attributed to 'the group at Stanford, where a great deal of this work is currently in progress'!

Looking at the whole, this book represents a good way of catching up on the literature, with some chapters being truly excellent. The price, however, is high, and in the present economic climate there are many other demands on our income.

A L W F EDDLESTON


In 1968, With concluded his 669-page book on bile pigment with the remark: 'In few places is so much biochemistry used with so small results as in liver diagnostics'. More than a decade later Heirwegh and Brown have felt the need to review the still expanding research on bilirubin with emphasis on the importance of methodological advances and their potential for future developments. The book appears in two volumes, the first dealing with the structure, physical chemistry and analytical methods, and the second with bilirubin formation, metabolism, and pathophysiology. The 16 authors of the book are all actively engaged in bilirubin research and have included references up to 1980 in the text. Important advances on the photochemistry of bilirubin, chemical synthesis of bilirubin conjugates, development of new analytical techniques such as HPLC after alkaline methanalysis are lucidly reviewed. Chapters on bilirubin formation, transport, mechanism of biliary excretion and the kinetic analysis of bilirubin metabolism all point to the fact that bilirubin has become a useful model for the general study of hepatic uptake, binding and transport. For clinicians the final chapter of 30 pages is an excellent update on physiology and disorders of human bilirubin metabolism. The first part of the book will primarily appeal to physiologists, biochemists, and other fundamental scientists. The price of the book is too high; hopefully it will not prevent its presence in every medical university library as the most up-to-date reference work on bilirubin.

S W SCHALM


An explosion is caused by a sudden upsurge of hot air which has two main consequences: an alteration in the landscape, and a degree of chaos. The consequences of the scientific explosion which has transformed the previously tranquil, even static, subject of gut motility are well illustrated in these two volumes, which collectively constitute Volume 59 of the *Handbook of Experimental Pharmacology*. Over many years, millions of gut strips have twitched in thousands of organ baths in response to hundreds of chemicals, generating in terms of data, more heat than light. The transformation has been wrought by neurophysiology, not pharmacology, with the revelation of the complexity of the interacting local and distant nerve networks which control the gut. In this situation, the editor has wisely chosen to emphasise physiology and morphology at the expense of classical pharmacology. The majority of volume 1 is devoted to extensive reviews of the central (Roman) and enteric (Costa and Furness) neurophysiology. The residual chaos is in the topic of the 'gut hormones'; we now know that they are, for the most part, neither hormones nor confined to the gut, and we also know that they play some part in neural control. But what part? Professor Bertaccini has himself tackled this subject in a massive review of peptides, which forms the greater part of volume 2. While this survey of peptides is a useful source of references, it does emphasise, perhaps, the pharmacologist's enduring preference for substances which appear to act directly on smooth muscle. Moreover, it is incomplete, as a review of peptides which omits opioids, somatostatin, and pancreatic polypeptide cannot be said to be comprehensive in 1983. Despite omissions, and an understandable bias towards pharmacology, much of this book is essential reading for scientists in the field.

But what does it offer to the clinician, apart from the possibility of financial bankruptcy? The answer has to be not much. The recent scientific advances have not yet led to significant modifications of clinical practice; this work is essentially an interim report for the workers at the face. The real significance of motility research is that the motor apparatus is rapidly responsive to neural control, and modulation of motor activity is a rich source of clues to the nature of the control systems. When these controls are finally elucidated, every gastro-enterologist will need to know how they work, for it will emerge that they integrate all aspects of gut function.

To buy a book at this price for the sake of the first five pages is obviously ludicrous, but they contain Charles Code's lucid and entertaining overview of
the gut brain. He has written much in a lifetime of research in this and related fields, but he has never written anything better.

DAVID WINGATE

Computed body tomography Edited by Joseph K T Lee, Stuart S Sagel, and Robert J Stanley. (Pp. 564; illustrated; $99.20.) New York: Raven Press, 1983. Radiology as a diagnostic discipline is based almost entirely on defining normal anatomy, knowing the variations of normal, and thereby recognising the abnormal. Without the recognition of anatomical abnormalities it is impossible to even suggest any pathology. The merit of computed tomography lies in the anatomical detail it displays of the full range of body organs including the soft tissues of the abdomen and mediastinum, lungs, brain, and bone. The other imaging modalities have advantages in particular regions; ultrasound in obstetrics and cardiovascular anatomy, nuclear magnetic resonance in the brain, isotope studies in functional images but for versatility and total body displays, computed tomography cannot as yet be matched by any other single method. Hence the increasingly widespread use of computed tomography in clinical investigation in spite of the cost of both the apparatus and its revenue consequences.

In gastroenterology it is most useful in the solid organs, notably in the pancreas, liver, spleen, and in lymph node disease. Even in the gastrointestinal tract, however, visualising the thickness of the walls of hollow viscera can also be crucial. More importantly, computed tomography shows the size and position of abscesses, particularly those in and around the liver, and has become yet another stimulus to percutaneous cytology and abscess drainage, avoiding laparotomy in many cases.

It is therefore a pleasure to find a text on body computed tomography that clearly details and portrays the anatomical possibilities of the technique and relates so elegantly to the diagnostic potentials of the method. It has been realised largely by the efforts of the team at Mallinckrodt Institute of Radiology at St Louis who have had an extensive, combined experience. The format, the illustrations, and even the text with its inevitable Americanisms is of the highest order. Any criticisms that may be levelled at the biased historical appraisal or parochial emphasis would be, to say the least, irrelevant. In the final analysis this is a fine book, to be highly recommended and absolutely essential for radiologists and clinicians.

L KREEL

Dynamic radiology of the abdomen: normal and pathologic anatomy By M A Meyers. (Pp. 396; illustrated; $64.30.) Berlin: Springer Verlag, 1982. This book is a worthy successor to the first edition (published in 1976). Its 396 pages contain 1006 superb illustrations (14 in full colour) and it is one of the most comprehensive and lucid books ever produced on the radiological anatomy of the abdomen. The book uses a variety of imaging techniques to show the anatomical relationships of abdominal structures including radiographs, contrast studies and ultrasound scans, CT scans, isotope scans, colour photographs of cadaver cross-sections, drawings, and diagrams.

As the word 'dynamic' in the title implies, this is not simply a work concerned with static anatomical relationships: not only do we learn about normal anatomy and normal variations, but how these patterns are altered by disease and how anatomical considerations determine the pathways flowed by spreading infection and malignancy in the abdomen.

The author makes a particular point of explaining in detail those 'mystery' areas of the abdomen, which so many of us find a nightmare to visualise: the extraperitoneal spaces, the intraperitoneal reflections and recesses, the renointestinal relationships and the duodeno-colic relationships; anatomical features that are essential to understanding the pathways whereby disease spreads in the abdomen.

There are many who will benefit from this book: the general radiologist; those learning or with a special interest in ultrasound, isotope imaging, biliary, and renal work, CT scanning, NMR imaging, and abdominal angiography; the surgeon; the oncologist; the gastroenterologist; the medical student, and the anatomist.

The book is not perhaps one which every medical student or radiologist will be able to buy, it is required reading for every radiologist specialising in abdominal work, however, and is an indispensable reference work.

D J ALLISON


These books are the first of a new series in gastrointestinal disease under the general editorship of C J Pfeiffer. This pair describes in volume 1 drugs which are used to treat ulcers, and in volume 2 those