# DEEP TIME — A RETURN

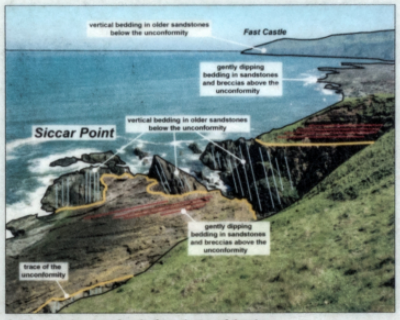
# SICCAR POINT

James Hutton (1726 – 1797) known as the founding father of geology was a man of genius. Whilst farming nearby he indulged in his passion for geology. The rocks here at Siccar Point were the defining proof for his revolutionary Theory of the Earth. Most people at this time thought the world no older than a few thousand years. Hutton realised that earth processes are cyclical and that geological time is virtually unlimited. What we see today is very much how he would have seen it over 200 years ago (but a moment in geological time!).

**SAFETY WARNING**

**The slope down to the unconformity is steep and dangerous. Please proceed with care at your own risk along the field boundary to your right. You do not need to go down to the shore to observe what these photographs illustrate.**

*A close-up of the unconformity from the shore*




*A view onto the unconformity from the top of the slope.*

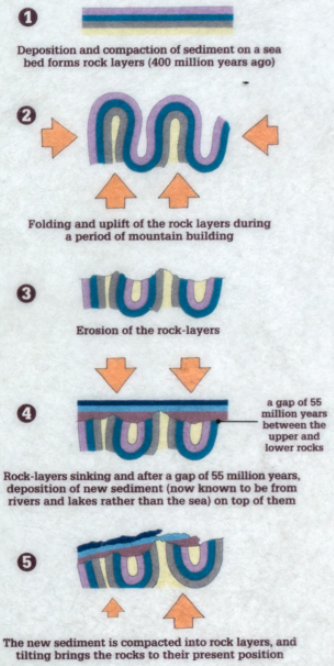
The yellow lines mark the time gap between the underlying vertical rock-layers (greyish in colour and called 'Greywackes') and the overlying gently dipping rock-layers (reddish in colour and called 'Old Red Sandstone and Conglomerates'). The gap represents 55 million years.

During this time the underlying rocks formed from layers of sediment deposited on the floor of an ancient ocean, had been folded, uplifted and eroded. This produced an uneven land surface onto which the overlying rocks were then deposited as sand and gravel. The irregular surface between the vertical and the gently dipping rock-layers is known as an unconformity.

**To find out more about Hutton AND THE TRAIL take a trip to the James Hutton Exhibition located at the Reiver Country Farm shop in Auchencrow.**

*"Having taken boat at Dunglass Burn, we set out to explore the coast", writes James Hutton of his trip down the Berwickshire coast with his friends John Playfair and James Hall from nearby Dunglass, to find the proof for his theory...and this they did "At Siccar Point", he wrote "...we found a beautiful picture of this junction washed bare by the sea". John Playfair, deeply moved by the significance of what they observed wrote later "The mind seemed to grow giddy by looking so far into the abyss of time".*

**HOW THE UNCONFORMITY WAS FORMED**




This project was initiated by BFRS and implemented in partnership with farmers on whose land this trail occurs and with public and private funding. www.bfrs.org

PROJECT PART-FINANCED BY THE EUROPEAN UNION
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Making Tracks

Siccar Point, Berwickshire, Scottish Borders.