## U3A GEOLOGY REPORT Meeting on March 25<sup>th</sup> Bob Tuddenham

In March we returned to face to face meetings at the Witham with a very interesting and varied meeting.

In the first half, Jane Harrison gave a fascinating talk entitled 'Marble or not?' which covered the history of this rock from its formation by metamorphism through to its uses across the world as a valuable building stone and for iconic sculptures. Jane showed us five slides of 'marble' buildings and sculptures and asked which we thought were actually marble? Locally, Frosterley marble is not a true marble but there was some discussion about whether sugar limestone in Upper Teesdale is a marble or not.

In the coffee break, Les Knight showed us some erratics that he had recently picked out up at Filey Brigg. They had probably come from as far as Scotland and even Norway!

In the second half Les gave us an excellent, well informed talk on 'Coal the rock that keeps on giving'. He outlined the history of coal from its geological formation and hazardous extraction by mining to its fundamental role in the industrial revolution and beyond. This versatile black rock was the primary source of energy in the 19<sup>th</sup> and early 20<sup>th</sup> centuries, was essential for the iron industry and was the source of numerous valuable organic chemicals leading to products such as aniline dyes. Les talked briefly about coal based methane which uses a similar procedure to shale fracking. It has been estimated that there are some 10,000 billion tons of subsea coal in the UK waters of the North Sea but of course, we are unlikely ever to use it given the environmental impact of coal on global warming.

Our next meeting will be at The Witham on Monday morning May 27<sup>th</sup> 10 am. All are welcome to join us. Please contact the convenor for details.

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