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Boat trip on Loch Glencoul

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(Figure 102) View across Loch Broom from near Ullapool.



(Figure 1) View of Quinag from Glencoul.



(Figure 101) The sea front at Ullapool.

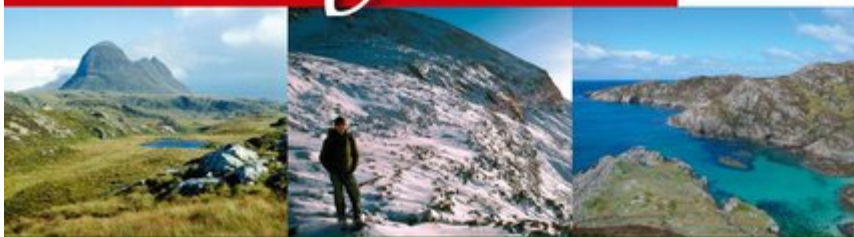


(Figure 103) Sunset over Loch Glencoul.

A walkers' guide and map showing the rocks and landscape of Assynt and Interviolly

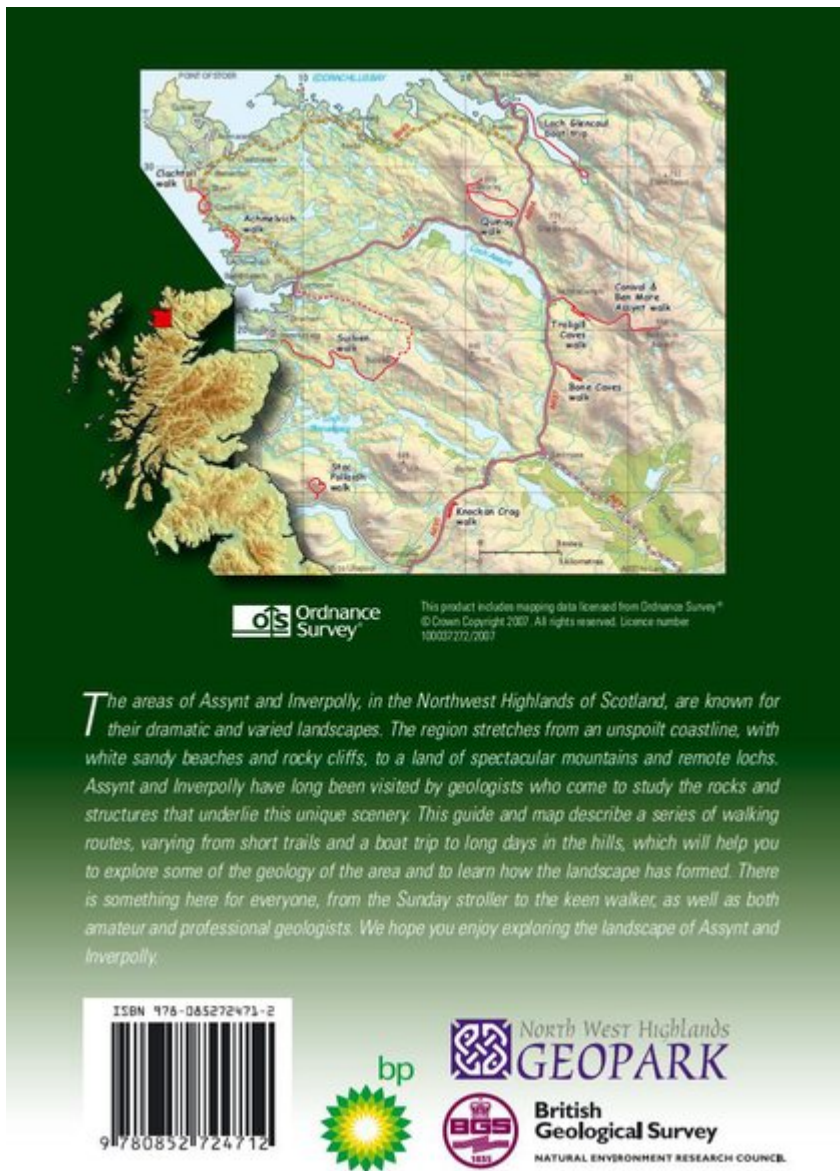


Exploring the landscape of
Assynt



Map Scale 1:50 000

(Front cover)

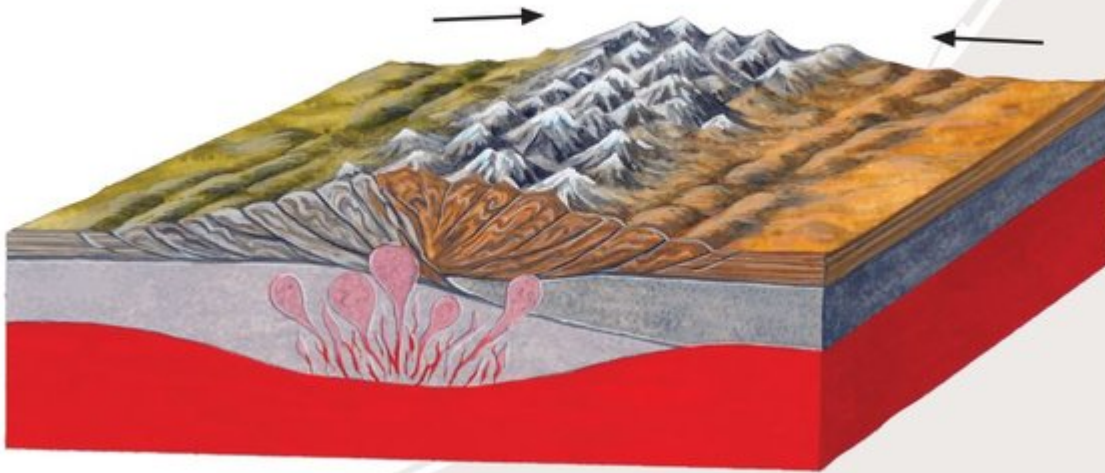


(Rear cover)



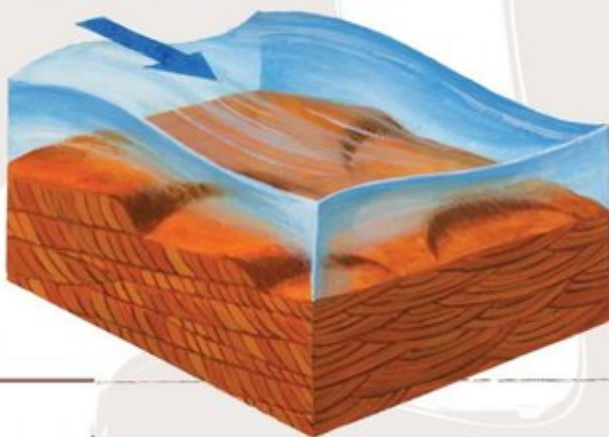
(Figure 2) Panorama.

AS TWO CONTINENTS COLLIDE A MOUNTAIN RANGE IS FORMED



(Figure 3) Plate tectonics. Painting by Elizabeth Pickett.

FORMATION OF CROSS-BEDDING

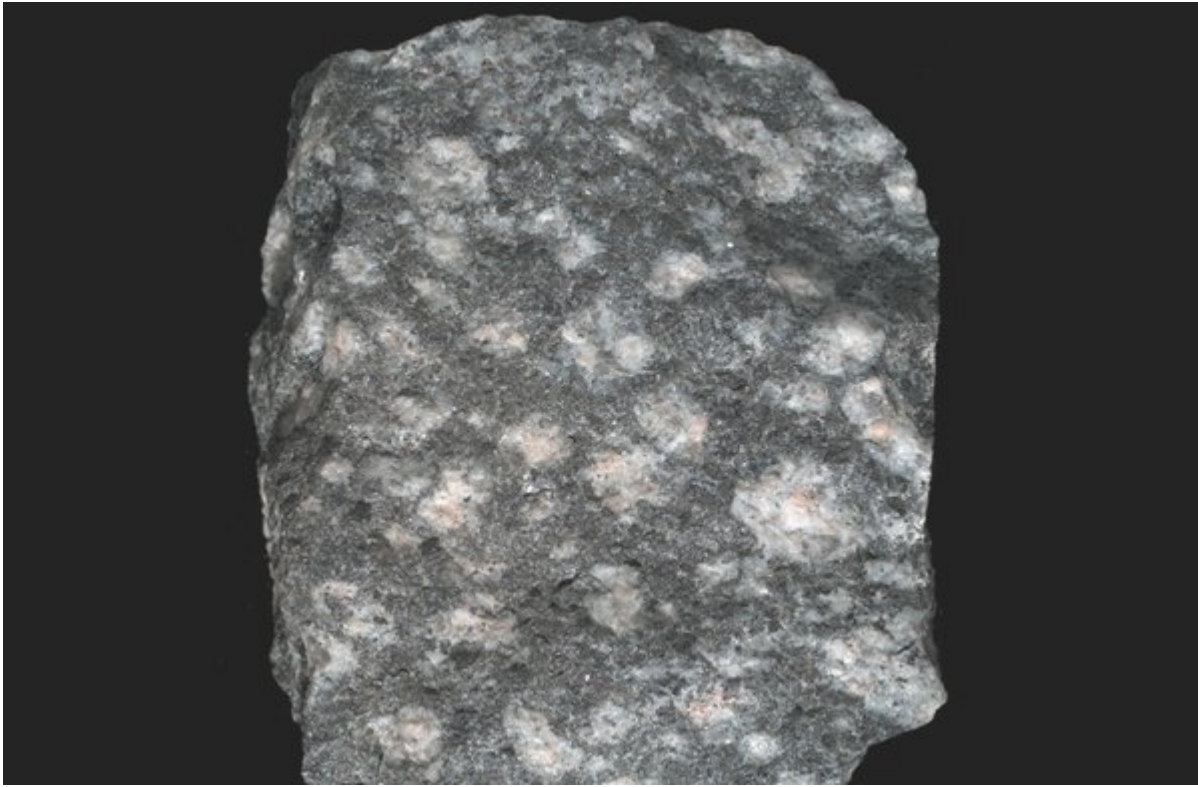


- 1 Water flowing over a sandy bed moulds the sand into ripples and dunes.
- 2 Sand grains move over the ripple crests and are deposited on the downstream slopes.
- 3 Each ripple gradually builds out downstream, forming a set of sloping layers.
- 4 Another ripple begins to build on top of the first, forming another set of sloping layers.
- 5 Over time many sets of sloping layers are built up. This is called cross-bedding.

In a river deposit, all the cross-beds slope the same way, because a river flows in one direction. In a tidal channel, cross-beds slope both ways, as sand is deposited by incoming and outgoing tides.

Igneous rocks

(Figure 4) Formation of cross bedding.



(Figure 5) Coarse-grained syenite.



(Figure 6) Light and dark grey Durness Limestone.



(Figure 7) Orange-brown Furoid Beds.



(Figure 8) Cross-bedded Basal Quartzite.



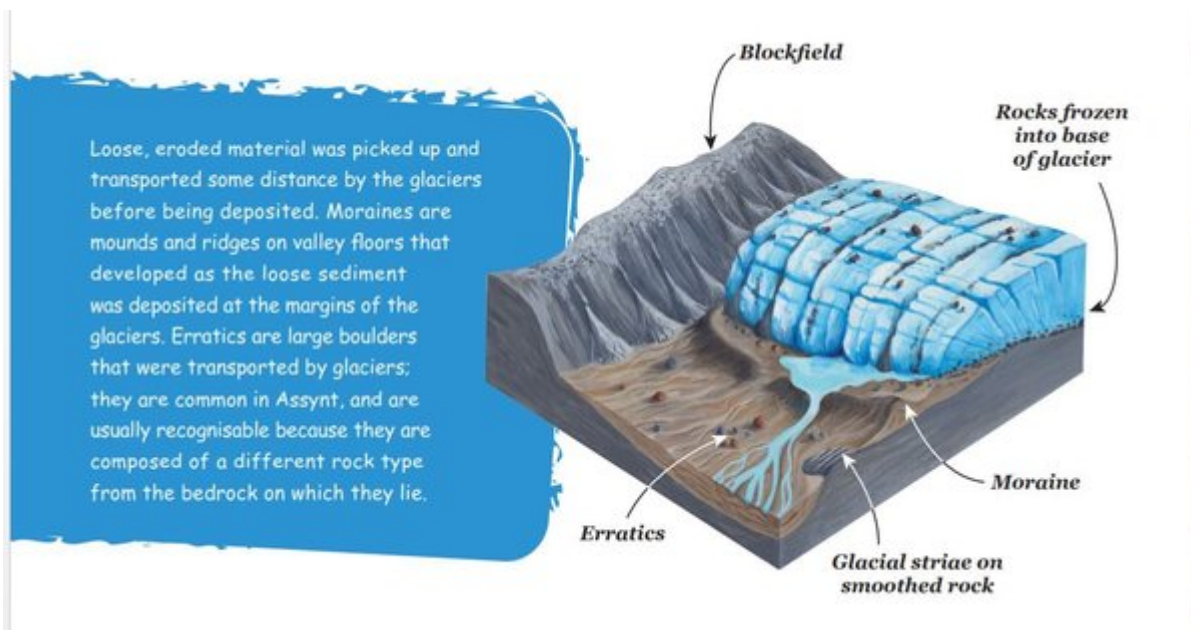
(Figure 9) Coarse-grained cross-bedded Torridonian Sandstone.



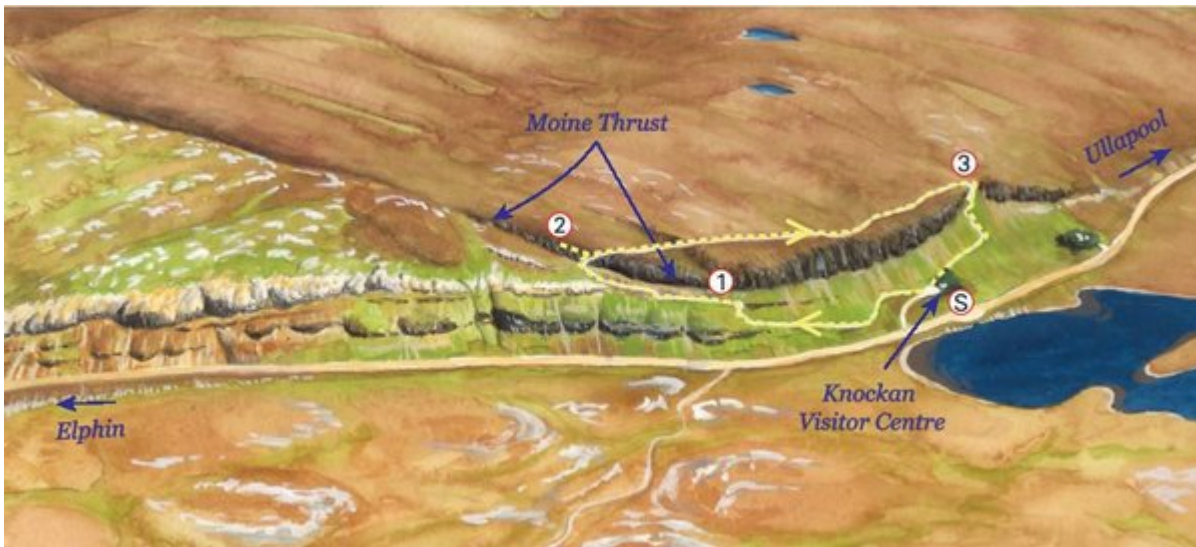
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(Figure 11) Stripy Lewisian Gneiss.



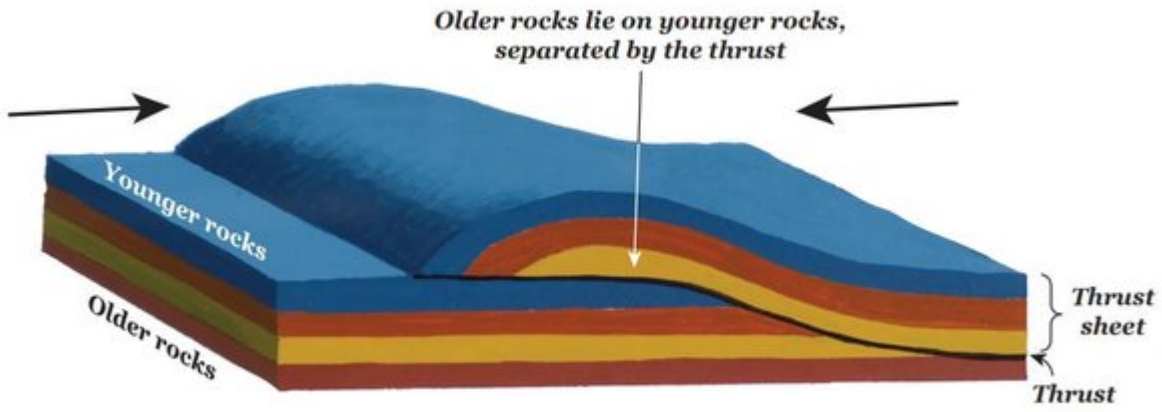
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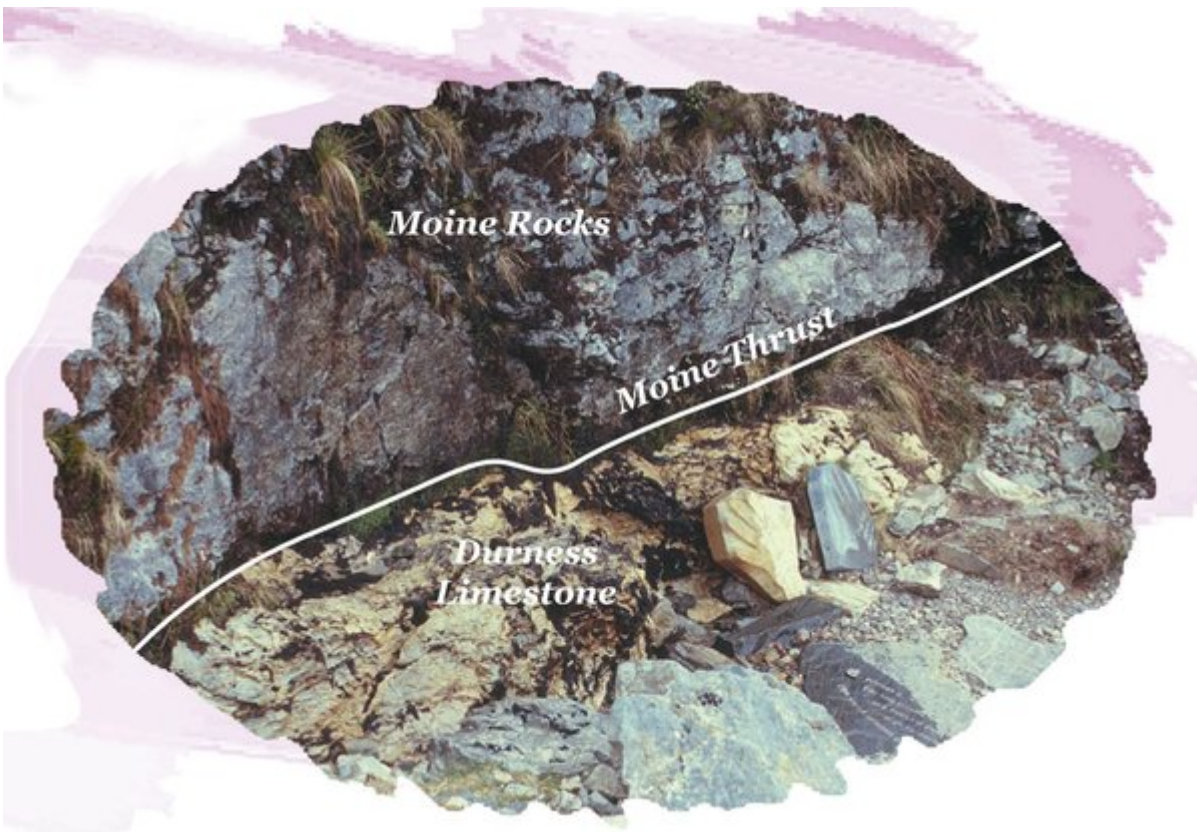
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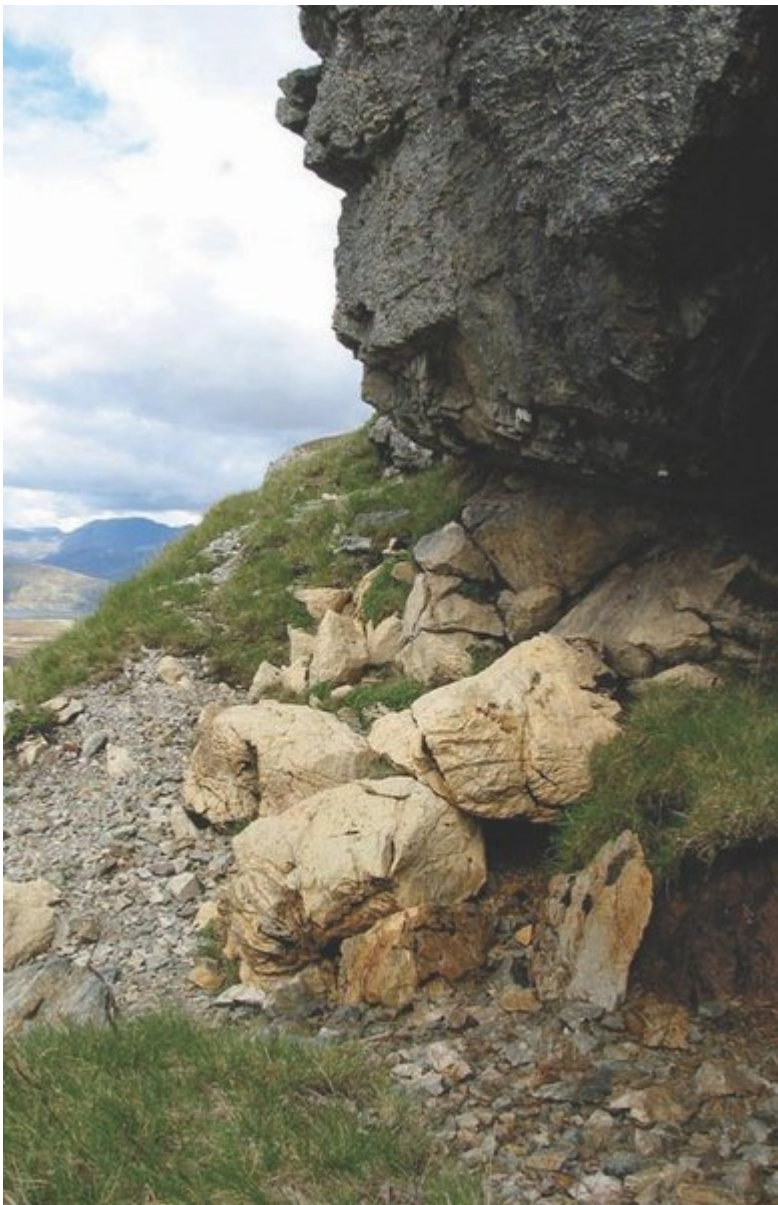
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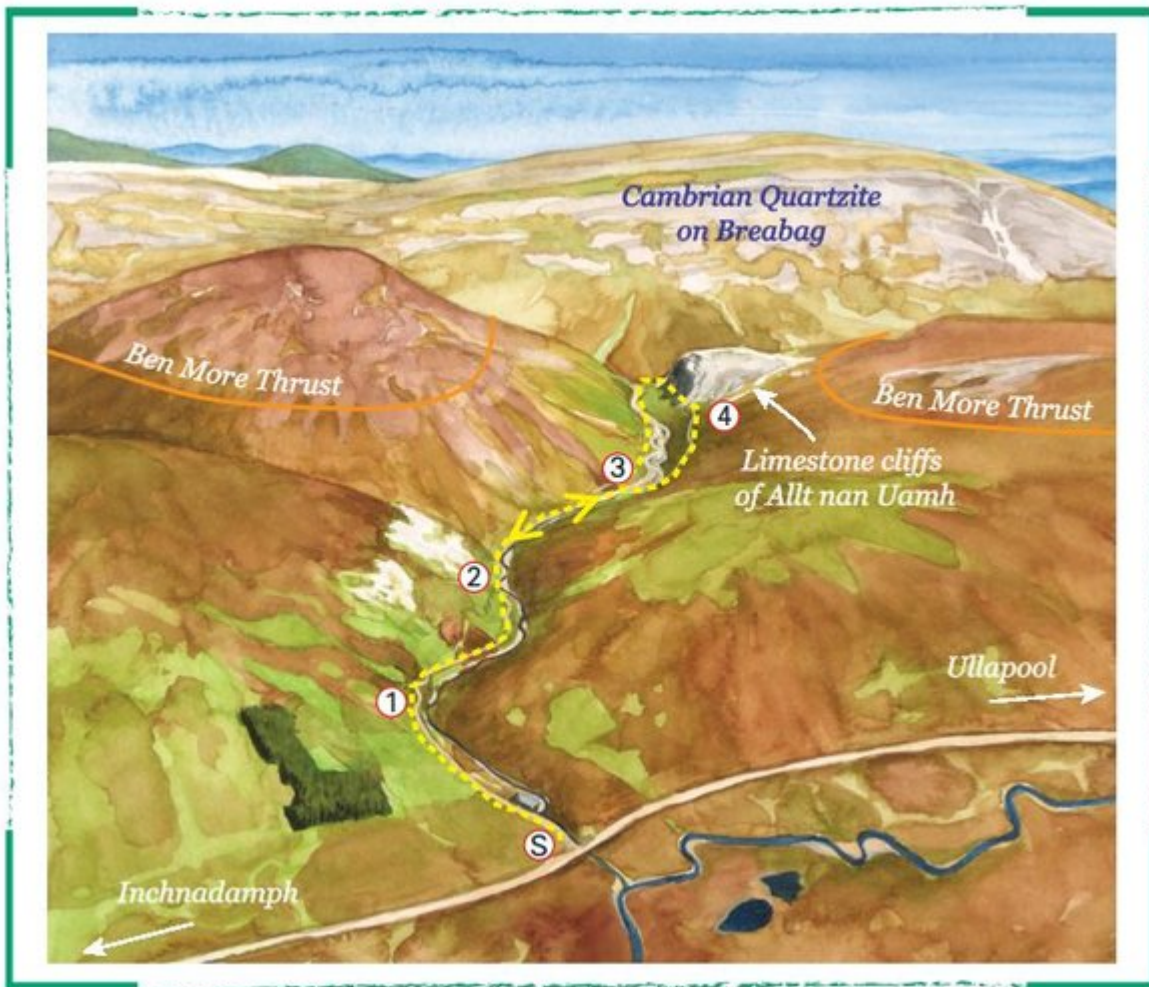
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(Figure 25) Yellow saxifrage on limestone.



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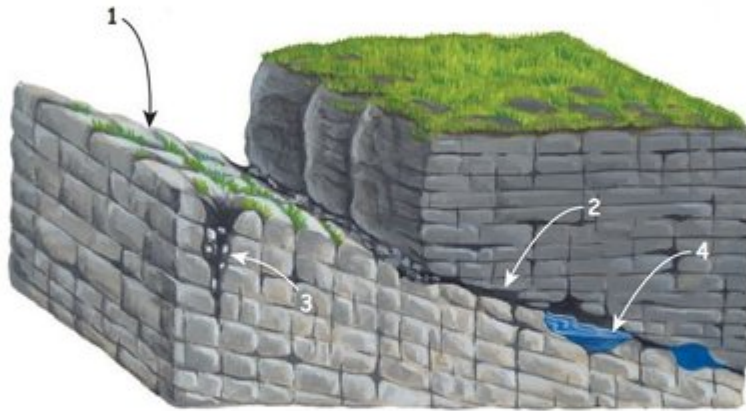
(Figure 36) Glacially transported Lewisian Gneiss boulder above Traligill Rising.



(Figure 37) View west along thrust plane in dry river bed, Traligill.

LIMESTONE LANDSCAPES IN TRALIGILL

Rainwater is slightly acid because it dissolves carbon dioxide from the atmosphere. In limestone areas, rain reacts with calcium carbonate in the limestone, gradually dissolving it away. The resulting landscape shows a variety of dissolution features, collectively known as 'karst', after an area in Slovenia.



1. Blocks and clefts in the limestone surface are known as 'clints' and 'grykes'.
2. Water seeping into cracks dissolves the limestone, gradually forming underground caves.
3. Small caves close to the surface collapse, forming sinkholes.
4. Caves become connected, forming cave systems into which entire rivers disappear, leaving dry stream beds on the surface. Rivers may flow for some distance through these cave systems, before reappearing from springs or risings.

(Figure 38) Limestone landscapes in Traligill.



(Figure 39) The Lower Trailigill cave.



(Figure 40) The Upper Trailigill Caves, Cnoc nan Uamh to the right.



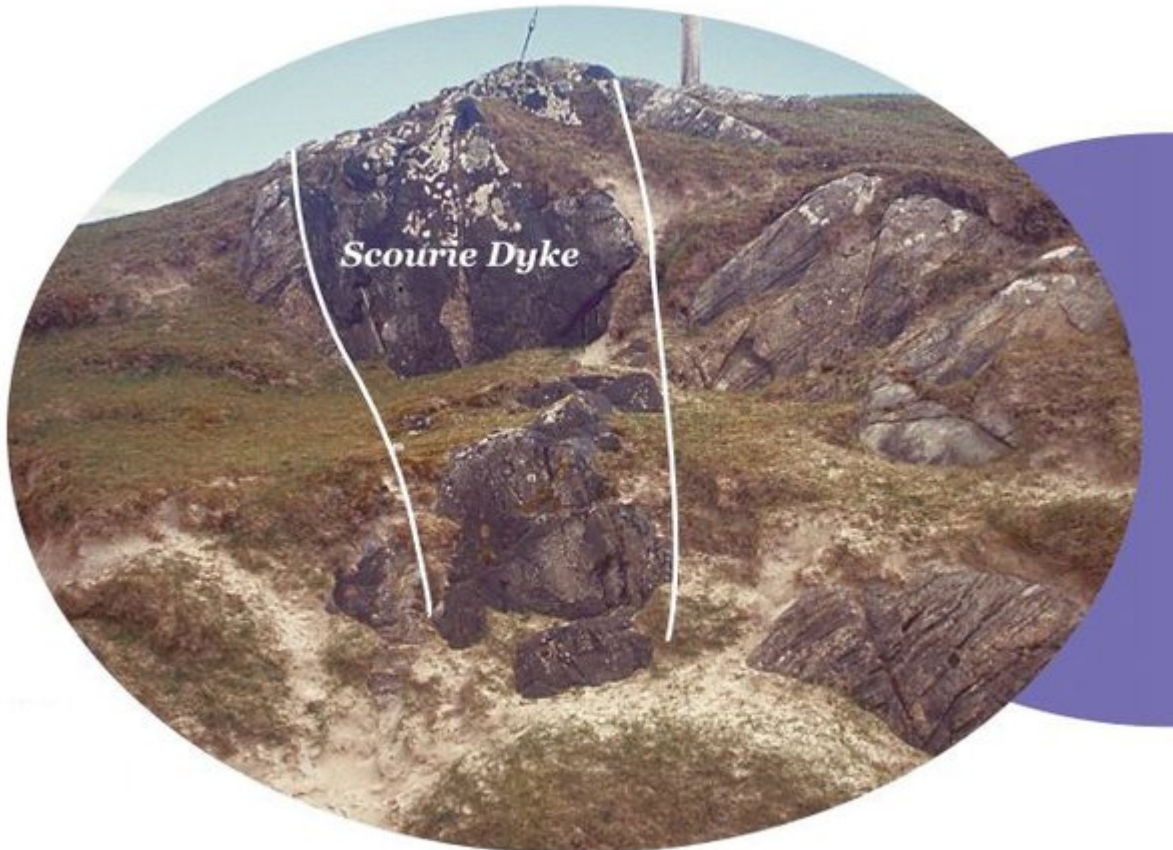
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(Figure 42) Achmelvich to Alltanabradhan Mill. Painting of walk by Elizabeth Pickett.



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Scourie Dyke cutting gneiss by the track at Achmelvich

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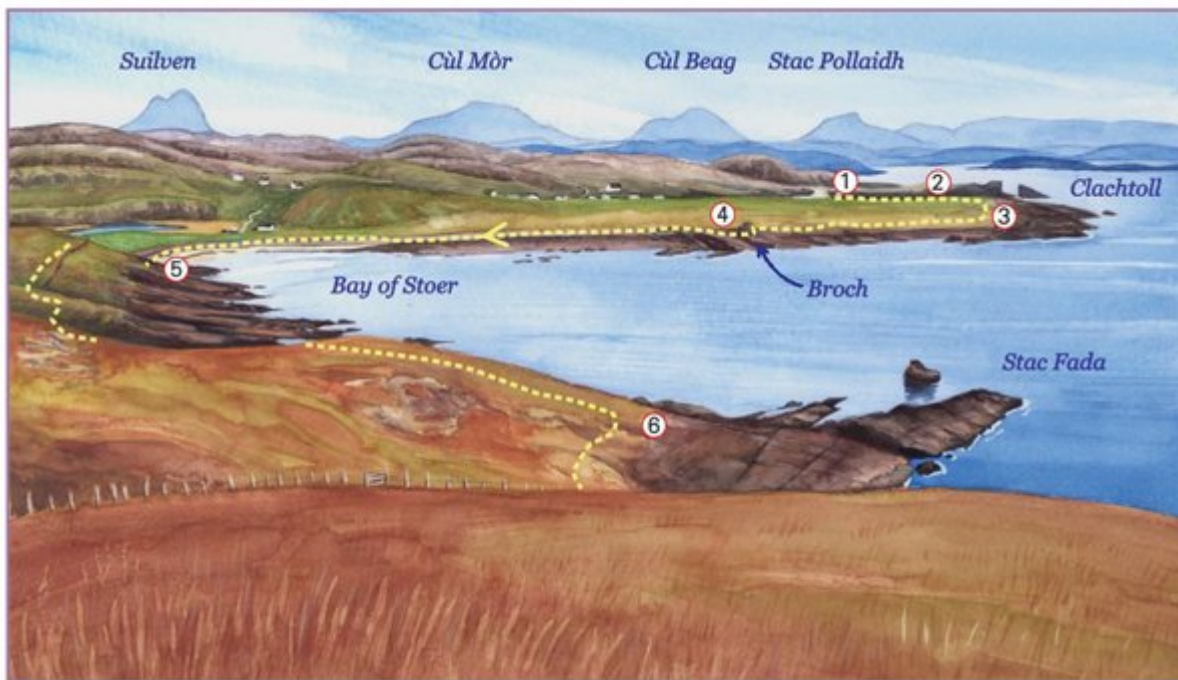
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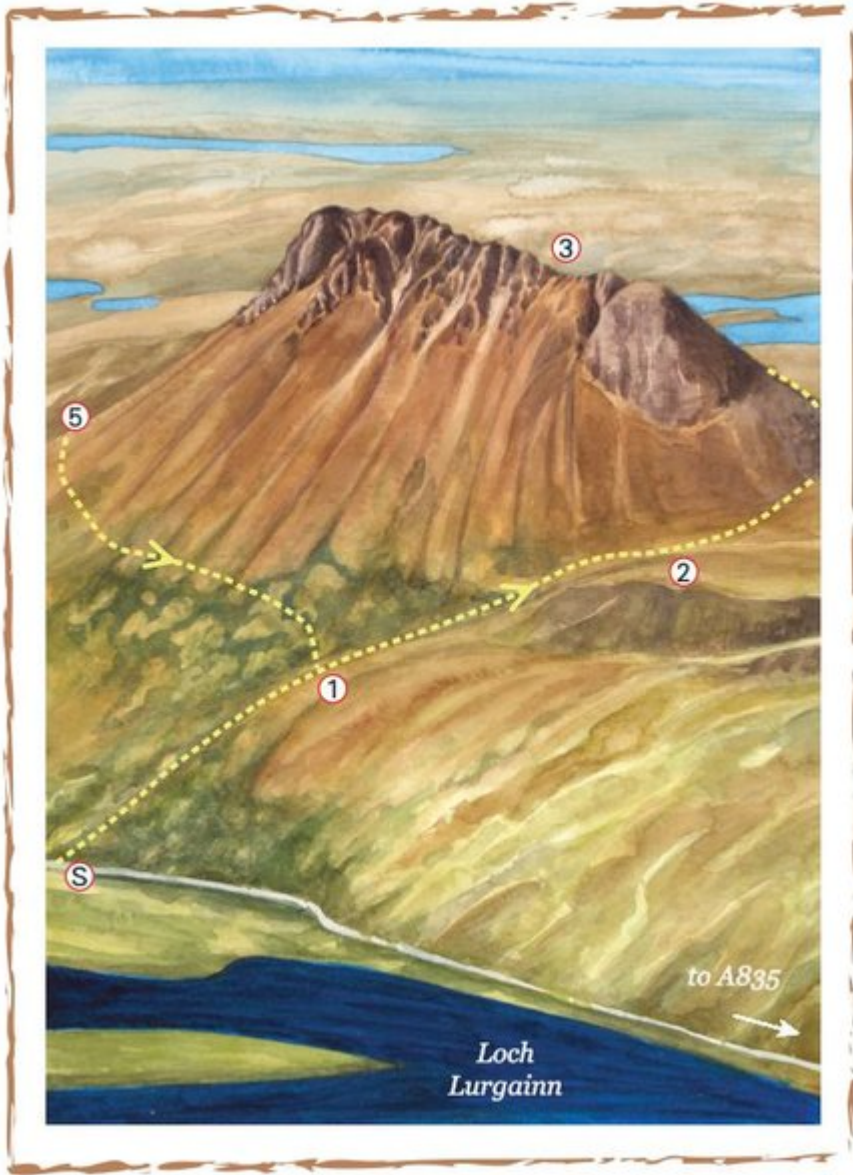
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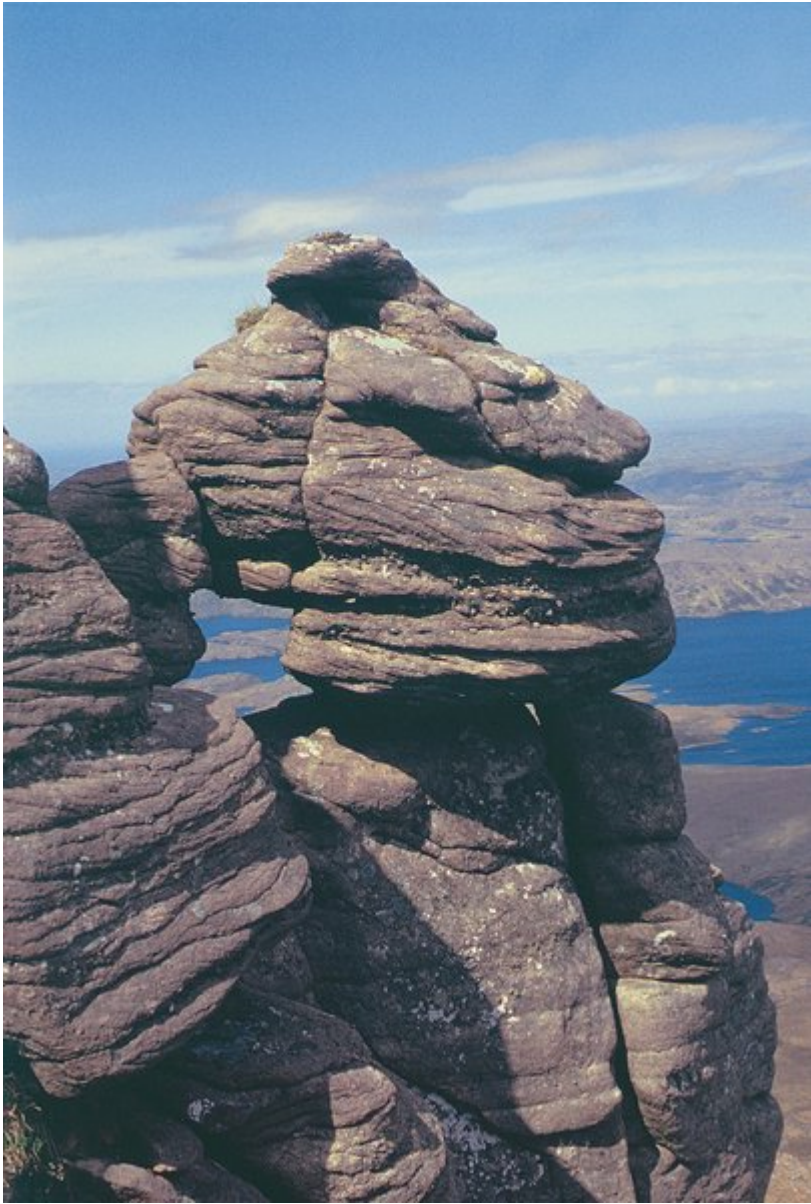
(Figure 59) Stac Pollaidh from the north shore of Loch Lurgainn. Painting.



(Figure 60) Cross-bedding in Torridonian Sandstone on the Stac Pollaidh path.



(Figure 61) Sculpted sandstone on the ridge of Stac Pollaidh.



(Figure 62) Cross-bedded sandstone pinnacle on the ridge of Stac Pollaidh.

FORMATION OF SANDSTONE PINNACLES THROUGH WEATHERING



1 Rainwater seeps into cracks and fissures in the sandstone.



2 As the water freezes and thaws, the cracks are widened, forcing blocks of sandstone apart.



3 Loose blocks fall, leaving behind rock pinnacles that are further sculpted by wind and rain.

(Figure 63) Formation of sandstone pinnacles through weathering (painting).



(Figure 64) Formation of sandstone pinnacles through weathering (photo).



(Figure 65) Boulder ridge on the western slopes of Stac Pollaidh.



(Figure 66) Suilven. Painting of walk by Elizabeth Pickett.



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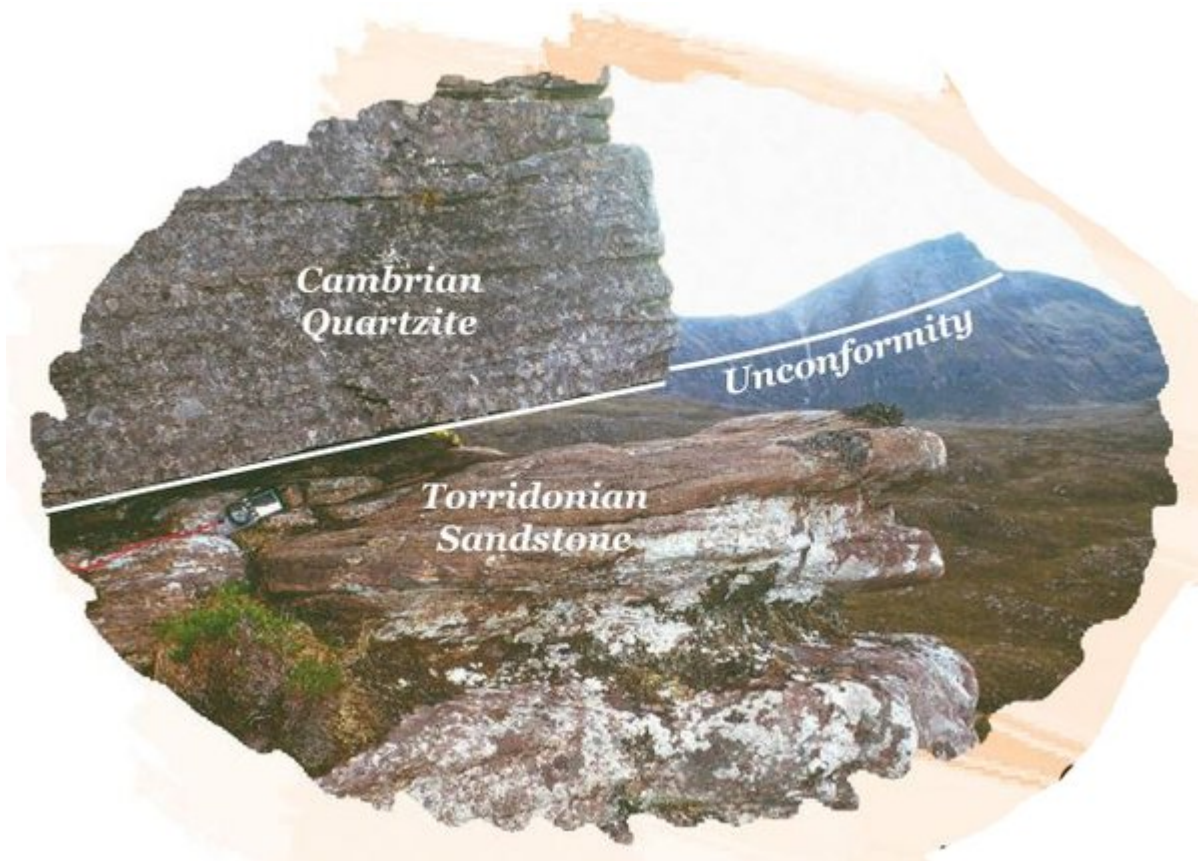
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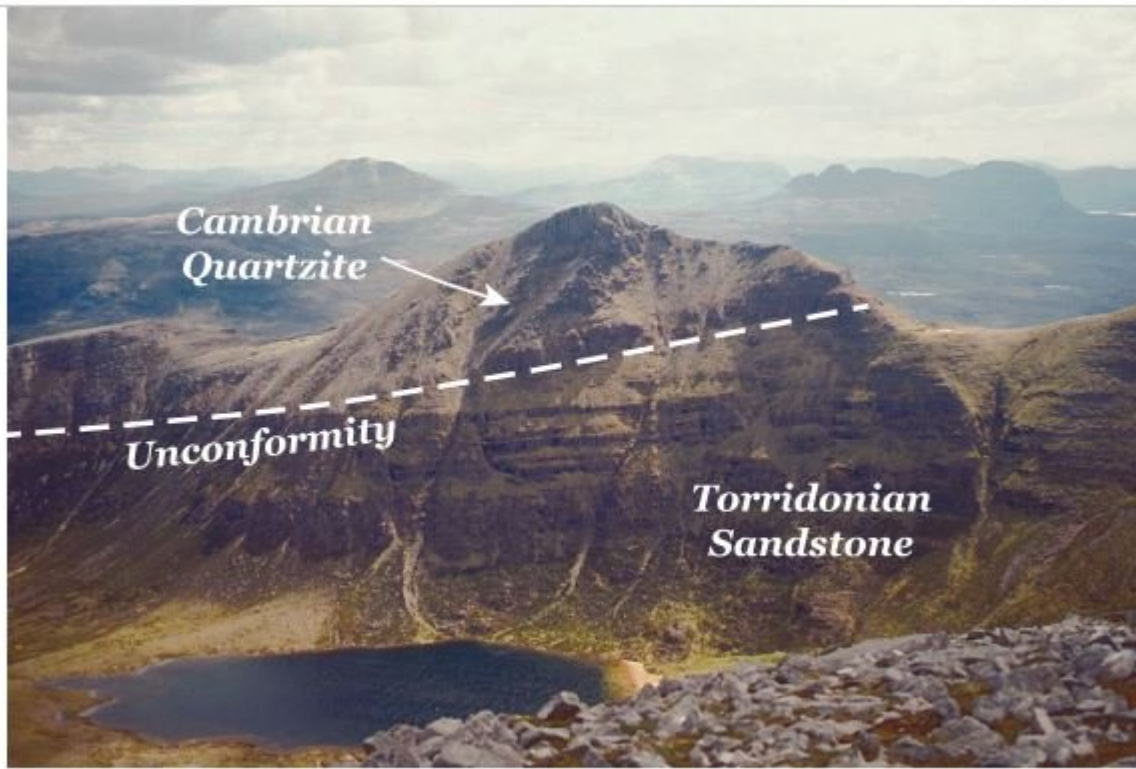
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(Figure 83) Conival and Ben More Assynt. Painting of walk by Elizabeth Pickett.



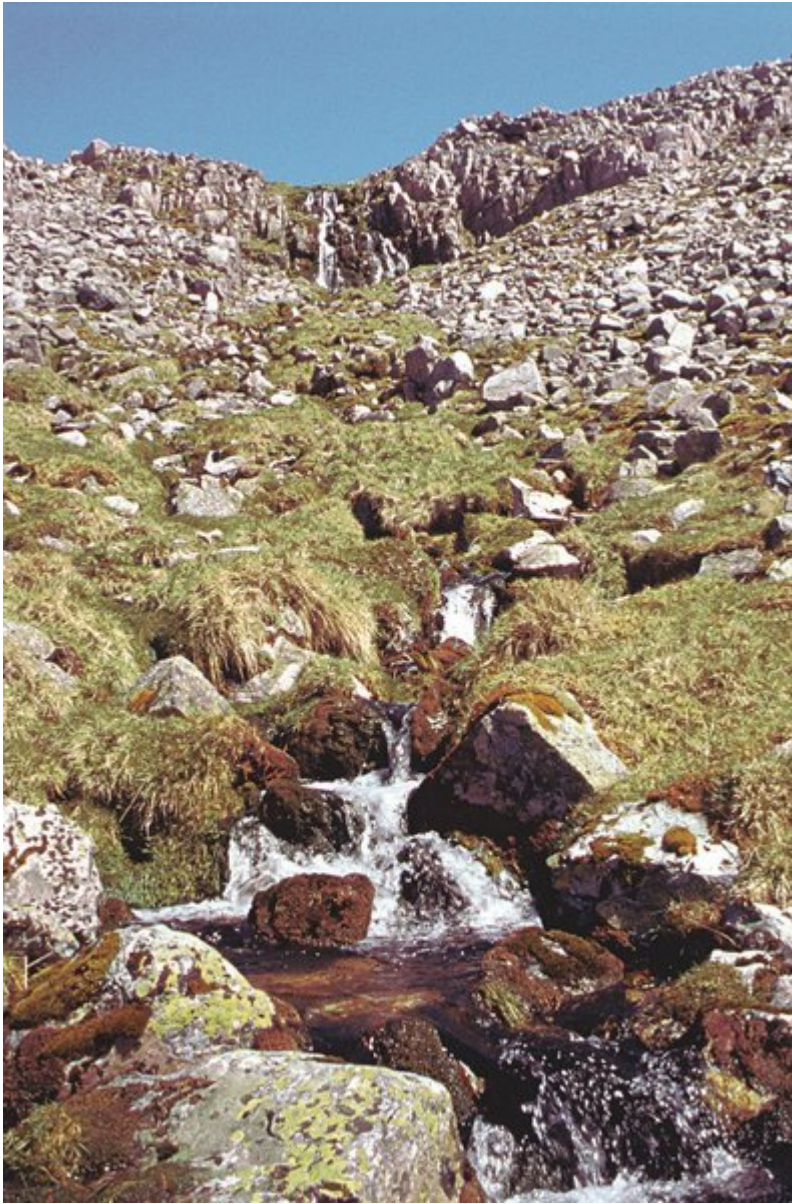
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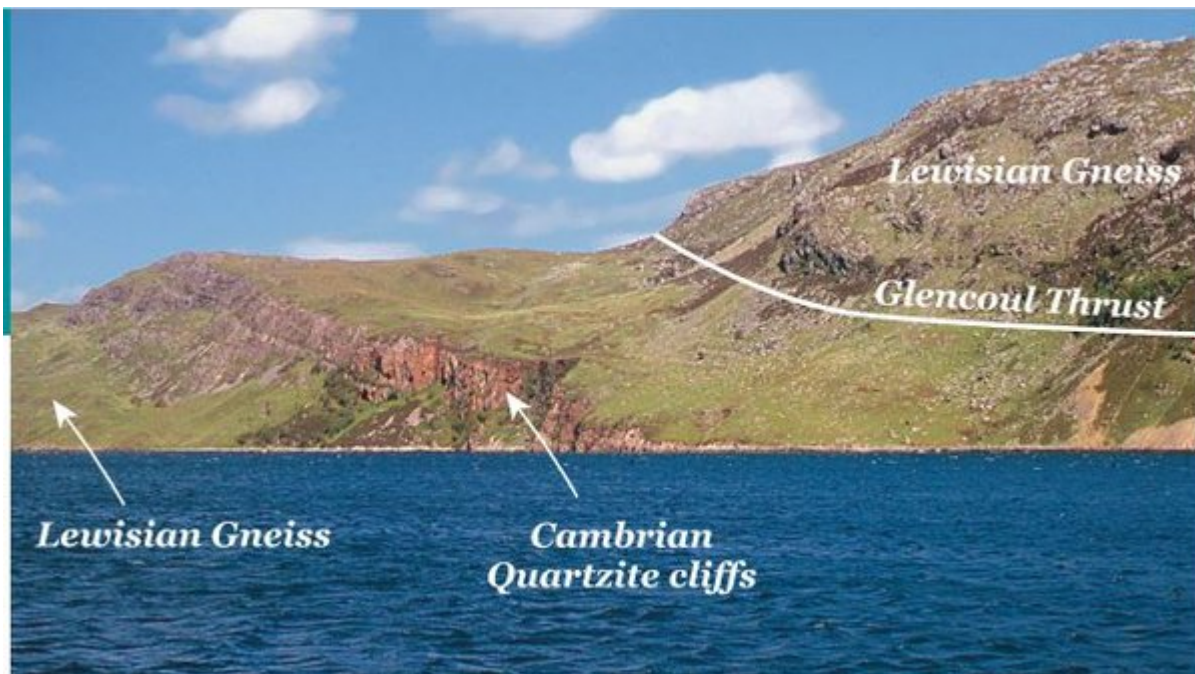
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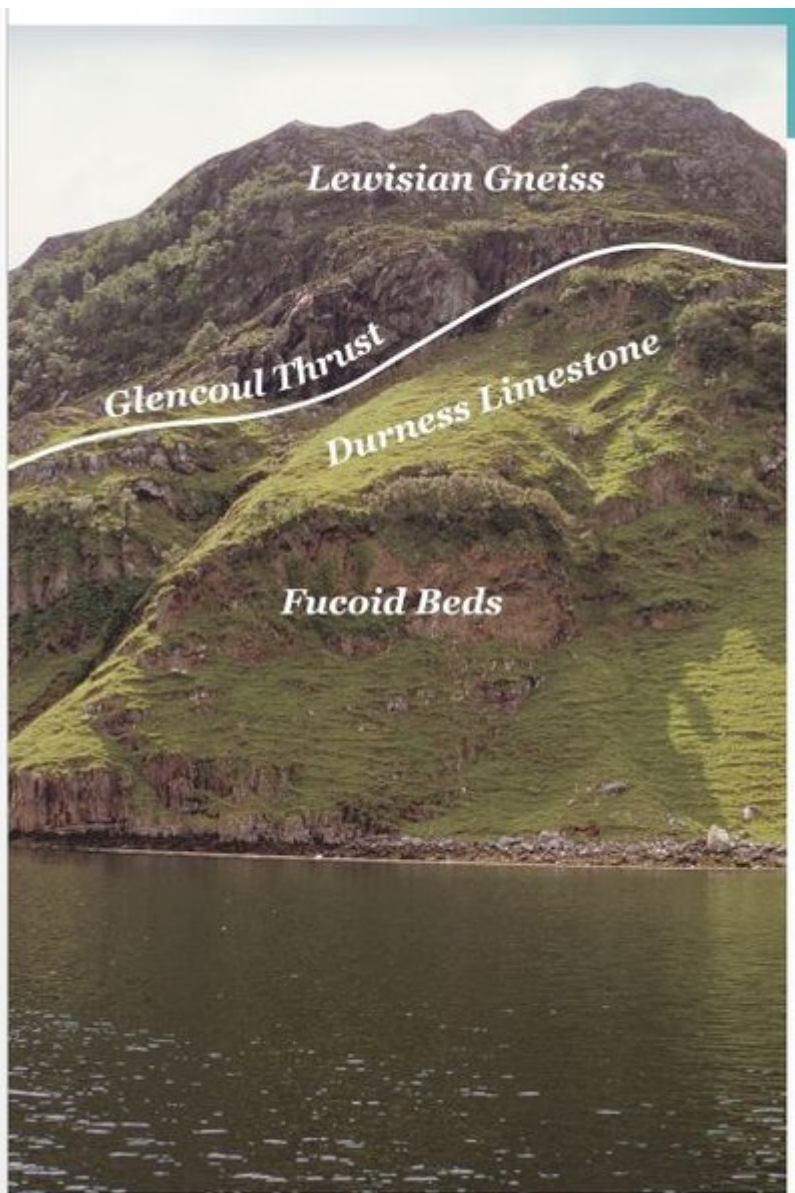
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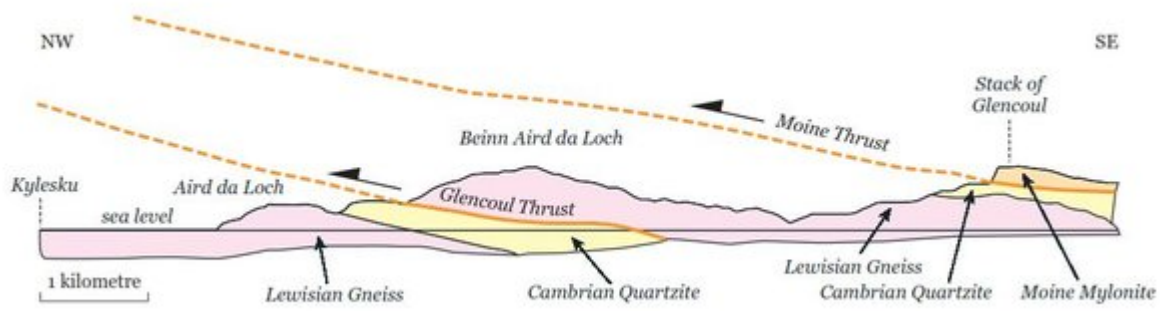
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