

Edward Lear for good measure.

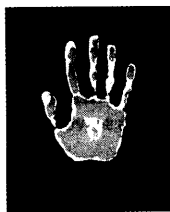
Here are the stories of the Great Moon Hoax (observe the buffaloes and winged humans) sea captain of a mutinous crew, possible spy and alleged pirate and Joseph Horrocks, who might have been as remarkable as Newton. But all the articles, written in urbane style and full of wit, are fascinating. Astronomy is a racy tale behind the scenes and Donald Fernie is the ideal raconteur.

## Sinister, dexter

**Right Hand, Left Hand: The origins of asymmetry in brains, atoms and cultures**

by Chris McManus, Weidenfeld & Nicolson/Harvard, £20, ISBN 0297645978

Reviewed by Douglas Palmer



AS A cack-handed and somewhat gauche member of the sinister bastard brigade of lefties (we make up 20

per cent of the population), I sometimes resent the hegemony of the more adroit and dextrous right – and all those pejorative terms that are used for the left. We are not talking politics here but something much more fundamental, biological asymmetry.

All life, both plant and animal, shows some form of handedness at some structural level from the molecule right up to the human hand itself. DNA molecules, many inorganic crystals and anything with a spiral from mollusc shells to screws and spiral nebulae are “handed”. But does it matter? After all, right and left are relative to the viewer. Or is asymmetry an inherent property of matter?

*Right Hand, Left Hand* by Chris McManus (an appropriate name – *manus* is the Latin for hand), an academic expert on handedness and founding editor of the journal *Laterality*, is a fascinating and immensely readable exploration of the whole topic.

McManus delves into the science behind this universal phenomenon

and makes a good case for the linkage between the fundamental laws of physics (neutrinos are left-handed) and those of biology (DNA is right-handed). Even football gets a mention.

## Seeing is believing

**Vision and Art: The biology of seeing**

by Margaret Livingstone, Abrams, £29,45/\$45  
ISBN 0810904063

Reviewed by Simon Emory



HOW do we see? And does how we see affect what we like to look at? *Vision and Art* has the answers. It is an accessible, thought-

provoking resource for anyone interested in how the human vision system works. By bridging the gap between the two, often conflicting, disciplines of art and science, Margaret Livingstone sets the agenda for future debate.

She begins by addressing how the eye and brain translate different wavelengths of light into colour and information. Her book gives the reader a strong grounding in visual science and a deeper understanding of the visual arts. Arranged in 12 engaging chapters, she explains various neurobiological processes via clear graphic diagrams, intriguing visual experiments and optical illusions.

But biology is only the beginning. Livingstone also explains the optical allure of the work of the great masters. Her chapter “Luminance” is particularly insightful. She explains how low-luminance contrast in art helps to create the illusion of movement, and discusses its relationship to depth, three-dimensionality and spatial organisation.

The book is worth reading just for what it tells you about how we try to make sense out of a complex, dynamic, multidimensional world.

Be prepared to enhance your visual intelligence. Simon Emory is a designer and also lectures at the University of Brighton