Rivers and Floodplains: Forms, Processes, and Sedimentary Record

John S. Bridge


DESCRIPTION

*Rivers and Floodplains* is concerned with the origin, geometry, water flow, sediment transport, erosion and deposition associated with modern alluvial rivers and floodplains, how they vary in time and space, and how this information is used to interpret deposits of ancient rivers and floodplains. There is specific reference to the types and lifestyles of organisms associated with fluvial environments, human interactions with rivers and floodplains, associated environmental and engineering concerns, as well as the economic aspects of fluvial deposits, particularly the modeling of fluvial hydrocarbon reservoirs and aquifers. Methods of studying rivers and floodplains and their deposits are also discussed. Although basic principles are emphasized, many examples are detailed.

Particular emphasis is placed on how an understanding of the nature of modern rivers and floodplains is required before any problems concerning rivers and floodplains, past or present, can be addressed rationally.

*Rivers and Floodplains* is designed as a core text for senior undergraduate and graduate students studying modern or ancient fluvial environments, particularly in earth sciences, environmental sciences and physical geography, but also in civil and agricultural engineering. College teachers, researchers, and practising professionals will also find the book an invaluable reference.

- Presents a process-based approach, which is relevant to modern curricula.
- Discusses methods of studying rivers and floodplains and their deposits.
• Provides many detailed examples throughout the text.

• Emphasises the basic principles of this subject.

• As the first synthesis of this entire field, it will be a must-have for all students studying modern or ancient fluvial environments.

• Teachers, researchers and practising professionals will find this an invaluable reference tool.

Rivers and Floodplains will also be of interest to geologists, geographers and engineers.

ABOUT THE AUTHOR

John Bridge is a Professor of Geological Sciences in the State University of New York at Binghamton, where he teaches and undertakes research in earth surface processes and sedimentology.

FEATURES

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