Managers were thanked for their time. Members took lunch under the limestone cliffs of the original quarry of Hardendale Nab, NY 580 140. After lunch the Coast to Coast path was joined, past the former entrance to the quarry. Along the southern boundary of the quarry a small boulder identified a possible site for a copy of the general geology interpretation board planned for Sandpot Hole.



Figure 4 Gour pools in Shapfell quarry

Members continued around the eastern edge of the quarry, noting viewpoints into the quarry, small patches of limestone pavement, small sinkholes, and occasional Shap Granite erratics. A pause at the stone wall at NY 593 143 demonstrated different rock types, limestone and sandstones, with abundant fossils, before returning to where the cars were parked.

A Visit to Whitehaven Harbour for a Building Stones Walk

Leader Margaret Bennett 29 August 2019

An intrepid group of Society members met in the car park to the north of Whitehaven's North Pier. The lovely weather had ended 2 days earlier and we had high winds but no rain to contend with. As the tide was out we escaped spray from the waves pounding the piers.

We began by walking along the North Pier to the old lighthouse (disused) at the end. The North Pier is one of the oldest parts of the harbour and the Carboniferous and Permian Sandstones it is constructed with exhibit signs of severe weathering. Many of the flagstones show bedforms and some have inclusions of a much darker rock, softer than the surrounding stone but with a very hard margin.

We returned to the start of the pier and took advantage of the harbour bridge being down to cross to the Old Quay. Here again we saw sandstone bedding structures. A building on the Old Quay has a plaque dating it to 'about' 1730 so that area must be at least that old.

A section of the quay where it joins the road has been paved with large rounded cobbles and the members were interested in the range of rock types that had been used.

From there we turned onto the West Pier. Several large blocks of Shap Granite have been used to prevent motorised access. One block has an interesting inclusion (xenolith?) exhibiting what appear to be chilled margins. One on the top of the block is black but a lower one is greenish yellow.

We followed the West Pier to the end and climbed up the steps to the new lighthouse. There are some deeply eroded stones in the wall which we sheltered behind.

The return walk along the top of the pier was abandoned due to the high wind.