

PHOTOGEOLOGY AND PHOTOGEOMORPHOLOGY, TREATISE OF PETROLEUM GEOLOGY REPRINT SERIES, NO. 18

Edited by **Norman H. Foster and Edward A. Beaumont**, ISBN : 0-89181-417-5; American Association of Petroleum Geologists, Tulsa, Oklahoma 74101-0979, USA; 551 p.

Review by Christopher G. Kendall

This book represents a compilation of reprints put together by Norman Foster and Edward Beaumont. The text consists of a series of papers that were considered by the editors and their advisors to be landmarks in the field of photogeology and led our present state of knowledge and understanding in the use of aerial photography for the interpretation of geological landforms and the extension of this interpretation to the subsurface.

The book consists of forty papers and is divided into five sections which include a discussion of the general methodology of photogeology and photogeomorphology. There is a section on photogeological measurement techniques, a section on the applications to petroleum exploration, a section of fracture identification and a section of photogeomorphology. The general methods papers include such topics as the geologic use of the aerial photographs, techniques in photogeology and systems identification and interpretation, procedures that should be followed in making geologic interpretations and maps, the use of photogeology and geomorphic criteria for locating subsurface fractures, photogeologic studies of the Arctic and Alaska, use of color aerial photographs, etc. The section on photogeologic measurement techniques includes papers on the measurement of dips from aerial photographs and the measurement of formation thickness. There are also papers on applications of photogeology to oil exploration in Canada, discovery of oil structures from photogeology, photogeological aids in oil exploration, photogeology in Gulf coast exploration. There are papers on applications to natural fracture systems and lineaments. The photogeomorphological section covers the greatest number of papers and is the longest section in the book. It considers approaches to the use of aerial photographs to interpret landforms

This book is extremely put together well. It is essentially a series of reprints reproduced photographically, so that the type setting and figures match the originals. The only problem that I found with the reproduction is that some of the photographs were under exposed and had lost detail. This rendered portions of these papers not as useful as I am sure the authors had intended. There was at least one editorial mistake, the title instead of reading "Photogeology and Photogeomorphology" read "Photogeology and Photogeomorphogy". Also one of the papers by Lawrence Brundel had an out of focus photograph of this author. This, I am sure, was a problem with the original paper but it seemed ironic that in a paper on photo geology the author's photo was not sharp.

The concept of collecting of papers on similar topics important to oil exploration serves an extremely useful purpose. Though this obviously is not the book for everyone's shelf, it will definitely be useful to those who need photogeology in their job, the budding photo geologist and photogeomorphologist and for people giving courses in these topics. It is an excellent reference text which gathers together numerous papers under one cover.