

SEVENTH EDITION

WILLS' Mineral Processing Technology

AN INTRODUCTION TO THE PRACTICAL ASPECTS
OF ORE TREATMENT AND MINERAL RECOVERY



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Preface to 7th Edition

Although mining is a conservative industry, economic drivers continue to encourage innovation and technological change. In mineral processing, equipment vendors, researchers and the operations themselves work to develop technologies that are more efficient, of lower cost and more sustainable than their predecessors. The results are apparent in new equipment and new operating practice. Any textbook needs to reflect these changes, and Barry Wills' classic is no exception.

It is nearly 30 years since *Mineral Processing Technology* was first published, and it has become the most widely used English-language textbook of its kind. The sixth edition appeared in 1997 and Barry and his publishers felt that it was again time to bring the text up to date. They approached the Julius Kruttschnitt Mineral Research Centre at the University of Queensland to take on the challenging task. My colleagues and I agreed to do so with some trepidation. The book's well-deserved reputation and utility were at stake, and the magnitude of the task was clear. Revising someone else's text is not an easy thing to do successfully, and there was a real danger of throwing the baby out with the bath water.

The value of *Mineral Processing Technology* lies in its clear exposition of the principles and practice of mineral processing, with examples taken from practice. It has found favour with students of mineral processing, those trained in other disciplines who have converted to mineral processing, and as a reference to current equipment and practice. It was important that its appeal to these different communities be preserved and if possible enhanced. We therefore adopted the following guidelines in revising the book.

The 7th edition is indeed a revision, not a complete re-write. This decision was based on the view that "if it ain't broke, don't fix it". Each diagram, flowsheet, reference or passage of text was considered as follows. If it reflected current knowledge and practice, it was left unchanged (or modestly updated where necessary). If it had been entirely superseded, it was removed unless some useful principle or piece of history was being illustrated. Where the introduction of new knowledge or practice was thought to be important to preserve the book's currency, this was done. As a consequence, some chapters remain relatively unscathed whereas others have experienced substantial changes.

A particular problem arose with the extensive references to particular machines, concentrators and flowsheets. Where the point being illustrated remained valid, these were generally retained in the interest of minimising changes to the structure of the book. Where they were clearly out of date in a misleading sense and/or where alternative developments had attained the status of current practice, new material was added.

It is perhaps a measure of Barry Wills' original achievement that it has taken more than a dozen people to prepare this latest edition. I would like to acknowledge my gratitude to my colleagues at the JKMRRC and elsewhere, listed below, for subscribing their knowledge, experience and valuable time to this good cause; doing so has not been easy. Each chapter was handled by a particular individual with expertise in the topic (several individuals in the case of the larger chapters). I must also thank the editorial staff at Elsevier, especially Miranda Turner and Helen Eaton, for their support and patience, and Barry Wills for his encouragement of the enterprise. My job was to contribute some of the chapters, to restrain some of the more idiosyncratic stylistic extravagancies, and to help make the whole thing happen. To misquote the great comic genius Spike Milligan: the last time I edited a book I swore I would never do another one. This is it.

Tim Napier-Munn
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