

The Ministry for the Future: A Novel. By Kim Stanley Robinson. 2021. Orbit. (ISBN 9780316300148). 576 pp. Paperback, \$16.49. Hardcover, audiobook, and ebook also available.

When we teach the causes of anthropogenic climate change, it is impossible to not also investigate its consequences. Doing so then invariably leads to some of the defining questions of our students' generation: What is being done to stop the looming climate catastrophe? What else could we do? What will we have to face in our future, and when?

The answer to the first question is heartbreakingly straightforward: the actions taken by developed nations, and the speed at which those that are being taken are implemented, are woefully inadequate. The answers to the other questions are much

harder. In attempting to answer them, we educators often feel torn between the need to be realistic, and the importance of not giving up, all with the desire to inspire some kind of hope, and maybe even action. All of these are the foci of *The Ministry for the Future: A Novel*, by Kim Stanley Robinson, which offers a unique and, in my opinion, highly effective way of addressing humanity's future on a rapidly changing planet.

Set in our current students' adult lifetimes, the novel uses fictional eyewitness accounts to illuminate the diverse realities of global climate change and the equally diverse responses they inspire: from government actions to efforts to sabotage them, from complacency to ecoterrorism, from changes to the nature of economic transactions to revising how we farm our food. Our evewitnesses include Mary Murphy, the head of the Ministry for the Future, a (fictional) United Nations organization charged to advocate on behalf of future generations of citizens; and Frank May, an aid worker who barely survives a deadly heat wave in India. While Mary and Frank's accounts form much of the scaffolding, they are constantly supplemented by other perspectives, including those of subsistence farmers trying to convert to carbon capture agriculture, scientists trying to slow the movements of Antarctic glaciers toward the sea, as well as-amazingly-nonhuman agents. These include a single carbon atom's journey across the eons, a photon's life across space-time, and the viewpoints of a planet. In all this The Ministry for the Future is decidedly non-fiction. It is chockfull of the latest knowledge on global climate change, its causes and consequences from human physiology to the thawing of permafrost, and the (un)certainties of current climate models.

Through this approach, this novel achieves two critical outcomes of relevance

to all readers, but of particular value to our students. First, it is brutally honest and unflinching in its portrayal of what we are up against, the dangers already in our midst, those yet to come, and how they will transform life on our planet over the next two generations. It will not let you hide. Second, despite all this it offers the audacity of hope, by sketching out a path that has the potential to slow, and eventually reverse, human impact on global climate. It is made clear that this path will not avoid catastrophes, that a global transformation of human life is inevitable, that it may still fail but that if it is to succeed, it will avoid the collapse of human civilization, and may in fact transform some of it for the better. Science, the work of scientists, and the scientific methods are at the core of this potential way forward—but so are economics, communication, the political enforcement of penalties, and the design of incentives.

Kim Stanley Robinson makes global climate change (and how it is shaping life going forward) accessible in ways conventional classroom teaching struggles to. His novel conveys the complexity of climate change without neglecting the enormous emotional burden that comes with its implications, especially for readers who are supposed to have their lives ahead of them. Yet, through its characters and their narratives, the book also offers a vision of hope grounded in scientific knowledge, a deep understanding of how human societies shape and are shaped by their environment, and recognition of what must be done and what is in the way.



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