### INDEX TO VOLUME 50

General Index
- Boreholes
- Chronostratigraphy
- Lithostratigraphy
- Localities
- Minerals
- New taxa

**GENERAL INDEX**

- Acadian 255-265
- aeolian sedimentation, Sherwood Sandstone Group 68-71
- aeromagnetic modelling, west Cumbria 103-112
- Annual Report 1993 185-186
- Annual Report 1994 267-268
- apatite fission-track palaeotemperatures, north-west England 95-99
- Bakevellia Basin, Cumbria 176, 177, 178, 179-181, 182
- belemnites, Upper Cretaceous, North Yorkshire 115-118
- biostratigraphy, Cretaceous, North Yorkshire 294-302
- biostratigraphy, Dinantian, Cumbria 41, 42-43, 44
- biostratigraphy, Late Triassic, Early Jurassic, Carlisle Basin 306-310, 314
- biostratigraphy, Namurian, central and northern England 333, 335-354
- biostratigraphy, Santonian, North Yorkshire 113-118
- biostratigraphy, Toarcian, North Yorkshire 133, 134, 135, 137
- brachiopod, Visean, North Yorkshire 119-123
- bromine content, English Zechstein Cycle 3 chloride salts 239-244
- calcite concretions, Permian Raisby Formation 245-253
- calcitization, Permian, north-east England 152-153
- calcite-related ignimbrite sequence, west Cumbria 25-153
- carbonate spheroids, Permo-Triassic, Cumbria 209-211
- Carlisle Basin, Late Triassic and Early Jurassic rocks 305-316
- Carlisle Basin, northern England 59
- central England, early Namurian marine bands 333-355
- Chalk, the, contortions in, Flamborough Head 271-275
- Chalk, the, deformation, Upper Cretaceous, Flamborough Head 213-228
- Cleveland Basin, northern England 225
- coal-seam geometry, Westphalian, north Derbyshire 317-331
- County Cleveland, English Zechstein Cycle 3 chloride salts 239-243
- crinoids, Upper Cretaceous, North Yorkshire 115
- Cumbria, caldera-related ignimbrite sequence 25-36
- Cumbria, Dinantian rocks 37-49
- Cumbria, Hirnantian pelmatozoan columnals 229-238
- Cumbria, Lake District batholith, internal structure 11-24
- Cumbria, Late Triassic and Early Jurassic rocks 305-316
- Cumbria, NIREX investigations 1-3, 5-9
- Cumbria, Permo-Triassic carbonate spheroids 209-211
- Cumbria, Permo-Triassic diagenesis and petrology 77-89
- Cumbria, Permo-Triassic geophysical log signatures 173-184
- Cumbria, potential field studies 103-112
- Cumbria, Triassic lithostratigraphy 51-60
- Cumbria, Triassic sedimentation 61-76
- density log data, north-west England 93-94
- depth of burial studies, north-west England 93-99
diagenesis, Permo-Triassic, Cumbria 77-89
dolomitization, Permian, north-east England 151
‘Dumb Fault’, north Derbyshire 317-331
dyke suites, Tertiary, Staffordshire and Shropshire 191-252
East Irish Sea Basin 74, 75, 175, 178, 179
East Irish Sea, post-Triassic structural evolution 93, 98, 99-101
- echinoid, Upper Cretaceous, North Yorkshire 115
- electron microscopy, Silurian metabentonite, northern England 250-261
- faulting, Vale of York 125-128
- Fleswick cycle 178, 180-181
- Foredale metabentonite, Acadian cleavage age 257-263
- geochemistry, Cumbria 33-34
- geochemistry, Permian, north-east England 249-251, 252
- geochemistry, Tertiary dyke suites, Staffordshire and Shropshire 199-203
- geophysical log signatures, Permo-Triassic, Cumbria 173-184
- glacier, Loch Lomond Stadial, northern Pennines 277-285
- gravity modelling, west Cumbria 103-112
- ignimbrite sequence, caldera-related, west Cumbria 25-36
- K-Ar analysis, Silurian metabentonite, northern England 255-256, 261-263
- KIRBY, J. G., Moore medallist 269
- Loch Lomond Stadial glacier, northern Pennines 277-285
- magnetic modelling, west Cumbria 103-112
- marine bands, early Namurian, central and northern England 333-355
- metabentonite, Acadian cleavage age, northern England 255-265
- mineralogy, Permian calcite concretions, north-east England 245-253
- mineralogy, ironstones, Jurassic, North Yorkshire 129
- Moore Medal 188, 269
- NIREX investigations, Sellafield 1-3, 5-9
- north central Pennine Basin 336, 345, 348, 349, 350, 351
- north Derbyshire, Westphalian coal-seam geometry 317-331
- North Yorkshire, Cretaceous biostratigraphy 294-302
- North Yorkshire, faulting 125-128
- North Yorkshire, Jurassic stratigraphy 129-142
- North Yorkshire, late Visean brachiopod 119-123
- North Yorkshire, Santonian, Upper Cretaceous biostratigraphy 113-118
- north-east England, Permian calcite concretions 245-253
- north-east England, Permian diagenesis 143-155
- north-west England, post-Triassic structural evolution 91-102
- northern England, early Namurian marine bands 333-355
- northern England, Silurian metabentonite 255-263
- northern Pennines, Loch Lomond Stadial glacier 277-285
- palaeoecology, North Yorkshire 122-123
- palaeogeography, Permo-Triassic, Cumbria 182-184
- palaeogeography, Sherwood Sandstone Group 73-74
- palaeontology, Hirnantian pelmatozoan columnals, Cumbria 231-237
- palaeontology, Visean brachiopod, North Yorkshire 119-123
- palaeotemperature measurements, post-Triassic, north-west England 95-98
palynology, Dinantian, Solway Basin 157–171
pelmatozoan (crinoid) columnals, Hirnantian, Cumbria 229–238
petrology, Permo-Triassic, Cumbria 77–89
Phillips Medal 269
potential field studies, west Cumbria 103–112
potential repository zone investigations, west Cumbria 5–9, 27–31
Ravenglass Sub-basin 103, 105, 106, 107, 108, 109, 111
RAWSON, F.R., Phillips medallist 269
Ribblesdale, Silurian metabentonite 255–266
Salton cycle 178–181
Sandy braidplain sedimentation, Sherwood Sandstone Group 65–68, 70, 71, 72
sedimentology, Cretaceous, Hunstanton Formation 293–294
sedimentology, Permian, north-east England 143–145, 245–246
sedimentology, Triassic, Sherwood Sandstone Group 61–76
seismology, Lake District Batholith 11–24
Shropshire, Tertiary dyke suites 191, 192–193, 195
Society Activities 1993 188–189
Society Activities 1994 269–270
Solway Basin 98, 157–171
Solway Basin, Dinantian palynology 157–171
Sorby Medal 187–188
Staffordshire, Tertiary dyke suites 191, 194, 195
tectonics, 'Dumb Fault' north Derbyshire 327–328
tectonics, Tertiary, Staffordshire and Shropshire 196–199, 204
Teesside, English Zechstein Cycle 3 chloride salts 239–244
TEM analysis, Silurian metabentonite, northern England 259–260, 262–263
Vale of Eden Basin 91, 99, 100
Vale of York, faulting 125–128
WALKLAND, R. W., Moore medallist 188
WHITHAM, F., Sorby medallist 187–188
Yorkshire, Upper Cretaceous Chalk deformation 213–228

BOREHOLES

112/25A-1, (west Cumbria) 52, 54, 94, 95
Aiskew Bank Farm 334, 345, 352
Ashfold Side Beck 334, 347, 352
Bakevellia Basin 177
Bewerley Mines 1 345
Bewerley Mines 1A 334, 335, 337, 347, 352
Bewerley Mines 1B 334, 335, 337, 338, 347, 352
Bewerley Mines 2 334, 335, 352
Bewerley Mines 3 334, 335, 347, 352
Bewerley Mines 4 334, 335, 345, 352
Blacko 334, 335, 349, 352
Bowness 310
Carsington Reservoir 335, 337, 340, 342, 343, 352
Craven Water Board 01, 02 352
Croft Closes 337, 352
Croft House 338, 344, 345, 347, 350, 352
Duffield 334, 340, 342, 345, 348, 351, 352
Earby-Carleton 335
Elsack 01, 02 334, 335, 352
Great Orton (SB1) 305–310, 311, 312, 314
Harewood 345, 352
Harley 173, 174, 183
Haverigg Haws 179
Hilton 174, 177, 183
Hurworth Place 149
Isle of Man 59
Kirkbamton (SB2) 305, 310, 311
Larne 2 177, 180
Lower Teeside (ICI) E26 239, 240, 241–242
Redruth Gill 335, 352
Roostecote 334, 335, 337, 352
Seal Sands 174, 175
Seascale 58
Sellafield 1 6, 7, 25, 37, 52, 54, 57, 63, 78, 85, 87
Sellafield 1A 6, 7, 78, 82–83, 87, 92, 94, 95
Sellafield 2 6, 7, 25, 26, 27, 28, 29, 52, 54, 80, 82–83, 84, 85, 87, 88, 92, 94, 95, 109, 209
Sellafield 3 6, 7, 25, 32–33, 39–41, 42–43, 44, 45, 49, 52, 57, 61, 63, 78, 79, 81, 82–83, 84, 85, 87, 88, 94, 95, 101, 209
Sellafield 4 6, 7, 25, 26, 27, 28, 29, 92, 94, 95, 109
Sellafield 5 6, 7, 25, 26, 27, 29, 54, 61, 92, 94, 95, 109, 209, 210
Sellafield 7 6, 31, 82–83
Sellafield 7A 7, 25, 30, 40, 41, 44, 45, 78, 84, 85, 87, 88, 92, 94, 95
Sellafield 7B 7, 54, 78, 84, 92, 95, 209, 210
Sellafield 8 6, 7, 25, 27, 29, 52
Sellafield 9A 6
Sellafield 10A 6, 7, 25, 26, 27, 29, 31, 35, 40, 41, 44, 45, 52, 54, 61, 94, 95, 209
Sellafield 10B 7, 56, 63
Sellafield 10C 7
Sellafield 11A 7, 109
Sellafield 12A 6, 7, 27, 40, 41, 45, 54, 94, 95, 209
Sellafield 13 6, 57, 61
Sellafield 13A 7, 41, 54, 63
Sellafield 13B 7, 54, 56, 58, 63
Sellafield 14A 6, 7, 25, 30, 31, 44, 54
Silloth 1A 52, 54, 59, 94, 95, 178, 181–182, 184
Staithes S1 239, 240, 242, 243
Thruscross Reservoir Dam 347, 352
Waterflood (SB3) 305–306, 310, 311, 314
Wray 334, 341, 352

CHRONOSTRATIGRAPHY

Carboniferous, Dinantian 37–49, 157–171
Carboniferous, Namurian 333–355
Carboniferous, Viséan 119–123
Carboniferous, Westphalian 317–331
Cretaceous 285–304
Cretaceous, Albanian-Cenomanian boundary 297–299
Cretaceous, Santonian 113–118
Cretaceous, Upper 213–228
Jurassic, Early, (Lias) 305, 306–308, 310–315
Jurassic, Toarcian 129–142
Ordovician, Hirnantian 229–238
Permian 245–253
Permian, Late 143–154
Permian, Zechstein 239–244
post-Triassic 91–102
Tertiary 191–208
Triassic 51–60
Triassic, Late, (Lias) 305, 308–309, 310–315
Triassic, Late, (Penarth) 309-310, 311, 314

LITHOSTRATIGRAPHY
(newly defined names in bold type)

Alston Block 91, 96, 99, 100
Apedale Fault 196, 198
Askrigg Block 333–355
Basal Beds 38, 41, 44
Beacon Hill Farm Marl 2 113, 114, 115, 116
Belah Dolomite/D-Bed 178–181
Beacon Hill Farm Marl 2 113, 114, 115, 116
Bempton Fault 224
Bewcastle Beds 159, 160–165, 167–168
Billingham Anhydrite Formation 173
Blacko Marine Band 333–335, 349, 350, 351, 352
Blea Wyke Sandstone Formation 129–141
Blenham Anhydrite Formation 173
Boulby Halite Formation 239–243
Boulby Potash Member 239, 240, 241–243
Brennand Grit 349, 350
Brockram 77–78, 81, 82, 83, 84, 85, 86
Broom Farm Formation 28
Brotherton Formation 173
Brown Bank Formation 28–29
Carboniferous Limestone 38–39
Chalk (Yorkshire Coast) 213–228
Close Hill Siltstone Member 339, 341
Cotham Member 309–310, 314
Craven Reef Belt 113–118, 119–123
Cravenoceras gressinghamense Marine Band 335, 339–341, 343, 345, 351, 352
Crowe’s Shoot Member 286, 293, 297, 298–299, 300
Deep Soft Coal 317, 321–322, 326, 328, 329, 330
Daggner Formation 129, 130, 131, 135–137, 140
Dowsing Fault 224
Dolpo dock Member 291–292, 295, 296–297, 298–299
East Nook Marl 2, 3 113, 114, 115, 116–117
Edale Shale Group 337, 342–343, 348, 350, 351
Eden Shale Group 173–184
Edlington Formation 173, 175
Ennerdale Granophyre 11, 12, 15–16, 19, 22
Esksdale Granite 12–13, 15, 18–23, 109
Esksdale Granodiorite 12
Ferraby Chalk Formation 286, 289, 293, 298–299, 300
Flamborough Chalk Formation 113–118
Fleming Hall Formation 29
Fleswick Anhydrite 179
Fleswick Breecha 180
Ford Formation 144, 146
Fordon Formation 175
Fossil Sandstone 351
Fringhton Limestone Formation 38–39, 41, 44, 45–47

Glaisdale Ironstone Member 131, 136, 141
Grassington Grit Formation 337–338, 349, 350, 351
Hartlepool (= Hayton) Anhydrite 175
Hartlepool Anhydrite Formation 144–145, 147
Haverigg Haws Anhydrite 179
Haworth Breccia 180
Hayton Lower Anhydrite 173
Hayton Upper Anhydrite 173
High House Ironstone Member 131, 133, 134, 138, 140
Hunstanton Formation 289–304
Kinnerton Sandstone Formation 175
Kirkham Abbey Formation 175
Kirkalton Sandstone 59
Lake District batholith 11–24
Lake District Block 92, 96, 98, 99, 100, 101
Lake District Boundary Fault 105–106, 111, 112
Lias Group 305, 311, 312–314, 315
Littlebeck Anhydrite Formation 173
Low Baring Member 131, 133, 134–135, 138
Low House Sandstone Member 136, 137, 138, 141
Lower Border Group 157–169
Maidland Tilestone 113, 114, 115, 116
Maidlands Lower Marl 116
Maidlands Upper Marl 115, 116
Marchup Grit 345
Market Weighton Block 125–128
Martin Limestone Formation 38, 42, 43
Mercia Mudstone Group 93, 99, 125–128, 310–311
Millstone Grit 344
Mirk Fell Ironstones 347
Moorside Farm Formation 27–28
Newton Manor Formation 31
Nidderdale Shales Formation 345–347
Ormskirk Sandstone Formation 53, 57–58, 63, 65, 68, 71, 72, 73–74
Penarth Group 305, 309–310, 311, 314
Pendle Grit Formation 335–337, 349, 350
Queen Rocks Member 289–290, 295, 296
Raisby Formation 143–154, 245–253
Red Chalk 285–304
Red Cliff Hole Member 292–293, 294, 297, 298–299, 300
Red Rock-Wem Fault 197–198
Red Scar Grit 345
Refinery Breccia 180
Roeburndale Formation 339–342, 348
Roosecote Anhydrite 179
Roosecote Mudstones 337
Rosedale Ironstone Member 131, 133, 135, 138, 140
Sabden Shale Formation 342
Saleswheel Marine Band 335, 339–342, 343, 348, 351, 353
St Bees Evaporite Formation 78, 81, 178, 179
St Bees Sandstone Formation 53–56
St Bees Sandstone Formation 61–62, 64, 65, 66, 70–73, 80, 82, 83, 85, 86, 87, 103–104, 105, 107, 108, 109, 112, 175, 209, 210
St Bees Shale Formation 64, 65, 68, 72, 78, 81, 82, 83, 86, 179
Seascale Hall Member 27, 28, 29, 34, 35
Sella Park Member 31, 34
Skidaw Group 12, 13, 16, 18, 22
Speeton Beck Member 290–291, 295, 296
Speeton Clay 294–296
Surgil Shale Member 335–337, 349, 350
Swynnerton Fault 196, 197

Trow Point Bed 147

Urswick Limestone Formation 39, 42, 43, 44

Warley Wise Grit 349, 350

Weather Castle Member 292, 294, 296–297, 298–299

Wensleydale Group 344, 350, 351

West Nook Marl 4113, 114, 115, 116

Westbury Formation 310

Yew Grain Member 131, 133–134, 138, 140

Yottenfews Formation 31, 34

LOCALITIES

Acton Reynald Hall, Shropshire 193, 198, 199, 200, 202, 204

Apollo’s Coppice, Shropshire 193

Barrow-in-Furness, northern England 337


Bowman Mine, North Yorkshire 239–243

Bowlend Fells, northern England 353

Butterton, Staffordshire 192, 195, 202, 204

Calder Valley, Cumbria 58

Carrington Reservoir, Derbyshire 342–345

Church Wood Quarry, Staffordshire 192, 195, 202, 204

Clive, Staffordshire 198, 202, 205

Combs Quarry, northern England 256, 257, 261

Cronkley Scar, northern Pennines 277–282

Cureton’s Quarry, Shropshire 192, 193, 196

Danes Dyke, North Yorkshire 113–118

Dykes End, North Yorkshire 215, 221

Eldon Hill Quarry, north-east England 149

Flamborough Head, North Yorkshire 213–228, 271–275

Frenchman’s Bay, north-east England 146, 148, 150

Frizington Parks Quarry, Cumbria 45, 46

Giggleswick, North Yorkshire 337

Grinshill Quarry, Shropshire 192, 196, 197, 198, 199, 200, 202, 204, 205

Hanchurch, Staffordshire 195, 201

High Moorsley Quarry, north-east England 149

Hollins Mines, North Yorkshire 137–140

Holy Island 198, 202–203

Keisley New (= west) Quarry, Cumbria 229–237

Kindle Scar Cliff, North Yorkshire 219–220, 221, 223–224

Kirk Opeast Site, north Derbyshire 317–351

Langholm, southern Scotland 157, 158, 159, 161–165, 168

Langtoft Quarries, North Yorkshire 215, 221

Limekiln Bay, North Yorkshire 219, 220, 224, 226

Lune valley, northern England 339–342

Molk Hole, Yorkshire 219, 220, 221, 223–224

Mount Pleasant Quarry, Shropshire 192, 193, 196

Mousegill Quarry, Cumbria 46, 47

Newcastleton, southern Scotland 157, 158, 159, 161–165, 168

North Bowland Fells, northern England 339–342

North Cliff, North Yorkshire 219–220, 225

Norton Bridge, Staffordshire 195, 201, 202, 205

Old Towns Quarry, north-east England 144, 246

Pendle Hill, Lancashire 335–336

Penshaw Hill Quarry, north-east England 146

Raisby Quarry, north-east England 144, 147, 246–250

Ribblesdale, northern England 256–263

River Ribble, Saleswheel, Lancashire 340, 342, 351

Rosedale, North Yorkshire 129–141

Rough Furze Quarry, north-east England 147, 148, 149

Running Waters Quarry, north-east England 148

St Bees Head, Cumbria 178, 179

Salton Bay, Cumbria 64

Seascale, Cumbria 58

Selby Coalfield, Vale of York 126, 128


Selwicks Bay, North Yorkshire 213–228, 275

South Landing, North Yorkshire 113–118, 215, 221

Speeton, North Yorkshire 285–304

Staithes, North Yorkshire 239–243

Staple Nook, North Yorkshire 271–275

Swynnerton, Staffordshire 195, 196–197, 201, 202, 205

Tarn Rigg, northern Pennines 277–280, 281–282

Tarras Water, southern Scotland 159, 160–168

Wasdale, Cumbria 11–24

West Cliff, North Yorkshire 216–218, 219, 225–226

Whitendale River, Lancashire 337

Widmerpool Gulf, central England 336, 337, 348, 350, 351

Yarnfield, Staffordshire 195, 201, 202, 205

Yorkshire Coalfield 128

Zechstein Basin, Cumbria 176, 182–183

MINERALS

anhydrite 78, 79, 81, 86, 88, 143–154

ankerite 87

barite 85, 87, 148

dolomicrite 79
dolomite 78, 79, 81, 84, 148–149, 209–211, 248, 251
gypsum 143–154

halite 239–243

hematite 79, 85

illite 86

K-feldspar 84

kaolinite 86, 149, 153

potash 241–242, 243

quartz 84

NEW TAXA

(all new species except where stated otherwise)

Atactosia jeansi 301–302

Ceninnithyris microsubundata 301

Cravenoceras gressinghamense 353–354

Ectenocrinus britannicus 231–233

Neoraistrickia variabilis 161, 163, 168

Nerthebrochus nosetrapensis 302

Schopfites claytonii 161, 164, 168

Tenaspinus gen. nov. 120–122

Tenaspinus smarti 120–123
Instruction to authors

The *Proceedings of the Yorkshire Geological Society* is a biannual publication that caters for original research papers on all aspects of geology. Emphasis is placed on (i) papers relating to the geology of the north of England (but including aspects of more than local interest) and (ii) papers of general geological interest. Papers should be between 3000 and 15000 words in length, including references (a full printed page consists of c. 1000 words). Longer contributions should not be submitted without prior consultation with the Editors. Review papers are normally published by invitation only, but ideas for a review paper may be submitted to the Editors for assessment by the Publications Committee.

1. SUBMISSION OF PAPERS

Papers are welcome from Society members and non-members alike. They are accepted on the understanding that they have not been published elsewhere and authors are asked to assign copyright to the Yorkshire Geological Society. *Three complete copies of papers should be submitted to the Editors, Proceedings of the Yorkshire Geological Society, Geological Society Publishing House, Unit 7, Brassmill Enterprise Centre, Brassmill Lane, Bath BA1 3JN, UK.* The *Proceedings* is now set from disk and authors should consult the ‘Notes for electronic text preparation’ available from the Production Editor. Authors may also find it helpful to consult the Royal Society’s booklet, *General Notes on the Preparation of Scientific Papers* (revised edn, 1974).

Typescripts should be in their final form, and should be arranged according to the layout used in the latest issue of the *Proceedings*. Typescripts that deviate excessively from the standard layout will be returned to the authors for modification. Copies of all illustrations should be at anticipated final publication size and of sufficient quality to allow proper assessment of their composition and reproducibility. Copies of half-tones must be photographic prints not photocopies. One set of camera-ready photographic prints of all line drawings should be submitted with the revised manuscript; these should be at final publication size (see 2.6). Originals of line drawings will be requested only in exceptional circumstances. Referes are appointed to assess the papers, and the author will be informed of the decisions reached. In multi-authored works, correspondence will be with the first-named author unless otherwise arranged. Proofs will be sent directly to the author who must read and correct them, returning them to the Editors. Prompt attention to proofs is essential.

2. PREPARATION OF PAPERS

2.1. Typescripts

Typescripts should be double-spaced throughout (including references and figure captions), with each page numbered serially; A4 size is preferred. The typescripts should be arranged as follows:

1. Title, which should be concise yet informative.
2. Name(s) and full postal address(es) of author(s).
3. Summary. This should not exceed 250 words, and should be a self-contained summary of the main achievements of the paper (without references) and not a mere statement of the scope and contents of the paper.
4. Main text. This should be organized according to the system of headings described in section 2.2.
5. Appendices, if necessary.
6. References (see section 2.5).
7. Tables, each on a separate sheet, together with its caption.
8. List of figure captions.

2.2. Headings

Four grades of headings are normally used in the *Proceedings*:

1.  **FIRST-ORDER HEADING**
   1.1. Second-order heading. Text follows on next line.
   1.1.1. Third-order heading. Text follows on next line.
   Fourth-order heading. Text follows on same line.

   In certain circumstances (e.g. where there are frequent short sections) it may be decided to vary this arrangement. The introductory section should not be numbered: the heading ‘Introduction’ may, for clarity, be used on the typescript, although it will not be used in the printed paper. The first line of the first paragraph following each heading should begin at the left-hand margin (no indent).

2.3. Systematic palaeontology

The layout for palaeontological systems should follow the conventions adopted by the Palaeontographical Society. Examples of house style may be found in Volume 49, part 4.

2.4. Systematic lithostratigraphy

Any new lithostratigraphic terms should be rigorously defined to conform to the various codes for lithostratigraphic nomenclature. Examples of house style may be found in previous volumes (from Vol. 45 onwards), e.g. Vol. 48, pp. 124–136, 289–390, 447–452.

2.5. References

All references cited in text and captions must appear in the list, and vice versa. The accuracy of references is the responsibility of the authors. Within the text, the citation should be name and date: Young & Bird (1822) or (Young & Bird 1822) depending on context. Where the reference has 3 or more authors, the text citation should be first-named author et al. Periodical titles should be quoted in full, and follow the wording on the title sheet. Where indication of the country or region of origin would assist in the identification of the periodical, additional wording should be included in parentheses, using Roman characters: e.g. Nature (London); Journal of the Geological Society (London). In book titles, capital letters should be used for proper nouns only (except in German titles, where all nouns should possess capital letters). Accents should be included in all foreign book and serial titles. Postgraduate theses are treated as published books.


2.6. Illustrations

Illustrations should be prepared to column width of 85 mm, intermediate width 110 mm (printed with caption in 50 mm-wide block alongside), or page width of 176 mm. The printed page height is 250 mm. The caption will be placed beneath a full-page illustration and the height of the latter should be reduced accordingly. Authors proposing to include coloured figures are advised to consult the Editors; these are very expensive to produce and authors may be asked to bear the costs.

Lettering should be no less than 1 mm high after reduction. Half-tone illustrations should be high-quality glossy prints with good contrast. Magnification should be indicated by means of a scale bar on the photograph or, if this is not possible, in the figure caption. All half-tone illustrations are referred to as Figures, not Plates. In composite illustrations the individual photographs should be labelled 1, 2, 3, etc. or A, B, C, etc. Where possible, labels should be on the photographs, not in the space between.

3. OFFPRINTS

25 free offprints per paper are provided: additional copies may be purchased and should be ordered at page proof stage.

Acknowledgement. Some figures published in the *Proceedings* display the National Grid, taken from the Ordnance Survey map with the permission of the Controller of Her Majesty’s Stationary Office.
CONTENTS

I. C. Starmer
Contortions in the Chalk at Staple Nook, Flamborough Head

P. Wilson and R. Clark
Landforms associated with a Loch Lomond Stadial glacier at Cronkley Scar, Teesdale, northern Pennines

S. F. Mitchell
Lithostratigraphy and biostratigraphy of the Hunstanton Formation (Red Chalk, Cretaceous) succession at Speeton, North Yorkshire; England

H. C. Ivimey-Cook, G. Warrington, N. E. Worley, S. Holloway and B. Young
Rocks of the Late Triassic and Early Jurassic age in the Carlisle Basin, Cumbria (north-west England)

Effects of a Westphalian channel on coal-seam geometry: a reappraisal of the ‘Dumb Fault’ of north Derbyshire

A. Brandon, N. J. Riley, A. A. Wilson and R. A. Ellison
Three new early Namurian (E1c–E2a) marine bands in central and northern England, UK, and their bearing on correlations with the Askrigg Block

Index to Volume 50

Abstracted and/or indexed in GeoArchive, GeoRef, Geobase, Geological Abstracts and Mineralogical Abstracts

Typeset by Type Study, Scarborough, North Yorkshire YO13 0HG
Printed on acid-free paper at The Universities Press (Belfast) Ltd, Belfast BT6 9HF, Northern Ireland, UK

Price: £32.00