

## CONTENTS

### PART 1

	PAGE
TH. G. SAHAMA, Petrology of Mt. Nyiragongo: A Review	1
M. R. W. JOHNSON, Relations of Movement and Metamorphism in the Dalradians of Banffshire . . . .	29
E. L. P. MERCY, The Mullaghduff Porphyry Dyke . . . .	65
J. B. SISSONS, A re-interpretation of the Literature on Late-glacial Shorelines in Scotland with Particular reference to the Forth Area . . . . .	83
G. Y. CRAIG and E. K. WALTON, Sedimentary Structures and Palaeocurrent Directions from the Silurian Rocks of Kircudbrightshire . . . . .	100
J. KNOX, Strand Lines at 140 and 190 feet in the Howe of Fife	120

### PART 2

A. WATTISON, Temporary Exposures in the Calciferous Sandstone Measures of East Fife . . . . .	133
J. D. HUDSON, The Stratigraphy of the Great Estuarine Series (Middle Jurassic of the Inner Hebrides) . . . . .	139
D. M. RAMSAY, Microfabric Studies from the Dalradian Rocks of Glen Lyon, Perthshire . . . . .	166
M. J. O'HARA, Some Intrusions in the Lewisian Complex near Badcall, Sutherland . . . . .	201
C. E. TILLEY and I. D. MUIR, The Hebridean Plateau Magma Type . . . . .	208
DISCUSSION on Late-glacial Shorelines (by J. B. SISSONS) by J. R. Earp, E. H. Francis and W. A. Read . . . . .	216
REPLY by J. B. Sissons . . . . .	221

TRANS. EDIN. GEOL. SOC. VOL. XIX

PART 3

	PAGE
P. T. WARREN, The Petrography, Sedimentation and Provenance of the Wenlock Rocks near Hawick, Roxburghshire . . . . .	225
A. L. HARRIS, Structural Investigations in the Dalradian Rocks between Pitlochry and Blair Atholl . . . . .	256
ST. DZULYNSKI and E. K. WALTON, Experimental Production of Sole Markings . . . . .	279
E. I. WHITE, Notes on <i>Pteraspis Mitchelli</i> and its Associated Fauna . . . . .	306
P. McL. D. DUFF and P. M. BRÜCK, A Jurassic Age for a Sedimentary Sequence on Ben Hiant, Ardnamurchan, Argyll . . . . .	323

PART 4

R. J. PRICE, The Glaciation of a Part of Peeblesshire, Scotland	325
IAN W. D. DALZIEL, Zircons from the Granitic Gneiss of Western Ardgour, Argyll; Their Bearing on its Origin . . . . .	349
P. F. FRIEND, W. B. HARLAND and J. D. HUDSON, The Old Red Sandstone and the Highland Boundary in Arran, Scotland . . . . .	363
W. G. HARDIE, Explosion-Breccias near Stob Mhic Mhartuin, Glen Coe, Argyll, and their Bearing on the Origin of the nearby flinty Crush-Rock . . . . .	426
RICHARD O. MUIR, Petrography and Provenance of the Millstone Grit of Central Scotland . . . . .	439
W. WELSH, Sedimentary Features of the Rhum Torridonian	486
Record of Papers read and of Exhibits, Session 1961-62 . . . . .	493
Record of Excursions 1962 . . . . .	493
Record of Papers read and of Exhibits, Session 1962-63 . . . . .	494
Record of Excursions 1963 . . . . .	495
Office Bearers 1962-63 . . . . .	495
Index to Volume XIX . . . . .	496