

is moving — not least, in the chilling passages on the 1937 deportation from Solovki of more than 1,100 prisoners, including Wangenheim, for execution. Rolin's reconstruction of the meteorologist's last hours is masterful, integrating the lives of the executioners, the eerie geography of the mass extermination site in Karelia on the mainland, and the recovered memory of this horrific event — a ghost echo for six decades, until given form when the mass grave was discovered in the mid-1990s.

Wangenheim's story is known to us largely through the diligence of researchers at the Memorial in St Petersburg, a Russian civil-rights society dedicated to chronicling the abuses of Stalinism. Rolin rightfully mentions three of its researchers — Irina Flighe, Yury Dmitriev and the late Veniamin Iofe — who uncovered the tragic, often lurid details of Wangenheim's life and death. Because Rolin's book lacks references or footnotes, it is hard to evaluate the broader historical research that grounds this slim volume. It should be pointed out that much of Wangenheim's story has been published in a Russian book (*Alexei Feodosievich Wangenheim: Restoring a Name*; Tablitsy

MEMORIAL/EDITIONS PAULSEN



“A house a few centimetres in size/Sisters live in it/Guess what they're called,” Wangenheim wrote.

Mendelev, 2005) that also reproduced all of Wangenheim's drawings and letters.

The contribution of Rolin, with his English translator Ros Schwartz, is to bring this story to the non-Russian-speaking world and situate it as part of a broader meditation on the history of the Soviet tragedy. In that he has succeeded, producing an eloquent addition to a violent episode in the history of science in the twentieth century. ■

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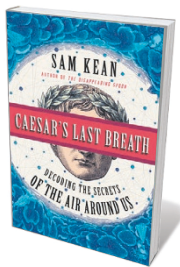
Books in brief



Ripples in Spacetime

Govert Schilling BELKNAP (2017)

In September 2015, a new frontier in astronomy beckoned with the first direct detection of gravitational waves, confirming Albert Einstein's prediction almost a century before. Govert Schilling's deliciously nerdy grand tour takes us through compelling backstory, current research and future expectations. Starting from Einstein's path to general relativity, Schilling examines the contributions of Joseph Weber and Jocelyn Bell Burnell, the long and onerous saga of the Laser Interferometer Gravitational-Wave Observatory, and the coming array of super-instruments inviting us to “surf the waves of spacetime”.



Caesar's Last Breath: Decoding the Secrets of the Air Around Us

Sam Kean LITTLE, BROWN (2017)

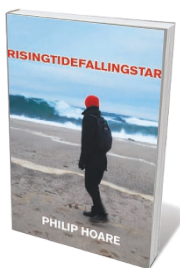
Take a deep breath: among the sextillions of molecules you inhale may lurk traces of First World War mustard gas or Julius Caesar's dying gasp. As science writer Sam Kean reminds us in this beguiling book, gases — far from being airy nothings — have had a pervasive, formative role in natural and human history. Hinging each chapter on specific molecules, Kean illuminates the science in everything from Earth's vaporous origins to the function of hydrogen in early aeronautic balloons and the ammonia and butane that Albert Einstein and Leo Szilard harnessed in the 1930s for a novel refrigerator.



One Hot Summer

Rosemary Ashton YALE UNIVERSITY PRESS (2017)

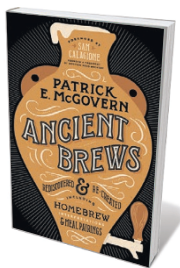
The torrid London summer of 1858 is remembered primarily for the 'Great Stink' — the heat-fuelled reek of a sewage-strewn River Thames. Yet as Rosemary Ashton notes in this microhistory, the season also saw explosive advances in science and society. Benjamin Disraeli, then chancellor of the exchequer, pushed through the Thames Purification Bill that ushered in Joseph Bazalgette's superbly engineered sewerage system. And Charles Darwin, beset by family crises, received a famous letter from field biologist Alfred Russel Wallace that jolted him into finalizing his theory of natural selection.



RISINGTIDEFALLINGSTAR

Philip Hoare FOURTH ESTATE (2017)

Like the sea's ebb and flow, this meditation on the marine washes back and forth between natural and cultural history, travelogue and memoir. Philip Hoare, who has long explored this region in books such as *The Sea Inside* (Fourth Estate, 2013; see C. Roberts *Nature* **498**, 33; 2013), tacks from fin-whale feeding frenzies to the brutal toll of First World War whaling. He hangs upside down in the ocean to hear cetacean 'song', reflects on sea-haunted luminaries from writer Herman Melville to aesthete Stephen Tennant, and swims day and night — at one point, among jellyfish like “elaborate Victorian puddings”.



Ancient Brews: Rediscovered and Re-created

Patrick E. McGovern W. W. NORTON (2017)

Palaeolithic cocktail, anyone? Biochemical archaeologist Patrick McGovern, who researches ancient fermented residues, relates tales from the field and even recreates the buzz-inducing beverages. His finds include the world's oldest chemically confirmed alcoholic drink — a Neolithic Chinese concoction of chewed rice, mould and hawthorn berries — as well as grogs Etruscan to Nordic that involve everything from pomegranates to birch sap. Fourier transform infrared spectroscopy has rarely been put to headier use. [Barbara Kiser](#)