BOOK REVIEW

Title: PHYSICAL STRUCTURE OF OLYMPIC ATHLETES. PART I: THE MONTREAL OLYMPIC GAMES ANTHROPOLOGICAL PROJECT
Editor: J. E. Lindsay Carter + 12 other authors
Publishers: S. Karger — Basel, 1982. Vol. 16 of Medicine and Sport series. Ed. E. Jokl and M. Hebbelinck
Price: \$69 181 pages. 50 figures. 17 half-tone plates. Index

Once again Karger, under the general series editorship of Profs. E. Jokl and M. Hebbelinck, have produced a good though very specialised book. Of the ten chapters, Lindsay Carter, the volume's editor, is author or co-author of six, which leads to better uniformity of presentation than with most multi-author books.

The first two chapters are concerned with the development of kinanthropometry as applied to Olympic and similar athletes, and the organisation of the Montreal Olympic project, "MOGAP", 1978. A study of birth order and family size follows, then the more traditional anthropometry, including somatotyping and body composition, followed by factor analysis and a useful summary which alone could provide guidance for physicians and coaches advising young people for suitable events. Finally, appendices detail apparatus and techniques, and a complete computer print-out of the data on each subject.

Comparisons must obviously be made with such previous reports as those by de Garay et al (Mexico Olympics, 1968) and J. M. Tanner (Rome, 1960). Apart from birth order the present work was confined to the anthropometrical aspects, unlike de Garay's more extensive work which included chromosome, palm print and other separate studies. More events were covered, and a more detailed study made of the under-18's. The somatotype distributions of the various events resembled those of Mexico, not surprisingly, as the Heath-Carter technique was used, unlike that of Tanner's earlier survey which used the classical Sheldon somatograms, but with Jim Tanner's modifications in technique.

This report of the 1978 Olympic Games survey is essential to everyone engaged in any further anthropometrical work on athletes, but is rather too technical for the casual reader.

H. E. Robson

BOOK REVIEW

Title: MECCANICA DELL'APPARATO LOCOMOTORE APPLICATA AL CONDIZIONAMENTO MUSCOLARE
Authors: S. Fucci and M. Bagnigni
Publishers: Scuola dello Sport, Rome, 1981 © C.O.N.I.
Price: Not known In Italian 79 pages. 28 coloured plates

Even to the non-Italian-speaking reader, this book is of interest, especially to the teacher of physical education or physiotherapy for whom ideas for lecture illustrations can be obtained. The book is a large-page paperback, 14½" x 11", with three approaches. The first is a series of simplified mechanical analogies to illustrate the three types of lever, with an example of joint movement for each, explanations of a saddle joint such as the first metacarpo-phalangeal, of joint lubrication, H. Huxley's theories of skeletal muscle contraction, the nervous control of muscle and forces acting upon the vertebral column. The second approach is by a series of 28 coloured plates with up to 15 small drawings in each, augmenting the line drawings of the mechanical analyses, and illustrating muscle structure, the inter-relationship of calcium ions, phosphate bonds, ADP, ATP and energy production at cellular level. Line drawings of body movements are accompanied by colour drawings of the bones, joints and muscles concerned, and explain much better than most textbooks the rôle of the spinal muscles such as multifidus and rotatores. This approach of first the movement, then the muscles that produce it is the reverse of the usual anatomical textbook, but makes more sense for the student who is more interested in movement than in his findings in the dissecting room.

The last eight pages are devoted to programmes of muscle conditioning, again well illustrated with line diagrams, and this time introducing cardio-respiratory as well as muscle training.

My main regret is that this book has only been published last year — I could well have benefitted from it during 17 years of teaching anatomy to medical, dental, physiotherapy and physical education students.

H. E. Robson