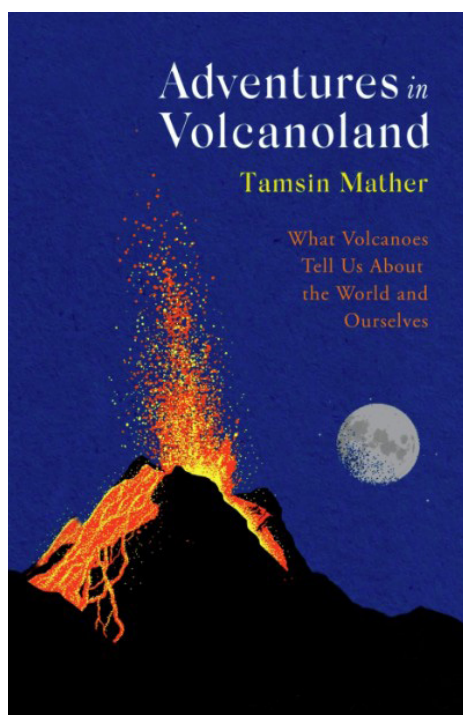


Adventures in Volcanoland: What Volcanoes Tell Us About the World and Ourselves by Tamsin Mather, 2024. ABACUS books, 368 pages. Hardcover price € 30.79, paperback prize € 13.08, eBook price € 3.99, ISBN: 978-1408714614



Adventures in Volcanoland, a title that echoes Lewis Carroll's masterpiece, is structured into three distinct, evenly proportioned sections, each spanning roughly 100 pages. The first focuses on the composition and behavior of volcanoes, including their associated rocks. The second delves into volcanic gases and their wide-ranging impacts, while the third explores extraterrestrial volcanism and how volcanic activity may have influenced mass extinctions on Earth. The book's subtitle, *What Volcanoes Tell Us About the World and Ourselves*, underscores its central theme. The author, a Professor of Volcanoes and the Environment at University College Oxford, presents volcanoes not only as windows into the natural world but also as mirrors that offer insights into human nature. This book is published by Abacus an imprint owned by Hachette with an emphasis on non-fiction books. Volcanoland begins with an extensive introduction, recounting the author's

initial encounter with volcanoes and their profound impact on her. This pivotal moment draws her narrative inevitably to Vesuvius and Pompeii, which she visited with her family at the age of ten. Mather's personal experience serves as a lens through which she vividly reconstructs the catastrophic events that buried Pompeii and Herculaneum. The haunting casts of human figures frozen in their final moments at Pompeii stand as stark reminders of the overwhelming power and devastation wrought by this explosive Plinian eruption.

The otherwise precise reconstruction falters when it relies on somewhat outdated literature to describe Vesuvius's pre-eruptive morphology as a smooth, conical shape based on a Roman fresco. Modern volcanological research, however, has long established that the summit's collapse is not exclusive to the 79 AD eruption, but a recurring feature tied to earlier Plinian eruptions as well. In an uncommon approach for scientific writing, the narrative unfolds in the first person, with the author's own experiences guiding readers through the fundamental principles that shape volcanic behavior. This engaging, personal prose not only explains the science but also introduces us to the communities who live alongside volcanoes, drawing connections to historical events that reveal the complex relationship between people and these dynamic landscapes. The island of Santorini, with its towering cliffs and remnants of ancient civilizations, exemplifies the close relationship between volcanic eruptions and human societies. The lack of human remains in the Bronze Age village, now buried beneath thick volcanic deposits, further suggests that the local population successfully fled before the eruption's devastating impact. I strongly resonate with the straightforward advice offered in the book: "when interpreting rocks to uncover the processes of past eruptions, the first step is simply to observe, sketch, and document what you see using only your eyes, a notebook, and a pencil".

The second part is devoted to gases and the messages they carry about the 'unreachable recesses of the planet's depth'. In 2002 the author visited the Campi Flegrei to measure the fumaroles distributed between buildings of the overcrowded Pozzuoli area and in 2008 moved to Hawaii to do the same. Volcanic outgassing had and has a profound effect on our planet's environment. So, a question raised through the book is if a large volcanic eruption can briefly chill the planet. Global chill documented after Tambora and other high magnitude explosive eruptions have led to speculation of prolonged volcanic winters.

The third section expands the scope to explore how volcanism shapes otherworldly landscapes across the solar system. It begins with the Moon, where vast basaltic plains erupted billions of years ago. Volcanism also profoundly shaped Mars, giving rise to Olympus Mons, the largest volcano in our solar system. Meanwhile, beneath Venus' dense atmosphere lie shield volcanoes and expansive calderas. Looking even further, our understanding of volcanic activity expands with the remarkable plume observed on Jupiter's moon Io - a direct testament to another geologically active world. Diverse forms of cryovolcanism have also been iden-

tified on numerous icy moons and dwarf planets, including Pluto.

The final chapter tackles the pressing question of mass extinctions: could volcanism have been the trigger? Vast fissure eruptions once produced immense basaltic lava flows covering millions of square kilometers. For centuries, paleontologists have speculated on the causes behind life on Earth repeatedly teetering on the brink of extinction. Among the prime suspects is volcanism, with its potential to disrupt the environment on a massive scale.

The black-and-white drawings and figures in this volume lend it an elegant, old-fashioned style. In a publishing world now dominated by vibrant colors, these monochrome illustrations evoke a contemplative, almost nostalgic reading experience for Volcanoland. Mather writing flows naturally and her volcanic narrative filtered through her personal experience is full of energy. This essay firmly establishes the author as a standout voice in volcanology literature.

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