the doyen of orthopedic surgery at the Mayo Clinic, John C. Ivens. His foreword states that the team approach was initiated by the Doctors Mayo and was based on the concept that "the combined wisdom of man's peers is greater than that of any individual."

There are three major sections. Section 1 deals with general information, Section 2 describes benign bone tumors and lesions that may simulate these tumors, and Section 3 is a comprehensive account of the malignant conditions. The book ends with a crescendo outlining the rehabilitation of bone tumor patients as part of the team approach.

Great emphasis is placed upon the surgical approach, not unexpected in view of the expertise of the editor. His section on limb salvage and reconstructive technique is concise and informative. Similar treatment is provided for other aspects of surgical management of benign and malignant tumors. The sections on pathology are co-authored, by among others, Dahlin and Unni, recognized authorities in their field. Their descriptions are a synopsis of their many publications.

The illustrations are of excellent quality, but, unfortunately, on occasion I found that several were misnumbered and at variance with the text. The photomicrographs are of good quality, and it is a pity that they were not accompanied by brief descriptions, which however, are available in the text.

The book has several major defects—the most glaring is the paucity of information relating to the chemotherapy of bone tumors. For example, while the Mayo Clinic may not necessarily concur with the concept of treatment with chemotherapy in osteosarcoma, the latter, nonetheless, is advocated by many other investigators. The regimens of chemotherapy for Ewing's sarcoma and multiple myeloma were not presented. Finally, the references, while current, are not comprehensive.

This text will provide guidance and understanding of orthopedic principles for bone tumors. The approach is primarily institutional and reflects the concepts of the Mayo Clinic. As such, the monograph will be of interest to students in orthopedic surgery, advanced trainees, and specialists. It is to be understood, however, that this is not a reference textbook. Those desiring additional information, particularly on chemotherapy, which in some institutions constitutes a major component of treatment, will have to seek advice elsewhere.

NORMAN JAFFE
University of Texas Cancer Center
M. D. Anderson Hospital and Tumor Clinic
Houston, Texas

DIGITAL RADIOGRAPHY: A FOCUS ON CLINICAL UTILITY. R. R. Price, F. D. Rollo, W. G. Monahan, A. E. James, Jr., Eds. New York, NY, Grune & Stratton, 1982, 425 pp, \$39.50

Despite the title, this book is primarily concerned with digital subtraction angiography (DSA), describing both elementary physical principles and clinical applications. Although the technique has become widely available, books on DSA are relatively scarce. This volume is a welcome addition, since it is comprehensive and up-to-date, representing the state of the art in mid 1982. Sections on legal and economic issues, application to art history (?), and the future of diagnostic medical imaging are included. The book represents the proceedings of a symposium at Vanderbilt University co-sponsored by Humana Corporation and Technicare Corporation.

There are 23 chapters by 48 authors. The quality of the presentations is variable, but there are several high points, especially the excellent introduction to the basic physical principles by Price and James. A valuable overview of the original DSA systems at the Universities of Wisconsin and Arizona is included. The early experience with DSA at Vanderbilt with Technicare equipment constitutes a substantial part of the book. This experience, reported in detail, allows the reader to assess the current level of development of DSA in a clinical environment.

Clinical experience with digital vascular imaging in neuroradiology, pulmonary, aortic and cardiac studies is covered by experts. Peripheral angiography is not described. The quality of the images presented is average, and this is a definite advantage. Using typical images instead of the very best provides one with a more realistic expectation of DSA system performance.

The interested reader may judge for himself or herself what the future of DSA will be. There has been very little application of digital fluoroscopic functional imaging in comparison with the current level of parametric imaging development in nuclear medicine. Cardiac subtraction angiography is not likely to supplant nuclear cardiology with the present generation of DSA systems. Only limited first-pass studies, which on many systems require gating, are routinely available with the equipment described here.

This is the single, most comprehensive book on the physical and clinical aspects of DSA that has appeared. If only one book on this subject is considered for a personal or departmental library, *Digital Radiography* is the obvious choice.

MICHAEL W. VANNIER
Mallinckrodt Institute of Radiology
St. Louis, Missouri

BOOKS RECEIVED

Mammography, Thermography, & Ultrasound in Breast Cancer Detection. L.W. Bassett, R.H. Gold, Eds. New York, NY, Grune & Stratton, Inc., 1982, 172 pp, \$48.00

Advances in Magnetic Resonance (Volume 10). John S. Waugh, Ed. New York, NY, Academic Press, 1982, 223 pp, \$35.00

Clinical Ultrasound Reviews (Volume 3). Fred Winsberg, Ed. New York, NY, John Wiley & Sons, 1983, 388 pp, \$75.00

Bone Metastasis: Monitoring and Treatment. Basil A. Stoll, Santilal Parbhoo, Eds. New York, NY, Raver, Press, 1983, 428 pp, \$65.00

Vascular Radionuclide Imaging: A Clinical Atlas. Joseph T. Ennis, David J. Dowsett. New York, NY, John Wiley & Sons, 1983, 239 pp, \$85.00