

Stratigraphical summary, Glasgow and Girvan excursion guide area

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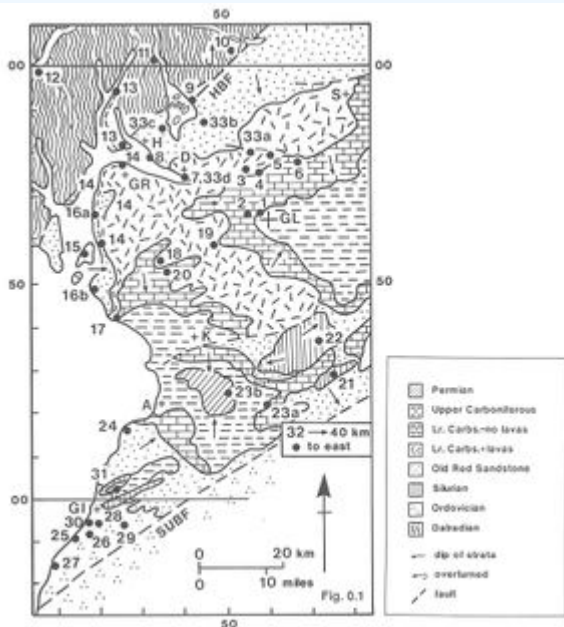


Figure 0.1. Simplified geological map of the area covered by the guide

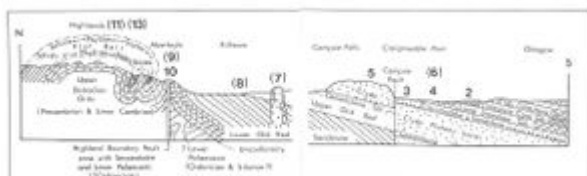


Figure 0.2. Diagrammatic section through the north-western part of the Midland Valley, showing the positions of relevant excursions.

AGE SYSTEM and PERIOD	MAJOR ROCK UNITS	MAIN ROCK TYPES and SELECTED FORMATIONS	FOSSIL GROUPS	ENVIRONMENT	EXCURSIONS (Shaded area)	PALAEO (LATITUDE)
QUATERNARY		glacial deposits, alluvium, coastal beach deposits, peat	marine shells	glacial erosion & deposition, changes of sea-level	21, Glasgow	55°N
2						
TERTIARY						
145						45°N
145						55°N
JURASSIC						
200						
PERMIAN	Mealloran Sandstone	red stone bedded sandstones, loess and siltstone	brachiopods	land deposits, near river mouth, alluvium	24, Uddingston	
200	Coil Measures	mudstone, sandstone, siltstone, basal Red Bedded g. top	sea-shore brachiopods, plants	brackish, marginal marine, delta and lake	27, Edinburgh	55°N
200	Passage Group	coarse interbedded sandstones, mudstone, siltstone	plants	large rivers and delta	17, Northside, 24, West of Ayr	
200	Up. Limestone Gp.	sandstone, shale, siltstone (Black Hill, Dalry, etc.)	brachiopods, bryozoans	coastal deposition of mud, deltaic sands	3, Forest House	57°
200	Limestone Coal Gp.	sandstone, shale, siltstone	brachiopods, plants, corals	coarse deposition in low energy with marine incursions	26, Troon, 4, Broomhall, 8, Dalry, 9, Campsie	
200	UPPER CARBONIFEROUS	shale, sandstone, sandstone (part & basal limestone)	brachiopods, corals, bryozoans, crinoids, sea urchin	shallow (shallow)	14, Glasgow, 15, Glasgow	
200	Carlisle Sandstone	fine & coarse (Dalry, etc.)	sea urchin	shallow	7, Dumfries, 16, Largshead	55°
200	Mealloran	Coil Measures, Limestone Coal Gp.				
200	DEVIANIAN	Upper Old Red Sandstone	plants, sea shells	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
200	Lower Old Red Sandstone	coarse red sandstones and sandstone, clay in Argyleshire	plants, sea shells	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
415	SILURIAN	Upper Silurian Valley shales	brachiopods, corals, bryozoans, crinoids, sea urchin	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
415	Southern islands	greenstone, black shale, siltstone, claystone	graptolites	shallow, sedimentation in a deltaic river bed	21, Glasgow, 22, Glasgow	57°
440	Highland Boundary Complex (H.B.C.)	metals, black shales, shales, sandstone, siltstone, etc.	brachiopods, corals, bryozoans, crinoids, sea urchin	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
440	Great Central rocks (G.C.R.)	conglomerates, greenstones, mudstone, sandstone	brachiopods, corals, bryozoans, crinoids, sea urchin	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
440	Southern islands	black shales, shales, siltstone, sandstone, gabbro etc.	graptolites	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
510	ORDOVICIAN	Southern islands	graptolites	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
510	G.D. + upper Ord.					
510	L.O. + lower Ord.					
570	CAMBRIAN	Southern islands	graptolites	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°
570	PRECAMBRIAN	Southern islands	graptolites	shallow, sedimentation in a deltaic river bed	14, Dalry, 15, Dalry, 16, Dalry, 17, Dalry, 18, Dalry, 19, Dalry	55°

Table 0.1 Stratigraphical succession for the Glasgow and Girvan areas.

Introduction

A summary of the stratigraphical succession of the region is presented in [\(Table 0.1\)](#), with a simplified geological map in [\(Figure 0.1\)](#); see also the section [\(Figure 0.2\)](#). Relevant detail is given in the excursion accounts. Comprehensive and systematic coverage for the Glasgow area of this guide is mostly provided in the recent (1985) third edition of the British Geological Survey's Regional Geology handbook on "The Midland Valley" which contains numerous maps and photographs. The companion volume on "The South of Scotland" (3rd. edition, 1971) covers the Girvan and Ballantrae areas of this guide and has recently been supplemented and updated by B.G.S. booklets on Girvan (Cameron, Stone and Smellie 1986) and Ballantrae (Stone and Smellie 1988). "The Geology of Scotland" (third edition, Craig 1991) places the geology of the region in its wider context. A concise and simplified account of the succession and palaeogeography, together with descriptions of excursions at an elementary level, is contained in the book "Geology Explained" by Lawson and Lawson (1976). Although now out of print, this book is available at most public libraries in the Glasgow area.

The above books do not, however, deal adequately with the difficult and controversial subject of the plate tectonic history of the region. It is for this reason that there follows an essay by Professor B.J.Bluck on "Terrane Accretion in Western Scotland".

References

CAMERON, I.B. and STEPHENSON, D. 1985. British Regional Geology: The Midland Valley of Scotland (third edition). British Geological Survey (HMSO, London).

CAMERON, I.B., STONE, P. and SMELLIE, J.1986. Geology of the country around Girvan. (Sheet 7). (HMSO, London).

CRAIG, G.Y. (editor), (Third edition), 1991. Geology of Scotland. Scottish Academic Press, Edinburgh.

GREIG, D.C. and others, 1971. British Regional Geology: The South of Scotland. British Geological Survey (HMSO, Edinburgh).

LAWSON, J.A. and LAWSON, J.D. 1976. Geology explained around Glasgow and South West Scotland, including Arran. David and Charles, Newton Abbot.

STONE, P. and SMELLIE, J.L. 1988. Classical areas of British geology: The Ballantrae area (Sheets NX 08, 18 and 19). British Geological Survey. (HMSO, London).

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