The Dry Stone Walling Association of Great Britain

This charitable organisation was founded in 1968 to ensure that the best of walling and dyking craftsmanship is preserved and promoted.

Further information about the DSWA and its activities is available by post or on the website.

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Registered charity: 289678

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Rock Cycle & Design © Sorrell Design



GEOLOGICAL TIMESCALE

MA = million years The coloured columns relate to the Geological Map of the British Isles

65 MA to today	TERTIARY	Soft rocks in S
142 to 65 MA	CRETACEOUS	Greensands,
205 to 142 MA	JURASSIC	Limestones, s
290 to 205 MA	TRIASSIC & PERMIAN	Magnesian Li
		Somerset, Mi
354 to 290 MA	CARBONIFEROUS	Limestone, M
		S.Wales, Pen
		Mid-Devon
417 to 354 MA	DEVONIAN	Sandstone, c
		Cornwall and
		Midland Valle
495 to 417 MA	ORDOVICIAN	Shales, muds
	& SILURIAN	Mid-Wales int
		Southern Upla
545 to 495 MA	CAMBRIAN	Shales, slates
		N.W. Highlan
Over 545 MA	PRECAMBRIAN	Gneisses, sch
		Grampians &
Volcanic activity occurs throughout		Granite & bas
the geological history of the Earth		Long Mynd -

S.E. England. Volcanic rocks in W Scotland chalk: S.E. England, Yorkshire hales: Dorset to N.Yorkshire coasts mestone, New Red Sandstone, conglomerates: dlands, E&W. Pennines, N&E. Lake District, Scottish Borders illstone Grit, Coal Measures, sandstones: nines, Cumbria, Northumberland, Midland Valley of Scotland, onglomerates, shales. Granite intrusions in Scotland: S. Devon, Old Red Sandstone in S. Wales, N. Devon, y of Scotland, Moray Firth, Caithness and Orkney tones, some limestones. Granite intrusions and volcanic rocks: o Pembrokeshire and Denbighshire, Central & S.Lake District, ands. Igneous activity in Scottish Highlands gritstones: Harlech Dome, Malverns, N. Pembrokeshire sandstones, conglomerates, siltstone: Highlands of Scotland. Anglesey, Charnwood - Leicestershire,

ropshire

The geological history of the British Isles is very complicated. The map has been simplified to show only the main outcrops of geological eras and their principal rock types.

Wall Locations

- A Scottish Highlands
- B Central Scotland
- C S.W. Scotland
- D Northumbria
- E Cumbria Eden Valley and West coast
- F Cumbria Skiddaw
- G Cumbria Borrowdale - volcanic
- H Cumbria Borrowdale - river cobble
- Cumbria Brathay
- Cumbria S. Lakeland
- K W. Yorkshire
- L Derbyshire
- M Cotswolds
- N S. Wales

DRY STONE WALLS

- are found mainly in the higher areas to the north and west of Britain
- are made with stone collected or quarried locally
- run for over 200,000 kms (125,000 miles) in the UK
- will survive for centuries with careful maintenance
- mark out boundaries
- provide security and shelter for stock
- offer a haven for a variety of wildlife
- are usually called dykes in Scotland

WHY DO WALLS LOOK DIFFERENT?

- Walls differ throughout Britain because of the way rocks have been formed.
- split or shaped.
- Walls display the characteristics of the geology forming their landscapes.
- Rocks to the south and east are generally softer, less exposed and often not as suitable for building walls.



SCULPTING THE LANDSCAPE



Rocks are constantly undergoing change. Older rocks are broken down to produce younger rocks in continuous cycle. Many processes affect these changes:

- movements of plates on the Earth's crust allowing molten rock to well up from deep in the earth
- volcanoes showering the land with ash and lava
- dramatic earth movements shifting continental sized areas of land
- mountain building movements, squeezing, twisting, thrusting and tilting the land
- climatic changes creating scorching deserts and frozen wastes
- weathering by wind, frost and water over millions of years
- glacial action in northern parts of Britain
- depositing and compacting of marine sediments

• The rock's composition, shape and size determines the way it can be



BUILDING A DRY STONE WALL

a guide to

Nalls



Rocks beneath the surface form the skeleton of the landscape.

The formation and weathering of each type has its effect on what we see today.

A Foundation **B** Building stones **C** Hearting/packing **D** Throughstones **E** Copestones

THE ROCK CYCLE - forming and reforming the landscape



Follow the arrows to see how changes occur over the years



JS ROCK
eep in the
her rocks
exposed
eruptions
flows and
its known
ive rocks.