## **U3A GEOLOGY REPORT**

## **Bob Tuddenham**

## Meetings on June 23rd

We had two most interesting holiday geology talks in the June meeting. The first was by Andrew Lapworth about his trip to Iceland in May 2024 and the other talk was about Gibraltar and Tangiers by Trevor Morse during his recent cruise in the Mediterranean.

Andrew gave a fascinating presentation of his trip to Iceland with many visually stunning slides of this area of tectonic activity. As many of you know, Andrew is an expert birdwatcher and he admitted his geology was limited to O level geology (in 1974!). Having said that, he included some very useful geology to set the context. Iceland is on the Mid Atlantic Ridge (MAR) but is also on a static hot spot so the rocks are mostly igneous and are no more than 16 million years old. Andrew showed us some magnificent photos of waterfalls, geysers, coastal settings and also evidence of the tectonic plates. In particular, he visited the Almanannagja Gorge where the Eurasian and the North American Plates are dividing with a rift valley. Some fine bird photos were also included in the presentation. The talk stimulated a discussion about whether the MAR and the hot spot were related or are independent of each other

Trevor had just returned from a Mediterranean cruise to celebrate his and his wife Lynn's, 45<sup>th</sup> wedding anniversary. The ship had stopped at Gibraltar and Tangier and this provided an opportunity for a talk about the geology of the Pillars of Hercules;. These are the promontories on each side of the narrow Strait of Gibraltar which separates Europe and Africa, the Rock of Gibraltar and Mount Itacho respectively.

The geology of both is from the Jurassic period and this is an area of tectonic activity where the African and Eurasian plates collide. 'The Rock' is made of limestone, the layers of which have been overturned by the tectonic collision so the oldest strata is on the top. The promontory in Morocco is made up of flysch deposits, sandstone and shale layers characteristic of orogenic/mountain building activity. There were also some interesting caves with extensive tufa deposits – dissolved and precipitated limestone.

Our next meeting will be at The Witham on Monday morning September 22nd at 10 am. All are welcome to join us. Please contact the convenor for details.