

vitrinite" particles) which were free of liptinite (both primary and secondary) following the recommendations of the International Committee for Coal and Organic Petrology (ICCP, 1971). The correction of vitrinite reflectance is required for those organic samples where desmocollinite is considered for the reflectance measurements. Therefore, the question of determining true vitrinite reflectance does not arise.

4. The study of migration or presence of "bitumen" in the associated sandstones has not been conducted. However, we feel that organisations like O.N.G.C. can take up this problem.

5. The loss of fluorescence of liptinite with increasing thermal maturity has been explained by Teichmüller (1982). She has shown that between Rom range of 1.2 and 1.6% the liptinite macerals completely lose their fluorescence, which also marks the onset of third coalification jump. This has probably caused depletion of secondary liptinites in the high maturation zones where reflectance (Rom) was found 1.2% or higher. However, depletion in some zones, where thermal maturity lies within Rom 0.80 to 0.90% (Second coalification jump of Teichmüller, 1982), may be explained by their expulsion into adjacent permeable beds. Also, this appears to have caused high concentration of secondary liptinites in the overpressured zones as explained in comment 5.

*Department of Geology
Banaras Hindu University
Varanasi-221 005.*

M.P. SINGH
P.K. SINGH

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BOOK REVIEW

TRANSFORMISTS' PETROLOGY - Edited by F.K. Drescher-Kaden and S.S. Augustithis, Theophrastus Publications S.A., Athens, 1982, 305pp.

This volume is a valiant attempt at revival of the transformist philosophy on the origin of granite. Despite the European school's penchant for granitisation, as espoused by H.H. Read, D.I. Reynolds, C.E. Wegmann, the Termiers, H. Ramberg, T.F.W. Barth, J.J. Sederholm, E. Raguin and a host of others, including the present authors, they are bravely fighting a losing battle against the well entrenched igneous school. The igneous petrologists accept granitisation only as a local phenomenon, mainly as a secondary effect of igneous intrusion. In the realms of deep crust where anatexis is widely prevalent, and where there is a convergence of metamorphic and magmatic phenomena, the transformists have a strong

case. This is clearly evident in the field relations exposed in the crustal sections in Phanerozoic mountain chains of Europe, which is the home of granitisation hypothesis. In the present volume the transformists' case is beautifully presented by J.A. Roddick, who tries to demolish the popular magmatic criteria like sharp contacts and chilled margins, cross cutting relations and dykes, other igneous textures and structures, deformational features and Sr isotope ratios.

The volume starts with a well stated introduction to granitisation by Drescher-Kaden in English and German. H. Termier and G. Termier (in French) describe the transformation of granite to diorite by assimilation of volcano-sedimentary rocks through transition rocks called 'prediorites' from the Tichka Massif of Atlas Mountains, Morocco. R. Pieruccini (in Italian) describes the general geochemical criteria of granitisation. Augustithis introduces the transformists' school of thought in petrology and pictorially illustrates the metamorphic - metasomatic origin of granophyres of layered complexes, including that of the Ezhimala intrusion in Kerala. He further elaborates the idea of remobilisation of chromite to refute its classic igneous differentiation origin, citing among others the chromite occurrence of Wankur in Andhra Pradesh, which is interpreted as a metamorphosed fossil placer by S.R. Sarma in 1960.

H. R. Wenk in an elaborate paper traces the evolutionary history of Bergell Granite in the Alps, which is widely regarded as large postkinematic pluton and favours its transformation from older rocks of similar composition. M. Palivcova describes two basic bodies from Southern Adamello massif, Italy, correlates them with appenitic suite and favours their origin by recrystallisation and metasomatism of basaltic parents. N. Edelman advocates metamorphic origin of the deep level pegmatites from the Finnish Archipelago. V.C. Cela and A. A. Yague give a comprehensive account of the granitisation processes in the Hercynian massif of Spain.

The volume is well got up and is free from errors. The English has a Continental flavour as most contributors are from Europe, but is readily understood. The advocacy of alternative hypothesis is always welcome as it tends to check the tyranny of majority opinion, and on this count alone this volume deserves a place in the earth science libraries.

*Geological Survey of India
Training Institute
Hyderabad - 500 068.*

M. RAMAKRISHNAN

GEOMORPHOLOGY IN THE TROPICS - A study of Weathering and Denudation in low Latitudes. 1994 by Michael F. Thomas. John Wiley & Sons. 460p.

The data base during the last two decades since the author's earlier book on *Tropical Geomorphology* (1974) was published, has increased many fold and it is in the fitness of things that he has attempted to write almost a fresh up-to-date book on the same subject. The emphasis is on "humid tropics" as there are already many publications dealing with arid environments. It is no longer relevant to explain all major landforms in terms of simple concept of repeated uplifts, dissection and planation, though these episodes do control their evolution. Multicomplexity of processes and inheritance of forms from earlier environments are increasingly emphasized (as ably attempted earlier in 1974 by Garner in his book on *Origin of Landscapes*) and one finds in the present volume very detailed treatment of residual profiles, surface forms, deposits of different ages and types, effects of palaeoclimates etc. In this an attempt is also made to move slowly from the earlier practice of explaining landforms