ISSN 1750-855X (Print)
ISSN 1750-8568 (Online)

Field Meeting Report: Clee Hills, led by David Gossage 27th June 1993

Susan Beale[1]

BEALE, S. (1994). Field Meeting Report: Clee Hills, led by David Gossage 27th June 1993. *Proceedings of the Shropshire Geological Society*, **10**, 26–27. The purpose of the field meeting was to introduce the variety of Carboniferous geological features outcropping amongst the Clee Hills.

[1]*affiliation: Member of the Shropshire Geological Society*

INTRODUCTION

The Clee Hills in south Shropshire are made up of some 1100 metres of sedimentary rocks of the Old Red Sandstone, topped by thin representatives of marine Lower Carboniferous rocks and Upper Carboniferous Coal Measures with intrusive dolerites.

The excursion will examine landforms and exposures of rocks typifying this part of the stratigraphic sequence (age 310-420 Ma).

The leader guided the group through a carefully selected choice of exposures, from the dolerite capping the hilltops with well developed columnar basalt, through the Cornbrook Sandstone to the Carboniferous Limestone near the bottom of the sequence, where many of the group collected characteristic fossils.

Over lunchtime the clear weather revealed the wonderful view to the south and west for tens of miles. In the far distance the Cotswolds and probably May Hill were tentatively identified. The Malvern Hills and Black Mountains could both be dearly seen together with all the intervening country reflecting its underlying geology.

After lunch the leader took the group up to the Kinlet Sandstone to see plant remains in sandstones associated with the Coal Measures, and more spectacular views. Then on to Brown Clee where different formations were clearly reflected in the topography and shown to be very different in outcrop. From here there was yet another good view across rich Devonian lowlands to the Silurian hills in the west, looking up the dip slope of Wenlock Edge.

The leader distributed a detailed sheet portraying the stratigraphy (Figure 1; © David Gossage 1993).

ACKNOWLEDGEMENTS

The leader was Dr David Gossage, a geology graduate of Birmingham University and subsequently employed by Shell International. This was a joint field trip with the Black Country Geological Society, of which David is a member.

Disclaimer - The information contained in this account has been prepared from notes taken during the field meeting. Its sole aim is to provide a record of what was seen and provide an insight into the diversity of geology outcropping in the Clee Hills. It should not be used for any other purpose or construed as permission or an invitation to visit the sites or localities mentioned.

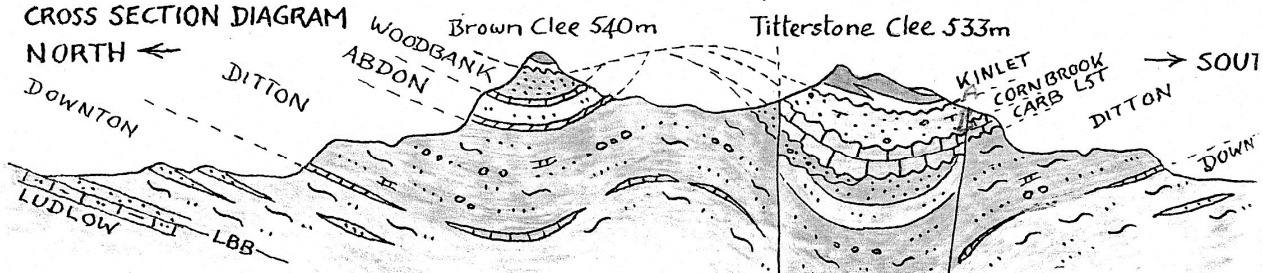
Copyright Shropshire Geological Society © 1994.

ISSN 1750-855x

ISSN 1750-855X (Print)
ISSN 1750-8568 (Online)

BLACK COUNTRY GEOLOGICAL SOCIETY
CLEE HILLS FIELD EXCURSION, 27 JUNE 1993

CROSS SECTION DIAGRAM



STRUCTURAL ELEMENTS

Wenlock–Corvedale flank | Brown Clee syncline | Ledwyche anticline | Titterstone syncline | Cleobury–Teme Valley flank

TIME			LITHOSTRATIGRAPHY GROUP	FORMATION/member	THICKNESS	LITHOLOGIES	FOSSILS	ENVIRONMENT	ECON GEOL
2my	Q		Superficial deposits			Soils, alluvium, glacial drifts		Glacial–temperate	—
320 my	CARBONIFEROUS	WESTPHALIAN		KINLET	Clee Dolerite 50m+	Dolerite, very hard, with olivine and analcite			Road stone, Aggregate
					up to 80m	Clays, grey & yellow. Ssts, fine–crs –cgl. Coals, Ironstone nods	Plants	Alluvial-deltaic plain. Tropical, high rainfall Forest-swamp	Coal Fireclay Iron Building Stn
330 my		NAMURIAN		CORNBROOK SST	up to 200m	Ssts, coarse, yellow–grey, iron-stained. Shales, clays, thin coals	Plants	Alluvial to deltaic. Tropical. Patchy forest	Building stone
360 my		TOURNAISIAN		Limestones of Studley, Gorstley, Oreton, Farlow	50m+	Lsts, grey, buff, blue; some hard, crystalline some oolitic, crinoidal. Shale layers. Sst & Cgl at Base	Corals, Brachs Bryozoa Gastropods Stroms Fish	Shallow, high energy, tropical sea. Sand–gravel beaches	Lime, building & ornamental stones
375 my		FAMMENNIAN–FRASNIAN	FARLOW	U	up to 150 m	Conglomerates, grey-green. Mudsts, Conglomerates – Qtz pebbles. Ssts, yl & brown	Rare Ostracoderm fish	Alluvial	Building stone
				L					
	DEVONIAN	GEDINNIAN–SIEGENIAN	WOODBANK	MONKEYS FOLD SST	up to 65m	100% Ssts, green, white, pink. Cgl layers. Xbd		Alluvial	
				CLEE SANDSTONE	150–170m	90% Ssts, olive, green, buff. Minor Cgls. 10% Mudsts, traces Lst			
			ABDON	ABDON LST	5m	Lst, nodular, sandy		Calcrete soil	Lime
				NORDYBANK	55-60m	Sst, red-brown, cgl. Mudsts, red-brown		Alluvial	
				HILLSIDE DOL	3m	Cgl, intraformational		Calcrete soil	Lime
			DITTON	U	450m	60% Mudsts, red-brown; alt rapidly with Ssts, 25%, red, brown, olive Concretionary and conglomeratic cornstones. Coarse Ssts increase upwards	Fragments of Ostracoderms. Plants	Alluvial plains with stream channels, calcrete soils. Tropical. Low seasonal rain	Building stone
				M					
412 my				L Psammosteus Lsts					Lime
		PRIDOLI	DOWNTON	LEDBURY Holdgate Ssts	330–460m	80% Mudst – Siltst, red, alt with 20% Ssts, crs, red-purple, micaceous. Pedogenic carbonate nodules. Cornstones, conglomeratic	Rare fragments of Ostracoderm fish. Plants	Alluvial muds, channel sands. Calcareous soils. Tropical. Seasonal rain	Brick clays
				TEMESIDE SHALES	up to 30m	Mudsts, Siltsts, green to olive. Thin Ssts	Lingula Molluscs	Estuarine mud flats	
420 my		LUDLOW		DOWNTON CAS-SST	up to 20m	Ssts, yl, fine, mic, cross-bedding, channels	Ostracodes Plant & fish debris	Beach sand Intra-tidal mudflat	Building stone
				Ludlow Bone Bed					
			WHITCLIFFE					Open marine Tropical	

© 1994 Shropshire Geological Society