

tooth movement and presents ideas on the interplay between force transduction, cytoskeleton and extracellular matrix. This important and advancing area, in spite of up to 170 references, does not include all relevant literature. For example, one surprising omission is the absence of any reference to the work of Yen.

There are large numbers of citations in most chapters. Some authors have an irritating capacity for excessive self-quotation. Some of the literature is dated and repetitive. The bibliography of the chapter on external forces on the periodontal ligament contains 22 citations to Picton, of which 12 are more than 20 years old.

Another endemic difficulty is with the term periodontal ligament as opposed to periodontium. The latter term, in addition to the ligament, includes gingival connective tissue and, as such, has a broader appeal to the orthodontist. The editors discuss this point in the preface and have allowed authors to choose their

own parameters. The chapter on connective tissue biochemistry by Kirkham and Robinson discusses the biochemistry of the fibres of the periodontium. This clearly written and well argued chapter addresses the functional significance of the biochemistry of both gingiva and ligament.

Although, for orthodontists wishing to further their understanding of the biological basis of clinical orthodontics, this book gives an incomplete picture, there are at least eight chapters worthy of study. The literature quoted provides an excellent starting point for further reading of more contemporary work. It is an unfortunate but inevitable consequence that the time taken to produce a book of this size has the effect of dating some of the material. However, the editors are to be congratulated on producing such a volume with so few typographical errors.

Neil Pender

Radiographic Cephalometry: From Basics to Videoimaging (1995)

Alexander Jacobson (Ed)

Publisher: Quintessence Publishing Co. Inc., London

Price: £68.00

ISBN: 0-86713-924-X

This seems to be the most comprehensive book on cephalometry at present on the market, and as the title suggests it covers more or less all aspects of the topic. The book contains 23 chapters, starting with the significance of radiographic cephalometry, the history of cephalometry and ending with videocephalometry and two- and three-dimensional analyses, and also how to document transfer cases. The editor has had the help of 18 contributors, including, among others, C. F. A. Moorrees, P. L. Sadowsky and L. E. Johnston.

Tracing technique and landmark definition are quite naturally given broad attention as an introduction to the presentation of five classical and widely used cephalometric analyses: these are Downs, Steiner, Ricketts and McNamara, as well as Wits appraisal, which are discussed in a chapter on the geometry of cephalometry. Growth analysis and superimposition are also

important chapters. As Moorrees is one of the contributors, the importance of natural head position is of course emphasized.

In a short review it is not possible to cover all aspects of this extensive text. However, in the preface the editor says that after reading this book, the reader should have acquired sufficient appreciation of cephalometry to be able to read and interpret any of the many available cephalometric analyses. This goal is surely reached concerning postgraduate students, but those also accustomed to cephalometric radiography will have a broader mind and better understanding of this important tool after studying the book, the strength of which lies primarily in gathering all this information under one cover.

After reading the book one must agree with T. M. Graber in the foreword when he states that this book will become the standard text for all

orthodontic and orthognathic residents for some time to come.

As with all Quintessence publications, the

layout is delicate and the book is highly recommended.

Olaf Krogstad

Cellular Aging and Cell Death (1996)

Nikki J. Holbrook, George R. Martin and Richard A. Lockshin (Eds)

Publisher: Wiley-Liss, Inc., New York

Price: £70.00

ISBN: 0-471-12123-1

This book is volume 16 of an excellent series of research monographs on cell biology. It has been compiled by editors who are well regarded in the fields of research covered and it has been written with the aim of bridging the rapidly growing areas of cellular ageing and apoptosis (programmed cell death). The publication of this monograph is well timed since research into ageing is attracting increasing attention, both scientifically and politically. Despite such attention, the editors remind us in their preface that remarkably little is known about the biological mechanisms involved in ageing. This book is, not unreasonably, founded on the basis that an understanding of the ageing of cells will feed into our understanding of the structural, physiological and biochemical compromises that take place in the aged person. The 48 contributors to the book are all established authorities, although it might be thought that, since all but five of them come from North America, the work shows a geographical bias.

The book has been organized into three sections. The first section deals with the basic mechanisms of ageing, the second is concerned with the molecular mechanisms controlling cellular ageing and the third deals with apoptosis. With very few exceptions, the contributors have provided advanced, up-to-date reviews and have highlighted the future direction of research. Although specific systems and tissues of the body (e.g. the cardiovascular system and neurones) are touched upon, in the main the contributors have kept within the remit of exploring in general terms the primary cellular basis for ageing. For the orthodontist and oral biologist, therefore, there is little in the book of direct concern but much insight should be gained concerning the present state of ageing research. There is undoubtedly a great need for research into ageing in dental disciplines and it is to be hoped that books of this kind will provide a stimulus for appropriate projects.

B. J. Moxham

Solo Version 6.0 for Windows

BMDP Statistical Software, Cork Technology Park, Model Farm Road, Cork, Ireland

This program requires Windows 3.1 and uses approximately 10 Mb of disk space. It is easy to install through Program Manager and there is a useful tutorial to acquaint the operator with the fundamentals of the package. The manual is comprehensive and logically set out, with most of the information available via the on-line help.

In operation the program essentially uses three main windows. The spreadsheet includes enter-

ing and importing data; the procedure template performs one or more analyses of the data; and the output allows one to view, edit, save and print the results. In addition, the program can export data to a variety of existing spreadsheets, databases and statistical systems.

Within the data analysis menu there are procedures for ANOVA, descriptive statistics, multivariate analysis, regression and correlation,