Geological Magazine

with which is incorporated

The Geologist

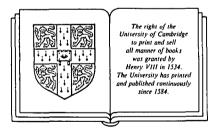
founded in 1864 by the late DR HENRY WOODWARD, F.R.S.

Edited by W. B. HARLAND, M.A. C. P. HUGHES, M.A. and R. S. J. SPARKS, M.A.

assisted by MRS J. M. HOLLAND

Associate editors
SIR KINGSLEY DUNHAM, D.SC., F.R.S.
MR N. L. FALCON, M.A., F.R.S.
SIR PETER KENT, D.SC., F.R.S.
PROFESSOR F. W. SHOTTON, M.B.E., M.A., SC.D., F.R.S.
SIR JAMES STUBBLEFIELD, D.SC., F.R.S.

Editorial Advisory Board M. P. COWARD J. K. LEGGETT B. D. WEBBY B. W. D. YARDLEY



Volume 121 of Whole Series January–December 1984

CAMBRIDGE UNIVERSITY PRESS

CAMBRIDGE

LONDON NEW YORK NEW

NEW ROCHELLE

MELBOURNE SYDNEY

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE

The Pitt Building, Trumpington Street, Cambridge CB2 1RP 32 East 57th Street, New York, NY 10022 10 Stamford Road, Oakleigh, Melbourne, Australia

© Cambridge University Press 1984

Pagination and dates of publication of issues in this volume

Number 1: pp. 1-79
2: pp. 81-136
3: pp. 137-267
4: pp. 269-396
5: pp. 397-539
6: pp. 541-668

March 1984
May 1984
July 1984
S: pp. 397-539
September 1984
November 1984

Printed in Great Britain at the University Press, Cambridge

Contents

ARTICLES

(Figures in bold type denote number of issue)

ALDRIDGE, R. J.

Thermal metamorphism of the Silurian strata of the Oslo region, assessed by conodont colour, 4, 347

ASHWORTH, J. R. & EVIRGEN, M. M.

Garnet and associated minerals in the southwestern margin of the Menderes Massif, southwest Turkey, 4, 323 BEESE, A. P.

Stratigraphy of the Upper Devonian argillite successions in north Cornwall, 1, 61

BHATTACHARYYA, P. K. & MUKHERJEE, A. D.

Petrochemistry of metamorphosed pillows, and the geochemical status of the amphibolites (Proterozoic) from the Sirohi district, Rajasthan, India, 5, 465

BLAND, B. H.

Arumberia Glaessner & Walter, a review of its potential for correlation in the region of the Precambrian-Cambrian boundary, 6, 625

BOILLOT, G.

Some remarks on the continental margins in the Aquitaine and French Pyrenees, 5, 407

BRASIER, M. D.

Microfossils and small shelly fossils from the Lower Cambrian Hyolithes Limestone at Nuneaton, English Midlands, 3, 229

BRUNET, M.-F.

Subsidence history of the Aquitaine basin determined from subsidence curves, 5, 421

CAMERON, T. D. J., BONNY, A. P., GREGORY, D. M. & HARLAND, R.

Lower Pleistocene dinoflagellate cyst, foraminiferal and pollen assemblages in four boreholes in the Southern North Sea, 2, 85

CHRISTIANSEN, C., BLÆSILD, P. & DALSGAARD, K.

Re-interpreting 'segmented' grain-size curves, 1, 47

CIVETTA, L., CORNETTE, Y., CRISCI, G., GILLOT, P. Y., ORSI, G. & REQUEJO, C. S.

Geology, geochronology and chemical evolution of the island of Pantelleria, 6, 541

CLEAL, C. J.

The recognition of the base of the Westphalian D Stage in Britain, 2, 125

COWIE, J. W.

Introduction to papers on the Precambrian-Cambrian boundary, 3, 137

DEBRENNE, F., ROZANOV, A. YU. & WEBERS, G. F.

Upper Cambrian Archaeocyatha from Antarctica, 4, 291

DONALDSON, C. H.

Kinetics of pyrope megacryst reactions in ascending basaltic magma – relevance to high-pressure magmatic crystallization at Elie Ness, East Fife, 6, 615

DYPVIK, H.

Geochemical compositions and depositional conditions of Upper Jurassic and Lower Cretaceous Yorkshire clays, England, 5, 489

ELORZA, J. J. & RODRIGUEZ-LAZARO, J.

Late Cretaceous quartz geodes after anhydrite from Burgos, Spain, 2, 107

FFRENCH, G. D. & WILLIAMS, D. M.

The sedimentology of the South Connemara Group, western Ireland – a possible Ordovician trench-fill sequence, 5, 505

FINNEY, S. C. & BRANISA, L.

Two new Ordovician graptolites from Bolivia, 4, 357

GLAESSNER, M. F.

Stratigraphic classification and nomenclature of the Precambrian-Cambrian transition, 3, 139

iv Contents

GUIMERÀ. J.

Palaeogene evolution of deformation in the northeastern Iberian Peninsula, 5, 413

HASZELDINE, R. S.

Carboniferous North Atlantic palaeogeography: stratigraphic evidence for rifting, not megashear or subduction, 5, 443

HOWARTH, M. K. & MELVILLE, R. V.

Interpretation of the Middle Jurassic ammonite genus Spiroceras, 2, 131

HURFORD, A. J., FITCH, F. J. & CLARKE, A.

Resolution of the age structure of the detrital zircon populations of two Lower Cretaceous sandstones from the Weald of England by fission track dating, 4, 269

JAITLY, A. K. & SINGH, C. S. P.

On the Bathonian (Middle Jurassic) ammonites *Micromphalites* Buckman and *Gracilisphinctes* Buckman from Kachchh, Western India, 4, 319

JENKINS, R. J. F.

Ediacaran events: boundary relationships and correlation of key sections, especially in 'Armorica', 6, 635

JIANG ZHIWEN

Global distribution of the earliest shelly metazoans, 3, 185

KIRSCHVINK, J. L. & ROZANOV, A. YU.

Magnetostratigraphy of lower Cambrian strata from the Siberian Platform: a palaeomagnetic pole and a preliminary polarity time-scale, 3, 189

KUMAR, G., RAINA, B. K., BHARGAVA, O. N., MAITHY, P. K. & BABU, R.

The Precambrian-Cambrian boundary problem and its prospects, Northwest Himalaya, India, 3, 211

LIÑÁN, E., PALACIOS, T. & PEREJÓN, A.

Precambrian-Cambrian boundary and correlation from southwestern and central part of Spain, 3, 221

LOVELOCK, P. E. R.

A review of the tectonics of the northern Middle East region, 6, 577

MCLELLAN, E.

Deformational behaviour of migmatites and problems of structural analysis in migmatite terrains, 4, 339

MAHMOOD, A. & BENNANI, A.

S-type characteristics of the Hercynian granitoids of the Central Palaeozoic Massif, Morocco, 4, 301

MITCHELL, A. H. G.

The British Caledonides: interpretation from Cenozoic analogues, 1, 35

MOORE, ALAN C.

Orbicular rhythmic layering in the Palabora carbonatite, South Africa, 1, 53

MYKURA, H. & HAMPTON, B. P.

On the mechanism of formation of reduction spots in the Carboniferous/Permian red beds of Warwickshire, 1, 71

OSTWALD, J.

Ferruginous vernadite in an Indian Ocean ferromanganese nodule, 5, 483

PALMER, C. P.

A note on the Birchi Beds, Lower Jurassic, at Lyme Regis, Dorset, 6, 645

PASSCHIER, C. W.

Mylonite-dominated footwall geometry in a shear zone, central Pyrenees, 5, 429

PEYBERNÈS, B. & SOUQUET, P.

Basement blocks and tecto-sedimentary evolution in the Pyrenees during Mesozoic times, 5, 397

PRICE, D.

The Pusgillian Stage in Wales, 2, 99

PYE, K.

Rapid estimation of porosity and mineral abundance in backscattered electron images using a simple SEM image analyser, 2, 81

REID, R. E. H.

Primary bone and dinosaurian physiology, 6, 589

Contents

RIDING, R. & VORONOVA, L.

Assemblages of calcareous algae near the Precambrian/Cambrian boundary in Siberia and Mongolia, 3, 205 SAMANTA, B. K.

The genus Biplanispira Umbgrove (Foraminiferida) and its occurrence in India, 4, 311

SONG XUELIANG

Obruchevella from the early Cambrian Meishucun Stage of the Meishucun section, Jinning, Yunnan, China, 3, 179

STAIT, B. A. & BURRETT, C. F.

Ordovician nautiloid faunas of Central and Southern Thailand, 2, 115

TURNER, P., HIRST, J. P. P. & FRIEND, P. F.

A palaeomagnetic analysis of Miocene fluvial sediments at Pertusa, near Huesca, Ebro Basin, Spain, 4, 279 UPFOLD, R. L.

Tufted microbial (cyanobacterial) mats from the Proterozoic Stoer Group, Scotland, 4, 351

WANG HONGZHEN & OIAO XIUFU

Proterozoic stratigraphy and tectonic framework of China, 6, 599

WELLMAN, H. W.

The Alpine Fault, New Zealand, near Milford Sound and to the southwest, 5, 437

WHITTAKER, A. & CHADWICK, R. A.

The large-scale structure of the Earth's crust beneath southern Britain, 6, 621

WHITTINGTON, H. B., DEAN, W. T., FORTEY, R. A., RICKARDS, R. B., RUSHTON, A. W. A. & WRIGHT, A. D.

Definition of the Tremadoc Series and the series of the Ordovician System in Britain, 1, 17

WOLFF, J. A. & STOREY, M.

Zoning in highly alkaline magma bodies, 6, 563

WRIGHT, J. V., ROOBOL, M. J., SMITH, A. L., SPARKS, R. S. J., BRAZIER, S. A., ROSE, W. I. & SIGURDSSON, H.

Late Quaternary explosive silicic volcanism on St Lucia, West Indies, 1, 1

WU RUITANG

A new Carboniferous trilobite from Spitsbergen, 5, 475

XING YUSHENG & LUO HUILIN

Precambrian-Cambrian boundary candidate, Meishucun, Jinning, Yunnan, China, 3, 143

XING YUSHENG, DING OIXIU. LUO HUILIN, HE TINGGUI & WANG YANGENG

The Sinian-Cambrian boundary of China and its related problems, 3, 155

XUE XIAOFENG

Research on the isotopic age of the Sinian-Cambrian boundary at the Meishucun section in Jinning County, Yunnan Province, China, 3, 171

ZHANG ZICHAO, MA GUOGAN & LEE HUAQIN

The chronometric age of the Sinian-Cambrian boundary in the Yangtze Platform, China, 3, 175

CORRESPONDENCE

COWIE, J. W., BASSETT, M. G., FRITZ, W. H., HARLAND, W. B., MENNER, V. V., PALMER, A. R., ROZANOV, A. YU., SEMIKHATOV, M. A. & SOKOLOV, B. S. Chronostratigraphic definition of the Precambrian-Cambrian boundary, 6, 649

DONALDSON, C. H. Pyroxene accumulation in spinifex-textured rocks, 6, 650

HAMBREY, M. J. Comment on Late Precambrian palaeoclimates [Reply], 4, 367

WILLIAMS, G. E. Comment on Late Precambrian palaeoclimates, 4, 367

WORSSAM, B. C. & IVIMEY-COOK, H. C. Comments on the paper 'The Portland-Purbeck junction (Portlandian-Berriasian) in the Weald, and the correlation of latest Jurassic-early Cretaceous rocks in southern England' by W. A. Wimbledon and C. O. Hunt, 6, 651

vi

ESSAY REVIEW

HALLAM, A. The unlikelihood of an expanding Earth, 6, 653

REVIEWS

Advanced Soil Mechanics, 4, 377

Annotated Bibliographies of Mineral Deposits in Europe. Part 1. Northern Europe including examples from the U.S.S.R. in both Europe and Asia, 5, 534

Antarctica: Glaciological and Geophysical Folio, 5, 534

Antarctic Earth Sciences, 4, 385

Arc Volcanism: Physics and Tectonics, 5, 521

Atmospheric Chemistry, 4, 382

Background to Palaeohydrology. A Perspective, 5, 530

Biotic Interactions in Recent and Fossil Benthic Communities, 5, 523

Boundary Element Method in Geomechanics, 4, 379

British Rivers, 4, 375

The Cambrian-Ordovician Boundary: Sections, Fossil Distributions, and Correlations, 5, 521

Canada's Heritage of Glacial Features, 3, 260

Chemical Sediments and Geomorphology: Precipitates and Residua in the Near-surface Environment, 3, 257

Coastal Oceanography, 4, 372

Coastal Upwelling: its Sediment Record, Part A: Responses of the Sedimentary Regime to Present Coastal Upwelling; Part B: Sedimentary Records of Ancient Coastal Upwelling, 5, 519

Coated Grains, 4, 382

Continental Endogenous Regimes, 4, 378

Deconvolution, 5, 531

Depositional Systems: A Genetic Approach to Sedimentary Geology, 4, 389

Detailed Compilation Magnetic Map of Ireland and a Summary of its Deep Geology, 6, 664

Dictionary of Petrology, 4, 375

The Dynamic Earth, 3, 255

Earth Science, 1, 75

Earth's Earliest Biosphere. Its Origin and Evolution, 4, 389

Echinoid Palaeobiology, 5, 524

Environmental Change, 6, 657

Evolution, Time and Space: The Emergence of the Biosphere, 4, 376

Extensional Tectonics Associated with Convergent Plate Boundaries, 4, 386

The Field Description of Metamorphic Rocks, 5, 529

Field Geology in the British Isles, A Guide to Regional Excursions, 5, 518

Fossil Invertebrates, 3, 258

Fossil Plants of the London Clay, 5, 520

Gas's Contribution to U.K. Self-Sufficiency, 6, 657

General Hydrogeology, 5, 523

Geochemistry and Chemistry of Oil Shales, 5, 527

Geochemistry of Sedimentary Ore Deposits, 4, 370

Geological Atlas of Western and Central Europe, 4, 371

Geological Guide to the Caledonides of western Ireland, 5, 520

A Geologic Time Scale, 3, 259

Geology and Man, 3, 255

Geology in Engineering, 6, 665

Geology of Burma, 4, 377

Geology of the Bhutan Himalaya, 2, 133

Glacial Deposits in North-West Europe, 5, 532

Glacial Geology. An Introduction for Engineers and Earth Scientists, 5, 526

Glacial-Marine Sedimentation, 4, 381

The Great Chain of History. William Buckland and the English School of Geology 1814–1849, 4, 387

Great Geological Controversies, 3, 256

The Great Tolbachik Fissure Eruption. Geological and Geophysical Data 1975–1976, 2, 133

Humid Tropical Geomorphology, 5, 516

Hydrothermal Processes at Seafloor Spreading Centers, 6, 661

In Suspect Terrain, 4, 373

Intracontinental Fold Belts. Case Studies in the Variscan Belt of Europe and the Damara Belt in Namibia, 5, 533

An Introduction to the Physics and Chemistry of Petroleum, 3, 260

Kinetics and Equilibrium in Mineral Reactions, 6, 665

Komatiites, 4, 384

Koobi Fora Research Project. Volume 2, The Fossil Ungulates: Proboscidea, Perissodactyla, and Suidae, 4, 372

The Lake District. Field Guide Series 'Rocks and Fossils', Volume 4, 4, 371

Landscape Planning: Environmental Applications, 4, 382

Late- and Postglacial Oscillations of Glaciers: Glacial and Periglacial Forms, 5, 535

Man, a Geomorphological Agent. An Introduction to Anthropic Geomorphology, 6, 662

Mesozoic and Tertiary Geology of Southern Africa, 4, 380

Metal Deposits in Relation to Plate Tectonics, 6, 660

Methods in Rock Magnetism and Palaeomagnetism. Techniques and Instrumentation, 3, 258

The Mineral Resources Potential of the Earth, 3, 256

Minerals of the World, 3, 262

Mining Subsidence Engineering, 4, 374

The Mississippian and Pennsylvanian (Carboniferous) Systems in the United States, 1, 75

Mountain Building Processes, 4, 379

The Mountains of Northeastern Tasmania: A Study of Alpine Geomorphology, 5, 519

Mount St. Helens. An Annotated Bibliography, 5, 516

New Interpretations of Ape and Human Ancestry, 6, 658

Noble Gas Geochemistry, 4, 384

The Northern Light. From Mythology to Space Research, 5, 515

Oilfields of the World, 5, 533

Palaeoflora of Southern Africa. Molteno Formation (Triassic). Volume 1. Part 1, Introduction; Part 2, Dicroidium, 6, 659

Palaeomagnetism. Principles and Applications in Geology, Geophysics and Archaeology, 4, 380

Paleobotany and the Evolution of Plants, 3, 263

Pascal Programming: a Beginner's Guide to Computers and Programming, 5, 515

A Pictorial Guide to Fossils, 5, 520

The Pleistocene. Geology and Life in the Quaternary Ice Age, 5, 522

Quaternary Coastlines and Marine Archaeology. Towards the Prehistory of Land Bridges and Continental Shelves, 4, 369

Quaternary of South America and Antarctic Peninsula, 3, 261

Queensland Geology. A Companion Volume to the 1:2,500,000 scale Geological Map (1975), 5, 516

viii Contents

Regional Trends in the Geology of the Appalachian-Caledonian-Hercynian-Mauritanide Orogen, 5, 515

The Remarkable Reverend Clarke: The Life and Times of the Father of Australian Geology, 4, 374

Remote Sensing Applications in Marine Science and Technology, 4, 369

The Revised Rugose Coral Genera, 6, 660

Rivers of the World, 4, 378

Rock Anisotropy and the Theory of Stress Measurements, 4, 391

Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, 4, 373

The Rugose Coral Species, 2, 134

Scotland's Environment During the Last 30,000 Years, 3, 259

The Search for Our Beginning. An Enquiry, Based on Meteorite Research, into the Origin of Our Planet and of Life, 4, 370

Sediment Diagenesis, 5, 517

Seismicity and Seismic Risk in the Offshore North Sea Area 4, 392

Seismic Velocity Analysis and the Convolutional Model, 6, 658

Sheets of Many Colours: The Mapping of Ireland's Rocks 1750-1890, 5, 528

Silicified Silurian Odontopleurid Trilobites from the Mackenzie Mountains, 5, 517

Sixteenth Oil Shale Symposium Proceedings, 4, 386

Soil Micromorphology. Volume 1: Techniques and Applications. Volume 2: Soil Genesis, 3, 256

The Solar System, 4, 391

The Solar System, 5, 525

Sun Traps. The Renewable Energy Forecast, 4, 388

Surface Water, 1, 75

Switzerland and her Glaciers from the Ice Age to the Present, 4, 383

Taxonomy, Ecology and Identity of Conodonts, 6, 663

Terrigenous Clastic Depositional Systems. Applications to Petroleum, Coal, and Uranium Exploration, 5, 527

Tills and Related Deposits. Genesis/Petrology/Application/Stratigraphy, 3, 260

The Time of Darkness: Local Legends and Volcanic Reality in Papua New Guinea, 4, 390

Trilobites and Other Early Arthropods: Papers in Honour of Professor H. B. Whittington, 5, 531

Uranium Exploration in Athabasca Basin, Saskatchewan, Canada, 6, 662

Utilisation de la Télédétection dans les Sciences de la Terre, 5, 535

Volcanic New Zealand, 4, 391

The Volcanic Rocks of the Lake District. A Geological Guide to the Central Fells, 3, 255

World Energy Supply: Resources, Technologies, Perspectives, 3, 262

PUBLICATIONS RECEIVED

Lists appear beginning pages 1, 77; 2, 135; 3, 265; 4, 393; 5, 537; 6, 665

NOTICES

Notices from the International Commission on Zoological Nomenclature occur on pages 1, 79; 3, 267; 4, 396; 5, 539

NOTES FOR CONTRIBUTORS

Contributions for publication should be addressed to The Editors, *Geological Magazine*, Department of Earth Sciences, Downing Street, Cambridge CB2 3EQ, England, or may be submitted through a member of the Editorial Advisory Board (addresses inside front cover). Submission implies that the manuscript has not been published previously nor currently submitted for publication elsewhere.

All contributions, whether articles, correspondence or reviews, must be sent in triplicate and typed on one side of the paper, with wide margins and double-line spacing throughout. Any minor corrections should be made neatly in the typescript, leaving the margins clear. Contributions should follow the general style of papers in recent issues of the *Magazine*. The total length of a paper should not in general exceed 12 pages of the new A4 format of the Magazine, or 13000 word-equivalents. Priority may be given to short papers. The author is invited to nominate up to five possible referees, who will not necessarily be used.

Articles must be accompanied by a brief, informative rather than indicative, abstract. Headings should be set out clearly but not underlined. Primary headings should be in lower case, at margin, with arabic numeral; subheadings should be numbered 2.a., 2.b., etc., and tertiary headings 2.a.l., 2.a.2. No cross-references should be given by page number, but 'above' and 'below' should be used with the section specified, e.g. Section 2.a.2. The SI system of units should be used. The author should mark in the margin of the manuscript where figures and tables may be inserted. References to points in larger works should, where possible, quote the page reference, e.g. Ager, 1981, p. 102.

Tables should be typed with double-line spacing on sheets separate from the running text. Each table must have a caption that will make the data in the table intelligible without reference to the text.

Illustrations should be drafted for reproduction as single column (80 mm) or full page (168 mm) width. Originals should normally be drawn at twice final area and must be sent in a flat package; larger drawings may delay publication. Lettering should be of a size so that when reduced the smallest lower-case letters will not be less than about 1 mm. Avoid gross disparities in lettering size on a drawing. Duplicates of illustrations should be sent, and may be prints or, preferably, photocopies reduced to final size. Illustrations in the text, both line drawings and photographs for halftone reproduction, will be referred to as figures (Fig. 2, 2a, etc.). Folding plates will not be accepted. Figures composed of photographs should be glossy prints presented at publication scale. Figure captions must be typed with double-line spacing on sheets separate from the running text.

The accuracy of references is the responsibility of authors. References must be double-spaced and spelt out in full, e.g.

Brooks, M. & James, D. G. 1975. The geological results of seismic refraction surveys in the Bristol Channel, 1970–73. Journal of the Geological Society of London 131, 163–82.

Kirby, G. A. 1978. Layered gabbros in the Eastern Lizard, Cornwall, and their significance. Geological Magazine 115, 199–204.

Books should be cited as:

Ager, D. V. 1981. The Nature of the Stratigraphical Record, 2nd ed. London: Macmillan, 122 pp.

Bott, M. H. P. 1973. The evolution of the Atlantic north of the Faroe Islands. In *Implications of Continental Drift to the Earth Sciences*, vol. 1 (ed. D. H. Tarling and S. N. Runcorn), pp. 175–89. London, New York: Academic Press.

Unpublished work, e.g. from dissertations of others, should normally be referred to in the text in parentheses as 'private communication' and not included in the reference list unless in the press.

Twenty-five offprints of each paper will be provided free of charge. Additional offprints may be purchased according to a set scale of charges if ordered when the proofs are returned.

Geological Magazine

Volume 121, Number 6, November 1984

CIVETTA, L., CORNETTE, Y., CRISCI, G., GILLOT, P. Y., ORSI, G. & REQUEJO, C. S. Geology, geochronology and chemical evolution of the island of Pantelleria	541-562
WOLFF, J. A. & STOREY, M. Zoning in highly alkaline magma bodies	563-575
LOVELOCK, P. E. R. A review of the tectonics of the northern Middle East region	577-587
REID, R. E. H. Primary bone and dinosaurian physiology	589-598
WANG HONGZHEN & QIAO XIUFU Proterozoic stratigraphy and tectonic framework of China	599-614
DONALDSON, C. H. Kinetics of pyrope megacryst reactions in ascending basaltic magma – relevance to high-pressure magmatic crystallization at Elie Ness, East Fife	615-620
WHITTAKER, A. & CHADWICK, R. A. The large-scale structure of the Earth's crust beneath southern Britain	621-624
BLAND, B. H. Arumberia Glaessner & Walter, a revew of its potential for correlation in the region of the Precambrian-Cambrian boundary	625-633
JENKINS, R. J. F. Ediacaran events: boundary relationships and correlation of key sections, especially in 'Armorica'	635-643
PALMER, C. P. A note on the Birchi Beds, Lower Jurassic, at Lyme Regis, Dorset	645-647
CORRESPONDENCE Chronostratigraphic definition of the Precambrian-Cambrian boundary: J. W. COWIE, M. G. BASSETT, W. H. FRITZ, W. B. HARLAND, V. V. MENNER, A. R. PALMER, A. YU. ROZANOV, M. A. SEMIKHATOV & B. S. SOKOLOV	649
Pyroxene accumulation in spinifex-textured rocks: C. H. DONALDSON	650
Comments on the paper 'The Portland-Purbeck junction (Portlandian-Berriasian) in the Weald, and the correlation of latest Jurassic-early Cretaceous rocks in southern England' by W. A. Wimbledon & C. O. Hunt: B. C. WORSSAM & H. C. IVIMEY-COOK	651-652
ESSAY REVIEW A. HALLAM The unlikelihood of an expanding Earth	653-655
REVIEWS	657-666
PUBLICATIONS RECEIVED	667-668