

The classificatory scheme is prefaced by a practical account of the point-counter technique, including rules for the minimization of analytical errors based on the work of Chayes. S. E. E.

VITANAGE (P. W.). *Geology of the country around Polonnaruwa (one-inch geological sheet 47, preliminary series)*. Memoir No. 1, Department of Mineralogy (Geological Survey of Ceylon), 1959. Price Rs. 7.50.

The Department of Mineralogy (Geological Survey) of Ceylon, re-organized in recent years, has planned to publish a series of Memoirs describing the one-inch map sheets of the island and a series of Bulletins covering its various mineral occurrences. These two series are to supersede the Professional Papers, of which two have appeared; this volume is the first Memoir.

The Memoir is predominantly petrological, for Precambrian crystalline rocks underlie the entire map area. Amongst these rocks ancient metamorphosed sediments are prominent. They include quartzites, charnockites of sedimentary aspect, quartz-garnet-sillimanite-graphite-schists (type khondalites), calc-gneisses, and crystalline limestones. As well as these there are microcline-gneisses and migmatitic gneisses with conformable pegmatites. The rocks have been described in five groups, each with distinctive lithological and structural characters.

All the formations have been isoclinally folded with north-south strike, and overturned towards the east (Tabrobanian movements). A later movement with compression at right angles to the first has produced buckling and fracture of the pre-existing folds and NNW.-SSE. (dextral) with NNE.-SSW. (sinistral) tear faults (Vijayan movements). Finally, there are north-south shear zones in which tectonic breccias occur.

Although no ore deposits exist in the area there is abundant and good building stone and lime available, and the ground water conditions of the district are discussed in detail.

The Memoir is well provided with mineralogical and petrological descriptions, chemical analyses, diagrams, and photomicrographs, together with excellent lithological and structural maps. By reason of the quality of this first volume, and because the island is so largely underlain by crystalline rocks, this series of Memoirs ought to be taken by all Institutes wholly or partly devoted to petrology. G. H. F.