Ivor Grattan-Guinness (editor)
*Landmark Writings in Western Mathematics 1640-1940*
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# REVIEW

### RISTI VILKKO

Ivor Grattan-Guinness's *Landmark Writings in Western Mathematics 1640-1940* is the first "Great Books" type history in the field of mathematics. It covers all the major lines of development in modern mathematics from the middle of the seventeenth century until the Second World War. The work is certainly substantial: more than one thousand pages, equalling four and a half pounds of excellent expert surveys on the most important published mathematical contributions of the modern period. The book consists of an introduction by the editor and seventy-seven case-studies, covering eighty-nine path-breaking writings on geometries, algebras, calculus, number theory, functions, series, differential equations, real and complex numbers, general mechanics, astronomy, probability and statistics, dynamics, mathematical physics, topology, the history of mathematics, set theory, logic, the foundations of mathematics, and socio-economic sciences with mathematical aspects. The contributors are the world's leading experts on the subjects they discuss, including mathematicians, logicians, physicists, and historians of science.

In the editor's words, the texts discussed are all "writings that have made a major impact on the branches and aspects of mathematics to which they refer, and maybe also to other branches and even disciplines not originally within their purview" (p. ix). In a great many cases the text discussed is a book, but sometimes it is one or more journal articles. Most chapters discuss one text each. However, in quite a few cases more than one contribution are taken together; for example, Dedekind's and Peano's famous booklets in the late 1880s on the foundations of arithmetic are discussed jointly (pp. 613-626).

The editor justifies the chosen time-period by pointing out that it was really not until around the 1640s that mathematics began to "show the

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