

# WHAT A PIECE OF WORK IS MAN!



in action  
how like  
an angel!  
in apprehension  
how like a god!

THE NORTHWEST PASSAGE, FROM THE  
MATHEW TO THE MANHATTAN: 1497 TO  
1969, by Bern Keating. 1970. Rand  
McNally & Co., Chicago. 160 pp. \$9.95.

The author traces the hardships and achievements of earlier attempts to find and navigate the treacherous waters of the Northwest Passage and then tells of the icebreaker-tanker *Manhattan*, which succeeded in reaching Alaska's oil-rich North Slope—at a cost of \$40 million. This story of a modern polar expedition is illustrated by 48 pages of exciting photographs, which allow the reader to relate to the hazards of the journey while partaking of the beauty of the polar wilderness. Keating pays tribute to the courage of the hundreds of adventurous men who fulfilled a dream dating back to John Cabot's voyage in the *Mathew*, in 1497.

David Evans  
Indiana University  
Bloomington

MIND AND BRAIN: A PHILOSOPHY OF SCIENCE, by Arturo Rosenblueth, 1970. M.I.T. Press, Cambridge, Mass. 138 pp. \$5.95.

The thrust of Rosenblueth's philosophy is to challenge the mind-brain duality as reflected in those systems of thought that posit the unconscious mind. As a research neurophysiologist he finds no support for the existence of unconscious processes, and he objects to independent minds with causalities of their own. Rather, he proposes a modified dualism of mental events and their correlated neurologic processes.

Mental events include all conscious experience of which someone is aware. They are correlated with, but do not physically interact with, neurophysiologic processes. Mind and brain function in parallel, "the succession of mental events being dependent upon the

Alan Moorehead's writings. This time he has combined his usual lucid prose with a magnificent collection of period engravings, paintings, and watercolors to illustrate his account of the voyage of HMS *Beagle*. Altogether, this is book-making at its best: the volume is as fit to rest splendidly on the coffee table as it is to be used effectively in the study.

The illustrations—133 black-and-white, 50 in color, and 6 maps—are themselves a substantial contribution to our understanding of Darwin's epic voyage. Many of them, I think, have never before been published. We find a good sample of drawings and paintings executed by the successive artists, Augustus Earle and Conrad Martens, who were assigned to the *Beagle*. Two paintings by Earle showing seamen's quarters are noteworthy because engravings and paintings of shipboard life were rarely done, it seems, during the age of sail. The painting of the *Beagle* near Cape Horn, by Martens [see cover], and creditable drawings of earthquake ruins in Chile, by Lt. John C. Wickham, further illustrate the quite exceptional talent on that voyage. In addition, there are scenes of Darwin's life in England and drawings from other 18th- and 19th-century expeditions.

It was quite natural, even inevitable, that Moorehead should have done this study. His twin historical studies, *The White Nile* (1960) and *The Blue Nile* (1962), showed his appreciation of early botanic explorations in Africa; and—perhaps because he is Australian-born—his interest in the Pacific voyages of discovery by Capt. James Cook prompted *The Fatal Impact* (1966): this included an assessment of the naturalist Joseph Banks, who accompanied Cook in HMS *Endeavour* (first voyage, 1768-1771). These books displayed his command of historical documents and his awareness of biologic significance. While contemplating Cook and Banks, Moorehead no doubt often thought of Capt. Robert FitzRoy and Charles Darwin.

Does Moorehead, in the present work, tell us anything new? Well, no—at least not to anyone who knows his Darwin. The primary historical documents on which he based his new book have long been available: Darwin's *Autobiography*, *Letters*, *Journal of Researches*, and *Voyage of the Beagle*, and FitzRoy's *Narrative*. In 1831, a clean-shaven young man of 22 with a generally poor scholastic record at Cambridge joined the *Beagle*, under the able command of FitzRoy, age 23. For the next five years, while the ship meandered up and down the South American coast and then visited the Galápagos Islands, Tahiti, New Zealand, and Australia, FitzRoy carried out his orders—to prepare accurate charts and reckon precise longitude—and Darwin observed and collected thousands of mineral specimens, fossils, and living animals and plants. Darwin pondered the rise and fall of continents, probed the significance of

fossils and variability, and correctly portrayed the origin of coral reefs. Moorehead makes of all this a fascinating story for the novice while satisfying the fastidious eye of the historian, to whom the essential outlines are well known.

And yet, there is something more. Moorehead has given us a fresh, intellectual portrait of FitzRoy and of Darwin that highlights the significance of their contrasting and emerging personalities. They were about the same age, so there was no generation gap aboard the *Beagle* (as there likely was between Cook and Banks aboard the *Endeavour*); nevertheless, the two men represented diverging interpretations of nature. FitzRoy was heir to the 18th-century idea of the Scale of Nature, which held that all creation was arranged in a static hierarchy and saw man perched securely at its apex. As did many others of his time, FitzRoy equated this once-valid conception with religious orthodoxy, and he often challenged Darwin in fervent debate. Darwin had the good fortune to have in his captain an articulate and thoughtful critic, whose volatile arguments obliged him to ask the right questions.

There is a certain pathos in the quarreling of the two young men, there on the swaying afterdeck of the *Beagle*, as they tried earnestly to persuade one another. Darwin, uncertain and searching, was gathering the evidence for the ideas he would spring on the world in 1858-59. FitzRoy, mercurial and troubled, was perhaps already exhibiting those restless traits that would lead to his suicide in 1865. Their lively exchanges were a portent of the coming revolution in thought concerning what constitutes order in nature. Poor FitzRoy: like many today who remain uncomfortable about evolution, he erroneously feared that questions about *how* God had created the world could only mean doubt that God *had* created it.

Moorehead also points out Darwin's revulsion against slavery in Brazil. It is no accident, of course, that Darwin should have reacted thus: his family connections were all against slavery, and his theory of natural selection would never support the notion of racial inequality. It is no accident, I think, that among those who still actively oppose evolution, some are segregationists: like FitzRoy, who could view slavery with equanimity—it was the northern European white man who had come to occupy the apex of creation—they represent remnants of the modified 18th-century idea of fixity. Ideas have consequences.

This book has been put together with all the care, imagination, and taste the subject deserves. And Moorehead's prose sparkles throughout, like a phosphorescent sea in the wake of the *Beagle*.

Richard P. Aulie  
Chicago State College