tions the reader does not get full information. For instance, the only book in the list on Legendre functions is that by Hobson (1931); the more recent books by MacRobert (1947), Lense (1950), Robin (1957–1959) are not brought to the reader's attention.

The general impression one gets of this book is that of a thorough and very lucidly written textbook which is well suited to systematic study from cover to cover and will reward the student not only with a knowledge of the functions presented in the book but also with an unusually clear presentation of the various methods used in acquiring this knowledge. All in all a valuable addition to the growing number of books devoted to special functions.

A. ERDÉLYI

Introduction to geometry. By H. S. M. Coxeter. John Wiley & Sons, New York, London, 1961. 15+443 pp. $9.95.

Geometry, in the Greek view synonymous with mathematics, was confronted with two competitors when mathematics revived in modern times, with algebra and analysis. But though more powerful the methods of algebra and analysis were still considered as philosophically inferior to that of geometry. And mathematical rigor remained associated with the names of Euclid and Archimedes. It is a fact that today geometry has lost much of its reputation. Geometry pursued along traditional lines is called old-fashioned, not only because of an apparent lack of rigor, but also on account of the alleged insignificance of its results. Coxeter presents classical style geometry in 22 chapters, which are reasonably self-contained, though tied together by a modern spirit of reinterpretation of classical matter. If geometry can be rewritten in a modern style without losing its classical character, is it fair to call it out of date? The answer of dogmatics to this rhetorical question will still be: yes, it is. They will emphasize this answer when they read the table of contents of the first chapter "Triangles": 1. Euclid, 2. Primitive concepts and axioms, 3. *Pons asinorum*, 4. The medians and the centroid, 5. The incircle and the circumcircle, 6. The Euler line and the orthocenter, 7. The nine-point circle, 8. Two extremum problems, 9. Morley's theorem. Of course they will never read this chapter (or the others either). If they are endowed with a sense of mathematical beauty, this is to be regretted. Fortunately there are people left, who like mathematical still-life. If they read this chapter they will admire not only the choice of subjects, but also the condensed style as opposed to the verbosity of many older geometry texts, and the compact lucid proofs in which every definition and conclusion is completely to the point. These are