

Journal of Sedimentary Research

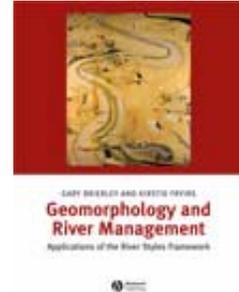
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Geomorphology and River Management - Application of the River Styles Framework, by Gary J. Brierley & Kirstie A. Fryirs, 2005. Blackwell Publishing, 108 Cowley Road, Oxford OX4 1JF, England. Paperback, 398 pages. Price USD 99.95; GBP 39.95. ISBN 1405115165.



River management and rehabilitation has become fashionable during the last decade or so. Determining how a river should be managed, what the recovery potential of a river is, and how the restored river should look like remains elusive, however. The main goal of this book is to provide a generic set of procedures that will help to analyze and manage rivers and to assess their recovery potential, taking into account the large diversity of fluvial systems. The authors argue that the key challenge in river management is to understand why fluvial systems are the way they are, how they have changed, and how they are likely to look and behave in the future. Thus the set of procedures, termed the 'River Styles Framework', is mainly based on geomorphic principles. The basic idea behind this approach is that a meaningful and effective description of river character and behavior is tied to an explanation of controls on why rivers are the way they are, on how they have evolved, and of the causes of change. These insights are subsequently used to predict likely river futures, framed in terms of the contemporary condition, evolution and recovery potential of a river, and understanding of its trajectory of change. The results are used to carry out a catchment-based vision building, to identify the target conditions for river restoration, and to allow prioritization of management efforts.

Because the focus of the book is on describing procedures, the result is that its most important part is very much like a cooking book, with a recipe for how to carry out river analyses for management and restoration purposes.

The book consists of three parts. The first two parts (A and B) of the book provide basic reviews of fluvial morphology and sedimentology. Part A (60 pages) outlines the geo-ecological basis for river management. This part is subdivided into two chapters, one dedicated to the relationship between geomorphology and biophysical processes, and the second to applying geomorphic principles to predict the future evolution (change) of river systems. Part B (161 pages) describes the geomorphic principles that underpin application of the River Styles Framework. It is subdivided into four chapters, which are based on literature reviews on river character, behavior and change, and on geomorphic responses of rivers to human disturbance. The third part of the book (122 pages) is dedicated to the River Styles Framework. It consists of five chapters, which contain a description of this method, and its application consisting of four stages. The book ends with a philosophical chapter giving a perspective on future river management practices and outcomes.

Clearly the audience for this book are students taking a course in river management; they will find everything they need in it. The book is up-to-date, clearly written and the quality (photographs, figures and layout) is good. The price is fair.

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