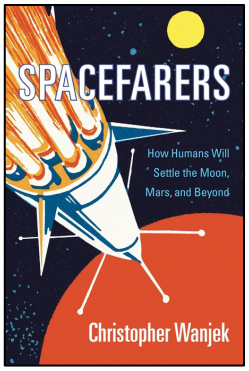
"Nerdily engaging (and often funny)... Technology and science fiction enthusiasts will find much here to delight them, as Wanjek goes into rich detail on rocketry and propulsion methods, including skyhooks and railguns to fling things into orbit, or maglev trains running around manmade orbital rings." – ***The Guardian***



Spacefarers

How Humans Will Settle the Moon, Mars and Beyond

Christopher Wanjek

Published by Harvard University Press
on 24th April 2020 in hardback
9780674984486, £23.95

Why and *how* people would leave Earth to explore and inhabit space? In this fascinating and funny look at space exploration, Chris Wanjek is realistic but still excited. As business interests and environmental concerns push countries to think more about leaving the earth, Wanjek suggests we need to think about the practicalities of the mission.

Outside of Earth, Wanjek suggests the first place to aim would be the Moon. This may look much like life in Antarctica: there are science and tourism interests but also the possibility of mining. Whilst the gravity is too low for permanent settlements workers might come and go for a few years at a time, as they do on Antarctica. Further afield, Wanjek examines ideas like floating cities on Venus, which take advantage of the Earth-like temperature, pressure and gravity or life on Saturn's moon Titan, with its Earth-like atmospheric pressure and flowing rivers and lakes (of liquid hydrocarbons). Titan however has an average temperature of minus 179 °C whilst Venus would see cities engulfed in endless swirling cloud. Other ideas include asteroids dug out to house thousands or millions of people and then sent to a distant star or the concept that Mercury is habitable on a westward, slow-moving train that circumnavigates the equator that forever remains in the cool dusk as the planet rotates.

There is a lot of work being done by space agencies to explore the possibilities of space living. From simulations by NASA to the work that needs to be done on the health risks from radiation dangers and the effects of microgravity, Wanjek provides a broad look at how we're working towards exploring space more. Human space activity will be wrought with challenges, from the economic to the physical and biological. At its core, though, our presence in space will be a natural extension of what we do now, every day, in terms of science, business, and leisure to the extent that biology and economy can allow. But this will be a migration like no other in human history and *Spacefarers* offers a fascinating and often funny guide to the exciting challenges and possibilities of living outside the Earth.

Christopher Wanjek is the author of *Bad Medicine* and *Food at Work*. He has written for the *Washington Post*, *Sky & Telescope*, *Astronomy*, *Mercury*, and *Live Science*. From 1998 to 2006, he was a senior writer at the NASA Goddard Space Flight Center, covering the structure and evolution of the universe.

Publicity Department | London Office
Vernon House, 23 Sicilian Avenue, London WC1A 2QS Tel 020 3463 2350 Fax 020 7831 9261 www.hup.harvard.edu