scientific thought. In human terms the letters to Charles Darwin from his family and friends give us a clearer idea than any description could of the environment which shaped his early years.

Volume 2 starts after Darwin's return to Britain and covers the formative period when his ideas on the evolution of species were crystallising and when he was beginning to harvest the results of his travels, with publications on Geology of South America and Coral Reefs, as well as the successive volumes describing the species collected during the voyage. His marriage and his move to Down House also figure prominently, while here appear also the first signs of ill health.

In many ways the two volumes provide a contrasting picture of Darwin. Volume 1 shows an active, sociable, and energetic personality, adapting easily to difficult circumstances and awkward characters (such as Captain Fitzroy on the *Beagle*). In volume 2 the more familiar Darwin starts to emerge, intensely aware of the importance of his work and of the need to protect himself from distractions and trivia, yet remaining a warm person, devoted to his family, albeit in a paternalistic way.

Those interested in Darwin's illness will find much here of value, on the whole supporting the view that it was essentially protective and psychosomatic in nature. Darwin's father seems to have recognised this astutely, and several passages show that he judged his son's symptoms not to be of serious import, this at a time when death at a young age was commonplace.

I started reading these two weighty volumes anticipating that they would provide many months of intermittent reading, only to find they monopolised all spare (and some not so spare) time until I had finished. I suspect that anyone interested in Darwin and the early days of evolution will find them equally enjoyable. The editors and Cambridge University Press can be proud of their achievement, but I hope that the remaining volumes are not too long delayed.

PETER S HARPER

Chorion Villus Sampling

Edited by D T Y Liu, E M Symonds, and M S Golbus. (Pp 362; £27.50.) London: Chapman and Hall Medical. 1987.

This review of chorion villus sampling deals with its associated technology and clinical application. Separate chapters give an indication of results so far achieved by different methods and the association of practice with genetic counselling. The readership is likely to range from the clinician who is involved

with preconception counselling and prenatal diagnosis to the laboratory scientist. Much of the diagnostic content is already covered in publications on genetics and prenatal diagnosis. This volume, however, is a handy reference for those wishing a review of the state of the art and a reference volume for specialist trainees, both clinical and scientific.

The past 15 years have seen rapid advances in the knowledge and technology elucidating genetic and acquired maldevelopment of the fetus. Preconception advice and prenatal diagnosis provides the possibility of normal children in high risk families. This has been based on the capacity for fetal visualisation indirectly by ultrasound and now, to a lesser extent, directly by fetoscopy; on fetal tissue biopsy for karyotyping, enzymology, immunology, and recombinant DNA analysis being increasingly utilised; and, most frequently, on amniocentesis and, now, the increasing use of chorion villus sampling. The speed of new technology has relegated fetoscopy to a small and limited usage. Fetoscopic blood sampling has given place to direct cordocentesis under ultrasound guidance in mid-trimester. Chorion villus sampling offers the possibility of earlier diagnosis. This factor is likely to overcome Chalmers' plea for a randomised trial and the most recent communication by Jackson has shown that 24 000 samplings have now been recorded in his registry. The multiplicity of chapters on the various transcervical methods is an interesting historical account of the early days of the technique. However, the relevance may be whether transcervical sampling by suction tube or trans-abdominal sampling by needling may prove to be equally important techniques with similar loss rates.

In viewing the published results it is important to relate the percentage loss of completed pregnancies as opposed to considering a percentage loss of maintained pregnancies as yet undelivered. The long term risks cannot, as yet, be elucidated but experience of amniocentesis and fetoscopy do not suggest hazards unacceptable to prospective parents and inadvisable by responsible clinicians. The chapters on economic significance and genetic counselling do, indirectly, consider the ethics of preconception and prenatal diagnosis. These implications are under general medical consideration and perhaps could have had greater reference in this volume.

The book is well written but the style does have the drawback of repetition of some of the factors and also of the associated references. A worthwhile volume for those specially interested and the medical library.

I ROCKER