INDEX TO VOLUME XXIII

Actinolite, Wolds sands, 302.
Airedale, terraces, 112.
Aldborough, 126.
Alga, Carboniferous, 138.
Alston Moor, 236.
Altimetric curve, Cleveland, 313.
Analyses (chemical), Middle Permian Marls, 285; Upper Magnesian Limestone, 298.
Analyses (mineralogical), sandstones, Millstone Grit, Yeadon, 144; Wolds sands, 302.
Analyses (mineralogical), sandstones, Millstone Grit, Yeadon, 144; Upper Magnesian Limestone, 298.
Analyses (mineralogical), sandstones, Millstone Grit, Yeadon, 144; Wolds sands, 302.
Andalusite, Skiddaw, 212; Wolds sands, 303.
Andesites, Borrowdale, 133, 217.
Angiosperms, Jurassic, 6.
Anticline, Skipton, 30, 127; Simonseat, 319.
Apatite, Millstone Grit, 150.
Araucarites, 6.
Arkengarthdale, 252.
Arnside, 141.
Ashgillian, 64, 134.
Augite, Wolds sands, 303.
Austwick Flags, 63.
Aygarth Falls, 10.
Ayton, 62.
Bacteria, 6, 65.
Bain, river diversion, 12.
Balance sheet, Yorkshire Geological Society, 1933-34, 38; 1934-35, 67; 1935-36, 121; 1936-37, 201.
Bank Gill, 129.
Bank Top, 62.
Barents Sea, sequence of drifts, 258.
Barker, W. R., on Barnsley, 130.
Barnsley, 130.
Barytes, Wolds sands, 304.
Base ment boulder clay, 126.
Beckfoot, 129.
Beckfoot, 129.
Beech, 129.
Birkenhead anticline, 338.
Berwick Limestone, 129.
Beyrichoceras spp., 25.
Beyrichoceras zone (B), 25.
Bibliography, Yorkshire Geology, 1934, 35; 1935, 143; 1936, 254; 1937, 315.
Bingley, 202.
Biotite, Millstone Grit, 150.
Birk Gill Shales, 322.
BISAT, W. S., on Hornsea, 125.
Bishopdale, river development, 16.
Black Combe, 132.
Black, M., see J. E. Hemingway.
Bleak Wyke series, 65.
Borings, Snail Green, Bradford, 187.
Borrowdale volcanics, 132, 208, 217.
Botany Ridge, Yoredale succession, 236 and Pl. xii; Limestone, 244.
Boulder Clay, High Level, Vale of York, 34; Low Level, Vale of York, 54; Purple, 59, 125; Holderness, 125, 238; Basement, 126.
Bowland (Bolland) Shales, 27, 30, 66, 129, 323.
Bradfield, 63.
Bradley, 130.
Brayton Barff, 104.
Brecacias, limestone, 128; Tideman's, 129.
Brimham Grits, Washburn, 319, 335.
Brockram, 140.
Bromhead, C. N. (and C. E. Fox) on Bank Top and Hipperholme, 62.
Brookite, Millstone Grit, 150.
Browgill Beds, 135.
Butterfield, J. A., on analyses of sandstones from the Millstone Grits at Yeadon, Yorkshire, 144.
Bytownite phenocrysts, 218.
Calcite cement of Millstone Grit, 147.
Calderdale terraces, 122.
Caldew through-hollow, 216 and Pl. xii A.
Caledonian folds, 208, 211.
Carbonicola, lenicurvata, type locality, 202; rorotecta, 131.
Carboniferous Limestone, Pendle, 25; Skipton, 30, 127; Settle and Ribblesdale, 63; zones, 63, 137; Hodbarrow, 136; faunas, 138;

* Compiled by R. G. S. Hudson, J. E. Hemingway and Miss J. N. Airey.
INDEX

Carboniferous Limestone—continued
Humphrey Head, 140; Silverdale and Arnside, 141; Miller’s Dale, Derbyshire, 176; Greenhow, 323.
 Carlisle plain, 172.
 Carrock Fell, 208; map, 209; erosional platforms, 171.
 Carruthers, R. G., on Alston Moor to Botany and Tanhill; an adventure in stratigraphy, 236.
 Castleford, 65.
 Cayton Gill beds, 206, 319.
 Caytonia, 6.
 Cement of sandstone. Millstone Grit, 147, 345.
 Chalk gravel, 305.
 Charnwood axis, 43.
 Chemical analyses. Middle Permian Marls, 285; Upper Magnesian Limestone, 298.
 Cherty limestone. Carboniferous, 180.
 Chlorite, Millstone Grit, 150; Wolds sands, 304.
 Chonetes carinata, 79.
 Cleveland, dyke, 311; structure and physiography, 303.
 Climatic cycle, quaternary, 257.
 Coalfield, south-east Pennine, 39; Yorkshire etc., concealed, 41.
 Colliery, Prince of Wales, 125; Parkhill, 206.
 Colsterdale Limestone, 321, 339.
 Conglomerate, limestone, 128; Coniston Limestone, 134; basement Carboniferous, 138; Permian, 204, 288.
 Conifers, Jurassic, 6.
 Coniopteris hymenophylloides, 3.
 Coniston, Limestone, 132, and Pl. vii; Grits, 134; unconformity, 134.
 Contemporaneous erosion, Skipton, 30, 127; Carboniferous Limestone, Derbyshire, 185.
 Contemporaneous folding. Miller’s Dale region, 178.
 Cook’s Study, 125.
 Coombe rock, 106.
 Cope, F. W., on some features in the Di—D2 limestones of the Miller’s Dale region, Derbyshire, 179; on Daviesiella carinata (Garwood), 79.
 Corals, Carboniferous, 91.
 Cordierite, Skiddaw, 212.

Coverdale, development of drainage, 14.
 Cowden Glen inter-glacial beds, 262.
 Cowling, 66.
 Crag Lime, 240.
 Craven Lowlands, 30.
 Crassucoroceras, leon, 33; nitidum, 322; Holmesi, 328; subplicatum, 328.
 Cryptophyllum, Carboniferous coral, 91.
 Cryptophyllum europeum, sp. n. 99.
 Culm facies, 30.
 Cyathaxonia, septal notation, 70.
 Cycads, 4.

dalton, A. C., on Scunthorpe, 205.
 Daviesiella carinata, structure and zonal position, 79.
 Dennis, W. H., on Prince of Wales Colliery, 125.
 Diabase, Carrock Fell, 214.
 Dictyotyledons, 7.
Dictyophyllum, 3.
 Dictyozamites, 4.
Didymograptus zones, 208.
 Dillington, 126 and Pl. vi.
 Dinantian, Skipton, 30.
 Dolomite cement, Millstone Grit, 147, 346.
 Dolomitization, 139.
 Drab boulder clay, 125.
 Dragonby, 206.
 Drainage, Cleveland, 309; Wensleydale, 10.
 Draughton, 32; limestone, 32, 128; shales, 129.
 Drumlins, Wensleydale, 11.
 Drygill Shales, 216.
 Dykes, Carrock Fell, 211.
 Eastby Limestone, 30.
 East Carlton Grit, 144.
 Eastwood, T., on Whicham and Milom Park, 132; on Hodbarrow, 136; on Burlington Slate Quarries, 140.
 Edge Marine Band, 130.
 Edwards, W., on West Heslerton and Knapton, 62; on Pontefract and Castleford, 65; on a Pleistocene strand line in the Vale of York, 103; on Otley, 206.
 Eiland Flags, 62.
 Embsay Limestone, 30, 128.
 Emergence, quaternary, 257.
 Emmornia, 32; limestone, 38; subzone, 25.
INDEX

Enstatite, Wolds sands, 303.
Epidote, Wolds sands, 304.
Equisetites columnaris, 2.
Eretmophyllum, 5.
Erosional platforms, high level, in Cumberland and Furness, 159.
Erratics, High Level boulder clay, 54; Low Level Boulder Clay, 54; Slap Granite, 132; Borrowdale ash, 287.
Escrick moraine, 54, 104.
Estuarine series, floras, 1.
Eumorphoceras, bisulcatum band, 66, 130, 206, 327; pseudobilingue, 33, 64, 129.
Everthorpe, gravels, 111.
Ewden, 63.
Eycott Hill, 208, 217.
Fairystones, Burdale, 305.
Fancarl Crag, Millstone Grit, 323.
Fault-scarp, Middle Craven, 64.
FEARNSIDES, W. G., on the framework of the south-east Pennine coalfield, 39; on Ewden and Bradfield, 63; (and R. G. S Hudson) on Settle and district, 63.
Felltop Limestone, 237 et seq.
Fennell, C. W., in mem., 61.
Ferns, Estuarine Series, 2.
Field Meeting Reports, Bank Top and Hipperholme, 62; West Heslerton and Knapton, 62; Hackness, 62; Ewden and Bradfield, 63; Settle, 63; Ravenscar, 65; Pontefract and Castleford, 65; Lothersdale and Cowling, 66; Leeds, 66; Prince of Wales Colliery, 125; Cook’s Study and Holme, 125; Hornsea, 125; Skipton, 127; Barnsley, 130; Furness, 132; Whicham and Milnol Park, 132; Torver and Coniston, 134; Hodbarrow, Burton and Humphrey Head, 138; Silverdale and Arnside, 141; Bingley, 202; Rotherham, 203; Scunthorpe, 208; Otley, 208; Normanton, 206; Penrith, 208.
Firestone Sill, 239.
Fioras, Jurassic, 1.
Floras, Jurassic, 1.
Folding, Drasighton, 130.
Pollifoot Grits, 323.
Forge Valley, 62.
Forsyth, David, in mem., 37.
Fossil sandstone, 250.
Fox, C. E., see C. N. Bromehead.
Fox-holes Cave, 64.

Frodingham, Lia, 205.
Furness, 132; erosional platforms, 164.

Gabbro, Carrock Fell, 210, 213.
Garland Edge sandstone, 251.
Garnet, Millstone Grit, 156; Wolds sands, 302.
Gastrioceras, cancellatum band, 202.
Gate-up Limestone, 321.
Ginkgoites, 5.
Glaciation, Upper Wensleydale and district, 22; eastern side of Vale of York, 54; Black Combe, 132; Bingley, 202; Otley, 208.
Goldaborough, Basement Grit, 246.
Goniatites, spp., 25, 33, 129.
Goniatites, zonal, 322, 336.
Grainigill Beck, 213.
Grassington Grit, Washburn, 319, 324.
Gravels, Vale of York, 54, 104.
Great Limestone, 241.
Great Pocketstones Grit, 324.
Great Scar Limestone, 323.
Greensand floras, 7.
Grindstone, 238.
Grits, 240.
Guiseley Grit, 144.

Hackness, 62.
Hematite, Hodbarrow, 136; origin, 137.
Haigh Moor Coal, 207.
HALE, W. J., on Normanton, 206.
Halton monocline, 141.
Halton Shales-with-Limestone, 128.
Hambleton Hough, 104.
Hambleton Quarry, 32, 129.
Harden Grit and Shale Group, 323.
Hardraw Force, 11; Beck, glacial diversion, 11.
HARRISON, K., on the Glaciation of the eastern side of the Vale of York, 54.
Haw Bank Limestone, 30, 127.
Hawes Water, 142.
Hearne Beck, 11.
Heavy minerals, Millstone Grit, 149; sands, Yorkshire Wolds, 301.
HEMINGWAY, J. E. (and M. Black), on Ravenscar, 65.
Heugh Gill, 129.
Hexacoralla, septal notation, 76.
High Hill, Settle, 64 and Pl. 1.
Hippleholme, 62.
**INDEX**

**Hippopotamus**, Leeds, 113; Sewerby, 259.

Historical Geology, The Pennine axis and S.E. Yorks. coalfield, 39.

Hochlar, 136.

Hollinsworth, S. E., on Carrock Fell and adjoining areas, 208; on high level erosional platforms in Cumberland and Furness, 159.

Holme, 125.

Holme-on-Spalding Moor, 110.

Holmes, J., on Lothersdale and Cowling, 66.

Homoceras beyrichianum, 331; smithi, 337; undulatum, 333.

Hoodstorth, Millstone Grit, 333.

Hornsea, 125.

Hornfels, Skiddaw, 212 and Pl. xii B.

Horton Flags, 63 and Pls. i and ii.

Hudson, R. G. S., on the development and septal notation of the Zonantharia rugosa (Tetracoralla), 68; on the Lower Carboniferous Corals, Rhopalasma gen. nov. and Cryptophyllum, Carr, 79; on Humphrey Head and Roughholme, 140; on Silverdale and Arnside, 141; on the Millstone Grit succession of the Simneast Anticline, Yorkshire, 319; (and H. C. Versey), on a mid-Carboniferous unconformity in the Skipton anticline, 90; (and G. H. Mitchell), on the Skipton Anticline, 127; see W. G. Farnsides.

Hughes, D. R., on Robin Hood, Leeds, 66.

Humber Gap, 310.

Humphrey Head, 140.

Hyaliostelia, 206.

Hypersthene, Wolds sands, 303.

Ilmenite, Millstone Grit, 150.

Intake House, 128.

Interglacial periods, discussion, 262.

Iron Oxides, Millstone Grit, 150.

Ironstone, Liassic, 205.

Johns, Cosmo, on the Quaternary climatic cycle, 257.

Jurassic floras, 1.

Kellingley-Snaith ridge, 104.

Kelman, H. P. F., in mem., 197 and Pl. X.

Kettlepot Coal, 249.

Kinderscout Grit, 144; 319.

King, W. R. B., on the Upper Wensleydale River system, 10.

Kirmington, 118, 257.

Knacton Shell-Beds, 238.

Knapton, 62.

Knarsborough Forest, 320.

Ryanite, Wolds sands, 301.

Lad Gill, Tanhill, 249, 341.

Lake District, erosional platforms, 159; Carrock Fell, 208.

Landslips, Chalk, 62; Ewden, 63.

Laughton, Magnesian Limestone, 204.

Lava flow, Miller’s Dale, 170.

Lavas, Borrowdale, 217.

Leeds, Robin Hood, 66.

Leucosxene, Millstone Grit, 154.

Lias, Scunthorpe, 205.

Lime-plate, Yoredales, 240.

Limestone-breccia, 32.

Lindrick Common, Magnesian Limestone, 204.

Listracanthus, 131.

Lithostrotion arachnoideum subzone, 25.

Little Limestone, 241.

Loess, Asia, 275.

Lothersdale, 66.

Lough-Willoughby axis, 47.

Lunds, 10.

Lune Valley, Yoredale succession, 243 and Pl. xiii.

Macintosh, A. H. G., on Rotherham, 203; on notable features in the middle Permian marls of South Yorkshire and North Nottingham, 282.

Magnesian Limestone, 65, 203; gravels of, 106.

Magnesite cement, Millstone Grit, 147, 345.

Magnetite, Millstone Grit, 150.

Mansfield Marine Band, 68, 131.

Manvers Main Brick Fir, 131.

Marattiospis, 2.

Marine bands, Millstone Grit, 319.

Market Weighton axis, 46.

Mars, Middle Permian, 204, 282.

Mearley Clough, 28.

Mechanical composition of Millstone Grit sandstone, 144.


Mercocanites appianatus, 25.

Metamorphism, Skiddaw, 212.

Miller’s Dale, Derbyshire, D1—D2 limestones, 178; Miller’s Dale Beds, 180.

Mill Gill, origin of, 20.

Milloon Park, 132.
INDEX

Millstone Grit, 125; Analyses of sandstones at Yeaden, Yorkshire, 144; Durham succession, 236; Simon seat succession, 319; marine bands, 319; pebbles, 323. Mirk Fell granite, 248; limestone, 249.

MITCHELL, G. H., see R. G. S. Hudson.


Moraines, Vale of York, 54; Escrick, 104. Mossdale, river development, 10. Muscovite, Millstone Grit, 150.

Namurian, Skipton, 30; Simon seat, 319.


Physiography, Wensleydale, 10. Vale of York, 54, 103; Morecambe Bay, 141; Lake District, 159; East Yorkshire, 305.

Plants, Jurassic, 1.


Rutile, Millstone Grit, 150; Wolds Sands, 302.
Saccamminopsis sp. nov., 189.
Sands, glacial, Pl. xi; Wolds, 302; Vale of Pickering, 62; Permian, 65; Cleveland, 312.
Sandstones, mechanical composition, Millstone Grit, 144.
Saxonian movements, 309.
School geology, 219.
Sedimentary development and notation of Tetracoralla, 68.
Settle, 63.
Seward, A. C., on notes on Jurassic floras, 1.
Sewerby, pre-glacial beach, 259.
Shales-with-Limestone, 30, 66.
Shell bed, Washburn, 319.
Shell-marls, 142.
Shunner Fell limestones, 339.
Siderite cement, Millstone Grit, 147, 346.
Silicification, Wolds sands, 304.
Silverdale, monocline, 141.
Simonseat anticline, 319.
Skerries, Middle Permian, 292.
Skibeden Shales, 128.
Skiddaw, slates, 208; granite, 210.
Skipton, 126.
Skipton anticline, 30, 127, 329.
Skirlington, 126.
Skyrholme anticline, 323.
Slates, Skiddaw, 132, 208.
Slinger, F. C., see W. P. Winter.
Stanage, 64 and Pl. ii.
Station Quarry Beds, Miller’s Dale (Carboniferous Limestone), 180.
Staurodite, Wolds Sand, 304.
Stile End Beds, 134.
Strandline gravels, Vale of York, 103; oscillations, 257.
Structure, Miller’s Dale region, 193.
Submergence, Vale of York, 109; quaternary, 257.
Sudetic orogeny, 30.
Swaedale, north-west, Yoredale succession, 247, and Pl. xiii.
Swinhope, Yoredale succession, 239 and Pl. xiii.

Tachylasma, Permian coral, 93.
Taeniopteris, 4.
Tanhill Moor, 236, 247, 339; coal, 248; grits, 247, 341.
Teaching, School geology, 219.
Teesdale, north, Yoredale succession, 240 and Pl. xiii.
Templeman, A., on the Carboniferous of Hodbarrow, 137.
Ten-Fathom grit, 251.
Terraces, Vale of York, 104; Airedale, 112; Calderdale, 112.
Tertiary, platforms in Lake District, 175; history of East Yorkshire, 302.
Tetracoralla, septal notation, 68.
Thalweg of Ure and tributaries, 17.
Thienfelda, 5.
Thixendale, sand pipes in Chalk, 302.
Todestone, Miller’s Dale, 178.
Topaz, Millstone Grit, 150.
Topographic development, Wensleydale, 10; Vale of York, 54, 103; Lake District, 158; East Yorkshire, 305.
Torver, 134.
Tourmaline, Millstone Grit, 150; Wolds Sand, 302.
Towton gravels, 106.
Transgressions, Yoredales, 239; beds, 238 et seq.
Trias, North Nottingham, 298.
Trowbarrow, 141.
Tuft, 206.
Tufts, Miller’s Dale, 186; Borrowdale, 133.
Twenty-five foot Drifts, 104.
Unconformity, mid-Carboniferous, 30; Lower Bowland Shales, 34; Coniston Limestone, 134; Millstone Grit, 238.
Vale of York, glaciation of eastern side, 54; Pleistocene strand line, 103.
Valley-bottom profile, Wensleydale, 17.
Vesey, H. C., in mem., P. F. Kendall, 197; bibliography, 1894, 35; 1905, 143; 1906, 254; 1907, 315; on the Tertiary history of E. Yorkshire, 302; see R. G. S. Hudson.
Victoria Cave, 64 and Pl. ii.
Warping, Cleveland peneplane, 310.
Washburn, Millstone Grit, 319; Grit and Shale Group, 323.
Wash-outs, 206.
Water-Crag Grit, 250.
Weardale, 237 et seq.
Wensleydale (upper) river system, 10.
West Heslerton, 62.
INDEX

Wharfe axis, 44.
Wheelam Rock, 32, 130.
Whicham, 192.
Williamsonia, 4.
Wilson, J. E., in mem., 61.
Wilson, V., on Hackness and Forge Valley, 62.
Winfield, L., on Cook's Study and Holme.
Winter, W. P., on Geology in schools, 219; (and F. C. Slinger), on Bingley, 205.
Withernsea, 125.
Wold penepplane, 305.
Wolfram veins, Skiddaw, 215.

Yawd Sike limestone, 245.

Yeadon, Analyses of Sandstones, Millstone Grit, 144.
Yoredale, river system, 10; upper succession, 236; Limestones, 323.
Yorkshire Coalfield, framework of, 39.
Yorkshire Geological Society, Accounts, 1933-34, 38; 1934-35, 67; 1935-36, 121; 1936-37, 201; Annual Report, 1934, 37; 1935, 69, 133; 1936, 118, 1937, 199; Field Meetings, 1935, 67; 1936, 95; 1937, 302; List of Members, 350; Rules, 122.

Zircon, Millstone Grit, 150; Wolds sands, 302.
Zoantharia Rugosa, 68.
Zones, goniatite, 25, 33, 330.