Travelogue of Scotland: Venerable Outcrops and the Visionary Geologists Who Studied Them

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Main Points

Scotland birthplace of geology

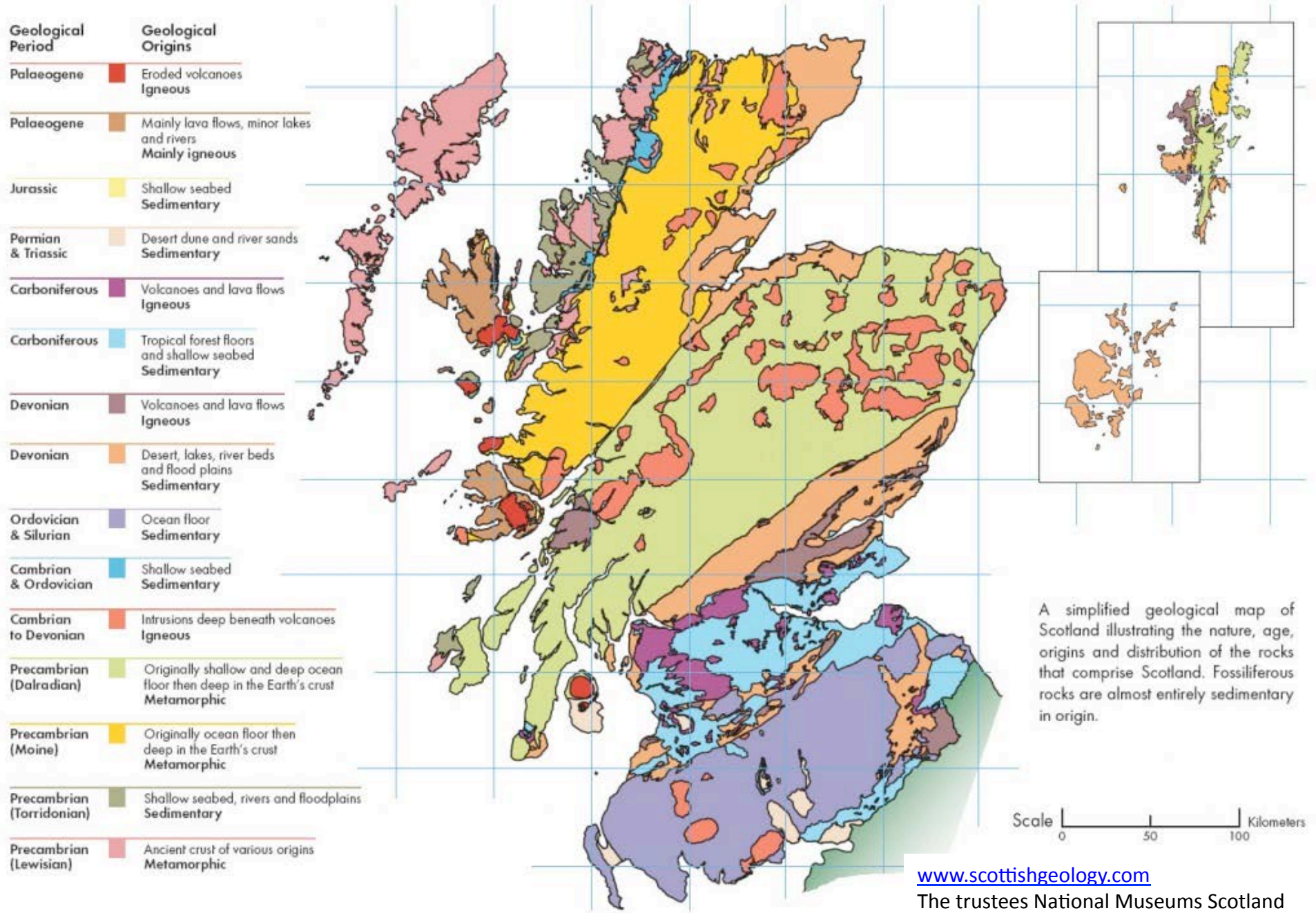
Shedding old ideas/developing new ones

So many places, so many geologists

All geologists have Scottish heritage!

Glen Coe, Scotland

Geologic Map of Scotland



www.scottishgeology.com

The trustees National Museums Scotland

Scotland Geology Resources

http://www.scottishgeology.com/

http://en.wikipedia.org/wiki/Geology_of_Scotland

http://mapapps.bgs.ac.uk/geologyofbritain/home.html

iGeology iPhone app

http://www.walkhighlands.co.uk/maps/

The Man Who Found Time — Jack Repcheck (2003), Perseus Pub.

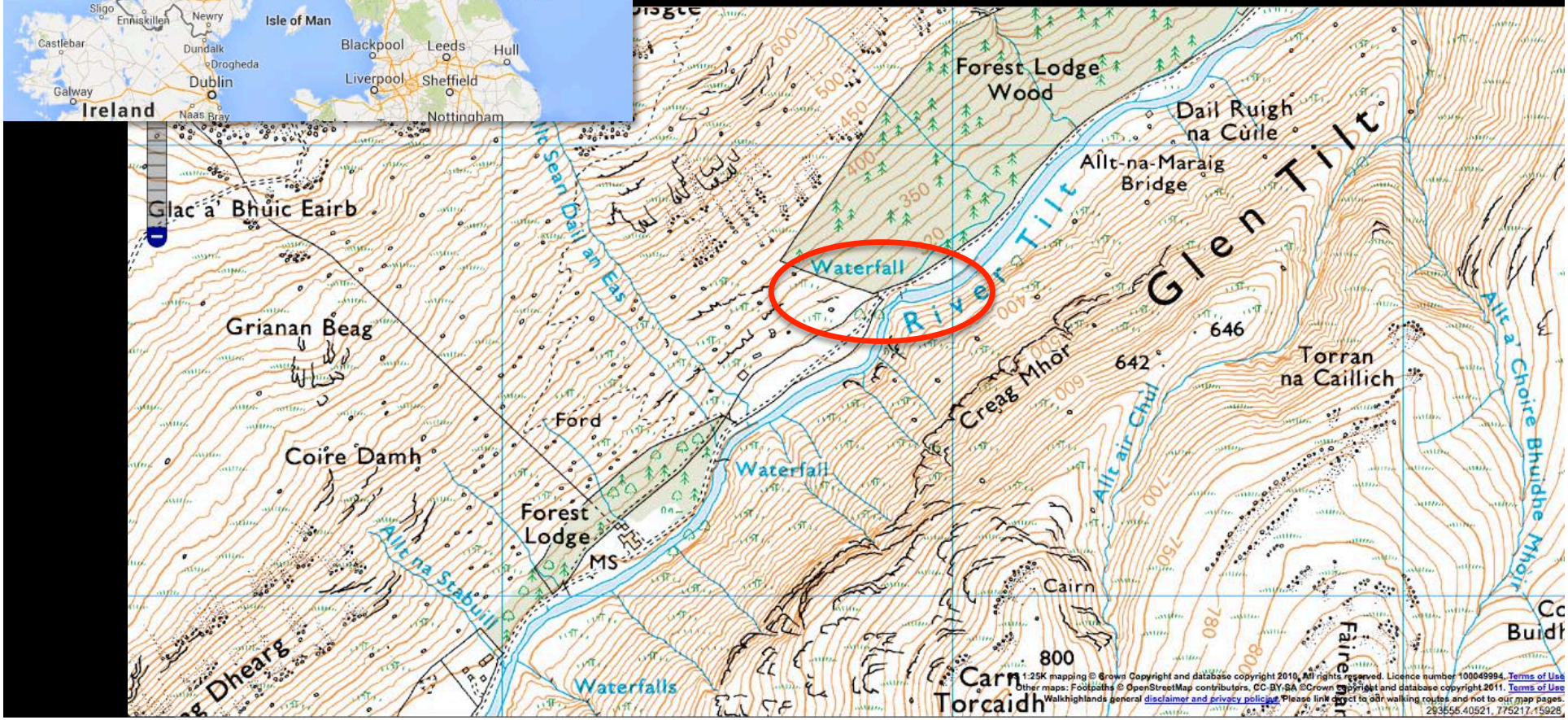
http://www.archive.org

The Old Red Sandstone — Hugh Miller (1841)

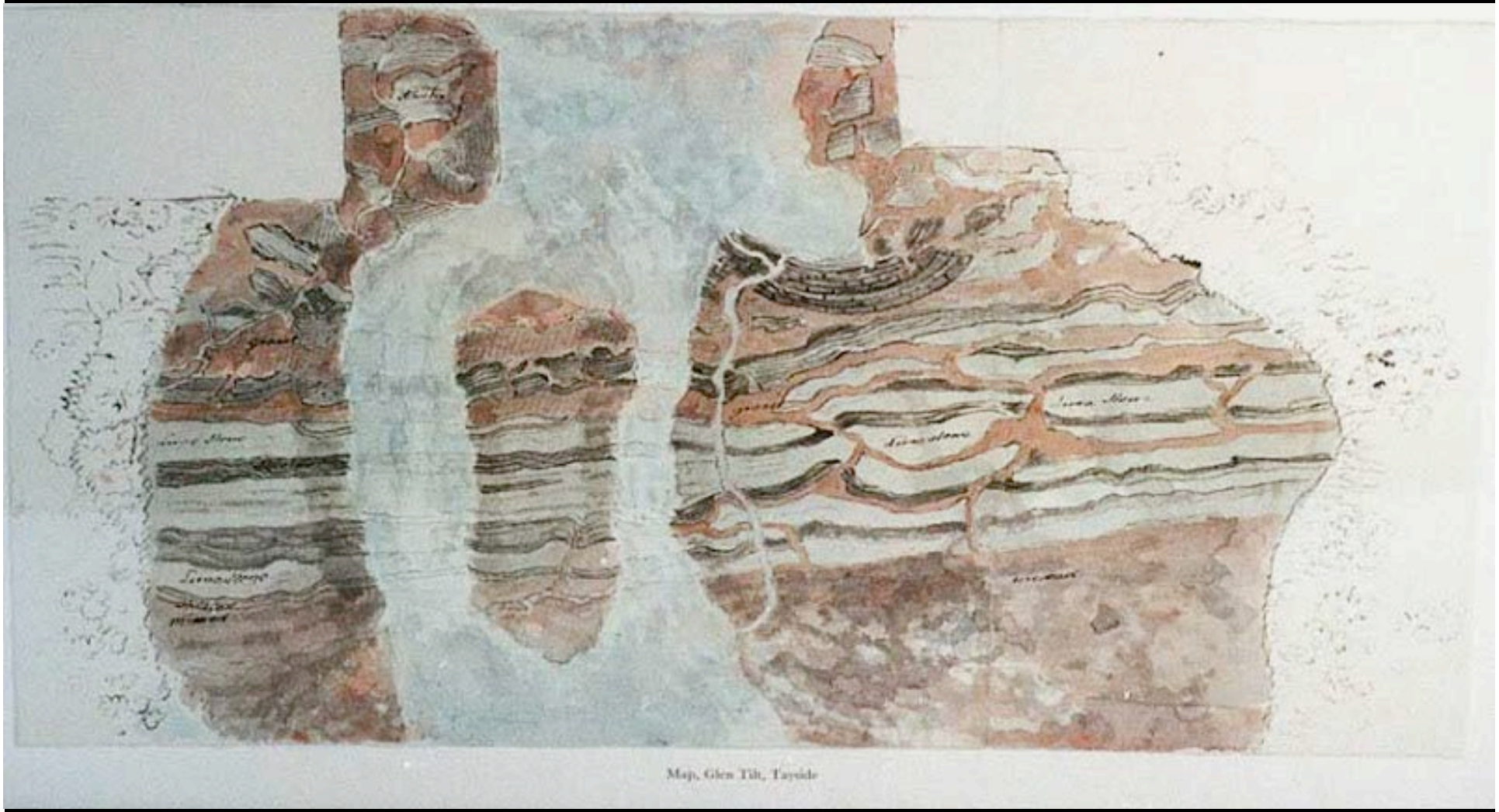
The geological structure of the north-west Highlands of Scotland — Archibald Geikie, ed. (1907)

Glen Tilt

Silurian-Devonian granite and diorite cuts the Precambrian Appin Group Metasediments.



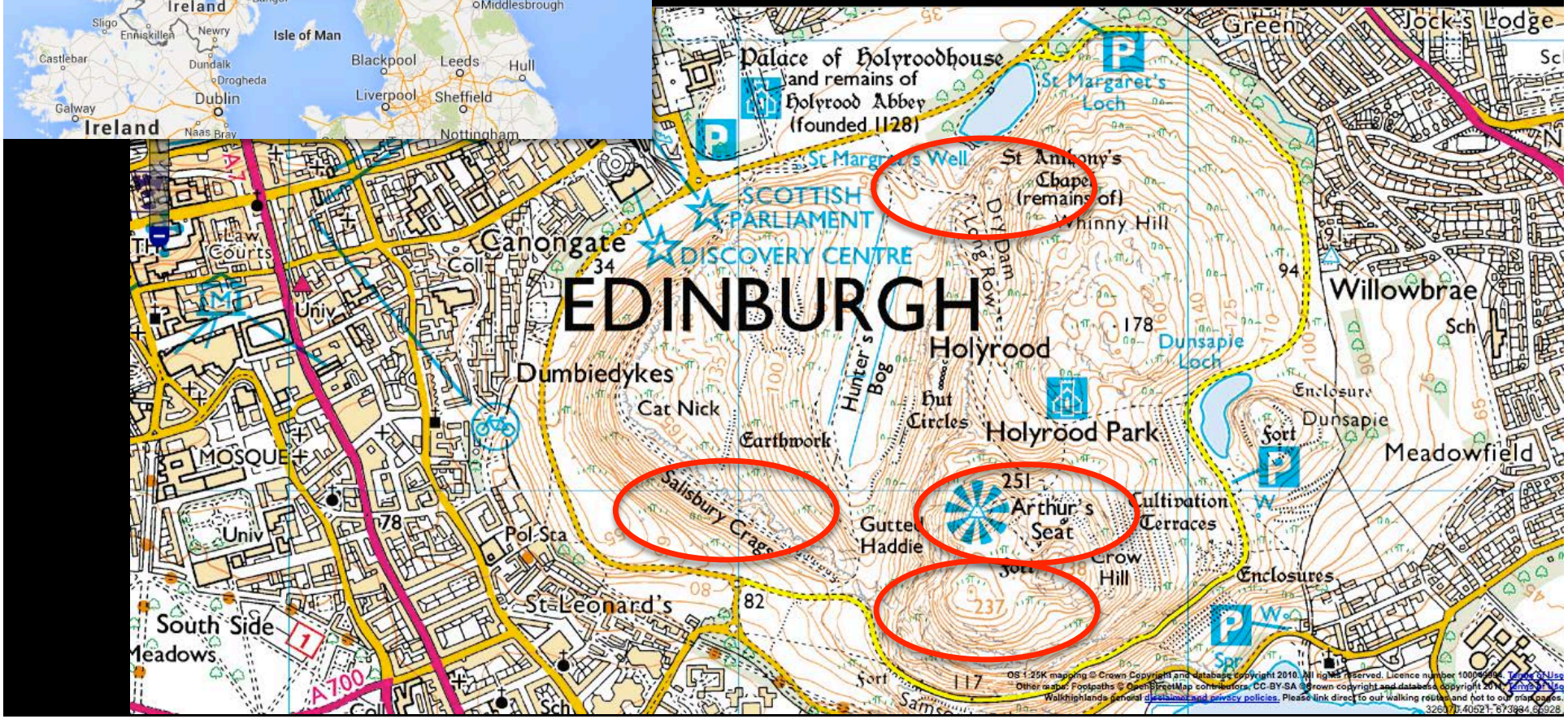
Hutton's Map (watercolor) of Glen Tilt intrusions



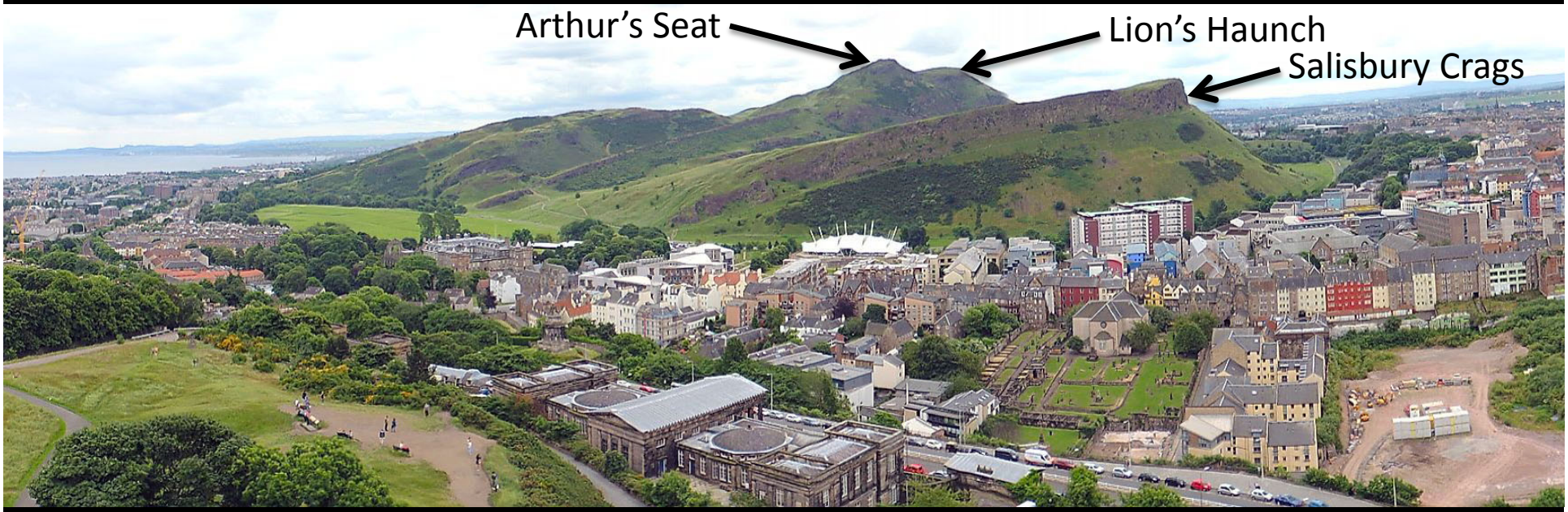
Map, Glen Tilt, Tayside

Travelogue: Holyrood Park

Mafic volcanics and intrusives cut Ballagan Sandstone (Carboniferous)



Arthur’s Seat volcanic formation — Columnar-jointed basalt.
Lion’s Haunch vent — Volcanic agglomerate and microgabbro.
Salisbury Crags sill — microgabbro and diabase.
Ballagan Formation — Carboniferous sandstone country rock.



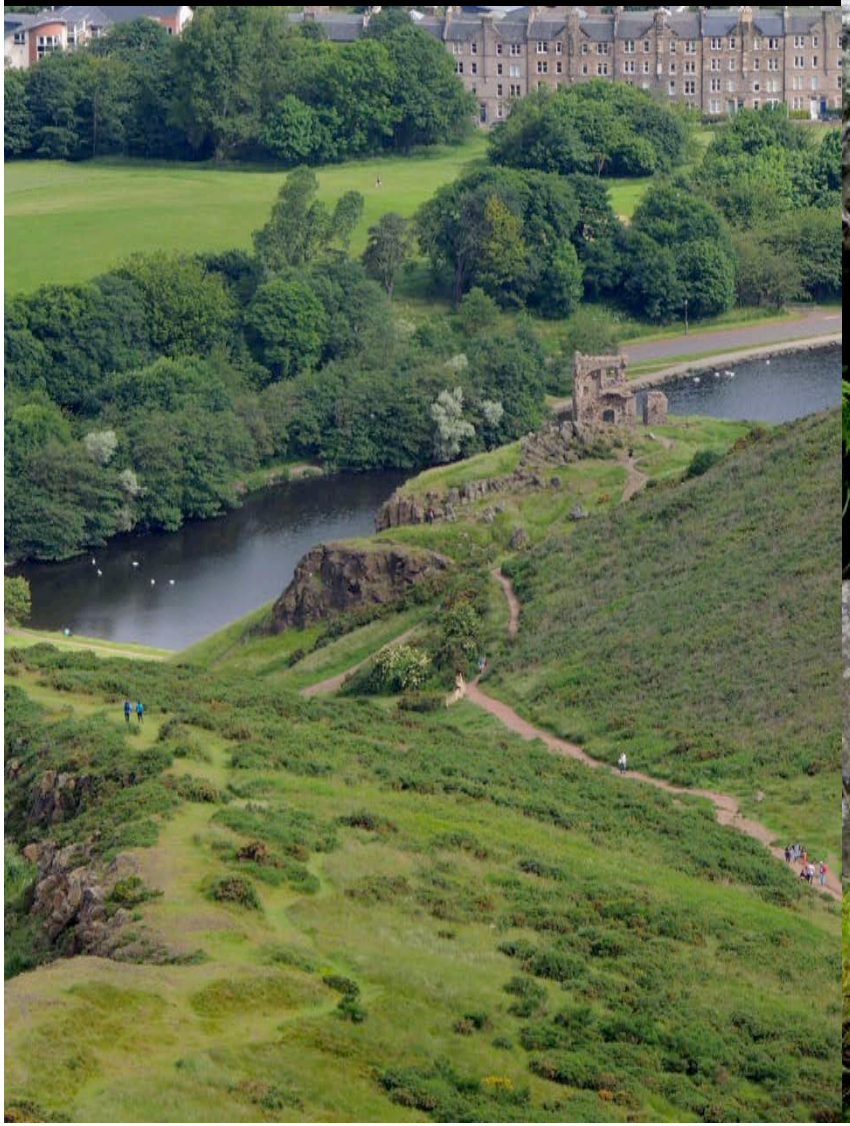

Arthur’s Seat Volcanics

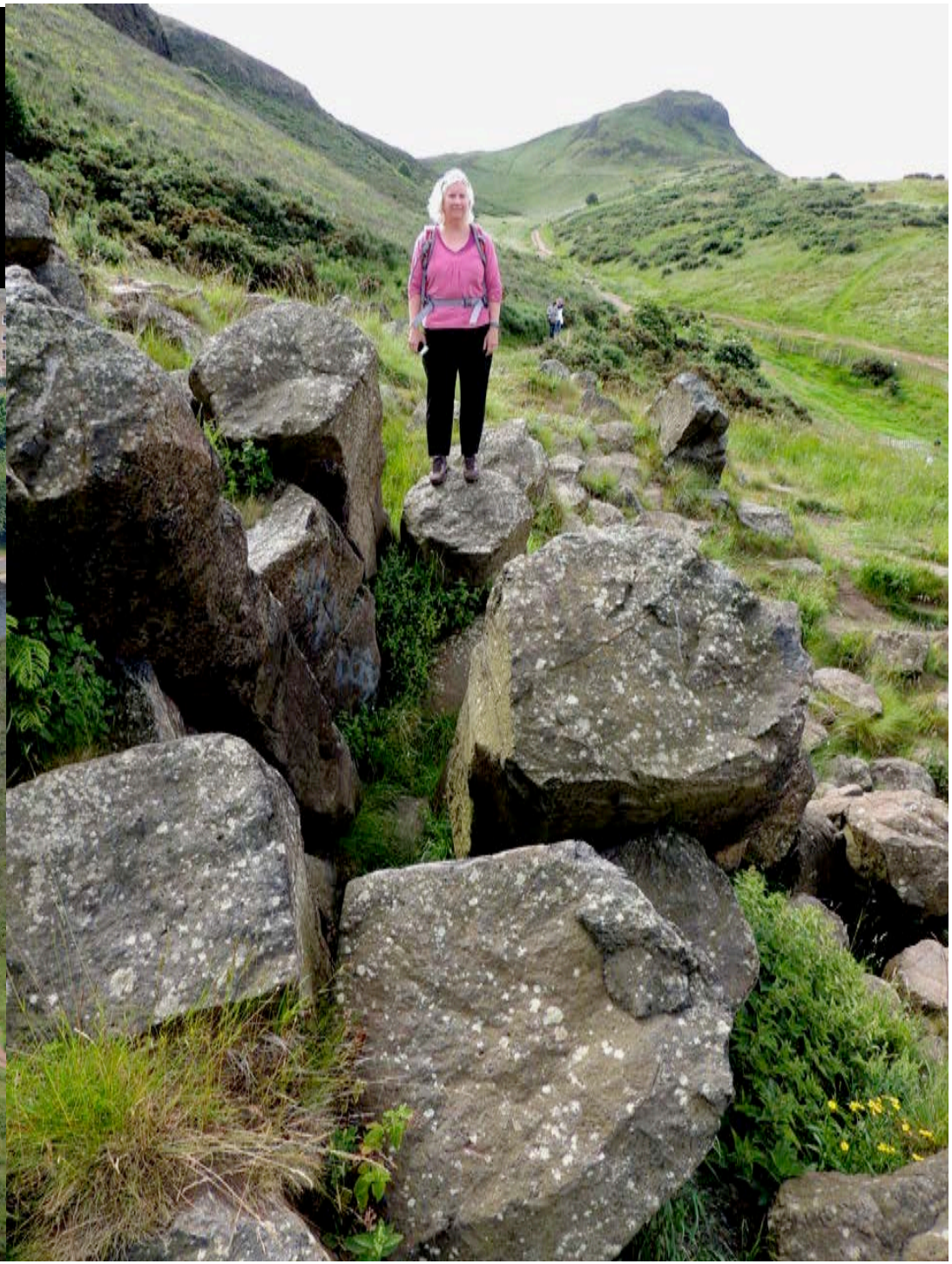

Columnar basalt in summit saddle


Lion’s Head agglomerate

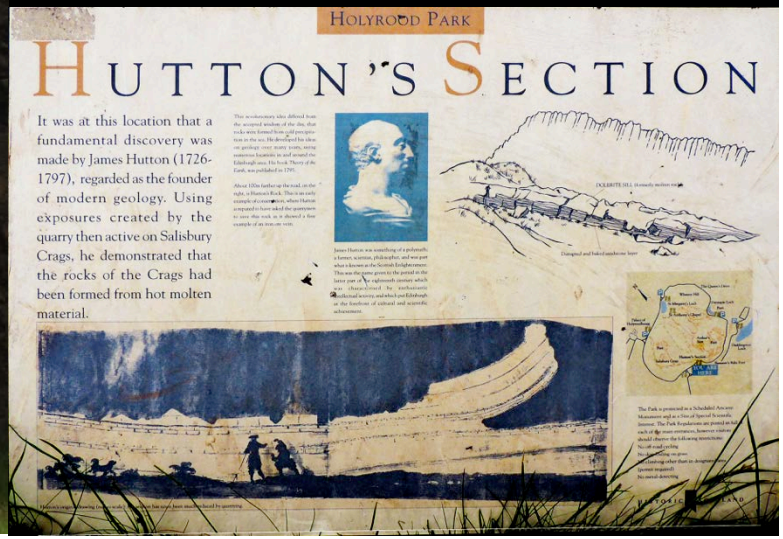
Columnar Jointing

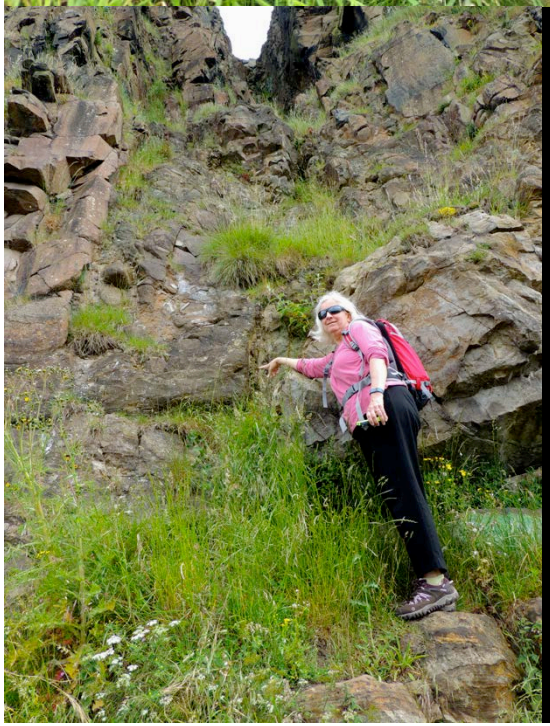
St. Anthony's Chapel





Salisbury Crags sill

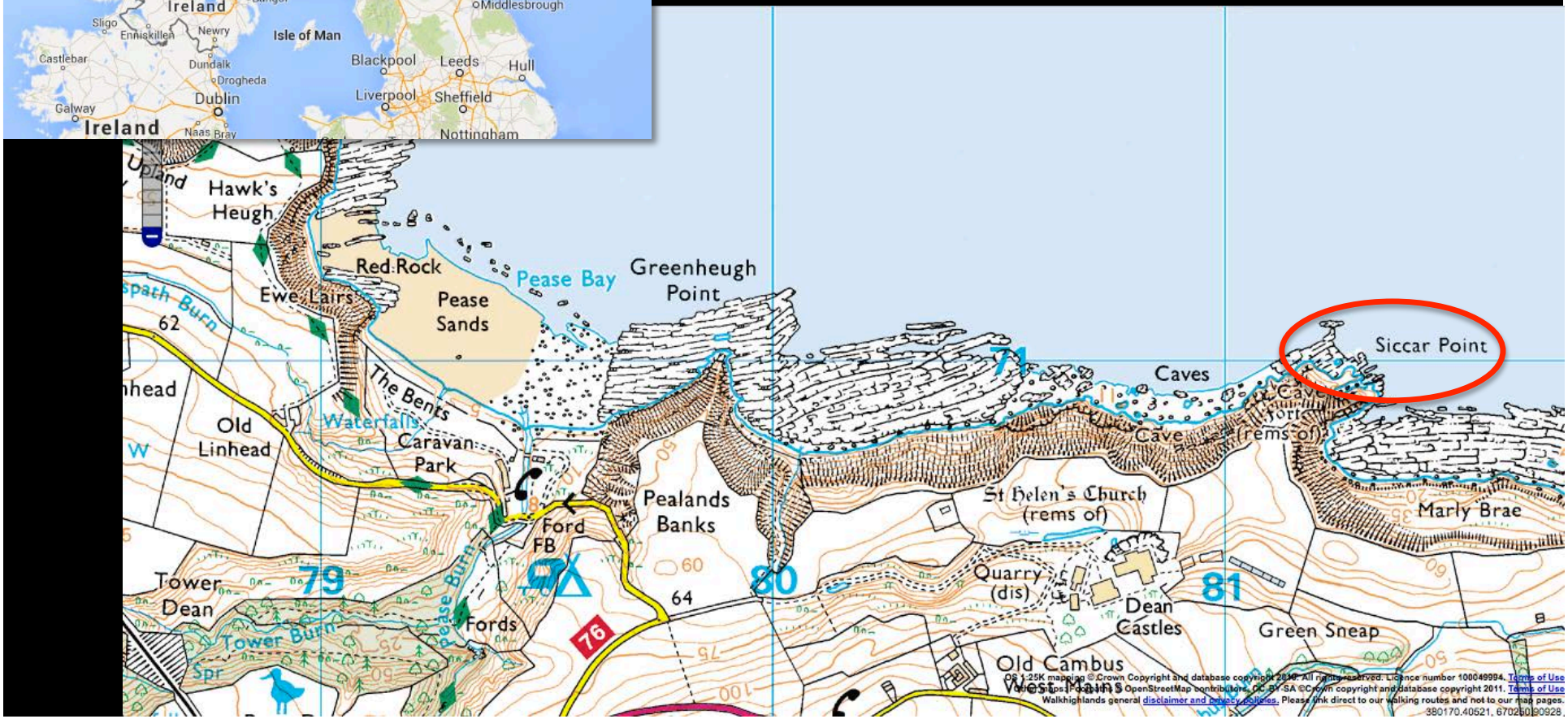


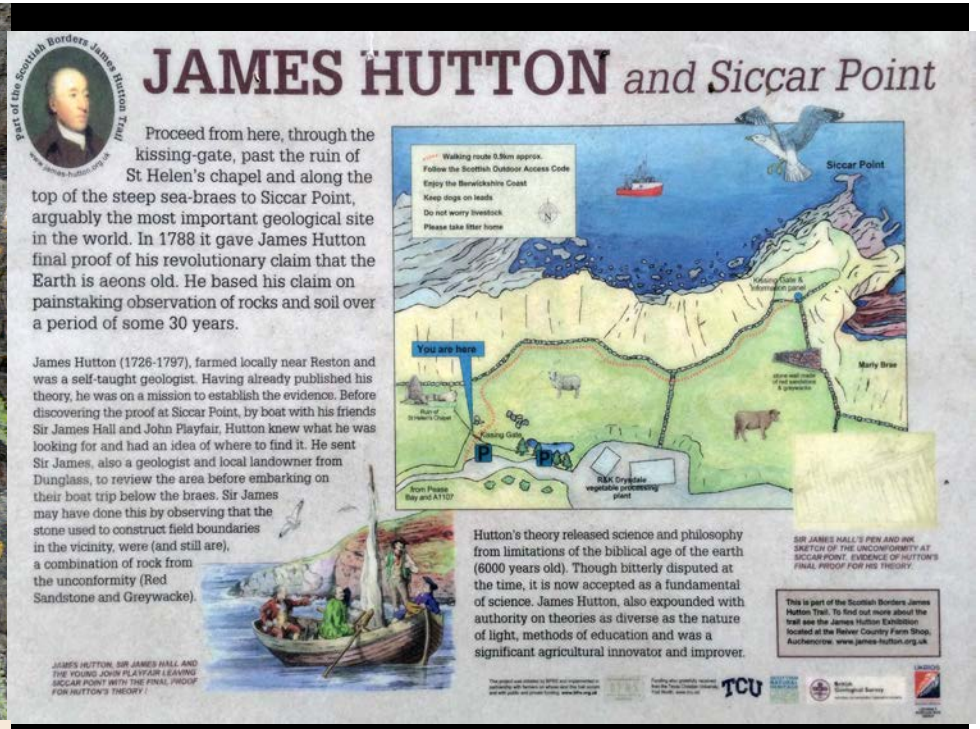


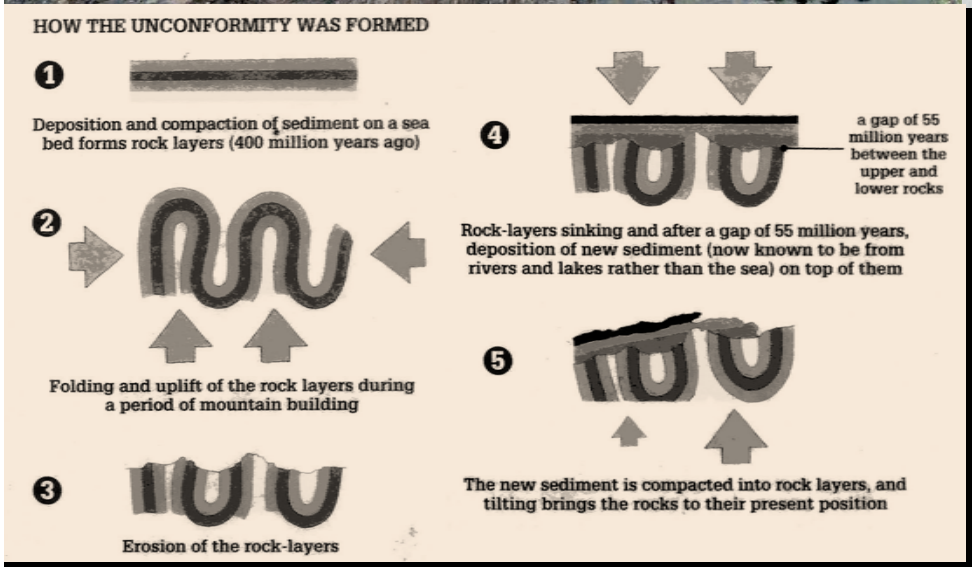
Tholeiilitic dike cuts diabase

Siccar Point

Angular unconformity between greywacke of Gala Group (Silurian) and conglomerate and sandstone of the Stratheden Group (Devonian)







If there are sacred spots in geology, this is the Holy of Holies…

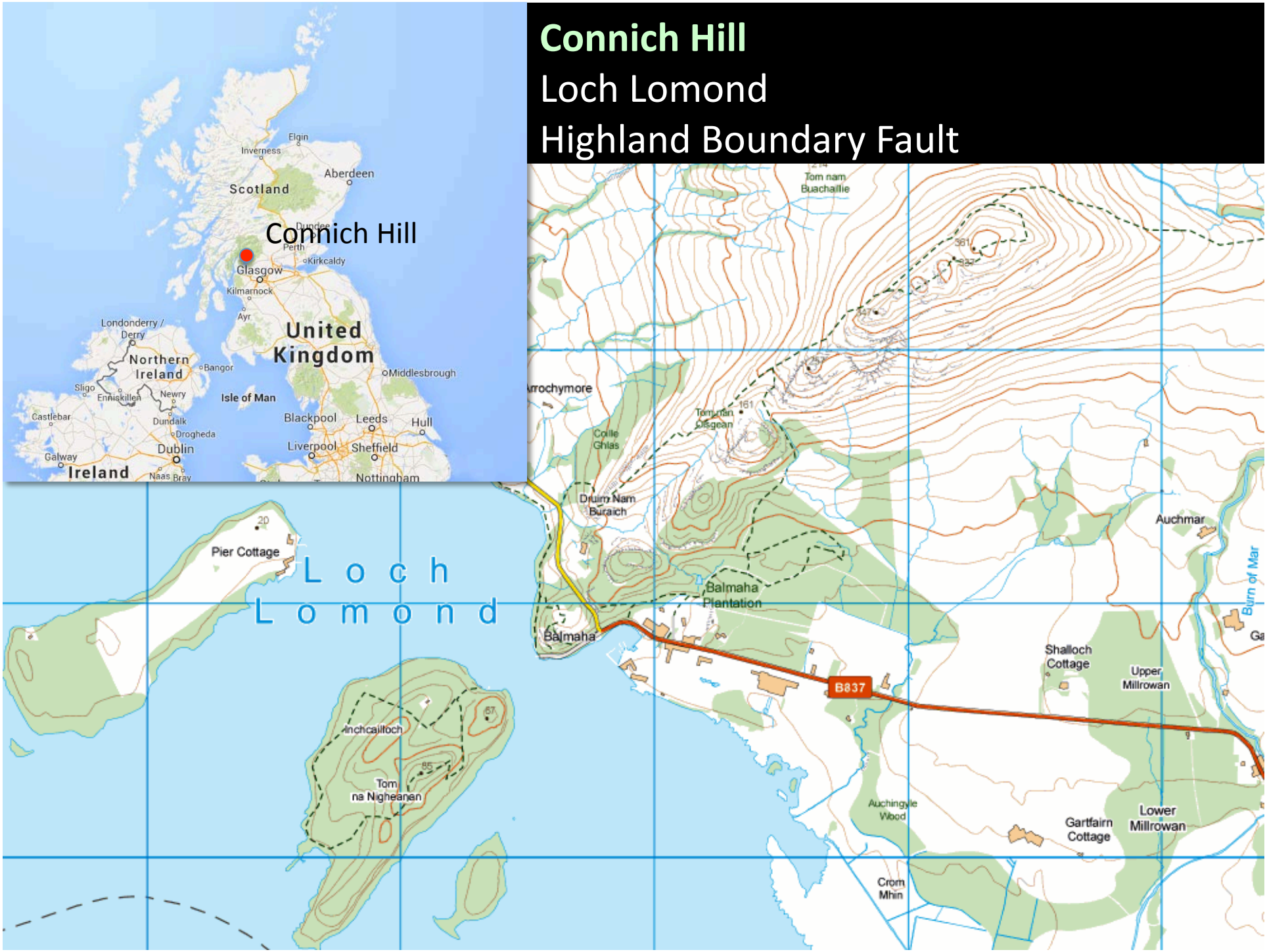
Hutton's revelations completed 2/3 of the "Rock Cycle"

“The result, therefore, of our present enquiry is, that we find no vestige of a beginning,–no prospect of an end.”

— James Hutton

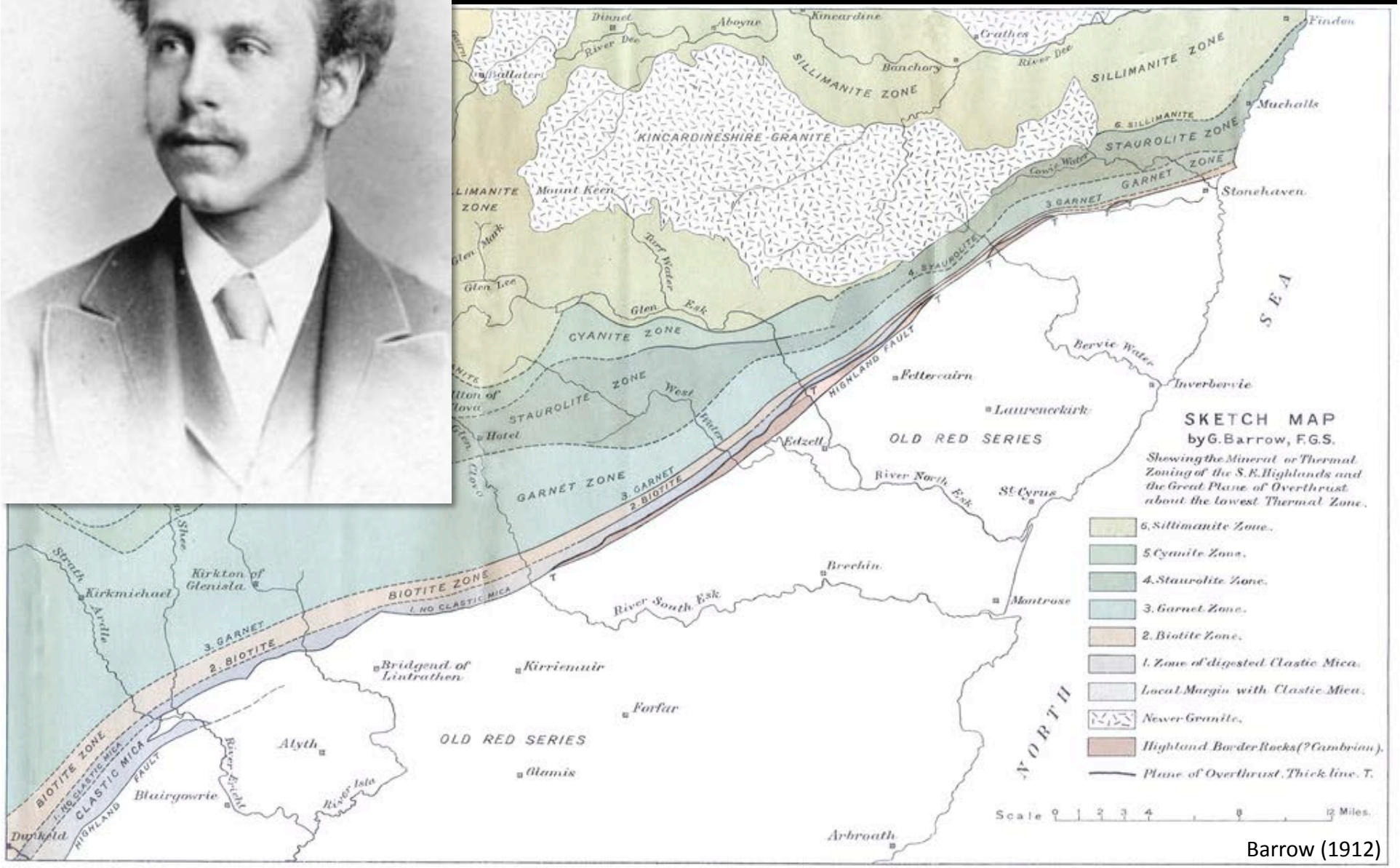
“The mind seemed to grow giddy by looking so far back into the abyss of time…”

— John Playfair


Connich Hill
Loch Lomond
Highland Boundary Fault
Connich Hill
Scotland
Inverness
Elgin
Aberdeen
Perth
Kirkcaldy
Glasgow
Kilmarnock
Ayr
Londonderry / Derry
Northern Ireland
Bangor
Sligo
Enniskillen
Newry
Castlebar
Dundalk
Drogheda
Dublin
Galway
Ireland
Naas
Isle of Man
United Kingdom
Middlesbrough
Blackpool
Leeds
Hull
Liverpool
Sheffield
Nottingham
Tom nam Buachaille
Arrochymore
Tom nan Lisgean
Coille Ghlas
Druim Nam Buraich
Balmaha
Balmaha Plantation
Pier Cottage
Loch Lomond
Inchcailloch
Tom na Nigheanan
B837
Auchmar
Burn of Mar
Shalloch Cottage
Upper Millrowan
Auchingyle Wood
Gartfairn Cottage
Lower Millrowan
Crom Mhin

Inchmurrin Conglomerate (Lower Devonian) and Highland Boundary Fault Complex, serpentinite body

George Barrow mapped metamorphic facies in the Dalradian of Aberdeenshire

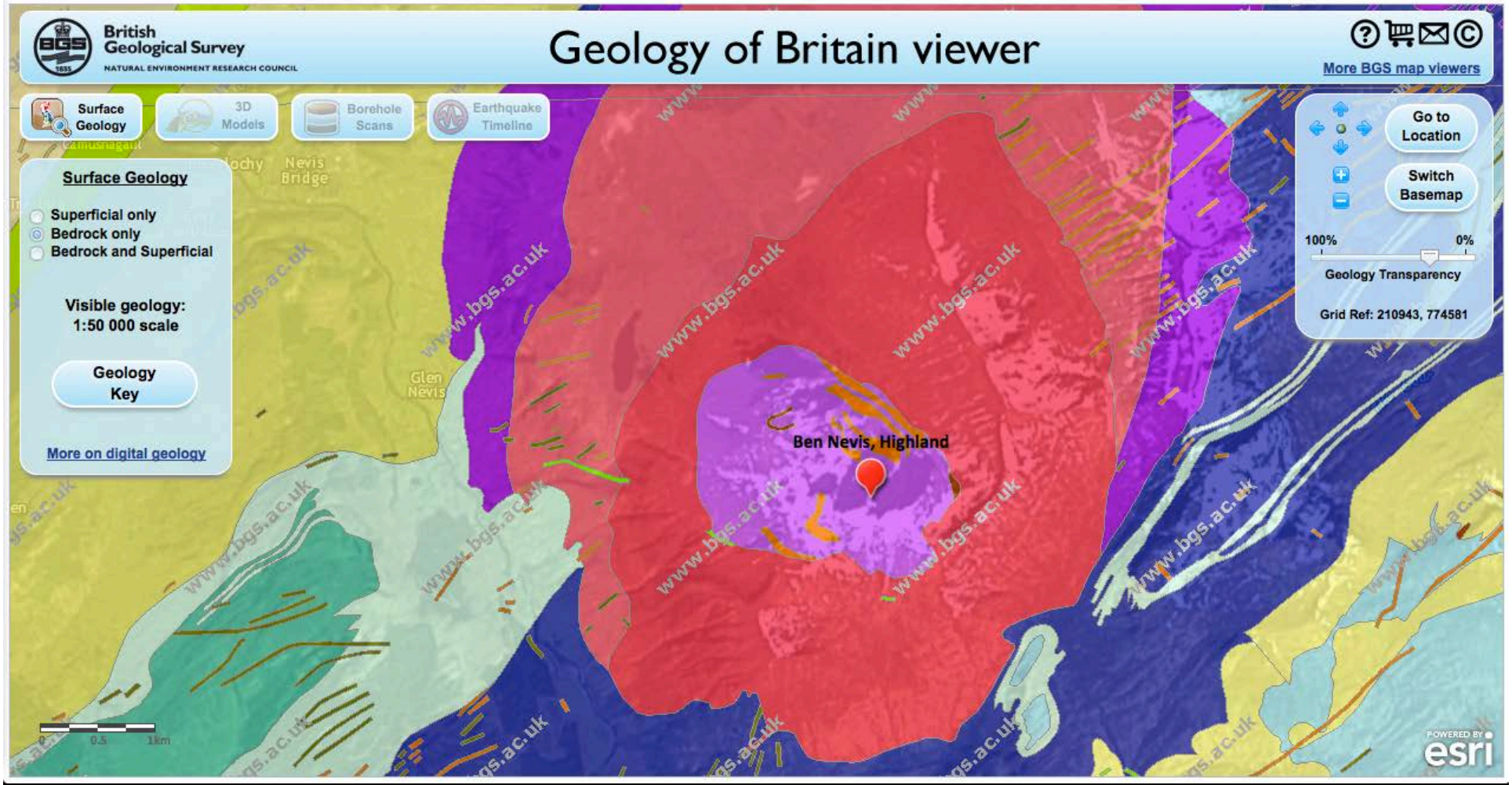


Barrow (1912)

Ben Nevis and Glen Coe

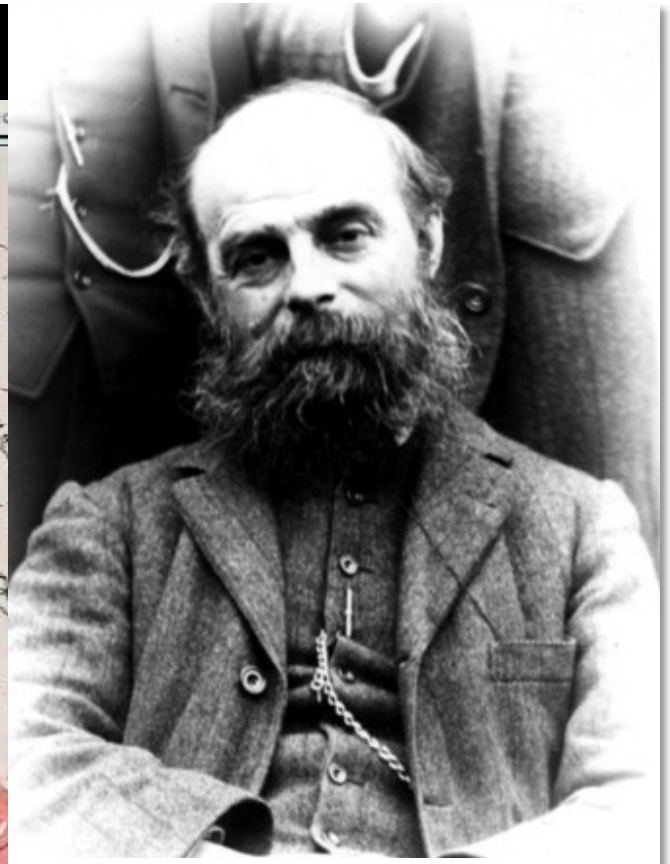
Ancient collapsed calderas (Devonian)

Ben Nevis Volcanics (Silurian-Devonian)
Ben Nevis Complex (granites)
Agglomerate, Lamprophyre, and Paleogene mafic dikes



Ben Nevis

Glen Coe



Charles Thomas Clough

Clough et al. (1909)

Andesite and rhyolite caldera-fill succession with alluvial fans, fossil plants, and ring granite

Loch Achtriochtan and An t'Sron

Three Sisters

Leven Schist (Neoproterozoic)
Glen Orchy
Ballachulish Limestone
Signal Rock near Claighaig Inn

Skye

Red Cuillen

Black Cuillen

Old Man of Storr

Quirangs

Kilt Rock

Dinosaur tracks


Quirangs

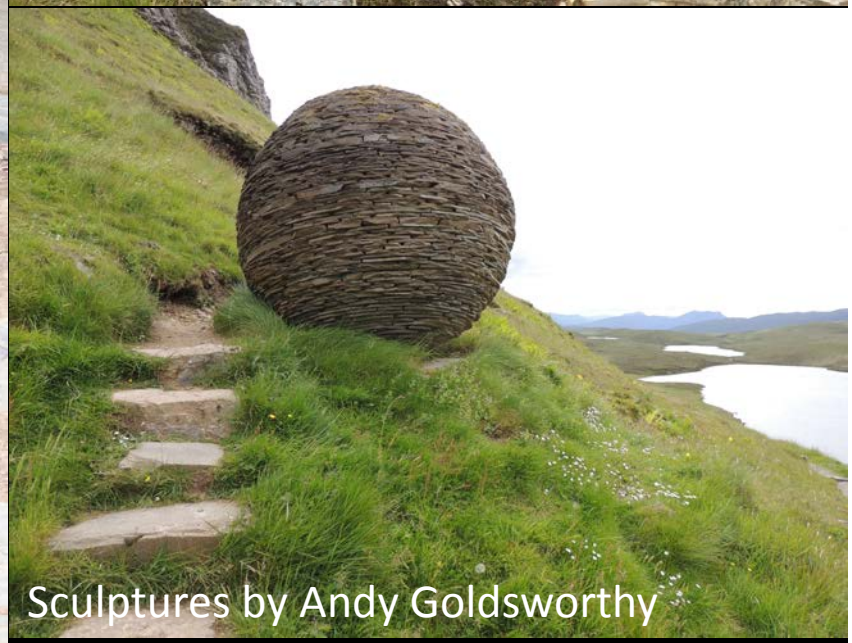

Staffin Museum


Kilt Rock

Knochan Crag

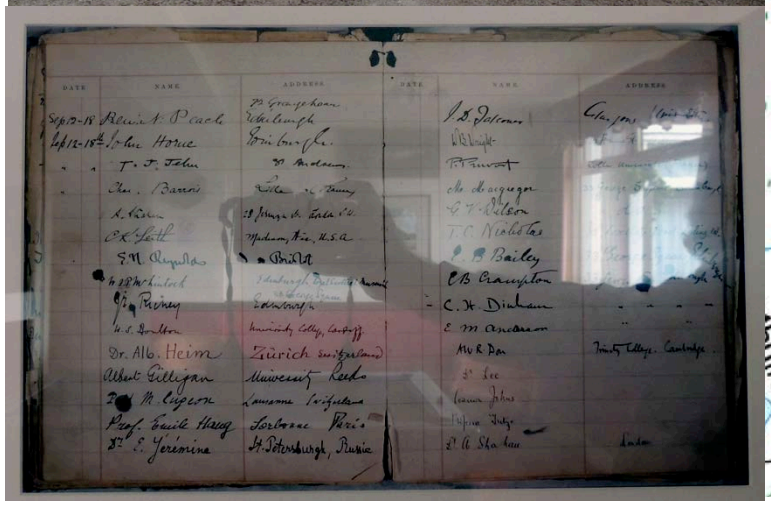
One of first thrust faults described — Moine over Torridian and Cambrian (Peach and Horne, 1907)

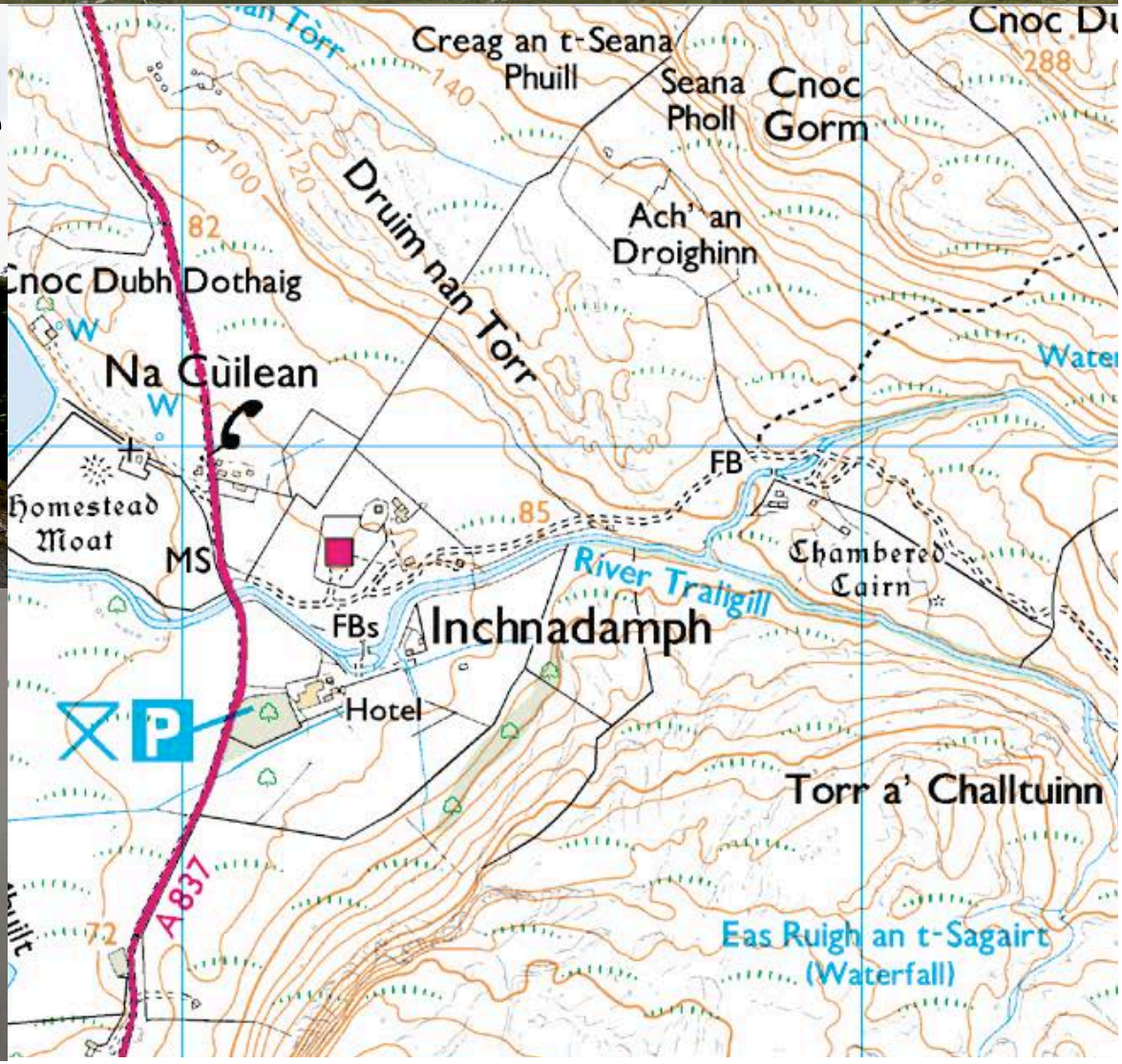
Mapping the Northwest Highlands began in 1884



Sculptures by Andy Goldsworthy


Inchnadamph
Lodge




Creag an t-Seana
Phuill
Seana
Pholl
Cnoc
Gorm
Druim nan Torr
Ach' an
Droighinn
Cnoc Dubh Dothaig
Na Cùilean
Homestead
Moat
MS
FB
River Traligill
Chambered
Cairn
FBs
Inchnadamph
Hotel
Torr a' Challtuinn
A837
Eas Ruigh an t-Sagairt
(Waterfall)

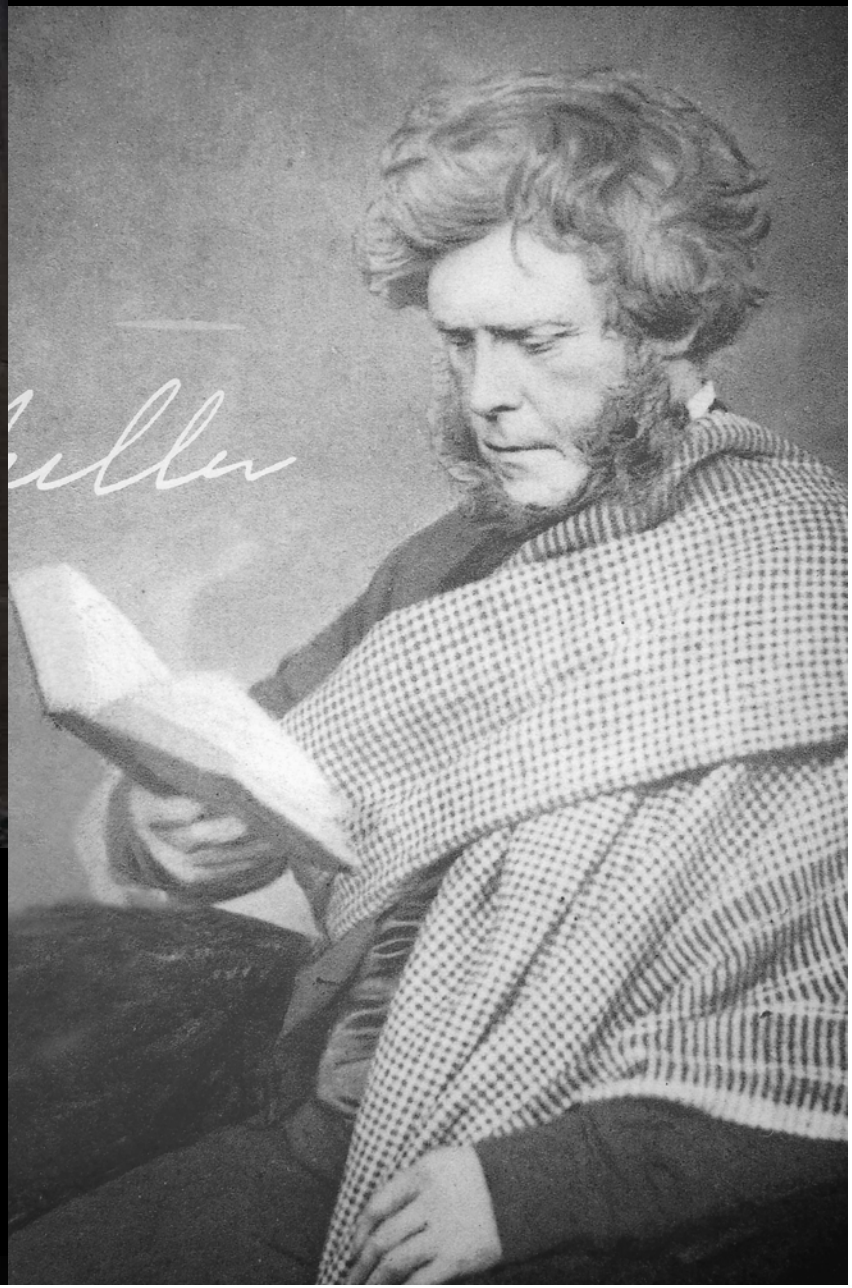
Scotland is where geology and geologists are celebrated…

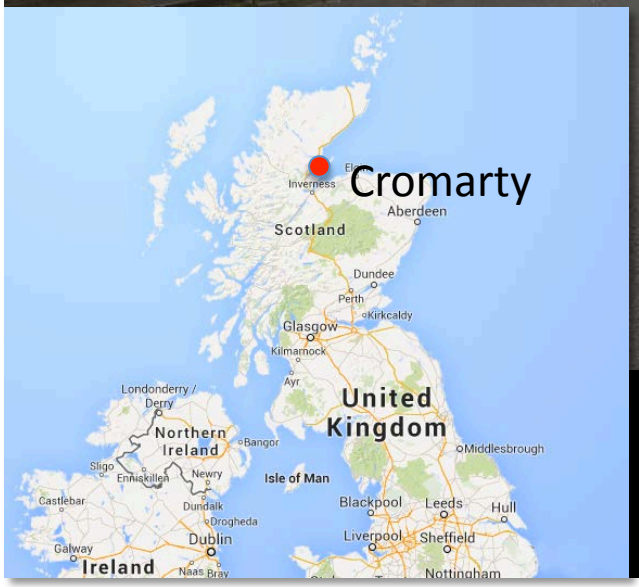
Hugh Miller

Bust of Miller at Wallace Monument, Stirling

Orphan
Stonemason
Paleontologist
Geologist
Banker

Writer
Editor
Reformer
Geoscience Educator

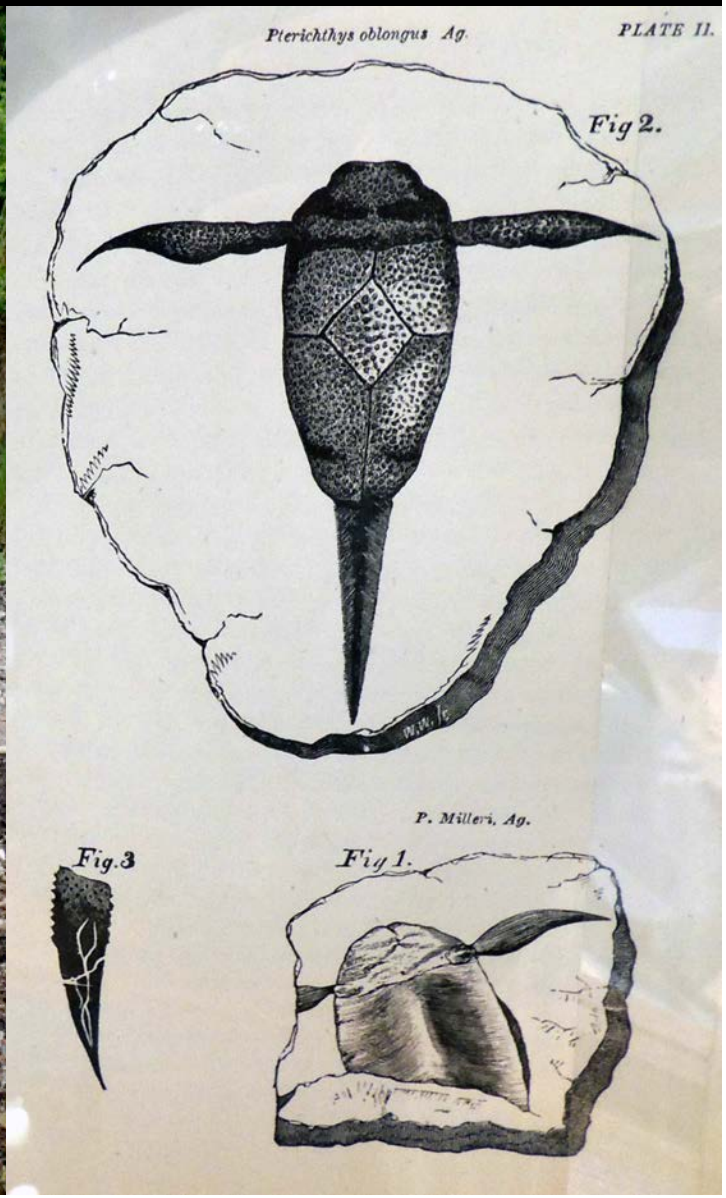




Cromarty

Birthplace and home of Hugh Miller

Cromarty fish beds of the Old Red Sandstone (Devonian)



Harris and Lewis from Waternish