

century. It is the desire of Professor Collette to present later a second volume (of a projected series of four volumes) which will deal with the 17th century.

At the end of this first book is a list of thirty-two sources of research and a bibliography classified under specific topics. This arrangement may incite the reader, whether he is a student, a professor or a simple layman, to have direct contact with these sources for his own research.

There is an index to the principal names cited, a list of illustrations, and finally a general index. Each chapter ends with a brief résumé, followed by a bibliography of works or articles from scientific journals, giving the pages referring directly to the content of the chapter. Exercises are provided to facilitate the synthesis of the context or to complete certain notions already presented in previous chapters.

In this instructive and well-written book, the author selected the following periods: the prehistory of mathematics, the Babylonian civilization, the Egyptian civilization, the birth of Greek mathematics, the period from Plato to Euclid, Archimedes and the School of Alexandria, the Chinese and Hindu civilization, Islamic mathematics, the mathematics of Europe during the Middle Ages, 500-1400 A.D., the European Renaissance, and finally the beginning of the 17th century. The main mathematical topics discussed--numbers, fractions, geometry, elementary algebra, infinite series, co-ordinate geometry and elementary calculus--may lead both professors and teachers to a better understanding of the learning techniques of mathematics.

Finally, although the author obtained his information from secondary sources, his book consists of an honest synthesis of the principal mathematical contribution of the great civilizations that preceded us. This book is to be recommended to all lovers of mathematics and to teachers at all levels. Professor Collette has presented his manual admirably. Bravo!

THE ITALIAN RENAISSANCE OF MATHEMATICS. By Paul Lawrence Rose. Geneva (Librairie Droz). 1975. xiii + 316 pp.

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European mathematics from the invention of printing with movable type to the close of the sixteenth century constitutes a topic of special interest socially as well as technically. The universities remained almost the sole repository of mathematics during the Middle Ages, and the chief text was Euclid. Printed books made it possible for talented persons outside the main stream of education to take part in the development of mathematics and to communicate their contributions on a scale

previously unmatched. At the same time, printing and other aspects of Renaissance culture encouraged the translation and circulation of neglected mathematical works from classical antiquity. This book deals with the Italian and foreign mathematicians who drew primarily on Greek manuscript treasures in Italy, especially at Venice and Rome, to revive neglected sources, reopen lines of mathematical research, and begin new conquests in the domains of algebra and trigonometry.

Unlike most historians of mathematics, Professor Rose has concerned himself with the patrons of mathematicians, individual and institutional, as well as the contributors to knowledge during the fifteenth and sixteenth centuries. A vast amount of information about mathematical source materials and their relation to Renaissance books is presented, not previously brought together to my knowledge, and here woven in with biographical data concerning scores of writers, editors, and translators of mathematical works. Emphasis is placed on the social rather than the technical aspect of history of mathematics in the Italian Renaissance, providing us with a dimension of history lacking in older conventional accounts of particular theorems, problems, and notations that emerged in stated epochs. The notes accompanying each chapter are invaluable for their bibliographical references alone, the work having required study of a vast and scattered literature as well as of a great many still unpublished letters and manuscripts in Italian libraries.

The book is attractively and accurately printed as volume 145 in the publisher's series *Travaux d'Humanisme et Renaissance*. The few misprints noted are unlikely to mislead anyone, as the date 1300 for 1400 on p. 84, the word "this" for "his" on p. 283, and "These" for "There" on p. 285. The same may be said of occasional infelicitous expressions such as "comet of 1604-05" on p. 229, in which a mistaken opinion of an early writer might be taken as a statement by the author about an astronomical event. Though it may be that some of the author's evaluations and convictions will be modified as others pursue the rich field he has opened up, this monograph will, in the reviewer's opinion, remain of permanent value to the history of the mathematical Renaissance.