simple anucleate red cell as a model for the complexity of the whole organism remains questionable: it would be remarkably convenient if the red cell life span in any one subject were a guide to his ultimate survival, but as pointed out by JM Rifkind and colleagues, although an 80 year old donor does not have 80 year old red cells, his red cells have been produced by an 80 year old erythropoietic system.

Proceedings of conferences tend to have a limited life span, and relatively few merit publication. This is a rare exception, a fascinating subject, with some excellent reviews as well as original data by eminent workers: recommended reading for all haematologists.

SM LEWIS

Techniques in Immunocytochemistry. Vol 3. Ed Gillian R Bullock, Peter Petrusz. (Pp 241; £37.50.) Academic Press Inc. 1985.

This book is the third volume in a series devoted to immunocytochemistry techniques. There are some very useful contributions: the discussion of the effects of fixation on immunocytochemistry in chapter 1, although not applicable to much routine immunocytochemistry, should be studied carefully by all immunocytochemists when assessing a new antibody. Chapters on specific techniques, such as the APAAP immunoalkaline phosphatase method, immunoblotting, and microinjection are carefully written and allow the reader confidently to try these new methods out. The last three chapters on the use of metallic ions are particularly useful and I would highlight in particular, the chapter on the enzyme and gold technique, which, although not strictly immunocytochemistry, seems to open up whole new fields of study. This book should join its companion volumes in all immunocytochemistry laboratories.

PG ISAACSON

Mucosal Biopsy of the Gastrointestinal Tract. Vol 3 in the series Major Problems in Pathology. 3rd ed. R Whitehead. (Pp 320; £39.50.) Saunders. 1985.

The third edition of Professor Whitehead's book *Mucosal Biopsy of the Gastrointestinal Tract* appears six years after the second. The editions continue to improve. The third is now 320 pages long, some 80 pages longer than its predecessor. The biggest change is the welcome inclusion of a section devoted to the oesophagus which covers the first 30 pages. Another newcomer is the ileal biopsy,

although with only a small "walk on part" of one page.

The format of this edition is similar to the second, although it is larger and produced with more pleasing page quality and type set. As the photomicrographs were of such good quality it is not surprising that most have been retained with a few changes, and some gaps have been plugged; presumably, as the rarer conditions finally present in the Flinders catchment area. Thus in this edition biopsy photographs of Waldenstrom's macroglobulinaemia and A-beta-lipoproteinemia are included. As one would expect the background discussion to many of the sections has been improved, expanded, and brought up to date, as have the selection of excellent references.

The book has always been one of the best for the diagnostic pathologist coping with gastrointestinal material, and the third edition preserves and improves its reputation. Such is the pace of gastrointestinal research that there are already topics lining up for the fourth edition, such as *Campylobacter pyloridis* and coeliac T cell lymphomas.

AB PRICE

Muir's Textbook of Pathology. 12th ed. Ed JR Anderson. (£29.50.) Edward Arnold. 1985.

Sixty one years have passed since the appearance of the first edition of "Muir." It is a pleasure to be able to report that this old friend, now in its twelfth edition, is not only alive but flourishing under the sympathetic guidance of Professor John Anderson.

With the rapid expansion of knowledge, not least in the fields of immunology and molecular biology, the editor has increased the number of contributors; the degree of uniformity of style and presentation is a tribute to his editorial skills. There has also been a very considerable and, in my view, welcome increase in the use of diagrams to illustrate both factual data and conceptual material. At the same time the standard of reproduction of the many photographs is high, many of them showing a degree of crispness and clarity that is very pleasing. The improvements both in the text and in presentation have been accompanied by an increase in bulk (and, alas, in price), and the very wide range of knowledge encompassed in this book has resulted in extensive cross referencing which can be a little tedious for the reader. These are trifling criticisms, however, and this new edition can be strongly recommended both to undergraduates and to pathologists in training. It is a credit to its editor, contributors, and publishers.

NEVILLE WOOLF

The Logic of Laboratory Medicine. Principles for Use of the Clinical Laboratory. Dennis A Noe. (Pp 373; paperback £19.95.) Pitman Publishing Ltd. 1985.

This is an unusual textbook of pathology. The author opens with a discussion of units and standardised presentation of data and moves on to the sources of variation in laboratory measurements. There is a full presentation of the evaluation of test performance in terms of diagnostic efficiency as well as the use of multivariate analyses including discriminant functions and Bayesian analysis. The author then discusses the disturbance of physiological systems by disease on which a structure of appropriate investigation can be built. The mathematical approach to diagnosis based on laboratory investigation is well presented, but a student reading the book may not appreciate the limited practicability of such techniques at present, because most of the tests we use have low specificity. Nevertheless, a knowledge of the principles would benefit medical students and trainees studying for higher qualifications in pathology. There are short chapters on morphological diagnosis, the use of some aspects of medical microbiology, and therapeutic drug monitoring. These tend to upset the balance of the book. One of the most apt quotations heading the chapters is from David Hume: "all knowledge resolves itself into probability."

MG RINSLER

Atlas of Oral Pathology. Current Histopathology. Vol 8. RB Lucas, JW Eveson. (Pp 152; £75.) MTP Press Limited. 1985.

The slim volume of 152 pages is aimed at the general diagnostic pathologist with the hope that it will serve as a bench book. In eleven chapters it covers the oral tissues, including bone and salivary glands with colour illustrations of high quality. These are accompanied by a succinct text, which, for the most part, presents a sound account of oral pathology, although in a number of areas this is not fully up to date. This is also reflected in the brief lists of references which follow each chapter.

The longest chapter is the one covering non-odontogenic tumours and includes an unhappy mixture of neoplastic and non-neoplastic swellings. This is the poorest part of the book including several conditions which might have been better placed in other chapters. There is an adequate index.

The authors have very largely achieved their aims in writing this volume, but at

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cost of £75 it seems highly unlikely that this book will be bought by many of the general diagnostic departments for whom it is intended.

D GORDON MACDONALD

X-Ray Microanalysis in Electron Microscopy for Biologists. Microscopy Handbooks 05. AJ Morgan. (Pp 79; paperback £5.) Oxford University Press. 1985.

X-ray microanalysis, and in particular, electron probe x-ray spectrometry has been available to the biologist for over a decade and has proved an invaluable adjunct to transmission and scanning electron microscopy for elemental analysis. Though simple to operate, x-ray microanalysis equipment produces results which can easily be misinterpreted by the inexperienced investigator unaware of the effects of specimen preparation or the pitfalls of spectrum analysis. This handbook provides a straightforward and well illustrated guide to all microanalysis techniques including energy dispersive spectroscopy (EDS), wavelength dispersive spectroscopy (WDS), and the backscattered electron image (BEI); and it explains clearly the physical properties and operation of these modes. It describes the various preparation methods for biological material for examination in the transmission electron microscope (TEM), explaining the advantages and disadvantages of resin and cryo techniques for elemental analysis. The one criticism that could be made from a pathological point of view is the omission of any reference to the growing role of scanning electron microscopy (SEM) with electron probe analysis in diagnostic pathology. This handbook should, however, prove to be an invaluable reference for newcomers to this field and as a teaching manual.

DA LEVISON
PR CROCKER

Liver Update 2/1985. Proceedings of an International Symposium on Recent Advances in Liver Physiology and Disease. Ed RE Kirsch, JB Kruskal, G Csomos, J Terblanche. (Pp 202; paperback £9.95; WB Saunders. 1985.

Should proceedings of meetings be published? Should hard pressed medical libraries be tempted to spend a diminishing income on proceedings? The answer is usually a clear "No" and contributors asked to

provide scripts, often some time after agreeing to participate in a meeting, will surely agree. In the case of the present volume no scripts were submitted, although someone thoughtfully provided references, and the book is a verbatim transcript of a meeting on aspects of liver physiology and related clinical topics held in Cape Town in February 1985. It has thus appeared in print after a very short gestation, comparing favourably with many journals. The mode of production has made for informality and easy reading on topics ranging from metabolism to regeneration, portal hypertension, and liver transplantation. The cast is international. If you want to know how hepatologists saw liver physiology in 1985 this seems a very reasonable way to spend £9.95.

PJ SCHEUER

Microbiology for the Public Health. The Evolution of the Public Health Laboratory Service 1939-1980. REO Williams. (Pp 223; hardback £15; softback £10.) Public Health Laboratory Service. 1985.

Although the subtitle of this book is *The Evolution of the Public Health Laboratory Service 1939-1980*, it is, in fact, a wide ranging review of all aspects of microbiology in relation to the public health.

The 15 chapters cover four phases: the origins of the Emergency Public Health Laboratory Service under the inspiration of WWC Topley in the pre-war 1930s; its role in wartime and adjustment to a peace time role when, as the Public Health Laboratory Service (PHLS), it offered what was at first the only nationwide service in microbiology; its role as an essential complement to the increasing number of laboratories of the new National Health Service; and finally a period of consolidation in the 1970s.

For each phase there are separate chapters on the administrative set up and on the scientific work, much of which could not have been done by other than a centrally administered service and its peripheral force of microbiologists skilled in field investigation as well as in benchwork. The book ends with chapters on the new role of the Centre for Applied Microbiology and Research ("Porton") within the PHLS, public health services in Europe, and an assessment of 40 years of microbiology for the public health.

Some of the illustrations are too dark to show detail, but the book is otherwise well produced.

R BLOWERS

Brucella Melitensis. Current Topics in Veterinary Medicine and Animal Science Vol 32. Ed JM Verger, M Plommet. (Pp 270; £37.75.) Martinus Nijhoff. 1985.

This book publishes 26 papers in full from nine countries given at a workshop on *Brucella melitensis* animal infection organised by the Commission of the European Communities and held in Brussels in November 1984. Not surprisingly, they are a mixed bag and although the book is full of up to date veterinary information, it lacks continuity and is difficult to read. The French editors are to be congratulated in managing to produce the book eight months after the meeting, but they have not exercised tight control and much of the English is best described as " quaint."

The disease remains a problem in sheep and goats in parts of France, Greece, Italy, Portugal, and Spain. Except for abortion, the disease is often asymptomatic in animals, and the size of the economic loss it causes is difficult to estimate, but it still poses an important public health problem for man. Current practice attempts to control the disease by widespread vaccination. This policy is moderately successful but thwarts the ultimate aim of eradication achieved by identification and slaughter of infected animals.

There are some clear messages in the text for laboratory workers. Diagnostic methods, especially serological tests require to be standardised, and reliable ways of differentiating vaccinated from infected animals need to be found. This expensive book cannot, however, be recommended to medical microbiologists for general reading.

JD SLEIGH

Cellular Pathology Technique. 4th ed. CFA Culling, RT Allison, WT Barr. (Pp 642; £35.) Butterworths. 1985.

An alternative title might be *Culling's Handbook of Histopathological and Histochemical Techniques*, the three previous editions of which, spanning almost thirty years, have been widely read and used at the laboratory bench. This book has been thoroughly revised by new authors following the death of Charles Culling, but the layout is similar, with an expanded text on fewer but larger pages. New chapters include photomicrography, quantitative methods, and immunoenzyme techniques, while cells such as those of the endocrine system and cell