

**ATLAS OF COAL GEOLOGY:** 1st All Digital (CD-ROM) AAPG Publication. The Society of Organic Petrology and Energy Minerals Division - AAPG, Tulsa, OK, USA, 1998, Price: US \$52.

This publication covers the topic of coal geology in all its aspects pictorially, such as coal deposition, sedimentary environments, coal petrology, environmental aspects, coal utilization, coal mining and coal bed methane. 660 colour and black and white digital pictures provide research and teaching tools. Volumes 1 and 2 deal with coal geology and coal petrology, respectively. The former has 393 images while the latter has 275 in over 200 pages, with supporting and background text.

**A PETROGRAPHIC ATLAS OF CANADIAN COAL MACERALS AND DISPERSED ORGANIC MATTER** - Canadian Society for Coal Science and Organic Petrology, Geological Survey of Canada, Calgary, Canmet Energy Technology Centre. Editor: Judith Potter. Price: \$133.50

This atlas is produced to celebrate 25 years of collaboration of coal geoscientists from different organisations in Canada. As the coal and petroleum industries expanded, the fundamental concepts and techniques used in coal petrography, and being applied to carbonization, gasification, and liquefaction, coal bed methane exploration etc., were evolved. The atlas is dedicated to the past and present members of the Society working in pure and applied coal and organic petrology.

*BH 23, Pallava Puram  
Merrut 250 110, U.P*

H.S. PAREEK

**HAND BOOK ON AERIAL PHOTOGRAPHY AND INTERPRETATION** by K.K. Rampal, 1999, Concept Publishing Company, New Delhi -110 059, 224p, Rs.150/-

This hand book has six chapters of which the first three deal with geometry of aerial photographs, types of aerial camera, calibrations, flight planning, distortions in aerial photographs due to tilt and vertical exaggeration and variation in scale, as well as determination of scale and height. The author being a photogrammetric engineer and a teacher has dealt with in detail the technicalities involved in flight planning and calculation of number of photo exposures required for the given area. The calculations required for height distortion, tilt distortion, scale and height determinations, flight planning and camera calibrations have been dealt with exhaustively with figures and examples.

In chapter four, the techniques of aerial photo interpretation have been described under the caption "Image Interpretation". The author has mixed up aerial photography, satellite data and radar imagery while dealing with criteria of recognizing elements (p.104). A tabular format with common objects in column and recognition elements like time, texture, association, shape, size, shadows, patterns in row would have been more apt than elaborate text. Some statements like on p.105(V) size: - "Sometimes measurement of height also gives clues to the nature other object";

p.105 Shadows: - Tall building and chimneys and towers etc., can be easily identified for their shadows; and p.106 paragraph 1 :- "Lineaments - lineations ..... are very important expressions of the lithologic characters of the underlying rocks" reflect poorly on the author's interpretation. Some of the sentences like those on p.106 :- "Examples of the Block type (meaning vegetation pattern) are timber trees in Montana, USA, due to extensive outcrops of the rocks of uniform characters i.e., presence of unaltered quartz monzonite", "..... the sediments then force the river emerge from the mountains and enter the alluvial plain..", "special drainage types are amongst the other drained, phantom and internal lacunate patterns etc.," are poorly drafted, not easily understandable and are out of context.

Tone and texture are reflections of inherent characters of the object. Morphology of the object and combinations of two or more recognition criteria will enable correct identification of the object. Table 4-1 has several mistakes. Woods and forests, depending on the density of the trees, will have darker tone in relation to the surrounding area, not light tone as stated. Similarly natural grass will have lighter tone because of their thin form and many times merge with the background tone.

While dealing with evaluation of the various criteria (4.7), the author has not placed the compiled data in an order. The sentences are too poorly constructed to give any meaning. The sentence "The dynamic approach is still possible, however, if only one photo coverage exists", needs explanation.

The standard of English used in this book is very poor. Spoken English, repetitions and incomplete sentences are very common in the introductory and image interpretation chapters. Examples are: p.19: "The photographic emulsion also undergoes changes in dimensions by shrinking due to expansion and ...." and p.20 "When the area is inaccessible such as big desert, high mountain ranges, thickly wooded areas or enemy held positions, the photogrammetric mapping gives the only answer to the difficulties if not impossibility of ground survey's". Grammatical and spelling mistakes are too many. Some of the unheard of or uncommon words are discendances of the dip and strikes (p.109), circularity ratio (for circularity ratio) and dotten line (p.109). Technometric survey (p.21) has been used in place of trigonometric survey.

Chapter five "Keys and Examples", if we ignore the typographical errors, is a good effort. If the plates and some of the photographs were to be on glazed paper, it would have given a better getup. The overlays are too sketchy and are difficult to read. Maps should have accompanied the photographs/imagery.

Chapter six deals with the satellite imagery, different satellites like LANDSAT, SPOT, IRS, weather and environment satellites, HCMM (Heat Capacity Mapping Mission) and SEASAT as well as their characteristics and cartographic applications. This is a faithful reproduction of compiled data with some photographs and sketches.

This book can at best be recommended for basic training course in photogrammetry, particularly for mathematical calculations. It is not much beneficial to user agencies.

*Geological Survey of India*  
Op. Karnataka and Goa, Bangalore

S. NARASIMHA