

## Book Reviews

contributions of this book will, no doubt, smooth and catalyse further understanding.

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G. C. AINSWORTH, *Introduction to the history of plant pathology*, Cambridge University Press, 1981, 8vo, pp. xii, 315, illus., £27.50.

This well-produced and -illustrated book is, of course, primarily intended for those dealing specifically with botany or agriculture. Yet much of it will be of interest to doctors and medical historians, and the author himself notes the importance of interdisciplinary studies to all professions.

Plants, like man and other animals, suffer predominantly from diseases caused by fungi, bacteria, and viruses. Dr. Ainsworth shows that the plant pathologist is in fact a plant doctor – or, rather, an epidemiologist – whose task it is to diagnose, treat, and prevent diseases of plant populations, and he has organized his book on this basis.

The medical historian is reminded that some of the fundamental discoveries concerning human medicine have been the outcome of research into plant diseases. The first experimental evidence of the pathogenicity of any micro-organism was provided, at the beginning of the nineteenth century, by the demonstration that bunt of wheat is caused by a fungus; while the existence of viruses was revealed, at the very end of the century, by experiments on tobacco mosaic disease.

For the plant world, however, the fungi are by far the most important pathogenic agents, whereas in human and animal pathology the bacteria and viruses predominate. Since the fungi rarely proliferate within the human or animal body, their possible pathogenicity to man and animals has, until very recently, been largely ignored outside Russia and Eastern Europe. Yet, it has long been known that a toxic fungus was responsible for the outbreaks of ergotism which ravaged Europe from the Middle Ages up to the nineteenth century. Since the second World War, if not earlier, the Russians have incriminated exo-toxins of various fungi as the cause of other serious epidemic conditions in man and animals. More recently, it has been shown that some of these toxins may be carcinogenic in animals, and that such aflatoxins are widely present in groundnuts, wheat, and other crops used for human and animal food, and can even enter the milk of cattle. Thus, it should come as no surprise that the Russians have now been accused of initiating mycological warfare, with a “yellow rain” containing fungal exo-toxins.

It is, therefore, somewhat disappointing that Dr. Ainsworth, one of the world’s foremost mycologists, should confine this book almost entirely to the quantitative effects of plant diseases. Their qualitative aspects must surely be of interest to us all, and not least to plant pathologists and medical historians.

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ROY PORTER (editor), “*The Earth generated and anatomized*” by William Hobbs. *An early eighteenth-century theory of the earth*. (*Bulletin of the British Museum (Natural History)*, Historical Series vol. 8, 26 March 1981), 4to, pp. 158, illus., [no price stated].

The publication of this manuscript is to be welcomed, though the casual reader may be forgiven for asking why. After all, it caused no significant reaction in its own day, and its author, who seems to have been remarkably ignorant of contemporary works on the same subject, was an undistinguished naturalist about whom we know very little. But, as Dr. Porter cogently argues, it provides us with a vivid example of what the average “under-labourer” in the field of natural history in the early eighteenth century was doing and has enough intellectual merit in its own right to arouse the interest of the specialist in this field.

Hobbs’s approach to the problem of “y<sup>e</sup> manner how, and when, the Shells, and other Marine productions, came to be immassed and mingled in the Rocks and Mountains” (his “principal design”) was curiously anomalous. At a time when most theorists were mechanists, Hobbs held

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a “renaissance” conception of the Earth as an animated, organic being “generating” its diurnal rotation, the tides, and living creatures through its own “essential activity”. Similarly, Hobbs rejected the attempts of many theorists of the Earth to make their accounts consistent with a literal interpretation of Genesis. In fact, the most remarkable aspect of this manuscript is its insistence that the formation of the Earth be explained by *natural* processes.

*The Earth generated and anatomized* was clearly the work of an intellectually isolated man, capable of making acute empirical observations and telling criticisms of other theories, but whose lack of a critical environment rendered his own theory too idiosyncratic to be of great interest to the intellectual élite of his time (it was snubbed by the Royal Society). To us, however, it is a valuable reminder that what the historian may see as the most significant ideas and works of a period are often thrust aside or even unknown to contemporaries.

The manuscript is carefully edited, and delightfully enlivened by the inclusion of those of Hobbs’s fine drawings which have survived and reconstructions of those which have been lost.

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MARY KEELE (editor), *Florence Nightingale in Rome. Letters written by Florence Nightingale in Rome in the winter of 1847–48*, Philadelphia, American Philosophical Society, 1981, 8vo, pp. xviii, 322, illus., \$12.00 (paperback).

In what turned out to be a year of revolutions in Europe, Florence Nightingale spent the winter in Rome with Mr. and Mrs. Bracebridge. An indefatigable letter-writer, she sent numerous letters home. Mary Keele has edited some fifty-five of these, wisely letting them speak for themselves, for although they are not *belles-lettres*, they have a vivid quality supported by the sharp intelligence and passion for facts that are so characteristic of Miss Nightingale’s later writing.

The letters are interesting on several counts. For the student of the revolutions they give a graphic eyewitness account of some events – one cannot say “unbiased”, because Florence longed to fire a pistol on behalf of the Risorgimento. Like Wordsworth before her, she clearly thought “what bliss it was that dawn to be alive” when Louis Philippe was overthrown. Second, the letters throw light on the education her father had given her; it was the typical classical education given to privileged boys of the time, well laced with philosophy and political history. Florence had absorbed this like a sponge, and it was one of the secrets of her success later; she could hold her own with educated men. It is for this reason, and because she was with well-informed friends, that her accounts of the Roman antiquities are so fascinating. For those interested in her work in reforming hospitals and nursing, her comments on the institutions she assiduously visited are revealing. Although at this time she was attracted to the Church of Rome, for the most part she found their hospitals unhygienic, the nuns overworked, and the patients miserable and uncared for, although praise is reserved for the sisters of St Vincent de Paul. At the age of twenty-seven, Florence Nightingale was already quite an authority on hospitals.

Perhaps most valuable is the fact that these letters help us to understand Florence Nightingale’s complex character as it was revealed in her later life. She is affectionate and enthusiastic and responds instinctively to goodness and sense, regardless of class or creed. While she is engaged on something in which she is interested, be it hospitals, Roman excavations, or the Sistine Chapel, her physical and mental energies are unbounded. However, with one or two notable exceptions, her enthusiasm is controlled by her intelligence, her sound classical education, and, above all, her sense of humour and of the ridiculous.

Florence slipped from French to Italian to the greatest of ease, and Mary Keele has provided a translation for every word. Some readers may find this excessive, but apart from this small cavil, the footnotes are scholarly and well researched.

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