in ice drilling and the carbon coin and is structured in a patronising and non-accountable way. The only way of scrutinising the projects is through their efficiency because even the collegial debate is voiced off.

In the following subparts, I wish to analyse other issues that come from this patronising stance. In the first subpart, I will examine how gendering and the reduction of emotions in The Ministry for the Future resemble historical science communication and science fiction. This will allow often overlooked connections to resurface between public hopes assigned to climate science and government actors that shaped it through its history. Deliberately or not, The Ministry for the Future may serve as a great example of a thread between climate sciences and military organisations, which is often missing from public debates on the Anthropocene.
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Modernity Mon Amour

The author describes the technical details of both projects in the opening chapters on several pages, presenting a state-of-the-art speculation of the possibility of both. In this sense, he closely follows the “golden age” male science fiction authors (e.g. roughly between Isaac Asimov and Robert A. Heinlein) described by Yaszek (2008), for whom the exact mixture of a rocket propellant and components of a jet equation were as crucial as retelling stories of American Empire and American Frontier.

Yaszek’s critique responds to change in my reading of science fiction. To be truthful, the boy-engineer inside of me was initially satisfied, but soon, even my sociological, nerdy inner-pal became irritated. Despite the plot, the relation of scientists to their concepts does not change. It matters little if the concept is proven to be true, false, or just not efficient enough. Further, scientists are as dehumanised as a group, as they were in a work of male-centred science fiction. Am I reading science propaganda from the 1930s, where only steely eyed men could take the burden of command? Have I missed something and flipped into science fiction in reconstruction of socrealism, such as that depicted in the very early Stanislaw Lem’s *Astronauci* (Lem 2017)?

Additionally, Yaszek shows counterexamples in fiction, while laboratory ethnographers show counterexamples in the laboratory. Joy, care, play, or grief is about not only the correct calibration of equipment or measurements but also assessments, models, theories, and concepts. In the discussed novel, there is no portrayal of this dynamic – only failures of particular applications or naïvetés about the scale.

The first developments of both projects provide a major split in the narratives. Ice drilling is framed as the endeavour of an isolated elite community that just has to do “the right stuff” (as popular US Science-Military propaganda called it). For the contrast, initial discussion on the carbon coin is framed as one witnessing a “good technocrat against bad bureaucrats”, as the leader of the ministry buckles against the wall of silence created by rigid-minded central bankers. Powerful Central Bankers understand their mission only in terms of national currency stability without regard to the impact of the climate crisis on national economies. For ice drilling, comparable failures are much more personal. The driller dies in the ice crevice at the end of the initial phase. This

4 I find little contradiction between depictions of science in socrealism and depictions of science in popular American Cold War imagery. Popular Mechanics (American popular science communication magazine) from the era may mirror Polish series of books and programs “Zrób to Sam” or “Młody Technik”. Translations can be read as “Do it yourself” (although specifically male-gendered) and “Young Constructor”. Most likely Stanislaw Lem knew American science magazines, which would explain lack of difference in imaginaries despite the Iron Curtain.
is portrayed as a tragic loss because of his experience and knowledge but, at the same time, serves as a reminder that the project is bigger than any person. Then, the drilling continues and expands in scale.

It may sound strange, but sombre feelings and pathos do not make a good vantage point for the matter of care. Steeleye, heroic men on glaciers, would have made a perfect fit for both the New Deal and the socrealist propaganda. For example: both sides often framed scientific projects as “conquests” or “battles” (e.g. Conquest of Space, Battle against Analphabetism). Similarly, “Ministry for the Future” more often emphasizes “control” or “victory” over elements of nature rather than framing it as discovery, understanding or coexistence. Sometimes the phrasing is exchanged for “helping nature” or “doing little tricks with phenomena”, which slightly moves onset of metaphor towards end of the Cold War\(^5\) and beginnings of late modernity digital capitalism.

The institutional part of the “glacier plot” is also solved through deus ex machina: a friendly mysterious billionaire, the US Navy, and little else. Grants are given when needed, tenure never becomes a problem, and institutional budget reliability can only be rivalled by the reliability of the navy. Scientists and sailors, hand in hand, save the world. Lawyers and analysts from objective institutions provide blueprints. In the world of “Ministry”, serious people just do not even discuss democratic accountability, even in form of lip service. Climate crisis is too serious to be left for the citizens to decide.

Forgive me for some private sentiments, but my professional knowledge made me both furious and defenceless against the plot. I simply cannot take it seriously. For a sociologist of science with a basic knowledge in the history of Cold War science, this is a repetition of Cold War science propaganda, not its actual history. It is infuriating that, even when imagining the best possible climate future, I am asked to stay within the realms of Cold War propaganda. I refuse to do that as both a sociologist and a science fiction fan.

This tension is interesting as an analytical finding in the Anthropocene debate. While the book recognises the role of military forces in future climate emergencies, the role of the military in the history of climate science is still often overlooked (Oreskes 2021). Similarly, the gung-ho portrayal of the efficiency of science comes back to the history of American science in the Cold War (Wolfe 2020) and the ideology of “science as the endless frontier” (Bush, Holt 2021).

What exactly do I have in mind? That is simple: nowhere in this book does the military, an intelligence agency, an oil company, or even a lobbying group

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\(^5\) Cold War should not be taken as a universal, global historical experience common for all science institutions. Many science institutions were thriving during this period. They did so by situating themselves outside of East-West dichotomy. Examples: development of science institutions in India and in South America (Brazil, Chile).
make active resistance to the action of the ministry. There are no physicists who became climate deniers; there are no ex-politicians who became media figures; and there are no harassment campaigns against climate scientists. Nobody arrests protesting scientists because automotive companies lobbied in the government, similar to what happened in 2022.6

How much of this imagining of the Anthropocene is tempted by nostalgia about modern efficiency, solutionism, and military preparedness? At the same time, how can such retrospections without erasing the sociological imagination and history of resistance, consciousness about conflicting interests, and theories of conflict be resisted?

This is another blind spot of the technocratic utopia. If there is no politics, there are only problems and solutions. Science and especially engineering become tools to be applied, not social processes or political arguments about the future.

This is why I need to ask “Who gets to be a political actor?” in the next subpart of my paper.

**Who Gets to Be a Political Actor?**

What is imagined through the “financial” plot? The leader of the ministry takes an important step in the development of a carbon coin. The carbon coin is a virtual currency that incentivises keeping fossil fuels on the ground and investing in carbon capture and agriculture. It does not function as it was hoped in the book. For brief history of transnational, cryptocurrency and economical-ecological intervention model one needs to dive into more specific literature than analysis of the novel (Golding et al. 2022).

Mary Murphy, the leader of the ministry, implements the coin by lobbying in central banks, making deals, and understanding characteristics of regional economical systems. This part of the book is brief but shows at least a semi-plausible attempt to negotiate with bureaucracies and legislatures to implement policy. It is still deeply elitist and undemocratic, conducted behind closed doors with no major opposition. However, it acknowledges the dynamic and dialectical nature of central banking institutions, which are portrayed as constantly navigating different places between economic and political imaginaries. What they almost uniformly share is their detachment from democratic politics. They rely more on each other and big financial markets than on their democratic governments.

Ice drilling is more obscured by the Antarctica than by the arcane nature of the financial arts. This isolation is part of the plot’s characteristics. Chapters may cover global events and several decades of action. However, the plots remain linear, rarely branching into other plot lines. They resemble quasi-parallel lines. They meander but rarely meet. For a book about a complex problem, I rarely felt its complexity. Surely, individual plots and their solutions were complex, but there was no sense of “weaving in”.

This plot isolation is visible in the epilogue of the ice drilling thread. When one drill breaks down, the chapter narrates a routine maintenance operation. The tone is adventurous; the Antarctic weather is beautiful; and the resources for repair arrive on time and in place. The whole repair proceeds smoothly, so I share joy and pride with the characters. To repair the drill a few hundred kilometres from the sea, a whole chain of care needs to be maintained. There is little discussion about the sustenance of the operation, at least until the drill breaks. The replacement is brought about by a rapid succession of military convoys through Antarctica.

It would be easy to miss the switch, if not for de la Bellacasa and Yaszek. This is exactly the sensibility found in feminist sociology of science and feminist reading of science fiction. Drill failure is an accident in routine, boring, and dangerous care work. The maintenance of infrastructures is less exciting than innovation but no less crucial for sustenance. The labour of maintenance is the labour of care (Russell, Vinsel 2018). The Ministry for the Future makes a small but notable switch: instead of being about the labour of maintenance, the book is an adventure in the form of an ice trip through Antarctica. Instead of being about routine civilian duty, it is about smooth military operation. Care and maintenance are hidden themes, and military reliability is emphasised ad nauseam.

The only plot-significant opportunity for care and maintenance at the continental scale comes only through military and espionage. Failure, support, debate or concern either remain at the family level or have to submit to needs of technocratic military-science-monetary complex.

Furthermore, the high moments of the carbon coin are different. One comes when a series of social revolutions overturn major carbon emitters. Depending on your reading, some of those actions could be ascribed to the ministry’s “black operations” (illegal intelligence actions) or organic social unrest. However, the mechanism of explanation is clear: the carbon coin provides an economic incentive that is strong enough to support economic transitions supporting political transitions. Backroom deals with central bankers precede democratic changes. Curiously, in this section, no military involvement among global powers is mentioned. There is no oil lobbying either. Nor even serious negotiations about climate reparations.
Do not get my intentions wrong. I found thrill and joy in reading about imagined futures of less aggressive glacial engineering. I even found some pleasure in speculation about economical toys and backroom plots. Yet, when it come to multi-national changes in societies, the social forces were given far less credit than economical or geological ones. I do not ask the reader to make any ontological equivalences here and get back to debates on social/science construction of knowledge. I am simply pointing out what is shown as natural in the plot of the novel and what kind of resistances go without such mention.

This is equally fascinating and perplexing. There is a clear precedence of actions. Mary and the Ministry starts not with public but with backroom dealings and schmoozing of central bankers. Yet, after bankers start to agree, there is no meaningful opposition from the extraction sector. No carbon-coin deniers, even no conspiracy theories about the global money. Mysterious billionaires and private associations of oil companies, if they are present at all, function as benefactors of extravagant geoengineering projects. Not even one of the fictional climate vessels shares the fate of “Rainbow Warrior”, a real-life Greenpeace protest and support vessel sunk by the French intelligence in 1985.

One may say that lack of powerful enemies is necessary for any premise of the climate utopia. “Ministry” seems closer to this kind of technocratic stance, as it analyses climate crisis as a problem to be solved and politics as a tool as professionals. Politics is disjointed from the public sentiment as it is science. So what is left for the public? What is left for citizens, farmers, workers or climate refugees? What we, as citizens, civilians, caretakers, victims or voters could know or do?

Fortunately or not modern ecological sci-fi classic *Dune* (Herbert 2005) solved this issue already and “Ministry” dutifully follows. *Dune*, as the whole cycle, may have been written as conservative-ecological criticism of reign of JFK. “Ministry” may have, at least in declarations, completely opposite objective. Yet both books mirror each other in ecology-religion-politics triangle. Politics is not for the polity, masses get the religion and if they are lucky, they may have a benevolent “Éminence grise” on their side. In the case of “Dune” it was a white saviour, prince-poet and wizard. In the case of “Ministry” it is Mary, institution of the Ministry. Mary and ministry also have semi-conscious supercomputer that is Machine-God in any function but for the name. Extended discussion on problems with unreflective comparisons between technology and theology has been made elsewhere (Zaród 2022).

No matter what is your preference about benevolent machine-gods and sci-fi literature, it is a fact in the novel that the Ministry’s propaganda operatives willingly instil a religious approach to the climate as a form of mustering public support. This plot device construction of the plot sends back to the colonial critiques of *Dune*, another modern classic and ecological science fiction novel.
with the dominant trope of the “white saviour-prophet” that ultimately becomes “the destroyer of the worlds”. What *Dune* and *The Ministry for the Future* share in common is treating Indigenous religion as mutable and exploitable by the institutional propaganda of enlightened, colonial modernists. By far, I am not an expert in any of the many strains of Indigenous climate thought, but such a plot construction offer only patronising and colonial politics. Wise bureaucrats have to decide about the fates of the whole Earth, and any form of Indigenous religious thinking could be useful only as propaganda but not as knowledge or a form of participation in democracy.

This description is not entirely fair. The novel describes public political sessions on the spending of incomes from the carbon coin, participated by representatives from non-government organizations and organizations representing rights of people, whose land have been sunk by the rising sea. Yet again, no significant tensions rise during the sessions. No participants ask on what mandate Mary is chairing the sessions for one or two decades. Elites already set up the currency tools behind the curtains, so subaltern others may democratically convene on the scene. If it is not patronizing economical colonialism, then I do not what else could be.

Again, allow me to compare the carbon coin plot with the ice drilling plot. Non-elected but public institutions can be involved in backroom deals when the economy is a matter; however, when it comes to ice drilling, the only actors on the scene are scientists and sailors. Even in the undiscussed thread about the adaptation of farming in the Indian subcontinent, there are no internal tensions between landowners, agricultural workers, and the food industry. *The Ministry for the Future’s* operatives collaborate and mutually learn from other stakeholders without any conflicts related to gender, wealth, class, or other factors. Even Indian and Pakistani air forces collaborate to spread geoengineering solutions for heatwaves.

Another high moment for the carbon coin is described at the local level. A family of farmers uses carbon sequestration techniques in agriculture and receives a reward in carbon coins to bolster their agricultural economy. This is the end product of the carbon coin: delivering rewards to poor people for doing the right thing. The farming family has mixed sexes, and the woman is the narrator. She is portrayed as smarter and more open to change. I noticed that the imaginary was like so: “Expert trainer teaches farmers how to plant efficient crops and rewards [them] for it”; this is undistinguishable from the 1930s, both in the American New Deal and in post-war communist Poland of 1950.

Both examples are worth examining in an analytical combination. The military and the government agency appear to be reliable sources of expertise and an invaluable part of the sustenance infrastructure. The government provides training to farmers, and the military provides supply drops. Both concepts are
modern in nature, similar to the 1930 New Deal era. The civilians’ role is to accept the care – not to scrutinise the caretakers and decide what is needed, how the infrastructure is built, or how the resources are to be distributed.

Robinson rarely describes how the act of caring changes the caretaker or how the caregiver reacts to changes in the needs of the care receiver. There is a description of anxieties, burdens, and so on, but they are not shaped by acts of caring but by the economy. They happen in chapters narrated by episodic characters (e.g., farmers using emission-free methods), but care shapes neither economists nor politicians. Or, if one prefers, serious people just care too much about the rest of the world to ask it for the opinion.

Scientists, engineers, and economists function as they were during the “golden age” of science fiction literature; however, what is even worse is that the personas narrating their particular chapters also function like them. This perspective is much closer to modern versions of futurism, stripped of the major issues of reflexivity, conflict, or even discord. Issues of infrastructure, sustenance of programs, or even prioritisation are non-existent. It is the humans – not the solutions or institutions – that may be ultimately blamed for failure.

Despite an optimistic view on the future and the apparent inclusivity of perspectives, including posthuman ones, it is still a modern perspective when it comes to imagining institutions, negotiations, and science. Power and knowledge are still patriarchal, and democracy comes as a negotiable side note. The ministry may work for the future, but as an institution, it is from the imagined past of the 1950s or 1930s.

Conclusions

Zeynep Tufekci (2017), an ethnographer studying the interplay between the digital and political realms, framed a distinction between “psychological” and “sociological” storytelling. The former makes a story believable through emotions and empathy in protagonists and the latter through external pressures, such as from institutions or norms. In psychological storytelling, we explore the individualities and emotions of particular people. In the sociological approach, we discover patterns and social structures. Tufekci notes that sociological storytelling is harder to tell through visual media, especially when structures constantly flow in liquid modernity (Bauman 2000).

Therefore, returning to my original questions, does The Ministry for the Future succeed as sociological storytelling about science and care? Does it bring new perspectives, or does it stay in the tracks of old imaginaries? Before I answer these questions, allow me to return to the narrative constructions in the book.
The Ministry for the Future has multiple narrators. Some of the voices are human, and some represent actors, such as the market, sun, nature, or history. I admire the literary courage of the author, but I believe this attempt resulted in providing a sense of false anthropocentric familiarity (Chaplin 2017; Haraway 1988; Spivak 2010). History, nature, climate, or market should be anthropomorphised into the single-person narrators, which are understandable as subjects acting in the world. This posthuman rhizome does not do much to expand my imagination; it only reduces it to the scale of human plots, encountering problems similar to Latour’s attempt to describe the process of design from the perspective of the conscious train that is being constructed (Latour 1996).

However, my criticism has led to more serious matters. Multiple narrators, both human and nonhuman, do not talk with each other. As a result, the threads of the plot rarely form a fabric. The fate of the ministry or selected projects can be reconstructed from selected lines, but nonhumans add nothing to them. They appear to speak, but they act as effectively silent. They chatter but do not make a difference through conversations and as independent actors.

This may appear strange, as market, nature, climate, or sun appear to play crucial roles in the ministry’s plans, so let me explain this. Humans and institutions do not change their understanding of nonhumans. Sometimes, their predictions are wrong, but we never witness scientists, economists, or engineers changing perceptions or assumptions, having fierce debates, or reconstructing meanings. Science is about getting numbers right and setting up measuring equipment, not about devising clever experiments, conceptualisations, different perspectives, and so on. This is the modern imaginary of science, not its actual workings as known from STS ethnographies.

The Ministry for the Future invokes many literary devices together with numerous topics and elements of technoscientific imaginaries. But they do not interact with each other; they neither speak about nor show how humans care for each other. The science and engineering of energy transition are portrayed as simple processes related to the application of bright ideas. Alternatively, they appear as heroic matters of endurance and the avoidance of tragic consequences of error, not as matters of negotiation, co-shaping, or collective processes of mutual care. Nonhumans are just puppets who never deviate from planned roles.

In any kind of utopia, there is a problem with legitimacy, accountability, and the errors of the care’s benefactors. In The Ministry for the Future, benevolent government institutions execute care but are never wrong, even in terms of simple administrative mistakes. Scientific care is always right; it never makes mistakes. It never repeats racism or class discrimination, and it never adds to existing oppression. It never leads to eugenics or cruelty committed in the name of care. Whole chapters on the reflectivity of medicine, physics, and engineering in the modernity. Whole fields of bioethics, engineering ethics, and public
accountability of science, among others, simply never exist. The future is like an undiscovered country, and *The Ministry for the Future* certainly does not want to hear any lessons about colonialism.

While my analysis may appear less than sympathetic, I believe that exploring imaginary futures should remain an important part of action during the Anthropocene. Sociological storytelling should be among them, as imagining and proposing institutions for the participation of millions and billions of people is hard. It is much harder than imagined politics in cottages and lofts in landscapes that are, if nothing else, a settler’s dream. Modern sociology started with such dreams. Science needs such mass-scale institutions to function, as anarchist / volunteer based super-computing climate change models still do not exist.

While modernity offered rich soil for such dreams, Anthropocene fiction and sociology should be more than careful about repeating them unconsciously. Science propaganda was part of modernity, yet deconstruction of propaganda is inadequate without knowledge about proceedings of real institutions. Therefore Anthropocene sociology of science should always keep the hope, be aware of the myth and be curious about the history of practices, especially practices of care. Philology of Anthropocene is ill prepared for institutional futurism. This is the task that marks the split between social sciences and humanities of the Anthropocene.

Sociology of science may have no mouths, but it must scream.

**Personal Notes**

I wish to express gratitude to prof. Sławomir Tułaczyk for enabling a consultation about numerous details for this paper.

I wish to express gratitude to dr. Małgorzata Bronikowska for recognising the real-life counterpart of the fictional character of Slawek and suggesting further research on this topic.

Any mistakes in the understanding of glaciology and geology in this paper should not be blamed on any of the aforementioned scientists.

**Note on Large Language Models and other mass computing tools**

No LLMs were used to write the paper. The author produced the first draft of the paper.

No LLMs were used to analyse the novel. No LLMs were used to analyse or review the bibliography content. All interpretations of cited literature are
acknowledged by the Author. LLMs and other mass computing tools were used in initial stages of literature review to expand the search (Google Scholar, Litmaps).

LLMs were used in the editing and first stages of proofreading. LLMs used in editing included Microsoft Word spelling and grammar correction (first phase) and the ProWritingAid software service (second phase). The final version was authorized by humans and checked against LLM artifacts in terms of wording, data, and authorial intent.

Bibliography


Spivak 2010.

Rozprawa Jednostka i Kosmos w filozofii Odrodzenia była dziełem przełomowym, stanowiącym przykład badań historycznych o głębokim zakorzenieniu systematycznym, a przy tym odwróconych od interesów ideologicznych, zgodnie z najlepszą tradycją humanizmu i zachodniej tradycji akademickiej. Cassirer podniósł dyskusję na temat Renesansu na najwyższy poziom teoretyczny, dostarczając interpretacji nowoczesności, z którą musi się zmierzyć każdy badacz europejskiej historii intelektualnej i filozofii. Mimo iż minęło niemal 100 lat od jej powstania, rozprawa niniejsza wciąż cieszy się sławą jednego z najlepszych syntetycznych opracowań myśli filozoficznej epoki Odrodzenia.

Wydawnictwo IFiS PAN poleca PRAKTYKOWANIE SUPERRÓŻNORODNOŚCI Polscy przedsiębiorcy imigranci i wyzwania adaptacji w Wielkiej Brytanii

Katarzyna Andrejuk

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(Komentarz tłumacza)

Publikowane przez Wydawnictwo IFiS PAN części projektu „Homo sacer” są oparte na nowym, integralnym wydaniu całego cyklu z 2018 roku. Zostały uzupełnione o wprowadzenia i komentarze, które pozwalają zapoznać się z metodologią i założeniami całego projektu oraz dostarczają krytycznych uwag do często kontrowersyjnych tez stawianych przez włoskiego filozofa.
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**Naum Trajanovski**

**A History of Macedonian Sociology: In Quest for Identity**

Palgrave Macmillan Cham 2024


This book is the first English-language monograph about the institutional development of sociology in (North) Macedonia. It maps and discusses the contexts, goals, and merits of the pioneering attempts for sociological research in the interwar period, early post-war educational and publishing politics, the institutionalization of sociology in socialist Macedonia in the course of the 1960s, its cross-national exchanges, as well as its major trajectories and debates up until the present days. Against the backgrounds of the political and intellectual histories of Yugoslav and post-Yugoslav Macedonia, it argues that the development of the sociological activities, themes, and arguments is entwined with the Macedonian nation- and state-building.
Mobilizacja etnicznosci. Mniejszosciowe społeczności narodowe i etniczne w spisie powszechnym ludności i mieszkań w Polsce w 2021 roku

Sławomir Łodziński, Kamilla Dolińska (redaktorzy)

Wydzial Socjologii UW poleca

Narodowy spis powszechny ludności i mieszkań przeprowadzony w 2021 r. w Polsce rodził, podobnie jak i poprzednie spisy ludności w 2002 i 2011 r., duże wyzwania etniczno-tożsamościowe, jak i społeczno-organizacyjne dla całego środowiska mniejszości narodowych i społeczności etnicznych w naszym kraju. Prezentowana książka podejmuje próbę opisu oraz analizy wybranych zagadnień spisowych. Koncentrujemy się w niej przede wszystkim na opisie działań podejmowanych przez organizacje społeczności mniejszościowych w okresie przed spisowym i w trakcie spisu, które dotyczyły oceny przygotowań i mobilizacji spisowej danej grupy, współpracy z GUS-em oraz władzami lokalnymi (które były m.in. odpowiedzialne za uruchomienie punktów do samospisu), przebiegu samego spisu z perspektywy pytań o narodowość i przynależność etniczną, język domowy i wyznanie oraz o obywatelstwo i kraj urodzenia (czyli spisowych pytań etnicznych), a także oceny metodologii spisu (zwłaszcza samospisu internetowego) oraz oczekiwań dotyczących liczebności swoich społeczności otrzymanych w tym spisie. Zwracamy w niej uwagę na zagadnienia mobilizacji społeczności narodowych i etnicznych w ramach spisu przeprowadzonego w 2021 roku. Świadczy o tym skała przygotowań i mobilizacji do spisu, a zwłaszcza liczba podjętych zorganizowanych działań i aktywności medialnych w ich środowisku, które reklamowały samą ideę spisu, jak i zachęcały do świadomego w nim udziału.