Kasarda's "Economic Restructuring and America's Urban Dilemma," Castell's "'High Technology and Urban Dynamics in the United States," Chan's "Giant Cities and the Urban Hierarchy in China," and Nagpaul's "India's Giant Cities." In contrast, the concluding chapters by Sach and Teune, although very promising in names, fail to build up their theses based on the valuable materials of the preceding descriptive chapters.

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RIVER ENGINEERING by Margaret S. Petersen. Englewood Cliffs, NJ, Prentice Hall, 1986, 580 pp.

The title of this book is similar to *Principles of River Engineering*," edited in 1979 by Jansen *et al.* The latter is a textbook and cannot be used as a guide for the planning of most river-related engineering works. However, *River Engineering* is almost singly devoted to the detailed description and method of construction, operation and maintenance of navigational river structures. Thus, it can be used as a handbook by practicing engineers working in government agencies, such as the U.S. Corps of Engineers.

The book has 14 chapters. The first six are rather short, and include a clear introduction that sets the scene with an interesting view of planning and design. Much of the material presented in the first few chapters too general for use by practicing engineers, or even as an introductory text for students. Perhaps the most disappointing part of the book is that which is devoted to sediment transport and river morphology, two topics that should have formed a modern, detailed base to which engineering works could relate. This, however, is not the case in *River Engineering*. The outdated treatment of river morphology is merely descriptive, whereas that of sediment transport lacks minimal information on the physics of sediment transport phenomena. At least the chapter that follows, measurement of streamflow and sediment, is more informative.

The backbone of this book is the navigational aspect of river engineering: stabilization and rectification of rivers, dredging, inland navigation, canalization, including tables and equations useful for actual riverwork design. These aspects comprise the bulk of the book, thereby shedding an informative light on the history of navigation-related engineering works in large U.S. rivers. The basic approach of the U.S. Corps of Engineers has been to view the river as a useful but wild animal that must be tamed. Hence, unbelievably large quantities of cement, rubble and boulders have been poured into rivers, with still larger volumes of sediment dredged out from them. Petersen's inside story of such river works is, perhaps, more detailed than previously presented in any single volume, but I find it amazing that no intensive evaluation or critique of the historic approach was attempted.

It is rewarding that the book incorporates several good sets of questions and appended answers. The reproduction quality of figures and tables is high, as expected

from the publisher.

A comparison with Jansen's *Principles of River Engineering* is required. The older book is better as a textbook: sediment transport is covered in greater detail, as are mathematical models and measurement techniques. The earlier text is more useful because it deals with more topics (including water quality), and it does so more authoritatively. Petersen's *River Engineering* has the better edge in one respect, however: it focuses attention on navigational aspects. As such, it is the best summary hitherto available.

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FLUVIAL PROCESSES IN DRYLAND RIVERS by W.L. Graf. Berlin, Springer-Verlag, 1988, 346 pp.

Fluvial Processes in Dryland Rivers is divided into three parts: Basic Perspectives, Processes and Forms, and Modifications of Processes and Forms. Part 1 contains an introduction and a chapter dealing with theory. The latter is very interesting, well-written and certainly falls within the second objective of the book; i.e., to put Graf's own research into perspective. One might argue, however, that this chapter is more fitting to a general geomorphology text because the underlying theoretical principles are not directly linked to the main theme of dryland rivers.

Part 2 contains chapters on surface water, fluvial sediment and process-form relations in drylands. The chapter on runoff introduces the reader to the characteristic hydrology of ephemeral rivers, and also refers to paleohydrologic considerations recently developed by Victor Baker and his students. Not being a fluvial hydraulics text, the chapter on fluvial sediment cannot cover most of the essential principles. Fluvial hydraulic principles might have been presented in greater detail by allotting them the space devoted to sediment characteristics (after all, this was not meant to be a fluvial geomorphology textbook), and to the interesting, but irrelevant, problems of contaminants. Table 4.3 summarizes biomass values for common dryland vegetation communities and henceforth should be a valuable and readily available base for those interested in runoff and sediment yield. Some process-form relations are still not well understood as yet. This is seen with respect to the manner in which Graf explains the formation of alluvial fans, badlands, channels, their depositional features and entrenchment, and it is particularly obvious for sediments.

Embracing so many complex topics, it is not surprising that the author has inserted quite a few generalities. For instance, there is no supportive evidence in the book or in the references that factors favorable to braiding are *maximized* in drylands, rather than in rivers cutting into fluvioglacial deposits and draining steep mountainous terrain. Similarly, because sediment transport has not been measured, it is misleading to maintain or to quote from other sources that sediment-poor reaches do not braid.

Part 3 includes Chapters 7–9 on vegetation, direct human impacts and generalizations for dryland rivers. Chapter 7 is the most valuable part of the book, because