Theory?" It's hard to come up with a more likely answer. Poor Aldous: it never came off; it never could.

So Mrs Bedford arouses our compassion. Over my regard for her as a biographer I shot my bolt when reviewing Volume 1 in this journal. I see myself quoted on the dust-jacket of Volume 2: "Mrs Bedford has great literary talent and through everythink she writes shines a sympathetic intelligence—not to say an admirably unforced professionalism as well". I stick to that. Over a final verdict on the biography I naturally insisted on waiting until the end. The doubts I had at that time have not really been resolved now that I have read the second volume. I noticed that the book has the flavour of close, cosy, penetrating gossip: all well and good—but I feel that in the end it becomes too much of a good thing. There are too many gossippy letters from Maria, too many long quotations from other people's letters. And for my taste there is too much detail—Joe Blodgett'ish, American academic, research detail—about Aldous's incessant, restless lecturing tours. (Did he really have to travel so much, and to live in southern California, in order to make a living and maintain his health? Such a life was particularly bad for him; he ought to have stayed put, among more stable-minded men of his own intellectual stature, in a less fatuous culture.)

Finally, I get a recurrent feeling that Mrs Bedford, who knew Aldous well and was a close friend, is somehow in this volume shielding him, protecting him from criticism. It's wholly understandable, and it's permissible for part of the time; but there's another part of the time when a biographer must come clean, and cold—or so it seems to me. All the same, Mrs Bedford has written a remarkable and valuable book.

Science from the beginning

Early Physics and Astronomy: A Historical Introduction. (History of Science Library.) By O. Pedersen and M. Pihl. Pp.413. (Macdonald: London; American Elsevier: New York, August 1974.) £10.95.

THE content of this revised and updated English version of an originally Danish text is summarised well in the description on the dust jacket of the book. "The first section of the book is devoted mainly to Greek physical science . . . . Concepts of nature and of scientific laws in general are discussed in addition to theories within particular sciences. The reader is also introduced to the mathematical and other techniques available for the solution of problems. The second section of the book discusses the transmission, reception and elaboration of these theories in the Latin West, and the science of the early Renaissance is seen as the end-point of the classical tradition. The book concludes with biographical sketches of the philosophers and scientists featured in the text."

Not everyone would agree with the authors prefatory remark that their omission of a detailed account of early Egyptian and Babylonian science was "inevitable", though it was doubtless expedient for them to limit their already extensive theme. Probably for the same reason they omitted any mention of the rich scientific developments in mediaeval India or China, the early history of pure mathematics, time-reckoning, cartography, and so on. It is, on the other hand, truly inevitable, and a little unfortunate, that Alexander Thom's important researches on megalithic lunar observatories and solstitial sites have been published too recently for inclusion in the text or in the bibliography (updated to 1970).

In the treatment of Greek science emphasis is laid upon the importance of the presocratic belief that causal relationships existed between natural phenomena. Aristotle's adherence to this causal principle (or natural law), coupled with the trend away from mythology towards rational explanation and the Platonic concept of the mathematisation of nature, constituted essential ingredients of subsequent scientific thought. Menaechmos's discovery of the conic sections (in about 350 BC) may have arisen from the study of the daily shadows cast by a gnomon upon the ground. That was a hidden empiricism which is also detectable in the Pythagorean relationships between number and harmony, the Method of Archimedes, and the pneumatical experiments of Strato Philo and Hero at Alexandria during the Hellenistic period of Greek culture.

It was, however, mediaeval investigations in optics and statics, founded upon principles drawn from everyday experience, which provided the firmer empirical basis of physical science. The plane astrolabe and mechanical clock were but two of many mediaeval inventions destined to revolutionise astronomical practice; and the rejection of the Aristotelian belief in a causal principle for the explanation of motion was the determinative factor in the development of dynamics, which was required to make the physical implications of Copernican astronomy acceptable to Galileo and many of his contemporaries.

The field which is explored is much more complex and extensive than this outline may suggest, and is already familiar to students of early science. The well balanced presentation in one volume is a welcome substitute for the wide range of scattered publications from which the subject matter would otherwise have to be drawn. The extensive bibliographical and biographical references provide a very useful guide to carefully selected primary and secondary sources. The use of vector notation to simplify explanations of the various geometrical devices used by Greek and mediaeval scholars, though a useful heuristic tool, is anachronistic and presupposes that the reader has received instruction in this technique.

I detected only six minor printing errors in the text, but slightly less care seems to have been taken by the authors and publishers in connection with the description of a great many of the accompanying figures.

The authors' hope that this book will become widely used as a standard text may be dashed because of its price. The onus is likely to fall upon teachers to obtain library copies and to arrange that these are easily accessible to the members of their classes. My own experience leads me to believe that the clear and scholarly style of this excellent translation, along with the authors' practice of breaking up the text into numerous sub-sections, will appeal greatly to science undergraduates reading the book as part of an introductory survey course in the history of the exact sciences.

Eric G. Forbes

No matter—never mind

The Brain Revolution. By Marilyn Ferguson. Pp. 380. (David-Poynter: London, 1973.) £4.00.

THIS book reviews the flotsam and jetsam discovered by those working on the remote shores of the brain sciences. Among other things, it tells us that "human volunteers in biofeedback laboratories are learning consciously to control their brain waves, perspiration, blood pressure, digestive juices and heart rate" (p.17): anyone intending to read it would be well advised to acquire such control first. The authoress tells us that "breakthrough scientists ask silly questions" (p.286) and the book parades before us their silly answers. The human psyche is said to be influenced by star patterns, magnetic fields and negative ionisation; precognition and telekinesis are accepted scientific phenomena; the "incredible potency of LSD" (p.123) cures