

have been unable to depict satisfactorily his multi-sided and often contradictory personality.

Professor Paradis' study attempts a reconstruction of Huxley's intellectual biography within the context of "Victorian culture". Therefore his book does not deal with the "internal" minutiae of Huxley's scientific work, but endeavours to outline his views of the relations involving science, philosophy, and society; quite clearly, this study is along the lines of W. Irvine's well-known *Apes, angels and Victorians*.

Professor Paradis successfully places Huxley in the intellectual and political life of nineteenth-century Britain. His thesis is that Huxley moved from the early influence of Carlyle's Romantic thought to rationalism and scientific humanism. Professor Paradis bases his conclusions upon evidence largely obtained from Huxley's *Collected essays* and his private correspondence. For once we have a clear outline of Huxley's youth and of his difficult relationship with his family about which both T. H. Huxley and his son Leonard in the *Life and letters of Thomas Henry Huxley* were reticent.

The best part of the book is probably the chapter which considers Huxley's debt to Carlyle's views – the connexions between the ideas of the two thinkers are outlined with extreme clarity, and Professor Paradis does not fail to point out the very different views of "heroism" held by Carlyle and Huxley in their maturity, as their disagreement apropos the Eyre affair proves. Moreover we are convincingly told about the clash between the internal disorder of Huxley's personality and his desire to find external order in the world of science. The book vividly describes Huxley's philosophical position, which moved closer and closer to that propounded by J. S. Mill, and the connexions between Huxley's ideas and the non-scientific intellectual world. The most original view proposed by Professor Paradis is that Huxley's concept of organic dualism somehow foreshadowed some of Freud's ideas:

Huxley's application of the concept of organic dualism to the problems of civilization was a step, however limited, in the direction of what was to become the cultural theory of Freud. While Huxley had no clear concept of the subconscious mind, and while he lacked a specific theory of sexuality and the relationship of instinct to consciousness, he grasped the idea that instinct was an agent somehow competing with consciousness in the determination of human behaviour. (pp. 153–54)

Professor Paradis is weaker on the scientific aspects of Huxley's work. He tends to overstate the importance of *Man's place in nature*, in fact a less revolutionary book than most scholars think, and fails to point out that Huxley never entirely rejected the type-concept in his science. He considers Huxley's *Scientific memoirs* only occasionally, and erroneously claims that Huxley's first public criticism of Comte's system took place in the *Westminster Review* of 1854, whereas he had in fact previously attacked Comte in a footnote to his review of the cell-theory of 1853, a work in fact quoted by Professor Paradis (*Scientific memoirs*, vol. 1, p. 242n). But these are minor faults which do not affect one's appreciation of this monograph.

GWYN MACFARLANE, *Howard Florey. The making of a great scientist*, Oxford University Press, 1979, 8vo, pp. xix, 396, illus., £7.95.

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The facts about the origin of this book are as interesting for the history of medicine as the contents themselves. Professor Macfarlane, a distinguished medical scientist

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and Fellow of the Royal Society, was told that his proposed biography was not an attractive prospect for publication because Lord Florey was not a household name. One London publisher even suggested that a biography of Fleming would be more appropriate. This rightly doubled the author's determination and he obtained grants towards the cost of publication by the Oxford University Press.

It is indeed a surprise and a scandal that Florey has been given so little credit for the discovery of the therapeutic value of penicillin. Macfarlane's book gives a dispassionate account of the rather sordid proceedings by which Fleming and various friends, some of them at St. Mary's Hospital, put about the idea that the clinical trials had been conducted there. Somehow it even came to be stated that penicillin was produced in London and sent to Oxford for trials, whereas in fact it went in the opposite direction.

It is important to have these sad perversions of the truth corrected. But the book does much more than this. It gives an absorbing account of the development and life of a fascinating personality. Florey's career was a success story from the start. He became a friend of great men such as Sherrington as soon as he arrived in Oxford as a Rhodes Scholar. Departments in Cambridge, London, and Oxford competed to give him jobs. His experimental work continually prospered. Yet he had many difficulties. In spite of his success he was reserved, abrasive, and lonely. He had no personal friends and never used christian names. He was separated for years from his future wife Ethel, who continued her medical studies in Australia. The book gives a very valuable and sympathetic history of the various difficult phases of their relationship. There are quotations from the 150 letters that he wrote to her while they were apart.

The steps by which the clinical value of penicillin were established have of course been related before. But here is an account that is both well documented and highly readable. The author writes objectively although he admits that his aim is to establish Florey's claim.

The book begins with an elementary history of the work of Jenner, Pasteur, and Lister and the development of medical science in Oxford. The last at least is relevant since Florey was involved in the later stages, when Lord Nuffield's benefaction established a "priority of clinicians" (to coin a collective) which was not all to the taste of Florey and other pre-clinical professors.

The author is at his best when following a straightforward narrative, less happy in asides about the progress of the war and other matters. It is an exaggeration to imply that social life at Magdalen was only open to members "of the top four English public schools". But in the main Macfarlane keeps to the facts as recorded by Florey in his letters, or otherwise documented. He has produced a most satisfying addition to the literature about one of the most important of all medical discoveries.

GERHARD BÖHME, *Medizinische Porträts berühmter Komponisten*, Stuttgart and New York, Fischer Verlag, 1979, 8vo, pp. ix, 191, illus., DM. 39.00.

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The word "portraits" in the title indicates that Dr. Böhme aims at well-filled-in biographical sketches of six composers including highlights on their musical creations.