

Watson's **Advanced Textile Design**

Compound Woven Structures
Fourth Edition
Z J Grosicki



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Z. J. GROSICKI, MSc, FTI
Department of Fibre Science, University of Strathclyde

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Preface

This book is a companion volume to *Watson's Textile Design and Colour* published in its new version last year. It represents a continuation of the subject and deals with compound woven structures.

As in the case of the first volume this book has not been revised so much as re-written and about two thirds of the content is either entirely new or differently presented. The changes were not wrought in a fit of iconolastic frenzy but were dictated by modern advances in the technique of manufacture and by the need to organise the subject on a more logical basis. In the original work by W. Watson published in 1913 there was a tendency to group quite disparate constructions together because they were used for similar purposes and to provide highly detailed information of the methods of manufacture as then known. In this book the basic criterion of the classification is the structural principle and, in consequence, common headings group together such structures as are 'genetically' related to one another irrespective of their end uses. With reference to the methods of manufacture, the functional purpose of the various special mechanisms involved is outlined in general but only a few detailed descriptions are given. The reason for this is two-fold; firstly, in many instances several different solutions are available to achieve a given operation and it is felt that as long as the advantages and limitations of each method are provided there is no need to burden a designer with the actual minutiae of mechanical action; secondly, frequent improvements in methods rapidly invalidate a given mode of operation without, in fact, changing its purpose and it is again felt that it is the reason for pursuing a given course of action which is the important factor rather than the manner of achieving it.

Apart from some constructions discussed in Appendix II all those considered in the body of the book are still being produced together with some variants too numerous to mention in detail. Some structures are produced in a large volume, some only in a small way and it must be appreciated that the size of a chapter does not necessarily bear a relation to the amount of fabric made. It is undesirable to tailor the subject matter in accordance with the yardage of goods produced at present as, apart from a loss of substance, the balance may be rapidly upset due to the fickleness of fashion and taste in the textile field which is such that what is almost extinct at the moment may acquire unprecedented vogue in a few years' time.

End uses of woven fabrics are in some cases inextricably connected with the nature of the construction but in other instances a given type of cloth may admirably serve many different purposes. For this reason the areas of employment for some products are not particularly strongly stressed in the full knowledge that, with the availability of new materials and with novel settings, many structures can serve a function quite different from the one envisaged originally.

The gathering of information for this book has been aided by constant interest and involvement in the problems of the weaving industry and by many firms in Britain and in several Western and Eastern European countries who have willingly revealed their methods. The author is particularly indebted to E. G. Taylor, Esq., for his invaluable assistance in proof reading the script and for the many friendly arguments which have helped to crystallise several important issues. He also wishes to acknowledge the advice and a selection of samples used in a number of chapters and obtained from Messrs. J. & J. Crombie, Ltd. of Aberdeen, Brocklehurst & Whiston of Macclesfield, Lister & Co. Ltd. of Bradford and J. H. Fenner & Co. Ltd. of Hull. Several illustrations from publications by Messrs. Grob & Co. Ltd. of Horgen in the chapter on Leno Weaving; by D. Crabtree & Son, Ltd. of Bradford and by Platt Saco Lowell Ltd. of Oldham in the chapters concerned with carpet weaving were used and grateful thanks are offered for their kind permission to do so. The permission of the Textile Institute to reproduce some illustrations and script from a paper previously published by the author in the J. T. I. on Lappet and Swivel Weaving is also acknowledged. Finally, thanks are due to my wife who with good grace has permitted me to neglect the house, the garden and even the dog over the past two years of sustained work on this volume.

Z. G.