The Turing person

by I. Grattan-Guinness

Andrew Hodges. *Alan Turing: the Enigma*. London: Burnett Books in association with Hutchinson, 1983. Pp. 587, illustrated. £18.00.

THE HISTORY OF both pure and applied logic, and the art of biography itself, are enriched by this remarkable piece of research and writing. The author shares with his subject both a training in mathematics and an inclination to homosexuality, and has added to these common factors a natural gift for the written word and considerable skill at handling archival and reminiscatory material. With one possible exception which will be mentioned below, this book seems certain to stand as definitive on its subject; and it should also set standards for the writing of biography in science.

Alan Turing (1912–1954) is remembered among mathematicians and philosophers for the "Turing machine" (even, as the author notes on p. 530, canonized for creating the "turing machine"); to (some) biologists for an incomplete effort to mathematize aspects of morphology; and in recent years to students of the Second World War for the major role that he played in cryptoanalysis. Hodges describes these parts of Turing's career in detail, bringing to light much new or little-known information on the last area (although parts of it may *still* be classified). All his publications are discussed; it would have been useful to have a separate bibliography.

The book also makes a valuable contribution to the history of inter-war Cambridge life, for Turing was both undergraduate and Fellow there. He knew Wittgenstein and some of the other philosophers; and he must also have met Russell, for he had Russell as the seconder to Newman's proposal for his Fellowship of the Royal Society, which he gained in 1951 (p. 438).[1] His work on logic drew much on Russell (via Gödel's incompletability theorem), and the details are given a pleasant introductory presentation where necessary.

While Hodges sometimes allows his literary skill to run a little out of control—there are some paragraphs of rather premature or slightly overlong appraisal or judgement of Turing in places, especially in an

[1] The nomination form for Turing in the Royal Society archives, which Hodges does not cite, shows that Turing was elected at the second suspension, and that his nomination also received the support of A. S. Besicovich, C. G. Darwin, P. Hall, W. V. Hodge, A. E. Ingham and J. H. C. Whitehead.

extensive meditation on pp. 509–27 on the circumstances and motivations behind Turing's suicide—he has produced a text of exceptional fluency, rich in allusions of many kinds, suitable to accompany his quotations from Whitman's *Leaves of Grass*. These occur as overtures to the chapters, whose titles are often allusive or metaphoric ("The Relay Race", "Mercury Delayed", "On the Beach", and so on); in text, there is, for example, the closing p. 527, which contains within a few lines an explicit reference to the end of Orwell's *1984* (1949), an allusion to the closing bars of Vaughan Williams's 7th Symphony (1953), and an unreferenced quotation of the final clause of Wittgenstein's *Tractatus*. Rare richness, indeed; almost like a theory of types, to which Turing devoted some of his logical researches.

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