The Folding and Fracturing of Rocks: A milestone publication in Structural Geology research

Richard Lisle (1) and Fernando Bastida (2)
(1) Cardiff University, Wales (Lisle@cardiff.ac.uk), (2) Universidad de Oviedo, Spain

In the field of structural geology, the textbook written by John G Ramsay in 1967, reprinted in 2004 and translated into Spanish and Chinese, is the one that has made the greatest research impact. With citations exceeding 4000 (Google Scholar) it far surpasses books by other authors on the subject, with this figure only being approached by his later book Modern Structural Geology (Ramsay and Huber 1983).

In this paper we consider the factors that account for the book’s success despite the fact that it is a research-level text beyond the comfort zone of most undergraduates. We also take stock of other measures of the book’s success; the way it influenced the direction subsequent research effort. We summarize the major advances in structural geology that were prompted by Ramsay’s book.

Finally we consider the book’s legacy. Before the publication of the book in 1967 structural geology had been an activity that had concentrated almost exclusively on geological mapping aimed at establishing the geometrical configuration of rock units. In fact, Ramsay himself has produced beautiful examples of such maps. However, the book made us aware that the geometrical pattern is controlled by the spatial variation of material properties, the boundary conditions, the deformation environment and the temporal variation of stresses. With the arrival of the book Structural Geology came of age as a modern scientific discipline that employed a range of tools such as those of physics, maths and engineering as well as those of geology.