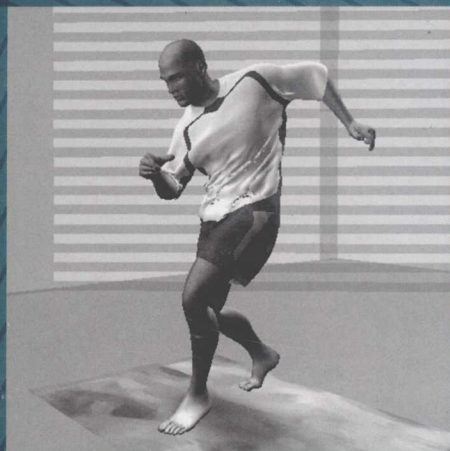


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# Advances in apparel production

Edited by Catherine Fairhurst



The Textile Institute

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# Advances in apparel production

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Catherine Fairhurst



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The main theme of this book is the design and production of apparel. Inevitably, most advances in these subjects depend upon computers and, more specifically, computer-aided design (CAD) systems, and so there is a concentration of the applications of these systems. Apparel production is not necessarily (in fact rarely is) in the same geographical area as the design, the financial control or the markets, therefore the CAD systems are needed as a powerful communication tool to assist speed and accuracy.

The book not only illustrates the complexity of the subject and the number of disciplines that have to be understood by the student and the practitioner in the apparel industry today, but also relies upon authors from different countries, which reflects the global spread of the industry. These authors have their own perspective and interpretation of advances in apparel production and it is important that students of the subject understand that there is no one right way within such a diverse and dynamic industry.

Some chapters are normative or descriptive whereas others, such as the chapter on CAD for yarn design, describe what are still research projects. Some topics may relate directly to each other, such as size charts in the Improving apparel sizing and fit chapter and the Computerised pattern making in garment production chapter, whereas others leave the reader to integrate the ideas according to their own interest and specialisms.

It is shown that, although there have been many significant advances and a deeper understanding of the production processes over the last 30 years, the major developments have been in the preparation for clothes production. The first chapter details the historical development of research into drape and shows that one of the major obstacles that has been encountered in developing three-dimensional (3D) CAD systems is the difficulty of modelling, measuring and predicting fabric drape in a garment. The representation of drape is of course important in scanning, mass customisation CAD-CAM, 3D design, simulation, 3D virtual prototyping and web-based shopping, and there is still further development needed in this area. This leads on into Chapter 2 with a discussion of computer-based colour matching and its