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| Nota di contenuto | Part I: Practicing the History of Mathematics -- Chapter 1. A problem-oriented multiple perspective way into history of mathematics – what, why and how illustrated by practice -- Chapter 2. Mathematics, history of mathematics and Poncelet: the context of the Ecole Polytechnique -- Chapter 3. Advice to a young mathematician wishing to enter the history of mathematics -- Chapter 4. Why historical research needs mathematicians now more than ever -- Chapter 5. Further thoughts on anachronism: A presentist reading of Newton's Principia -- Part II: Practices of Mathematics -- Chapter 6. On Felix Klein's Early Geometrical Works, 1869–1872 -- Chapter 7. Poincaré and arithmetic revisited -- Chapter 8. Simplifying a proof of transcendence for letter exchange between Adolf Hurwitz, David Hilbert and Paul Gordan -- Chapter 9. Current and classical notions of function in real analysis -- Chapter 10. 'No mother has ever produced an intuitive mathematician': the question of mathematical heritability at the end of the nineteenth |

century) -- Chapter 11. Learning from the masters (and some of their pupils) -- Part III: Mathematics and Natural Sciences -- Chapter 12. Mathematical practice in Chinese mathematical astronomy -- Chapter 13. On "Space" and "Geometry" in the 19th century -- Chapter 14. Gauging Potentials: Maxwell, Lorenz, Lorentz and others on linking the electric-scalar and vector potentials -- Chapter 15. Ronald Ross and Hilda Hudson: a collaboration on the mathematical theory of epidemics -- Part IV: Modernism -- Chapter 16. How Useful is the term 'modernism' for understanding the history of early twentieth-century mathematics? -- Chapter 17. What is the right way to be modern? Examples from integration theory in the 20th century -- Chapter 18. On set theories and modernism -- Chapter 19. Mathematical modernism, goal or problem? The opposing views of Felix Hausdorff and Hermann Weyl -- Part V: Mathematicians and Philosophy -- Chapter 20. The direction-theory of parallels -- Geometry and philosophy in the age of Kant -- Chapter 21. The geometer's gaze: On H. G. Zeuthen's holistic epistemology of mathematics -- Chapter 22. Variations on Enriques' "scientific philosophy" -- Part VI: Philosophical Issues -- Chapter 23. Who's afraid of mathematical platonism? -- On the pre-history of mathematical platonism -- Chapter 24. History of mathematics illuminates philosophy of mathematics: Riemann, Weierstrass and mathematical understanding -- Chapter 25. What we talk about when we talk about mathematics -- Part VII: The Making of a Historian of Mathematics -- Chapter 26. History is a foreign country: a journey through the history of mathematics -- Chapter 27. Reflections -- Appendices.

Sommario/riassunto

This book, a tribute to historian of mathematics Jeremy Gray, offers an overview of the history of mathematics and its inseparable connection to philosophy and other disciplines. Many different approaches to the study of the history of mathematics have been developed. Understanding this diversity is central to learning about these fields, but very few books deal with their richness and concrete suggestions for the "what, why and how" of these domains of inquiry. The editors and authors approach the basic question of what the history of mathematics is by means of concrete examples. For the "how" question, basic methodological issues are addressed, from the different perspectives of mathematicians and historians. Containing essays by leading scholars, this book provides a multitude of perspectives on mathematics, its role in culture and development, and connections with other sciences, making it an important resource for students and academics in the history and philosophy of mathematics.
