

## Book Reviews

strictly European. This classification has certainly given her difficulties in writing her narrative histories but it lends itself readily enough to a bibliography. Perhaps the structure leaves too little to chance. It is odd to find Buffon and Walter Charleton bracketed in the same time span ('Biologists in the seventeenth and eighteenth centuries') and counter-intuitive to search for Blumenbach and Lamarck among nineteenth-century biologists, although in a strict sense this is indeed the case. Yet her categories for special problems are illuminating, covering themes such as 'The development of life', which includes all the preformation and epigenesis literature as well as spontaneous generation and conception/fertilization. Under the general heading of 'Ideas', she provides a useful survey of diverse concepts such as the chain of being, Newtonianism in biology, physicotheology, Lamarckism and recapitulation, ending up with cybernetics (only four titles—not as many as might be expected). The individual disciplines are also interpreted generously to include areas like morphology, microbiology, ecology, anthropology and molecular biology. Contrary to other bibliographers of the life sciences, Bäumer is unusual in dividing her material according to leading ideas or practices rather than to conventional natural history categories dictated by actual animals or plants (ichthyology, ornithology, etc.). It is good to see parasitology included, although this gets more citations than plant physiology which is often a poor relation in the historical line-up. Plant morphology seems not to include phyllotaxy (the spiral arrangement of leaves) but I could have got lost in the sub-sections.

Where Bäumer excels is in her meticulous attention to German biology and history of biology. Her choice of influential figures casts a refreshingly different light on the contours of European science and because she expressly focuses on biologists, rather than on naturalists or medical men, she finds a certain leeway in pushing more widely than most bibliographies. She includes many sources which I have not come across before. The book is obviously intended to cross the language barrier with title

and headings in double translation. Sections on genetics, heredity, cell theory, electron microscopy, neurophysiology, and biochemistry all show the value of such an approach. Historians of medicine will surely find it extremely useful.

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**Nicholas J Wade,** *A natural history of vision*, Cambridge, Mass., MIT Press, 1998, pp. xvi, 466, illus., £34.95 (0-262-23194-8).

In *A natural history of vision* Nicholas Wade charts "the course of descriptions of visual phenomena for the period up to 1840". The book focuses on experiential vision as opposed to optics or ophthalmology, though Wade recognizes their close relationship with accounts of vision. (The distinction between light and vision only seriously emerged with the description of the optical properties of the eye by Kepler in the early seventeenth century.) A mid-nineteenth-century cut off is adopted, marking roughly the point of transition from observational approaches to more systematic experimentation, supported by the development of new methods, and machines such as Charles Wheatstone's stereoscope.

The book is arranged thematically, with chapters devoted to different aspects of visual experience and interpretation. As well as the more standard topics such as light and optics, colour and spatial perceptions, some of the more intriguing perceptual phenomena such as illusions, after-images and pattern disturbances are also considered. Each section is introduced with a summary of the topic, its problems, and the key contributors to the debates. This is followed by a series of extracts from the historical texts arranged chronologically. The text is generously illustrated with diagrams and pictures from the cited works.

The thematic approach draws together numerous strands of thought on sight, and Wade presents clear and succinct summaries. The range of "observers" quoted reflects the

pivotal position of vision in the relationship between man and the external world. The interpretation and understanding of vision has attracted metaphysical and aesthetic, as well as scientific, epistemological and medical interest. Commentators quoted on a particular topic thus range widely: the section on colour contrast, for example, includes extracts from Ptolemy, Ibn al-Haytham, Leonardo da Vinci, Robert Boyle, Goethe, Johannes Müller and Michel-Eugène Chevreul.

Wade's coverage of binocularity is particularly interesting, drawing on discussions of the nature of the pathways from the eye to the brain, single and double vision, eye dominance and contour rivalry. Despite the early appreciation of retinal disparity and binocular single vision, the theoretical link came only with Charles Wheatstone in the mid-nineteenth century, with the insight that singleness of vision did not preclude depth perception on the basis of retinal disparity. Wade presents an accessible account of the various theoretical positions, and the survey of binocularity is enlivened by the inclusion of some of the delightful Rubens frontispieces from Aguilonius' *Opticorum libri sex* (1613).

The juxtaposition of diverse perspectives and presentation of a broad chronological range can be stimulating, but has some limitations for historical interpretation. Wade acknowledges that his commentators were not necessarily aware of their predecessors in the field, and in a work of this scale it is not practicable to present the background and concerns of each author. However, the book's thematic ordering does result in mixing very different discourses and contexts, and a sometimes "whiggish" sense of the development of scientific understanding.

*A natural history of vision* offers a wide range of fascinating material on sight and optics, both textual and illustrative. As Wade acknowledges, the texts are necessarily selective and in many cases are given in translation, though with sources clearly cited. In some places diagrams are separated from their associated text by a few pages, and would benefit from a cross-reference. Wade includes

an extensive bibliography and comprehensive subject and name indices. These, together with the clear thematic overviews and the richness of the quoted texts, make *A natural history of vision* a valuable source book for anybody with an interest in vision and its interpretative history, whether from a medical, philosophical or psychological perspective.

**Helen P B Corlett**, Salisbury

**Paul Dijkstra and Leo Noordegraaf** (compilers), *Plague and print in the Netherlands: a short-title catalogue of publications in the University Library of Amsterdam*, Rotterdam, Erasmus Publishing, 1997, pp. 360, illus., Hfl. 120.00 (90-5235-126-0).

This catalogue covers works published before 1800, printed in the Low Countries or written by Dutch authors, primarily concerning the plague or substantially referring to it. A bibliography of later works dealing with the history of the plague in the area during that period is also included.

The published version grew out of a cataloguing project at the Library of the University of Amsterdam, and only works from that library are listed, although the compilers say in the preface that they are hoping to expand it to a "full-fledged bibliography" in the future. Whether or not this happens, the library's holdings are clearly important and comprehensive enough to make the catalogue an excellent bibliographical overview of the subject in its own right. The collection is rich in general medical works covering the plague, as well as in specialized texts on its aetiology and treatment. There are numerous editions of treatises such as those of Paul Barbette, Johan van Beverwijck, IJsbrand van Diemerbroeck, and Jean Baptiste van Helmont. Literary works invoking the disease, such as Boccaccio's *Decameron*, are also covered.

The book is attractively produced, with a generous number of full-page reproductions of