



“Physics in Canada”

Book Review

“La Physique au Canada”

Critique de livre

“**A Well-Ordered Thing**”, by Michael Gordin, Princeton University Press, 2019, ISBN:978-0-691-17238-5, 351 pages, Price: 22.58

Michael Gordin’s “A Well-Ordered Thing” is a carefully researched and scholarly account of the life and surroundings of Dmitrii Mendeleev, the late 19th century co-inventor of the periodic table. Gordin covers Mendeleev’s academic beginnings, his famous work on the periodic table, and takes time to discuss the lesser known pursuits of Medeleev: his economic and political thought, his work in industry and in service to the Russian empire, and his investigation into the Spiritualism movement. Mendeleev’s diverse interests are used to explore the setting Mendeleev lived in; indeed, Gordin emphasizes that the book is not so much the story of Mendeleev as it is an examination of imperial St. Petersburg.

Due to its emphasis on St. Petersburg, the book is a biography of a scientist without being a scientific biography. With the exception of the famous periodic law, to which Gordin devotes a chapter, Medeleevs scientific thought is presented in an incidental way. Further, the scientific context in which Medeleev worked is never discussed in detail. Consequently Gordin’s priorities may not align with those of a scientist-reader. Nonetheless, the book contains some interesting scientific details. Gordin stresses that Medeleev’s thinking on the periodicity of properties of the elements stemmed from a pedagogical need: to organize the known elements into a form suitable for a first year chemistry textbook. I also found Medeleev’s views on the ether to be of interest. Medeleev believed the ether was composed of particles which could be placed in the periodic table and attempted to predict properties of the ether by using his periodic law, just as he had predicted the existence and properties of unknown elements.

Gordin explores in depth Mendeleev’s economic and political thought, and his role in shaping imperial policy. Gordin stresses how, to Mendeleev, scientific societies were models for how technical expertise could be employed by the empire. The book emphasizes Medeleev’s “Imperial Turn”, a transition from a focus on local affairs in St. Petersburg to a top-down approach to enacting reform. In Gordin’s analysis, this turn was initiated by Mendeleev’s rejection from the St. Petersburg Academy of Sciences, as Mendeleev had taken the Academy to be a model of how reform could be organized locally. Gordin also argues that the ensuing outrage in the popular press made Mendeleev’s reputation.

“A Well-Ordered Thing” aims to explore imperial St. Petersburg through one of its great citizens. In his writing, Gordin has emphasized analysis over narrative. In some places the analysis felt stretched or obvious. For instance, Gordin draws a parallel between Mendeleev’s work on gases and his meteorological work, noting that in both cases he was “amassing data on irregularities in order to determine laws”, but the parallel could have been made to nearly any scientific work. As well, the lack of narrative left me without a clear sense of Mendeleev as a person. In general

though the historical analysis makes interesting points, especially regarding Mendeleev's rejection from the Academy and consequent Imperial Turn, and the book largely succeeds in its aim.

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