

for scientists, clinicians, students, and lay readers alike.

This is a book that not only explains how biological clocks work but also encourages readers to take them seriously—perhaps to dim the lights a bit earlier at night, think twice about when they schedule a workout or take a medication, or reflect on how their own rhythms shape their productivity and well-being. In an age of constant disruption, *Biological Rhythms* offers a reminder that we are creatures of time, and that respecting that fact may be one of the simplest, most powerful tools for better living.

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A Brief History of Mathematics for Curious Minds. By Krzysztof R. Apt. World Scientific, Hackensack, NJ, 2024. \$38.00. xii+210 pp., softcover. ISBN 978-981-128-149-5.

Reading a book about the history of mathematics is never a waste of time, especially if you are a working mathematician, whether applied or pure. Obviously, there are many excellent monographs devoted to specific periods such as nineteenth-century mathematics, or to specific subjects such as mathematical analysis, and these serve specialists very well. The book under review is more ambitious and attempts to cover the whole history of mathematics under the additional assumption that the intended reader is a layperson, not necessarily a professional mathematician. Remarkably, this ambitious task is carried out in just over 200 pages organized into ten chapters, complemented by a bibliography, a name index, and 32 short appendices containing mathematical gems.

The author, Krzysztof R. Apt, is a distinguished computer scientist and logician, with a long career at the Centrum Wiskunde & Informatica (CWI) and the University of Amsterdam, and he is well known for his contributions to program verification and constraint programming and, more recently, for his work in game theory and economic mechanism design. Although not a professional historian of mathematics, Apt brings to this book the sensibility of a mathematician and scientist deeply in-

terested in the intellectual development of his field. This perspective gives the work a distinctive character, combining respect for rigorous reasoning with a clear desire to communicate mathematics to a broader audience.

I very much enjoyed the reading. Although I was already familiar with many of the episodes described, I found that each chapter contained several—and sometimes many—details that were new to me. The book not only traces the chronological evolution of ideas, but it also places them in their geographical context, taking care to emphasize the contributions of different cultures.

In my opinion, the author has done an excellent job. The book succeeds in offering a balanced combination of narrative and substance. The style is clear and engaging without being overly technical, which makes it accessible to the nonspecialist reader. At the same time, the inclusion of the appendices enables a mathematically-inclined reader to see some of the ideas in more detail, from classical proofs to simple algorithms or probability arguments. This dual structure is one of the book's main virtues: it can be read comfortably as a historical panorama, but it also allows one to pause and appreciate some of the mathematics itself.

Another remarkable feature is the breadth of the coverage. The book does not restrict itself to the well-trodden path from Greek antiquity through the European Renaissance; it also pays attention to the contributions of Indian, Chinese, and Islamic scholars, among others. This wider geographical perspective reminds us that mathematics is a truly global enterprise, shaped by many cultures over millennia. In addition, the final chapters, which include reflections on women in mathematics and on the nature of mathematics itself, provide a human and philosophical dimension that is often missing in more technical accounts.

Of course, a history that fits into just over 200 pages must make compromises. Some topics are inevitably treated briefly, and specialists may wish for deeper coverage of certain periods or figures. Yet this is not really a flaw, since the book never pretends to be exhaustive. Its main

purpose is to offer a concise, stimulating journey through the evolution of mathematical thought, and in this it succeeds admirably.

Overall, I would warmly recommend this book to students, educators, and scientifically literate readers who are curious about mathematics beyond formulas and theorems. Even professional mathematicians will find in it both familiar stories and sur-

prising details, together with a welcome reminder of the cultural and historical richness of our discipline. Reading *A Brief History of Mathematics for Curious Minds* is time well spent, and it will leave many readers eager to explore further.

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