Everybody somehow interested in sixteenth-century mathematics or in Early Modern algebra knows that Cardano’s Ars magna from 1545 is a pivotal work. Unfortunately, the original edition is very rare, the second, revised edition from 1570 probably even more so, and the third edition (Lyon, 1663, in the complete works), meant to be identical with the 1570 edition, is not too reliable. No later edition existed so far, only T. R. Witmer’s rewriting in modern English and algebraic formalism from [Cambridge, Mass.-London: The M.I.T. Press. XXIV, 267 p. (1968; Zbl 0191.27704)] and a recent French Translation (Le Grand Art soit des règles algébriques, trans. Jean Peyroux. Paris: Blanchard, 2006) which the reviewer has not seen and which neither Zentralblatt nor Mathematical Reviews knows about. Even though the original editions have recently been made somehow accessible on the web (either in low resolution or in cumbersome page-by-page), the present high-quality critical edition is thus utterly welcome.

The basic text (which occupies pp. 61–279 of the volume) is the 1545 edition, with indication in the notes of all deviations of the 1570 edition from this first version, as well as Witmer’s suggested repairs of errors (in the case of obvious numerical or grammatical mistakes in the first edition, the second is followed if better). Beyond this standard apparatus, the Introduction contains a detailed tabulation of all variants (pp. 21–46), which allows the editor to analyse and the reader to judge the character of the changes made by Cardano. The Introduction also describes the position of the Ars magna within the Opus arithmeticae perfecta of which is was meant to be the tenth part (but most of which remained unpublished and often non-written). Appendix I (pp. 281f) lists the variants in the 1663 edition, Appendix II (pp. 283–364) contains a tabulation of the 888 equations appearing in the work – in three columns giving (1) the expanded Latin of the critical edition, (2) a translation into modern algebraic formalism, and (3) with the abbreviations of the 1545 edition.

The edition can be highly recommended to anybody with interest in Cardano’s original text, or who just wants a corrective to Witmer’s translation. The Italian of the introduction is not quite elementary, yet even those who find it too difficult but have basic familiarity with mathematical Renaissance Latin will profit from the book.

Jens Høyrup (Roskilde)

Keywords : Cardano; Ars magna; Algebra; Renaissance

Classification :

* 01A40 Mathematics in the 15th and 16th centuries, Renaissance
  01A75 Collected or selected works