

BOOK REVIEWS

British Geomorphological Research Group Research Monograph 1

K. Gilman and M. D. Newson

Soil Pipes and Pipe flow: A Hydrological study in upland Wales (1981)

Geo Book, Norwich, U. K. (pp 708, Figs. 58, Tables 11)

As mentioned in the preface, the monograph is a report of a research undertaken by two hydrologists. This is basically a regional hydrological study undertaken by Institute of hydrological predictions. The hypothesis of research is that losses of water from a catchment are increased by a change to forestry is being investigated with the help of the soil pipe flows studies from Wye basin. The results are compared with the conditions in forested seven catchments.

Though the study is essentially carried out in a particular region with a specific aim one finds good discussion on the phenomenon of soil pipe development and nature of pipe flow in the later part of the monograph. The details of the methodology used in mapping the pipes and their distribution will certainly help as guideline for such studies in other areas. The authors have given the details of instruments used in the studies (fig. 30, 31 and 42) which would prove

useful to young workers in the field. The model constructed for the flows from pipes and pipe slopes should prove to be of great use in prediction of flows. It takes into consideration the effect within pipe areas, caused either due to some physical depressions, soil moisture etc. or the out flow from the pipes.

The monograph, on the whole, serves the purpose of giving guide line to similar work that can be undertaken in other areas. The effect of forest has been well demonstrated. The authors deserve congratulations for carrying out detail micro level work on slopes in the form of pipes. B. G. R. G. should also be congratulated for publishing this monograph and making available the results of the reasearch to those interested in this kind of work.

S. R. Jog.

British Geomorphological Research Group Research Monograph 2

J. M. Verstraten

Water-Rock Interaction (1981)

Geo Book, Norwich, U. K. (pp. 170)

'Water-rock interaction' by J. M. Verstraten is the second of a monograph series being brought out by the British Geomorphological Research Group. It incorporates the results of detailed studies on weathering and soil formation within a very low grade metamorphic shale catchment in the Ardenes, NW Luxembourg. In addition to

examining the soil profiles developed in various geomorphic environments, and ascertaining the chemical and mineralogical compositions of the solid phases, the author has studied the chemistry of spring and has brought out the importance of the liquid phase in weathering processes. He has presented weathering models for rocks with

low-and high CO₂ content. The monograph adds significantly to the literature on soil genesis and water-chemistry and should be

of considerable value to workers in these fields.

K. B. Powar

**British Geomorphological Research Group
Research Monograph 3**

J. A. R. Jones

**The Nature of Soil Piping – A Review of Research (1981)
Geo Book, Norwich U. K. (pp. 301, Figs. 51, Tables 27)**

'The Nature of Soil Piping' is a comprehensive review of the research on relatively new aspect of the micro feature studies in Geography. The analysis of the micro structures facilitates the study of present day processes and in this context the study of soil piping becomes an essential aspect for the soil conservation as well as the geomorphological analysis of slopes, pediments and also the channel networks or channel geometry. The author, it must be admitted, has been successful in giving a comprehensive study of the research on this topic.

The monograph, containing nine chapters, deals with the problem of terminology, an aspect always leading to confusion due to a large number of terms used to denote one and same features. A brief account of the history of research deals with the papers of late 19th century by Richthofen, Cussen, Howarth which have stressed the importance of piping phenomena, per haps without necessarily using the term 'pipe'. The account on history of research clearly indicates the effect of the barriers between the disci-

plines which have caused some hinderance in the overall development of the subject. The author nonetheless deserves credit from tracing a large number of research papers on the diverse subjects like geomorphology, soil conservation and civil engineering research on piping.

The details of the initiation, development, and morphometric characteristics of soil pipes have been outlined in later chapters. The factors leading to initiation and development of the soil pipes have been discussed to a considerable length and the discussion certainly provides a guiding outline for the young research workers in the field.

A word about bibliography must be said before ending this review, More than 550 research papers and other publications cited by author are included from engineering-geomorphology-pedology literature covering a span of about ninety years. This itself speaks for the pains the author must have taken while completing this work.

S. R. Jog

**British Geomorphological Research Group
Research Monograph 4**

Charles Harris

**Periglacial Mass-Wasting : A review of Research (1981)
Geo Book, Norwich, U. K.**

The present monograph is a review of the literature on periglacial mass-wasting processes, their resulting sediments and the landforms they produce, incorporating in

its fold the findings of some of the latest field experiments. The monograph starts with defining the climatic range of solifluction, a term the author reserves only for