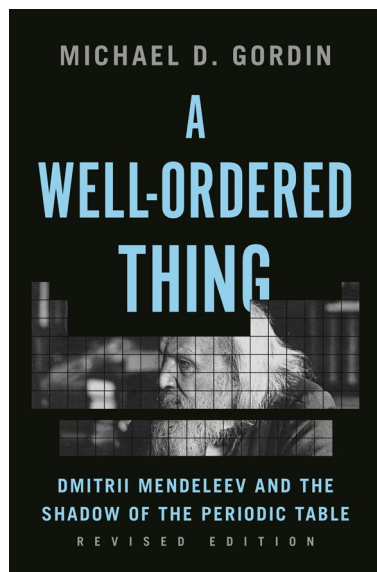


Meet Dmitrii



A Well-Ordered Thing: Dmitrii Mendeleev and the Shadow of the Periodic Table.
Revised edition

Michael D. Gordin

Princeton University Press, 2019, 384pp, £26.00

They say you should never meet your heroes. In 1869, Dmitrii Mendeleev set out his version of a table of elements — something celebrated in 2019 as the international year of the periodic table. But, as Michael Gordin's book reminds us — a revised edition of his 2004 work — this chemical opus is neither the start nor the end of Mendeleev's life. Instead, we are left with a man convinced of his own genius but too often coming up short as he raced to be recognized as the Russian Isaac Newton.

It's important to note that this is not the story of the periodic table — that is over, more or less, in the first chapter. Here, Gordin sets out his stall by decoupling the feat from the man, and allows the reader to see a world as complex and varied as the elements he set to order. Gordin's thorough account is an unconventional biography of Mendeleev after his greatest contribution, interwoven with the socio-politics and dynamics of the collapsing Russian Empire.

Painted as a series of seven episodes, the book is a mosaic, slowly forming a character arc that deliberately challenges a reader's preconceptions of the father of periodicity. If you imagine Mendeleev as an elder luminary with a long, flowing beard, here he is as an energetic and impoverished young man; if you consider him lauded as the paragon of Russian science, read as his membership is rejected from the St Petersburg Academy of Sciences by a single vote; and if you believe him to be a radical maverick, you will learn of his bristling against the idea of electrons and his impassioned searches for chemical ether into the 20th century. Even the creation of the periodic table, usually painted as a flash of inspiration ahead of meeting cheese merchants, is revealed to be anything of the sort; not only was there a rival for priority in Julius Lothar Meyer, but Mendeleev's spark of greatness was set down amid an insufferably boring treatise on salt.

So, who was Mendeleev? At times, it is hard to tell. He flits through the story, either as its focus (not always willingly) or an almost incidental player caught up in a changing world that didn't fit his preconceived ideas. Throughout, Gordin constantly probes and reassesses Mendeleev's reasons for the choices he made, and one of the book's strengths is its ability to frame moments in their time and place. A chapter is dedicated to his battles with spiritualism, but immediately corrects any notions the reader may have as to why Mendeleev took such a forceful stand against it. Gordin's knowledge of 19th century Russia is deep and his academic credentials shine as he acts as a guide deep into long-forgotten complexities and conservative attitudes.

If this is the book's strength, it is also its weakness. The detail of the biography can feel overwhelming at times, especially the heavy notes section at the back of the book, and parts can be repetitive as Mendeleev, or others, are analysed. At times, Mendeleev comes pulsating into life as a deep, flawed but powerfully human figure; in others, Gordin's inquisition makes him feel distant, as if a subject laid bare to be dissected for his frailties. Part biography, part essay on the nature of 19th century

Russian science, the story can become bogged down as Gordin shifts his focus. This book is also not for the uninitiated. No quarter is given to those who struggle to remember the leading scientists of the 19th century, with only the truly forgotten given enough context. And while Mendeleev journeys across Europe, and even to America, this is a book as much about Russia as its supposed subject: any other country is there purely to the side.

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Yet it is hard to imagine any other approach to Mendeleev being so successful in giving a true grasp of the individual. Mendeleev was a patriot, a figure who cultivated his status as the pre-eminent Russian genius relentlessly. In doing so, he fostered a cult of personality that creates an invisible barrier to a modern audience. It's only a forensic, academic approach, such as Gordin's, that would ever slip behind this and access the man himself, warts and all. If the result can sometimes feel cold, harsh or particularly unpleasant (in his 40s he stalked his teenage student, threatened to kill himself if she didn't marry him, then bribed a cleric so he could commit bigamy), Mendeleev's life was often exactly that. The question weaved by Gordin is whether this matters. It is up to the reader to decide which Mendeleev they see: a brilliant cornerstone of Russian science whose legacy still resonates today; a figure who failed more than he succeeded and forged his own mythos; both; or neither. Wherever you land, it's hard to view him solely in isolation with the periodic table again.

This is the closest any of us will come to meeting Dmitrii Mendeleev . . . just don't be surprised if he isn't the man you believed him to be.

Reviewed by Kit Chapman

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Competing interests

K.C. is the author of *Superheavy*, a book on the periodic table published by Bloomsbury Sigma.