

# History peopled

W.F. Bynum

**The Discoverers: A History of Man's Search to Know His World and Himself.**

By Daniel J. Boorstin.

Dent/Random House: 1984. Pp. 768. £15, \$25.

DANIEL Boorstin has been Librarian of Congress since 1975 and his previous dozen books (including one Pulitzer Prize winner) have been on American history. *The Discoverers* is his homage to the rest of the world. America and Americans are of course part of his story, but only a relatively small one. His primary focus is Europe and Asia and those who have contributed to "man's search to know his world and himself".

The book's sub-title and size suggest that Mr Boorstin has set himself a task on the grand scale. A look at the volume's four main sections confirms this: "Time"; "The Earth and the Seas"; "Nature"; "Society". This organization provides a rough chronological thrust to his narrative. "Time" deals with ancient calendars, seasonal reckoning and time-telling from antiquity to the coming of clocks and watches. John Harrison's chronometer for calculating longitude links that section with the next, which examines cosmology and cartography, navigation and exploration, from long before Ptolemy to long after Columbus. The section on Nature takes off from the Scientific Revolution, when the telescope and microscope extended the range of vision, and makes its leisurely way through some of the principal scientific disciplines of the eighteenth and nineteenth centuries, such as taxonomy, palaeontology and evolutionary biology. Finally, "Society" describes a fascinating *mélange* of topics, from printing and books to the writing of history, the discovery of Troy and Keynesian economics.

The result is both less and more than a conventional history of science. It is less because the coverage is sometimes patchy, particularly of the physical sciences after Newton. There is virtually nothing on chemistry (Lavoisier rates only one passing mention) and two centuries of physics are covered in a rather unfortunate closing chapter (part of "Society", not "Nature") in which Mr Boorstin leaves himself only a single page to dispense with James Clerk Maxwell, J.J. Thomson, Ernest Rutherford and Albert Einstein. Seventeenth-century microscopists such as Leeuwenhoek and Malpighi get full treatment, but there is nothing on cell theory of the nineteenth century. Galen, Vesalius, Paracelsus and Harvey (mistakenly knighted on p. 459) get their due, but virtually no doctors after them except for Freud.

Mr Boorstin has therefore not given his

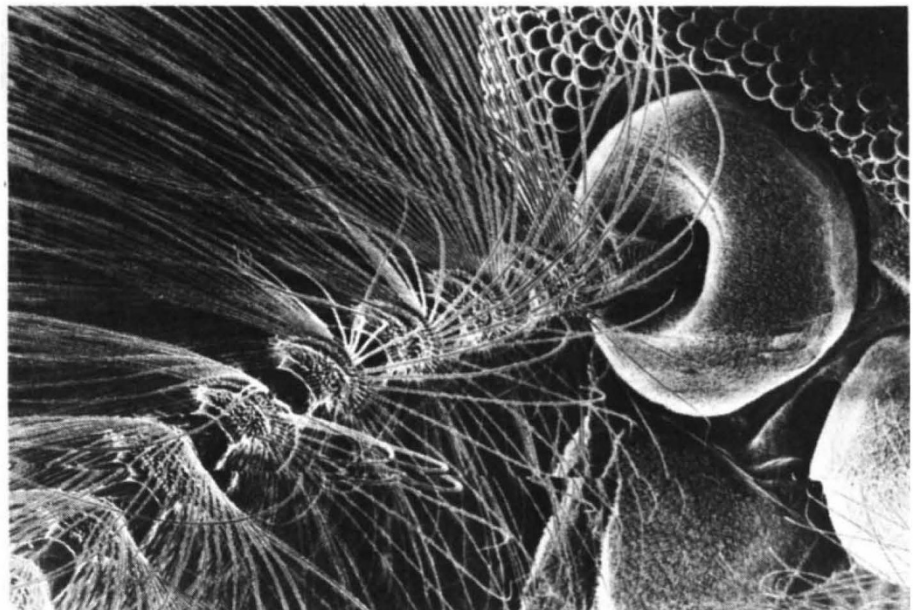
readers much that a single-volume survey of the history of science and scientific discovery should; but he has more than compensated for this lacuna by offering a great deal more. Scattered through this magnificent volume are unexpected themes and people treated with what can only be described as affectionate authority. The Jesuits and their clocks in China; Islamic attitudes to the printing press; the growth of public libraries; the discovery of "prehistory": these and dozens of other vignettes share centre stage with a multinational cast of unfamiliar characters, such as Sir Anthony Panizzi, Italian-born librarian of the British Museum; Martin Waldseemüller, the German clergyman who named America; Chêng Ho, the eunuch Chinese navigator; and Lorenzo Valla, the Italian theological scholar. If the book contains many curious and delightful byways, seekers of more familiar discoveries and discoverers will not be disappointed, for individuals such as Copernicus and Galileo, Henry the Navigator and James Cook, Linnaeus and Darwin, are sympathetically covered. The level of accuracy throughout is unusually high in a book which covers such a vast terrain. A 30-page bibliographical essay guides the reader to the range of sources from which material has been drawn.

Mr Boorstin seems particularly to enjoy biography, and most of the book's 82

chapters are arranged around the achievements of two or three relevant people. This penchant for biography can be seen by the frequency with which he uses biographical metaphors and similes: Karl Marx was "a latter-day Paracelsus", Paracelsus in turn was "a medical Don Quixote". Newton was "the Galahad of the Scientific Quest", whereas several individuals (John Dalton, for example) were Columbuses. Boorstin has a fine eye for anecdote, is particularly good on word derivations (among them "punctual", "travel", "hour", "Bible", "culture") and writes always with elegance and zest. The volume is studded with memorable phrases and epigrams. One such epigram, not directly from his pen but quoted from Callimachus (305–240 BC), head librarian in Ptolemaic Alexandria, declares that "A big book is a big nuisance". If this is true, *The Discoverers* is the exception that proves the rule, for, like the Bible, this is a Good Book. It is best read slowly and in small doses, in order to savour the richness of the story. It is also best read with an historical atlas nearby, for despite the importance of geographical exploration among Boorstin's themes, there are no maps provided. Astronomical diagrams would also have helped readers grasp the differences between the cosmologies of the Babylonians, the Indians, Ptolemy and Kepler.

This book had its origins, Mr Boorstin tells us, in his first visit to Florence a half-century ago, and has been 15 years in the specific researching and writing. This long gestation has produced a splendid brain-child, a wise and optimistic volume which enlightens and entertains. Read it. □

*W.F. Bynum is at the Wellcome Institute for the History of Medicine, London.*



Seeing sense — base of the antenna of a male mosquito, photographed by Lennart Nilsson. The picture is reproduced from *Nature Magnified*, a collection of Nilsson's work published by Macdonald price £9.95.