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penetrate. I looked for the usual introduction on “How to use this book”, and did not find it, until page 39. Equally, it takes a little searching to find out why a large section of the listed material is not actually reproduced in the book, but is on the microfiche. Finally, the coverage of countries is heavily towards Britain and North America, although this is only explained in one of the essays. Even this enormous survey is not exhaustive, and should not be regarded as such. However, I am sure that motivated users of the catalogue will be able to cope with these problems and be helped considerably in the location of archival material.

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A. G. MORTON, *History of botanical science*, London and New York, Academic Press, 1981, 8vo, pp. xii, 474, illus., £8.80 (paperback).

Botany has on the whole been well served by its historians, but readers have long felt the need for a fresh account of this science, particularly one that takes advantage of modern insights and scholarship. Age can hardly wither Julius Sachs's *History of botany*, but things have surely changed since the 1860s. When Sachs was considering the history of his subject there was little to say about plant physiology or the developing fields of cytology or genetics; photosynthesis was still a mystery, ecology merely a strange word coined by Ernst Haeckel in 1866. Despite a passionate interest in every aspect of the botanical sciences, Sachs therefore found it hard to make his book more than a story of advances in classification and the anatomy of plants – the very areas guaranteed to make eyes glaze and heads nod.

Professor Morton has achieved the near impossible in his *History of botanical science*, providing us with a lively, informative, and interesting survey of botany. Like all good histories, it throws new light on familiar figures and introduces others unknown to most professional scholars. J. B. Amici, Anton de Bary, and Joachim Jung take their place alongside old favourites like Ray and Grew; Theophrastus is reassessed; Goethe is well discussed. Yet the real merit of this book lies in the author's determination to continue the story through to the present day, and his ability to place every event and intellectual achievement firmly in its context, demonstrating that the history of plant life is more than counting stamens. Botany is here integrated with movements in the other sciences, and neatly interwoven with a larger history of Europe. Medicine, horticulture, and the needs of agrarian economies are given their due, as are the vagaries of scientists (laziness, p. 183, political allegiance, p. 232) and quirky interludes such as seventeenth-century tulipomania, where rare bulbs were changing hands for thousands of guilders. The commonsensical approach of the text is also cleverly backed up by long, discursive footnotes which, for the connoisseur of such things, are a delight in themselves. It would be hard to find a better study.

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S. M. WALTERS, *The shaping of Cambridge botany*, Cambridge University Press, 1981, 4to, pp. xv, 121, illus., £17.50.

Charles Raven wrote of John Parkinson's *Theatrum botanicum*, published in 1640, as being the work of a man revealing “the authentic passion for a garden, and the quiet wisdom of a gardener” (quoted by Walters, p. 9). Surely these same words could be applied to this volume that marks the sesquicentenary of Henslow's Botanic Garden at Cambridge University. Walters gives an account of the development of botany at Cambridge, which shows a wealth of primary research and sympathy for predecessors who found their life-work in the study of the living plant. Indeed, the book is sub-titled “A short history of *whole-plant* botany at Cambridge from the time of Ray into the present century”. There is a useful bibliography, and the author is especially good as a biographer of J. S. Henslow (1796–1861), to whom he gives credit for removing the plant from the herbarium, and for emphasizing that it was a living thing – “Henslow had foreshadowed the dethronement of Linnaean systematics, but circumstances pre-

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vented him from establishing the 'new science' as a viable tradition in Cambridge" (p. 72). This is, I think, an unjustifiable view of the history of botany. In choosing to discuss the development of whole-plant science, Walters has impoverished his subject – the *shaping* of Cambridge botany – so that the title of his book is a misnomer. Walters describes Henslow as a precursor of the "New Botany", a title properly reserved for the qualitatively different subject which paid attention to plant physiology and plant chemical physiology (in the work of Francis Darwin, Sidney Vines, and Joseph Reynolds Green). As J. D. Hooker wrote in 1884, "Botany is no longer a knowledge of plants but . . . what they do! You begin with yeasts, moulds, etc., and the higher you go *the less you know of the whole plant* and the more of their inwards" [my italics].¹ Henslow's teaching and papers are of a different stamp from those of his contemporary Arthur Henfrey (1819–1859), of whom Von Mohl wrote that he was "the first representative of physiological botany in England".²

Walters is, to be fair, aware of his neglect of the development of *cellular* approaches to plant-life. In pursuing one set of aims, it is unfair to be chided for not having considered some other. Perhaps, but at least that set of aims should provide one with a historically satisfying account. Taking Harry Marshall Ward, Professor of Botany after Babington, for example, Walters is forced by his approach to emphasize his whole-plant work, which in fact represented only a small fraction of his efforts, which were mainly in mycology and bacteriology. In the 1870s, Cambridge botanists uprooted the whole plant – it is debatable whether it ever recovered. One is left with the feeling that, in his deep concern for such studies, Walters has been forced to do some repotting in shallow historical soil.

¹ L. Huxley, *Life and letters of Sir J. D. Hooker*, 2 vols., London, Murray, 1918, vol. 1, pp. 403–404.

² On the difference in botany before and after 1860, see, for example, my paper 'The development of biochemistry in England through botany and the brewing industry', *Hist. Phil. Life Sciences*, 1980, 2: 141–166.

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GEORGE CORNER, *The seven ages of a medical scientist. An autobiography*, Philadelphia, University of Pennsylvania Press, 1981, 8vo, pp. x, 411, [no price stated].

George Corner died in September 1981 at the age of ninety-one. His autobiography, *The seven ages of a medical scientist*, tells the story of a brilliant career, and at the same time provides a picture of an academic world which contrasts sharply in its urbanity and grace with the vibrant and aggressive one that many are inclined to associate with the United States of today.

Corner, whose ancestors had emigrated from England to Maryland in the eighteenth century, was brought up in comfortable circumstances and qualified in medicine at Johns Hopkins in 1913. He then embarked on a career of teaching and research. The book describes his steady progress in a series of anatomical posts from Johns Hopkins, where the famous embryologist Franklin Mall was his mentor; to Berkeley, where he was an associate of Herbert M. Evans; and then to the new Medical School at Rochester, where for seventeen years he was head of the Anatomy Department. He then returned to Baltimore as Director of the Department of Embryology in the Carnegie Institution of Washington. Corner did pioneer research work in the field of reproductive physiology, and the studies which led to the association of his name, together with that of Willard Allen, with the discovery of the hormone of the corpus luteum, are faithfully described.

After retiring at the age of sixty from his Baltimore post, Corner spent five years at the Rockefeller Institute pursuing his other passion – medical history. He then moved to Philadelphia as Executive Officer of the American Philosophical Society, the most ancient and in many ways prestigious of America's learned institutions. Here he remained almost to the end of his life – one of whose richness he writes with charm in what has proved to be the last of many books of which he was the author.

Although the autobiography came out posthumously, George Corner waited to die long