

DIAGNOSTIC RADIOLOGY, A CONCISE PRACTICAL MANUAL, 2nd ed, Glenda J. Bryan, London, Churchill Livingstone, 1974, 334 pp.

This is a paper-bound book, $5\frac{1}{4} \times 8\frac{1}{2}$ in., with 334 pages of text (not counting references and index), 48 radiographic plates, and numerous line drawings. The first 67 pages deal with general radiography, with sections on tomography, magnification, and stereo radiography, in addition to the expected overview material. The second section, 105 pages long, covers the radiography of anatomic regions. The third section, 162 pages long, is on fluoroscopic and other special procedures involving contrast media.

The general presentation is consistent throughout the book. The structure is noted, the anatomy summarized, and routine views described. Common special circumstances relating to patient condition are noted, with suggested alternate approaches. Supplementary views are then described. The section on special procedures also contains data on the indications for each procedure and some specific detail about the apparatus required.

Since the author's position is in an English hospital, some

of the terminology will not be totally clear to Americans, but this is only occasionally a problem. Overall, the book is quite readable and easy to understand. Those positioning instructions which are not accompanied by illustrations are sometimes unclear, but this happens from time to time in any positioning book which is not an atlas.

The book is a useful manual for the student technologist since it provides an early overview as well as a convenient reference throughout training. The graduate technologist who is occasionally called upon to perform an unfamiliar examination should also find it useful. In covering a large field so briefly, however, there is the very real problem of incomplete detail. Although the book contains much good and well-organized information that will be quite useful to many people, its total usefulness will be diminished somewhat by the breadth of its effort.

BOB W. GAYLER

Johns Hopkins Medical Institutions
Baltimore, Maryland

PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, VOL. 46, IMAGE ASSESSMENT AND SPECIFICATION, ROCHESTER, NEW YORK, MAY 20-22, 1974, David Dutton, ed, Palos Verdes, Calif., SPOIE, 1974, 311 pp.

To quote from the foreword, written by L. R. Baker of the Sira Institute, Ltd., Kent, United Kingdom, "The Seminar on Image Assessment and Specification, for which this book is the proceedings, was planned as an international forum for discussion of modern objective methods for evaluating the imaging performance of optical and electro-optical systems and properties connected with subjective criteria." David Dutton, the editor of this volume, refers to the meeting as a "Seminar in Depth," and I would concur in the use of that term to characterize the 43 papers contained in these proceedings.

The manuscript is divided into ten sections, corresponding to each of the sessions of the seminar. The section topics are listed below:

1. Image Assessment—An Overview (four papers)
2. Optical Transfer Function (OTF) Computation and Applications in Lens Design (three papers)
3. Standards for Imaging Systems (four papers)
4. Subjective Image Quality Assessment (two papers)
5. Measurement of OTF by Interferometric Methods (five papers)
6. Instruments and Methods for Measurement of MTF/OTF (eight papers)
7. Production Testing and Other Applications (six papers)
8. Satellite Instrument Testing (three papers)
9. Electro-Optical Devices for Image Evaluation (four papers)
10. Infrared Systems for MTF and Transverse Ray Aberration Measurements (four papers)

While the methods of assessing image quality and system performance discussed in these proceedings are for optical systems with geometric and intrinsic resolutions that are orders of magnitude better than nuclear medicine imaging devices, the papers in the first six sections constitute interesting and informative reading for anyone interested in image quality assessment in the broad sense.

PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, VOL. 47, APPLICATION OF OPTICAL INSTRUMENTATION IN MEDICINE, KANSAS CITY, MISSOURI, AUG. 1-2, 1974, Paul Carson, Edward Chaney, and William Hendee, eds, Palos Verdes, Calif., SPOIE, 1975, 252 pp.

The above title, another welcome addition to the series of "Proceedings" publications of the Society of Photo-Optical Instrumentation Engineers, is a valuable reference for all engineers and physicists interested in the physical and instrumentation aspects of the application of x-ray and ultrasound to medical imaging. The "Seminar in Depth" was cosponsored by the Bureau of Radiological Health, with the participation of the American Association of Physicists in Medicine, the American Roentgen Ray Society, and the IEEE Engineering in Medicine and Biology Group. The seminar consisted of seven sections, in which a total of 40 papers were presented, with four additional panel discussions.

Section 1, with eight papers, was entitled "Transmission Three-Dimensional Image Reconstruction and Computerized Axial Tomography." The topics of most general interest include a review of the algorithms used for three-dimensional reconstruction from projections, physical and mathematical aspects of transmission three-dimensional image reconstruction, in vivo determination of attenuation coefficients for radiation therapy, the ACTA scanner, and multiangular tomography by computer.