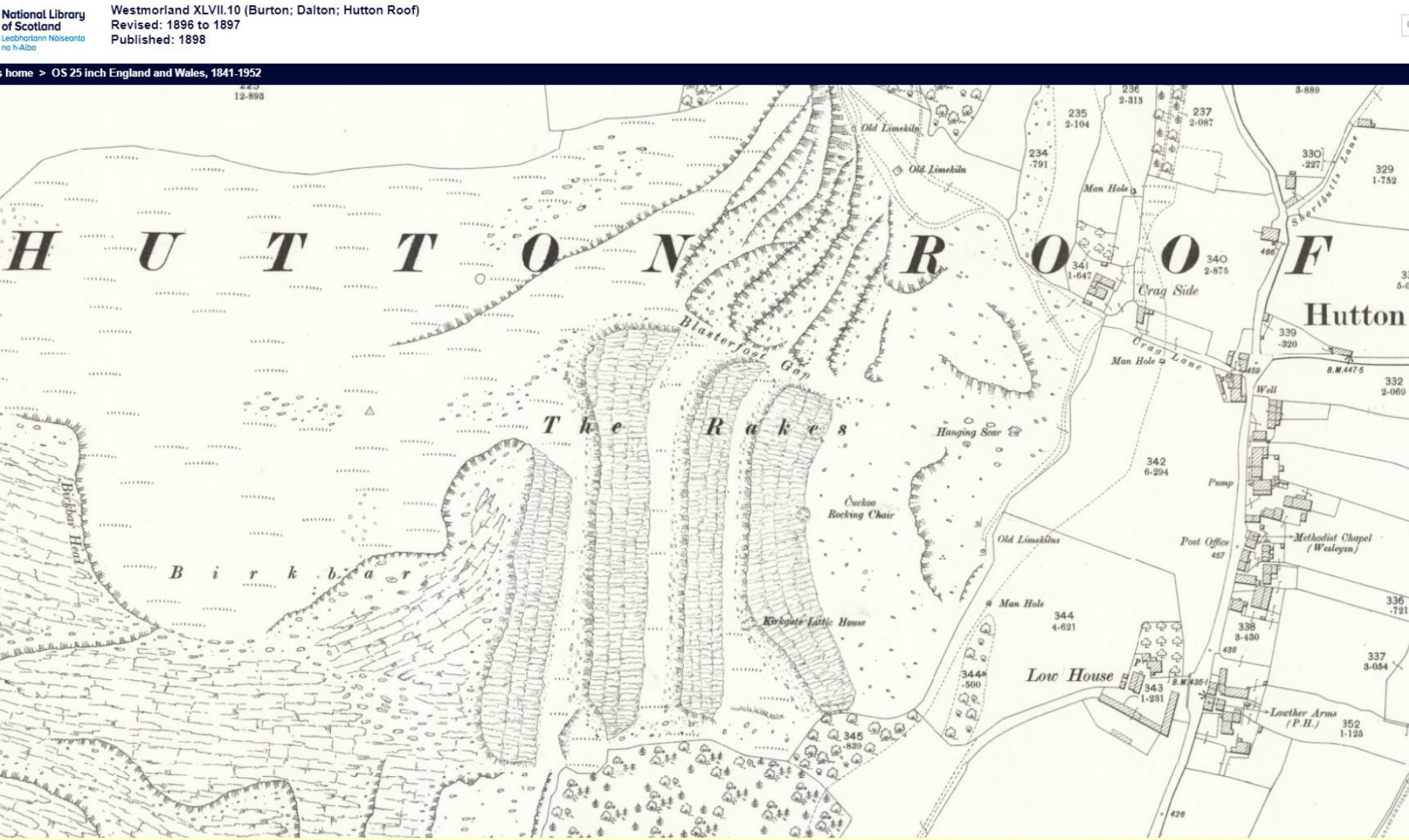
Restoring the Rakes

Project 2018



The Rakes is one of only two UK pavements to have its own name. This beautiful illustration comes from the 1898 Ordnance Survey 25 inch map.

source - National Library of Scotland - maps.nls.uk

First geology paper on Farleton Knott

Thomas McKenny Hughes 1886

Hughes was the eighth Professor of geology at the University of Cambridge, succeeding Sedgwick

He was the first to record the Norber erratics and the limestone erratics at Farleton.

He may have visited the Rakes but did not write about them.

On some Perched Blocks and associated Phenomena

Thomas McKenny Hughes

Quarterly Journal of the Geological Society 1886, v.42; p527-539.

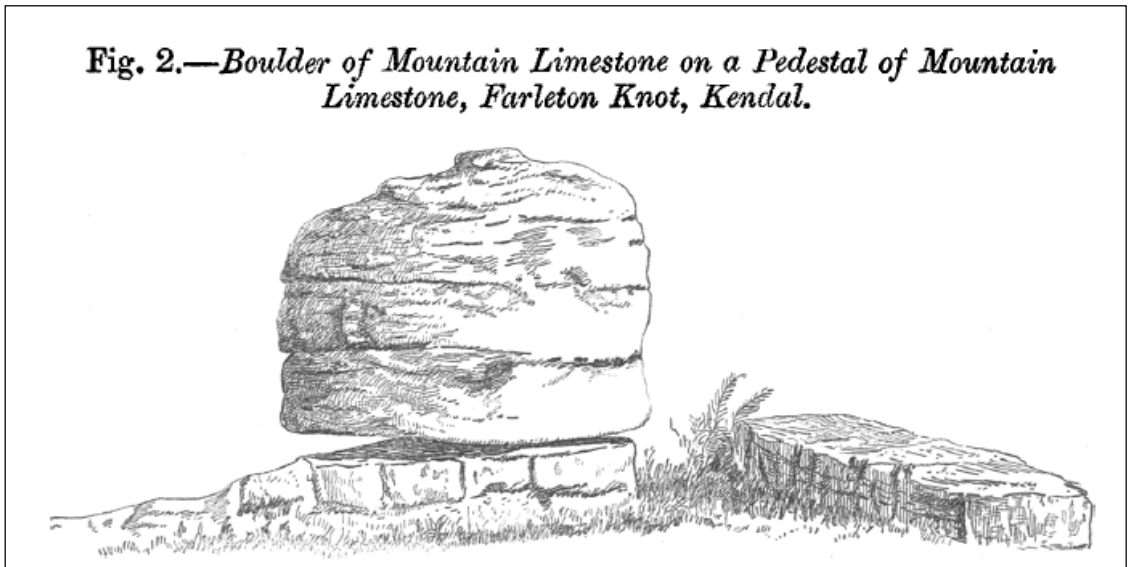
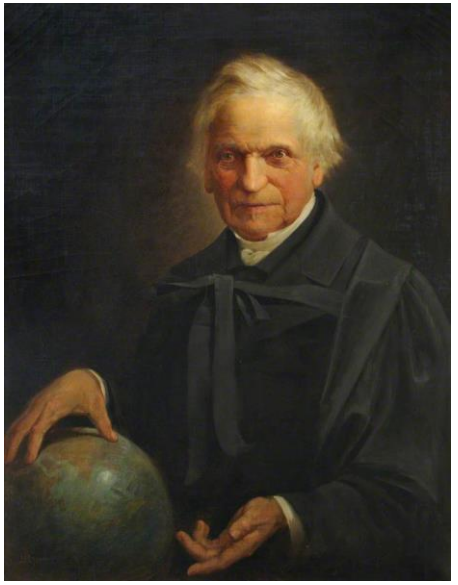


Fig. 2.—*Boulder of Mountain Limestone on a Pedestal of Mountain Limestone, Farleton Knot, Kendal.*

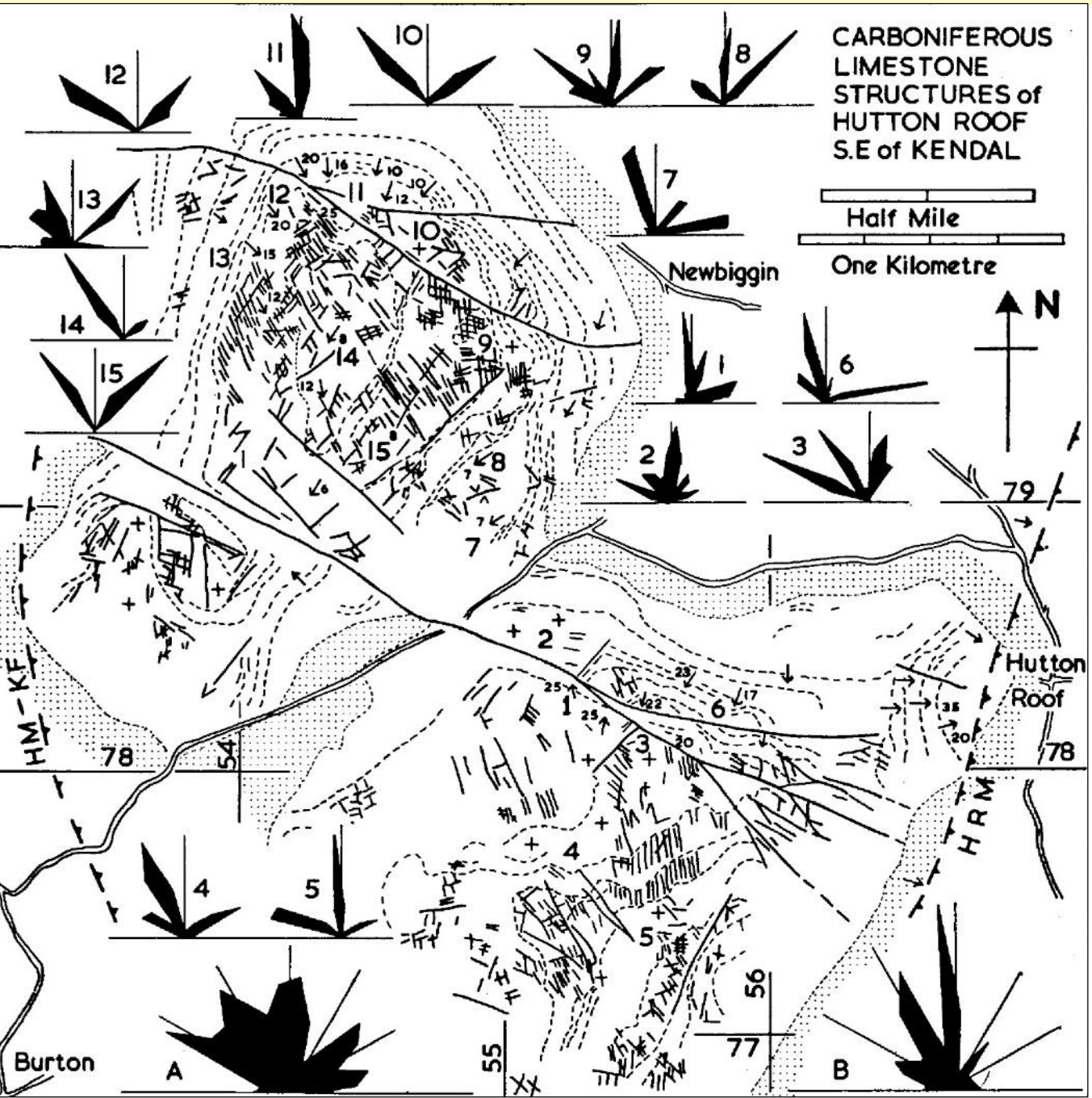
This boulder measures 4 ft. 7 in. in greatest length, and 3 ft. 4 in. in height. The pedestal on which it stands rises about 1 foot above the surrounding grass-covered limestone. The striæ on the pedestal run approximately N.E. and S.W.



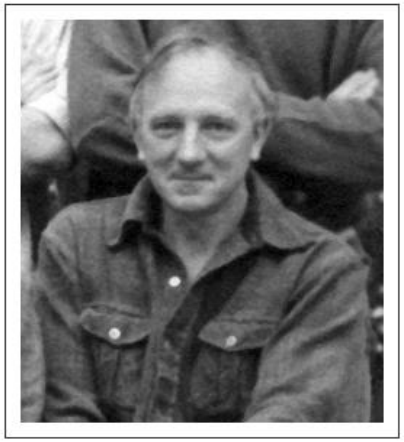
Adam Sedgwick

First geological record of the Rakes

Frank Moseley 1972



Frank Moseley 1922-2009



Made a detailed study of the faults and joint structures of Farleton Knott, Hutton Roof Crags and The Rakes.

First botanical record of the Rakes

Ward and Evans 1976

Botanists **Stephen Ward and David Evans**

undertook a 3 year survey between 1972 and 1975 of **537** UK limestone pavements on behalf of the Nature Conservancy (the forerunner of Natural England).

In 1976 they wrote a landmark paper

'Conservation assessment of British limestone pavements based on floristic criteria'.

Their **floristic index** recorded the **abundance** of deep grike floral species, dividing them into three categories.

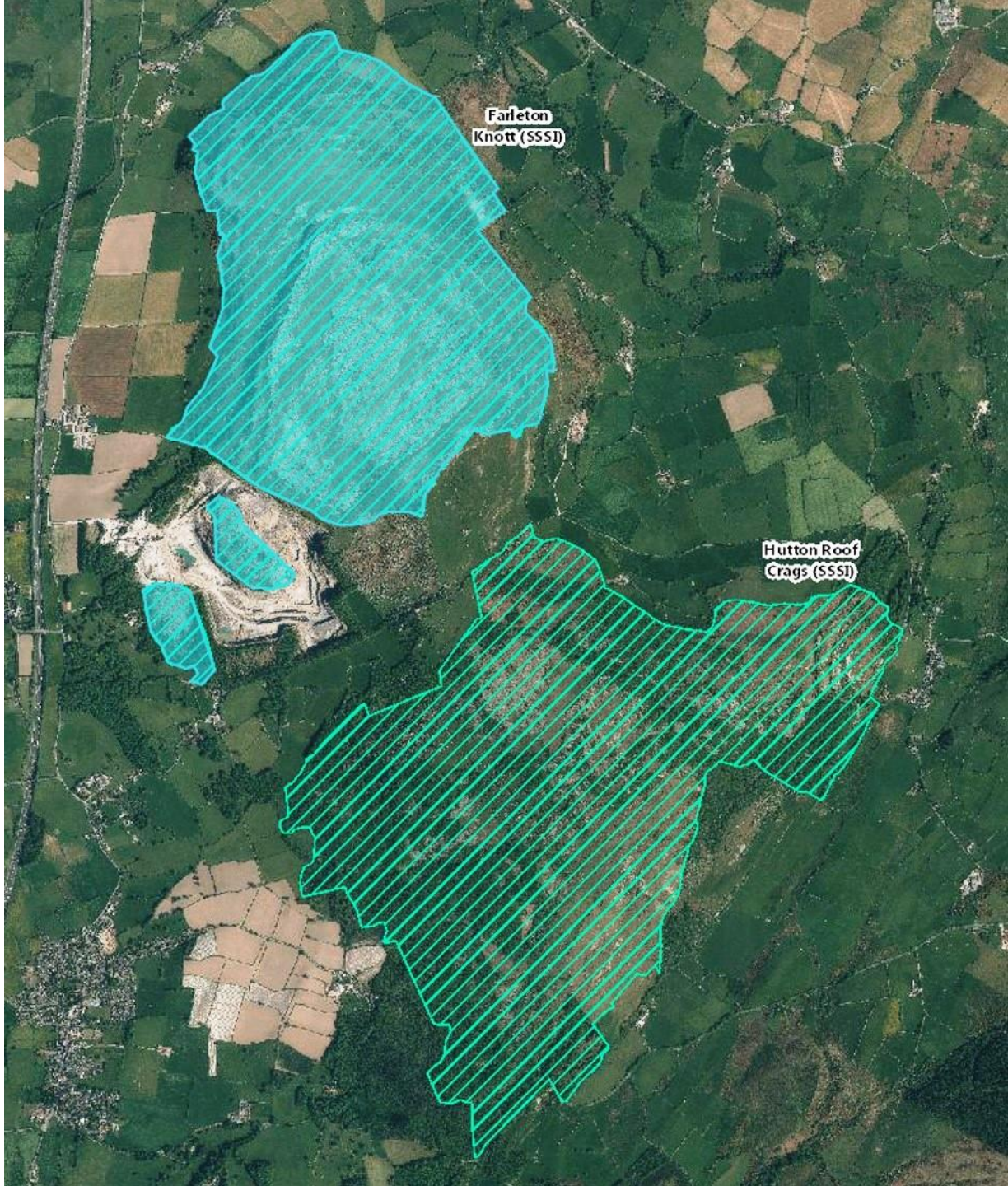
National abundance

A - rare; **B - uncommon**; **C - common**.

Stephen Ward at Gait Barrows 2017

photo Peter Standing

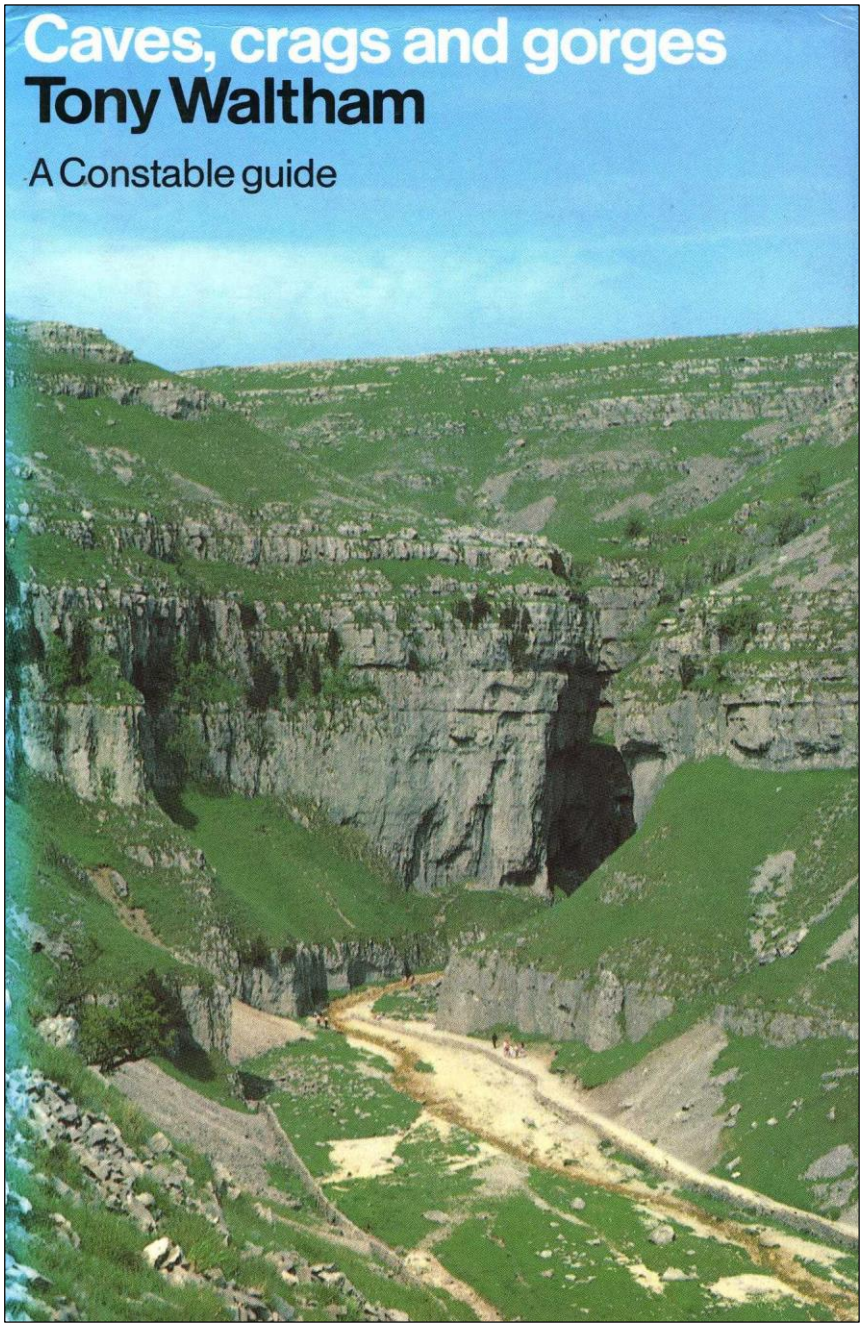
Farleton Knott and Hutton Roof Crags were designated in 1981 as Sites of Special Scientific Interest (SSSI)

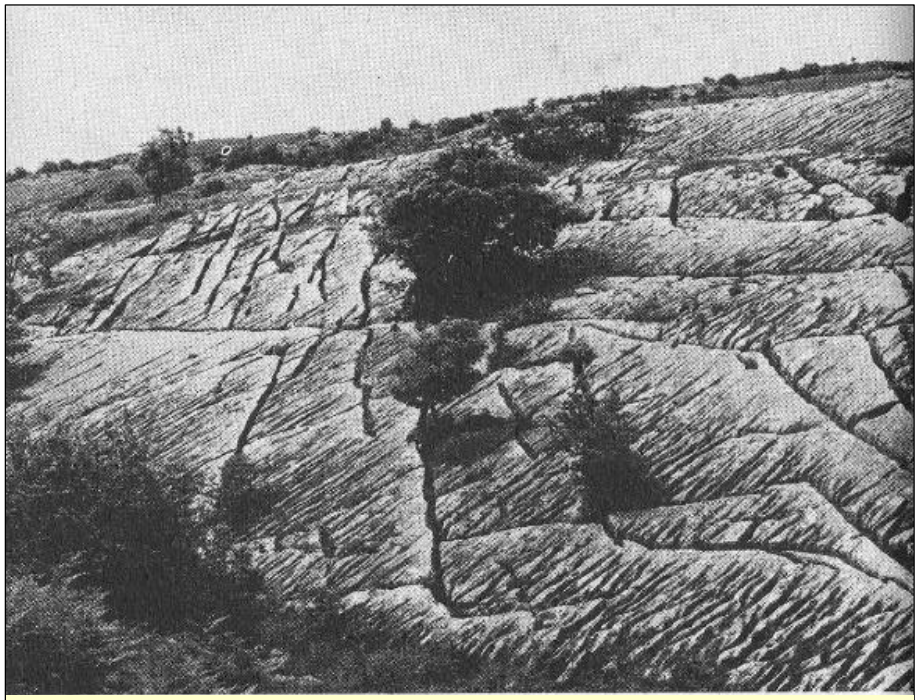


Map Source natural England website

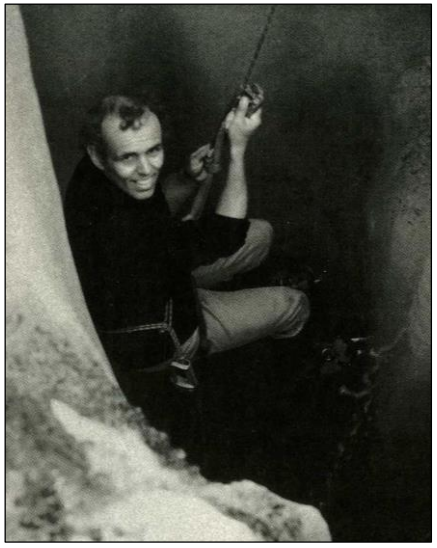
First geology guide to popularise The Rakes

Tony Waltham 1986



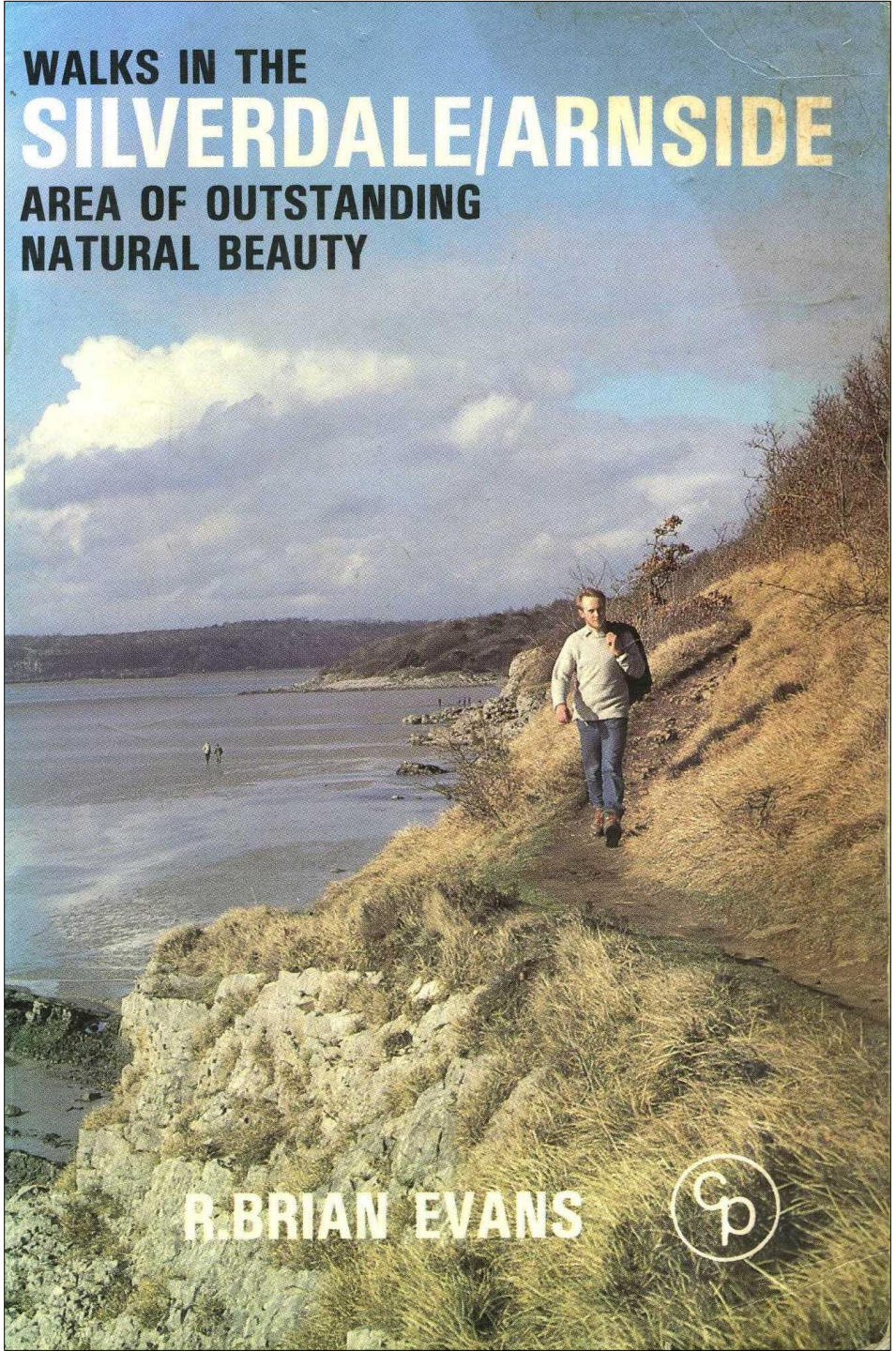


Southern part of the main slab at the Rakes 1970s



Tony Waltham
descending a crevasse
in Iceland in 1981.

photo Peter Standing



Brian Evans

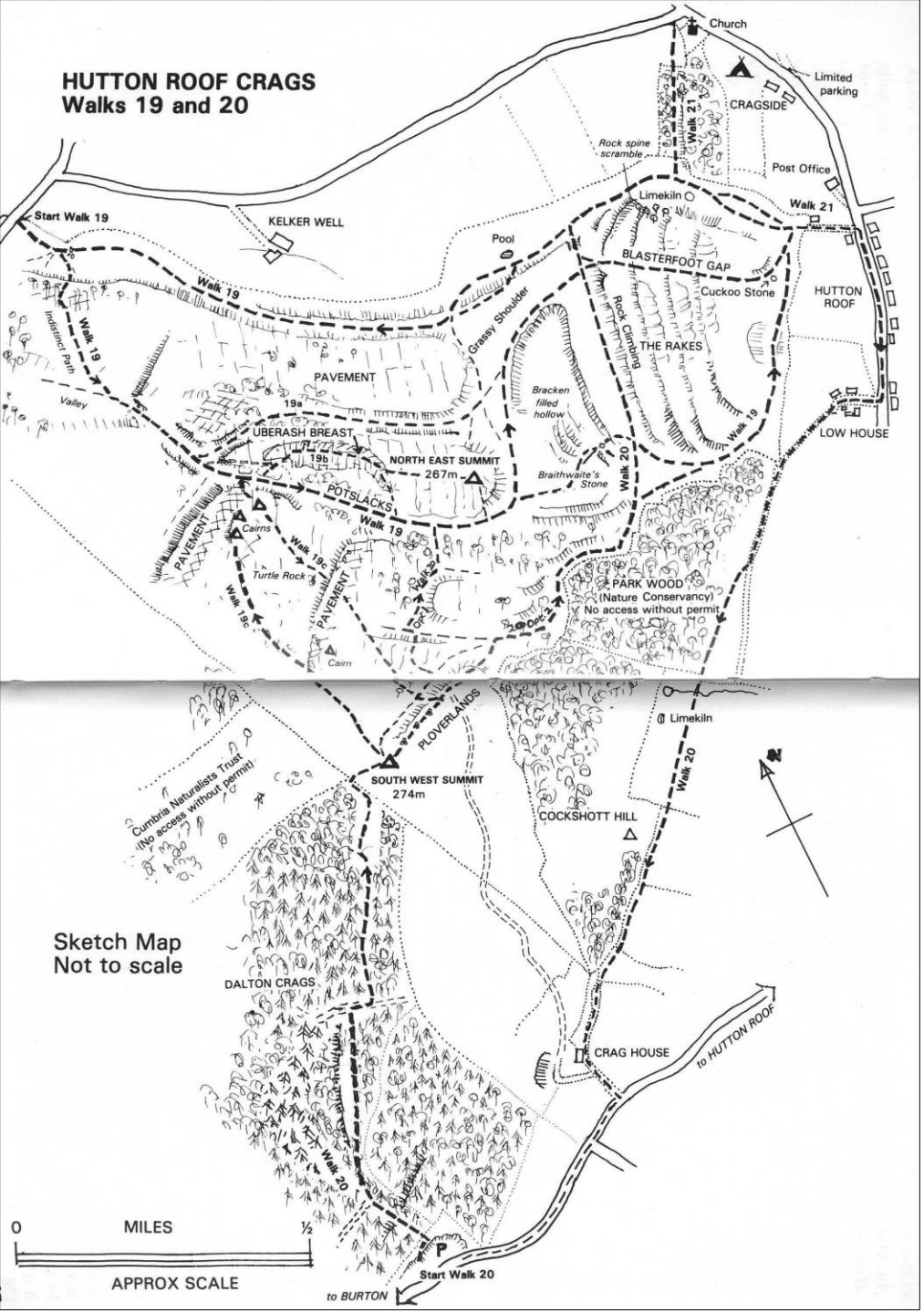
Co- founder
Cicerone Press

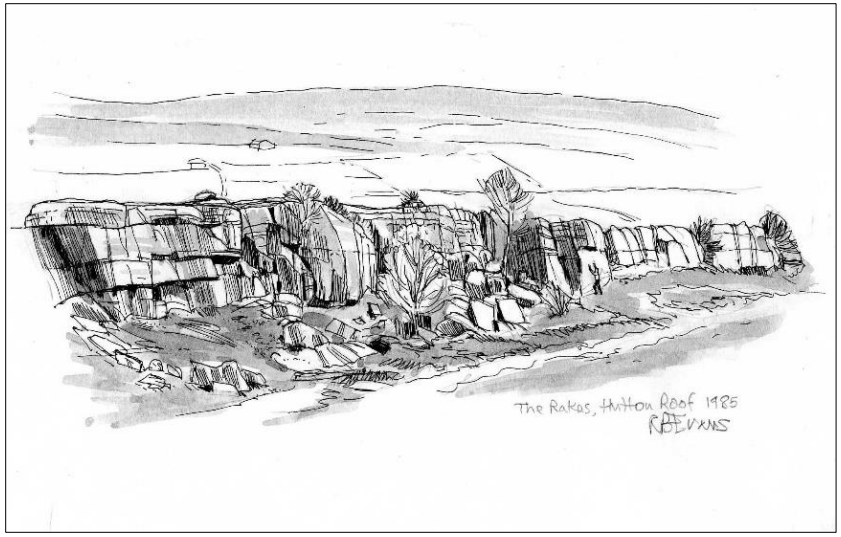
first proper guide to Farleton and Hutton Roof Walks

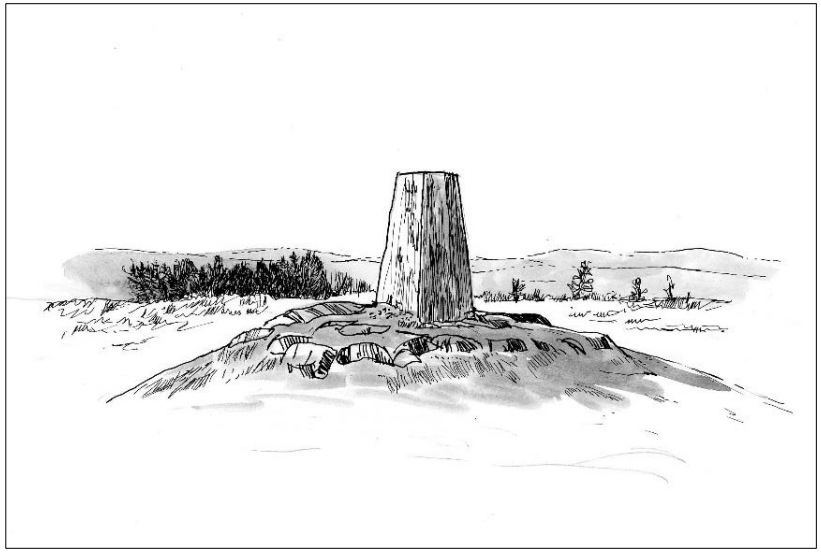
1986

Brian Evans
at Haverbrack 2017

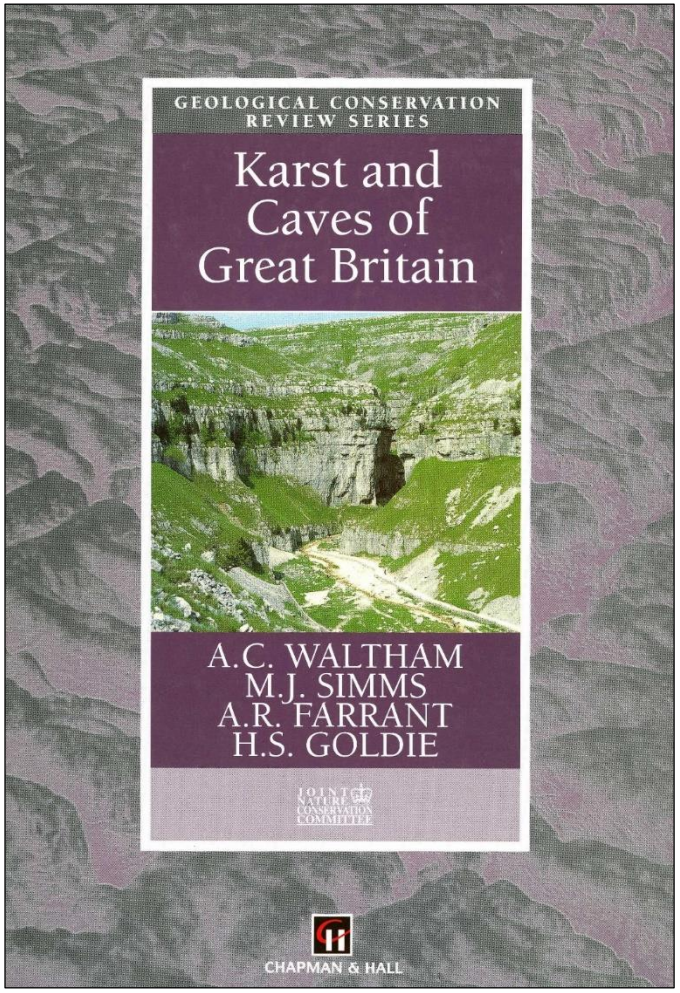
photo Peter Standing


HUTTON ROOF CRAGS
Walks 19 and 20
Church
Limited parking
CRAGSIDE
Walk 21
Rock spine scramble
Post Office
Limekiln
Walk 21
Start Walk 19
KELKER WELL
Pool
BLASTERFOOT GAP
Cuckoo Stone
HUTTON ROOF
Walk 19
Grassy Shoulder
Indistinct Path
Walk 19
THE RAKES
Rock Climbing
PAVEMENT
19a
Valley
Bracken filled hollow
LOW HOUSE
UBERASH BREAST
19b
NORTH EAST SUMMIT
267m
Braithwaite's Stone
Walk 20
POTSLACKS
Walk 19
Cairns
PAVEMENT
Walk 19c
Turtle Rock
PAVEMENT
Walk 19c
PARK WOOD
(Nature Conservancy)
No access without permit
Cairn
PLOVERLANDS
Limekiln
SOUTH WEST SUMMIT
274m
Walk 20
Cumbria Naturalists Trust
(No access without permit)
COCKSHOTT HILL
Sketch Map
Not to scale
DALTON CRAGS
CRAG HOUSE
to HUTTON ROOF
Walk 20
0
MILES
½
APPROX SCALE
P
Start Walk 20
to BURTON


The Rakes, Hutton Roof 1985
RBEVANS



The Rakes in Waltham, Sims, Farrant and Goldie 1997



The Geological Conservation Review (GCR)

From the late 1970s Tony Waltham and other limestone researchers began to compile a record of the most important karst and cave sites in Britain.

This culminated in the definitive guide published in 1997 as part of a series of reviews of the country's most significant geological conservation sites.

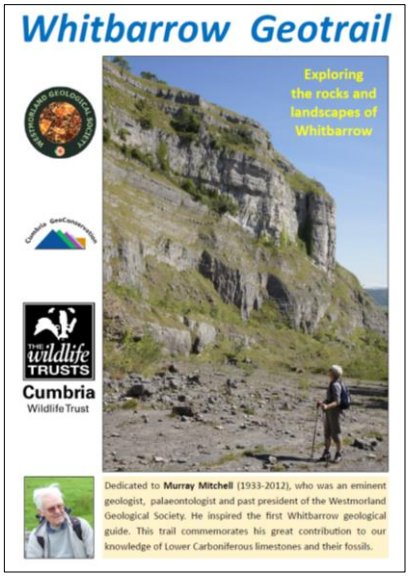
This register and detailed description of sites helped to ensure that they were safeguarded as important conservation sites.

The section on Hutton Roof and Farleton Knott is written by Dr Helen Goldie, a karst geomorphologist from Durham University, who has carried out much research at Hutton Roof. She highlighted The Rakes as a nationally important site.

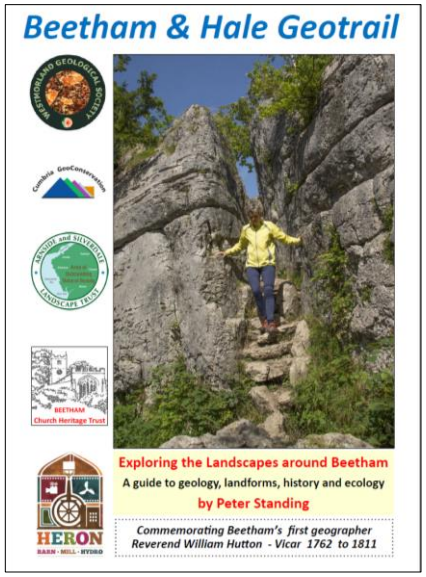
Helen Goldie on Farleton Knott photo Peter Standing

The Farleton Knott Geotrail Guide (due out summer 2018) will include The Rakes

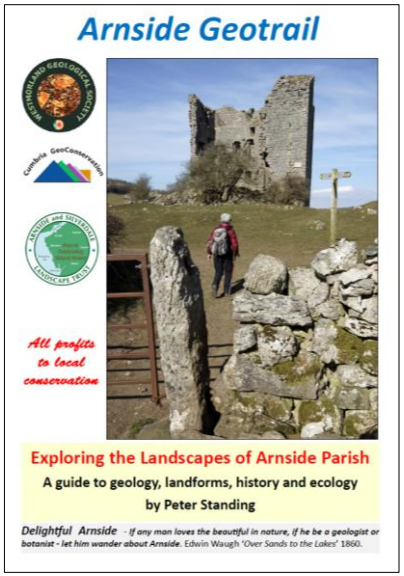
2015



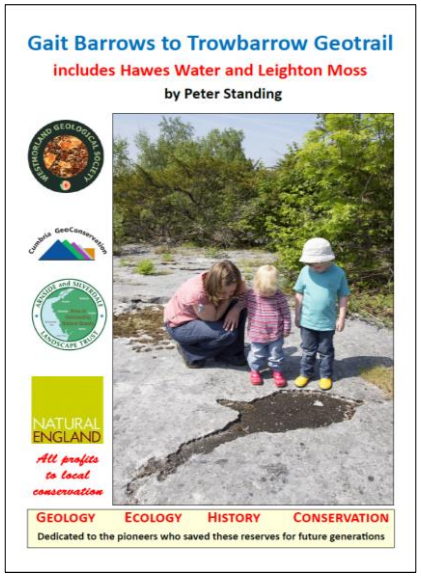
2016

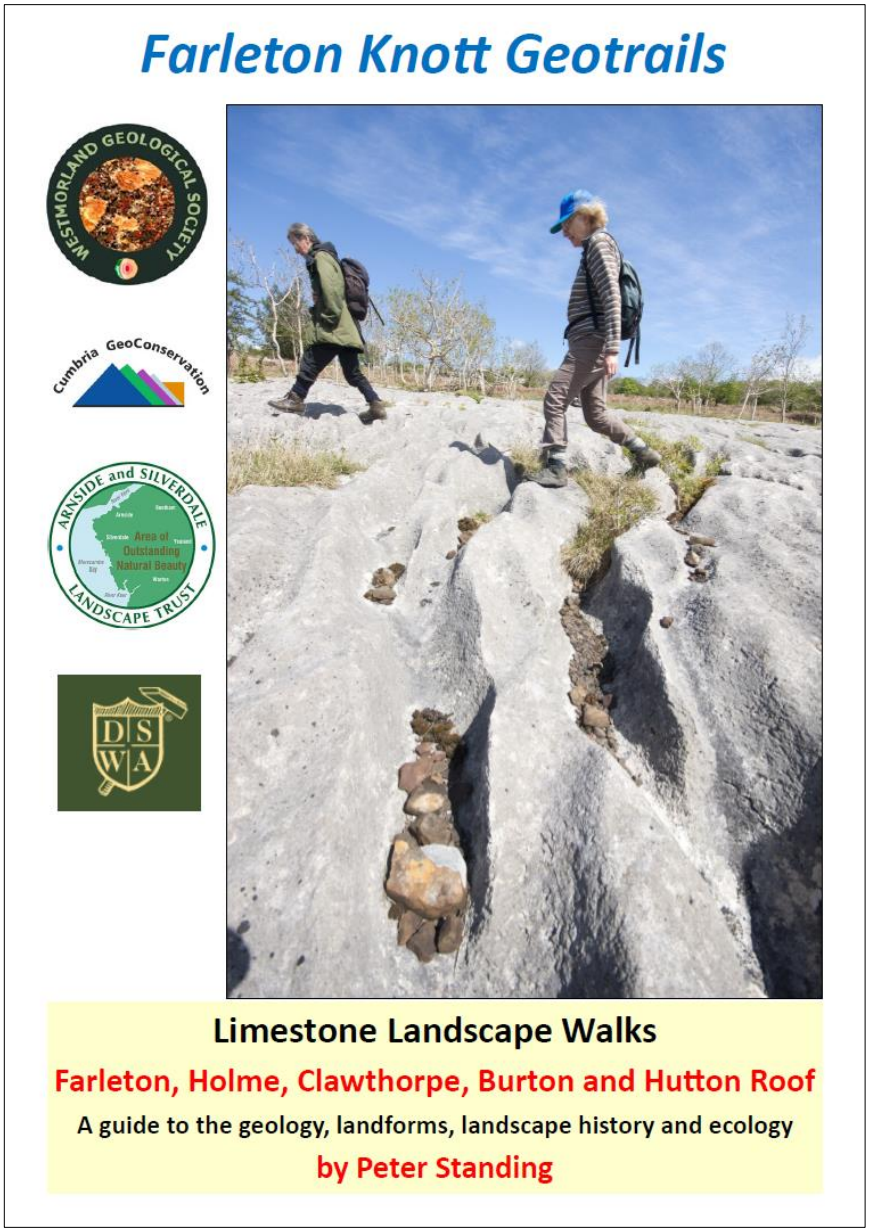


2017



2018





MEET THE VILLAGES around Arnside & Silverdale AONB

FARLETON FESTIVAL

Friday Sept 14th until Monday Sept 17th 2018

4 DAY FESTIVAL **FREE EVENTS**

Farleton Festival

FARLFEST

To all those living around or near Farleton Knott
A special invitation to the residents of
Burton, Holme, Farleton, Clawthorpe, Dalton and Hutton Roof
FESTIVAL HUB BURTON VILLAGE HALL

PLEASE JOIN US FOR WALKS, TALKS, FAMILY EVENTS & EXHIBITIONS
Programme out July 2018 - Put the date in your diary

COMMENTS on Meet the Villages 2017 - Story of Silverdale

Congratulations on such a wide ranging and successful weekend
Anne & Charles Newbould, Arnside

Delightful. Thank you. We are so looking forward to next year!
Kerstin Nagel, Silverdale

The Landscape Trust - a charity with over 1000 members passionate about the area Charity Number 702624

This educational festival will include several field trips to the Rakes and other outstanding karst sites on Farleton Knott and Hutton roof Crags.

Event Organiser
Peter Standing


Northern part of main slab early 1970s Tony Waltham

The Rakes in 2007

Peter Standing

The Rakes in March 2013

Peter Standing

How the Rakes formed

The Rakes are a series of parallel limestone pavement beds dipping steeply at around 28^{o} E-ESE. Each pavement sweeps down to a small valley or slack bounded by a little cliff or scar.

This sequence is rather like a saw tooth in shape.

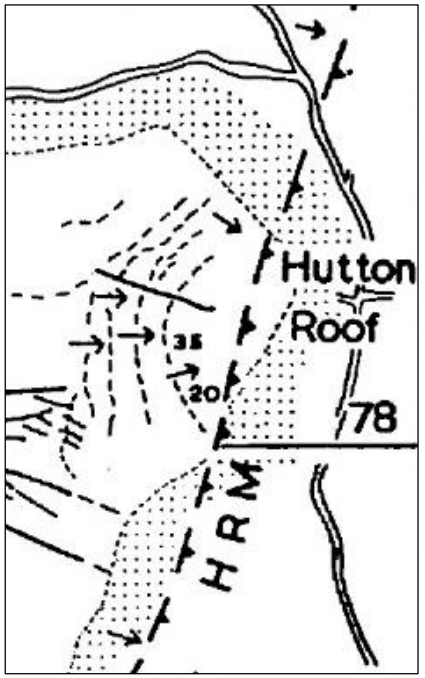
Because the pavement slope is greater than the hillside slope, each new cliff scar met on ascent is actually an older bed of limestone.

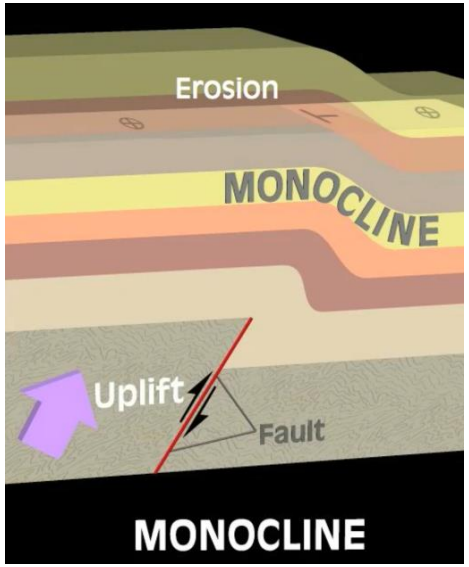
The reason for the steep inclination is that the Rakes are part of a monocline, that is a structural fold where beds go from a more horizontal orientation to a steepening before reverting to the previous pattern. The monocline was formed during a period of mountain building called the Variscan Orogeny and occurred during re-activation of an older and much deeper fault (see diagram).

The monocline continues under the surface below the village so that younger limestones (the Yoredales or Alston Group) are exposed under the Sealford Beck footbridge with even younger sandstones and some coal measures cropping out east and south-east of the village.

Hutton Roof is in a location of unusual structural geological complexity and interest with enormous educational potential.

Hutton Roof Monocline HRM on Moseley's map





World Class Karst Scenery

The steeply inclined pavement slabs of the Rakes are unique in the UK.

The large diamond shaped clints are separated by wide grikes which have formed along the lines of tension fractures which developed because of the tectonic forces of the Variscan Orogeny.

But what is most unusual about the Rakes is the channel drainage pattern of the clints.

These are a rare type of long, straight, parallel runnel known as Rinnenkarren.

They are the only example in Britain.

Why the Rakes need some restorative work

Tree, shrub and bracken growth has continued unchecked for many years now. Some deep-soil trees and shrub species are obscuring The Rakes.

If there is no intervention

- The classic view of the Rakes will disappear
- The educational value of the site for geology and geomorphology will be lost
- Paths will become more overgrown
- The ecology of some of the rare plants on the pavements will suffer

Interested Parties

- Villagers, Commoners and Parish Councillors of Hutton Roof.
- Geologists – local experts from the Westmorland Geological Society and Cumbria GeoConservation. The Rakes is a GCR site of national importance.
- Botanists – there are many individuals and groups with a strong interest in the rare flora of the pavements on Hutton Roof Crags – the Rakes is one of many important botanical sites and part of a Special Area of Conservation (SAC) and therefore of European and International importance.
- Conservationists – As the Rakes is a Site of Special Scientific Interest, Natural England has a legal duty to approve any changes in its management.

What Needs to be Done?

A Way Forward

There is only one management solution likely to be acceptable to all four groups. That is a programme of selective clearance of scrub and some trees in the valleys (slacks) at the bottom of the pavements. This work must be approved by Natural England.

Priority Areas

The priority areas are the slack under the main rinnenkarren pavement (shown in the photos) and the land around the Hanging Scar Stone.

Ideally some minor clearance should be done around Hanging Scar Stone quite soon.

More substantial work beneath the Rinnenkarren pavement could be carried out by volunteer parties in the autumn.

A painting of Hanging Scar Rock in former times by Anne Huntington