

U3A Geology Report Meeting Jan 9th Bob Tuddenham

Our first Zoom meeting of 2023 was in two parts. David Saville continued his 'Introduction to Geology' with a brief talk about sandstones, the range of different types and how they formed. David also produced a very useful handout that was sent out to members.

In the second half of the meeting Trevor Morse gave a presentation on the 'Permian and the Zechstein Sea' which tied in with Rick Smith's talk in November. Trevor gave more detail about the Zechstein Sea that covered parts of the northeast and across the North Sea and Europe during the Permian period (250 to 300 million years ago). The sea frequently dried up leaving crusts of valuable minerals which were the main reason for the start of the chemical industry on Teesside. Potash and polyhalite from the Zechstein Sea are still mined today at Boulby and will in the near future be mined on a kar3ge scale at the Woodsmith Mine near Whitby.

U3A Geology Report Meeting Jan 23rd Bob Tuddenham

A question had been raised at the previous meeting about unconformities (gaps in the geological record) and at the start of this meeting, Trevor Morse gave a useful presentation about this phenomenon and the different types of unconformity. There is an unconformity between the Permian and Carboniferous just outside Darlington.

The main talk was given by Les Knight entitled 'Silver in the Pennine Orefield'. Les explained that he had known little about the topic until he had started his research which enabled him to give this fascinating talk about this metal which arises in small amounts with some lead ores. Initially Les went over the use of this metal through history and explained that now its major use is in electronics and medicine. In his research, he and his wife Sue had put together a spreadsheet of records about silver that had been collected on all mines in the country in the 19th century. From this information he was able to compare the amounts of silver extracted from various orefields. In most mines in the North Pennines, the amounts were not worth extracting but occasionally higher quantities were obtained which were of some value. The highest amounts of silver were found in south west England together the more familiar tin and lead. In the discussion after the talk, Roger Stanyon mentioned that as a geology student, he had had a placement in a fluorite mine in Rookhope and

the associated lead ore had been rich in silver. It was the silver that had kept the mine in business!

The next Geology meeting will be on Zoom on Feb 27th at 10.30 am. All are welcome. Please contact Bob Tuddenham for details.