

This book introduces the most commonly used techniques for dealing with multivariate data; the sort of multi-species multi-chemical data sets that are routinely encountered in environmental investigations. It assumes no prior knowledge of multivariate analyses and requires no mathematics beyond simple linear equations.

The topics covered include diversity indices, multiple regression, cluster analysis, and the commoner ordination techniques (principal components analysis, detrended correspondence analysis and canonical correspondence analysis). Other less used ordinations (Bray-Curtis, Correspondence Analysis) are introduced where this helps understanding of the most commonly used techniques. Where suitable, the author shows how to construct biplots and triplots, and how to run Monte-Carlo testing.

Each technique is illustrated by worked examples using simple, familiar data sets, and the key features of the output from standard software packages is explained. Pitfalls for the unwary are highlighted wherever they occur. Appendices list and explain the acronyms that can make some published research impenetrable. The availability of each multivariate technique in all major software packages is listed, to help users choose the software suitable for them. The overall aim of the book is to introduce inexperienced users gently to the multivariate analytical tools available to them.

Peter Shaw is a Senior Lecturer in the School of Life Sciences, University of Surrey Roehampton, UK

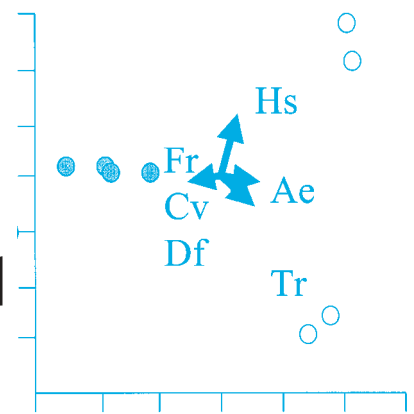


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SHAW
Multivariate Statistics for the Environmental Sciences

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Peter J A Shaw



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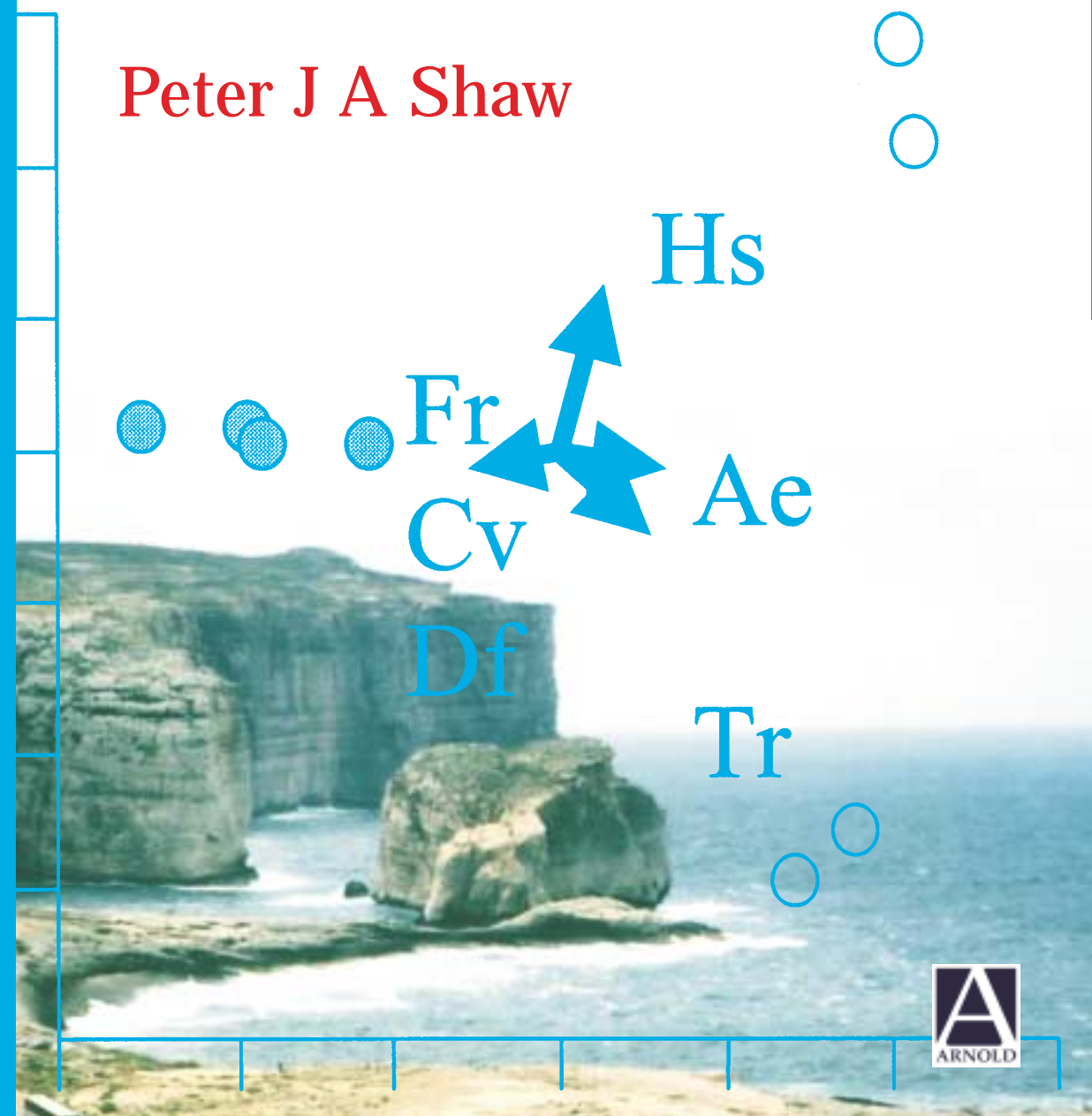


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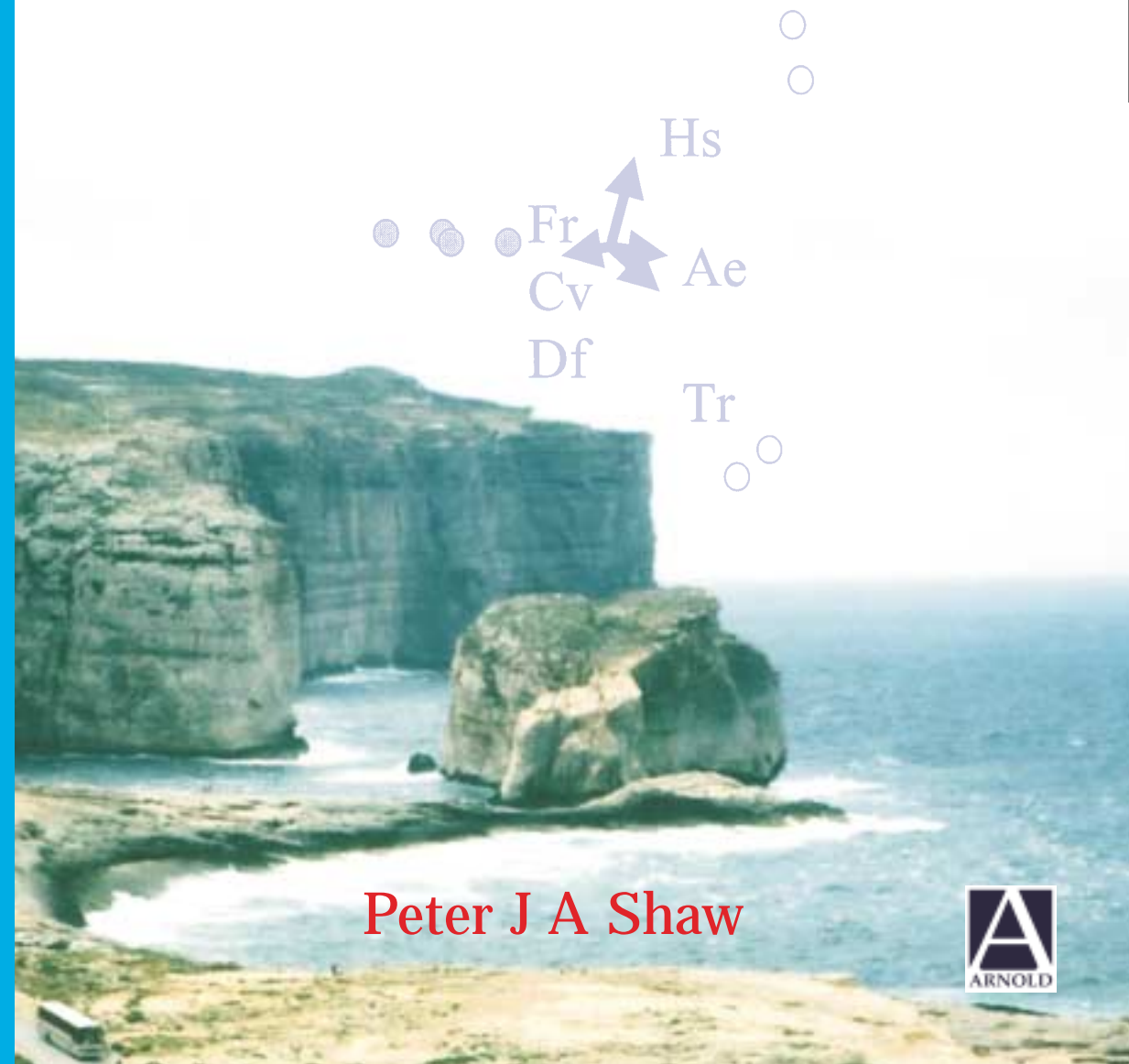


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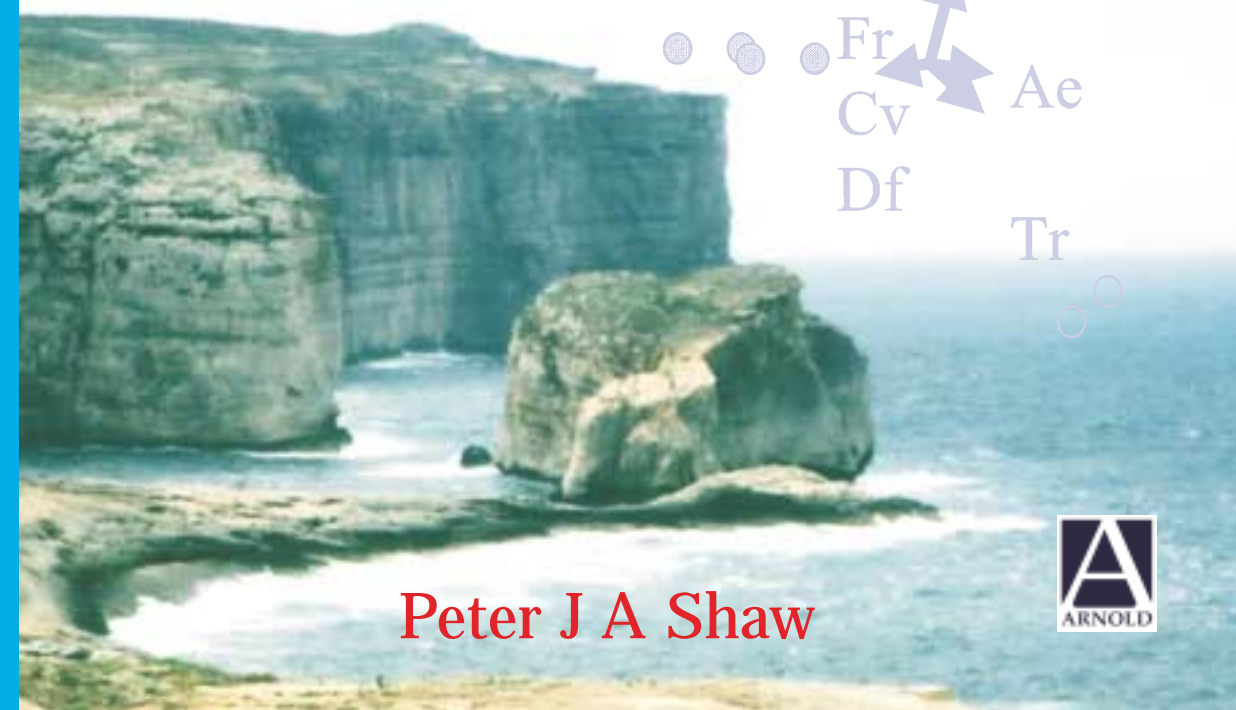


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