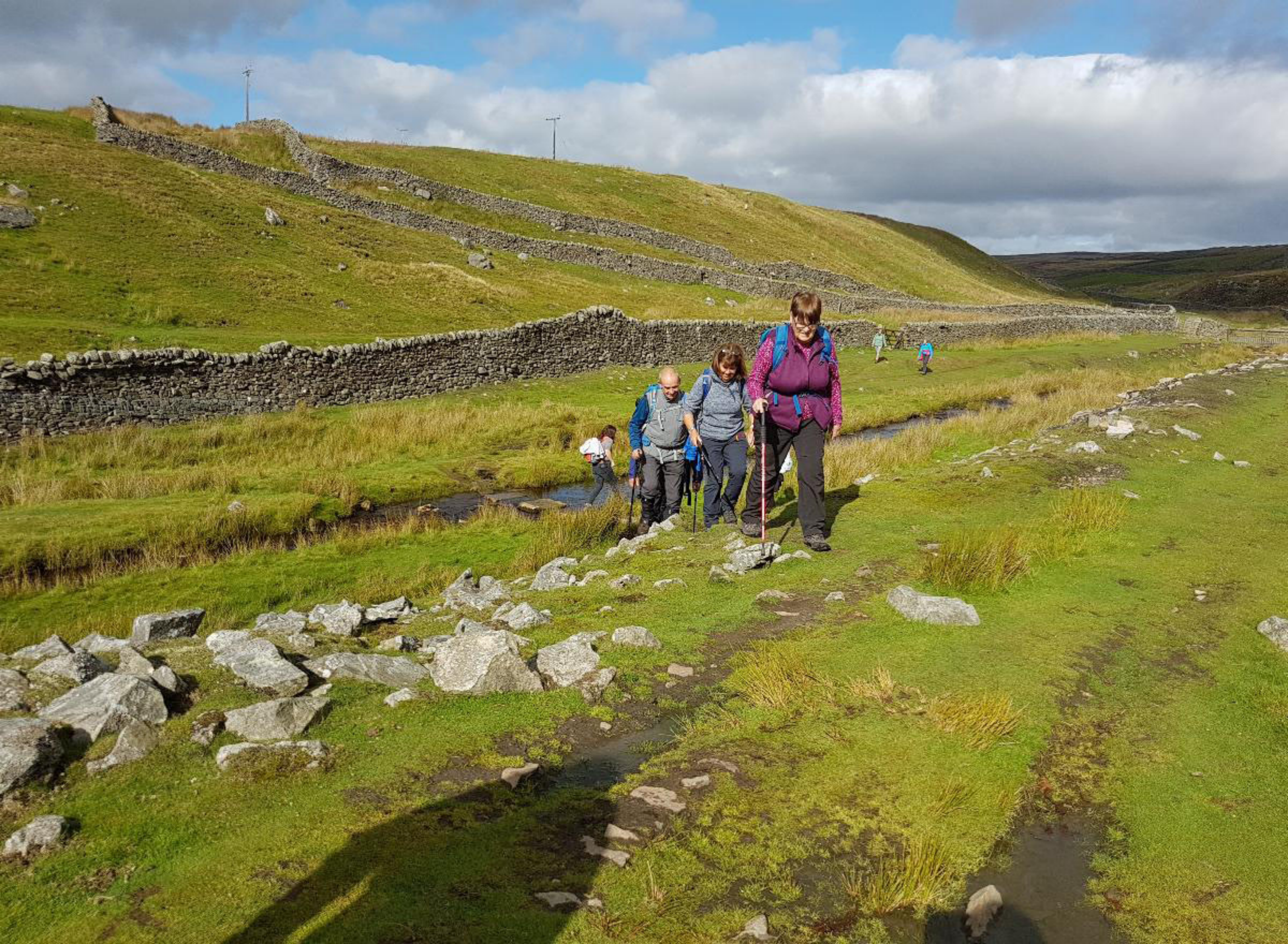
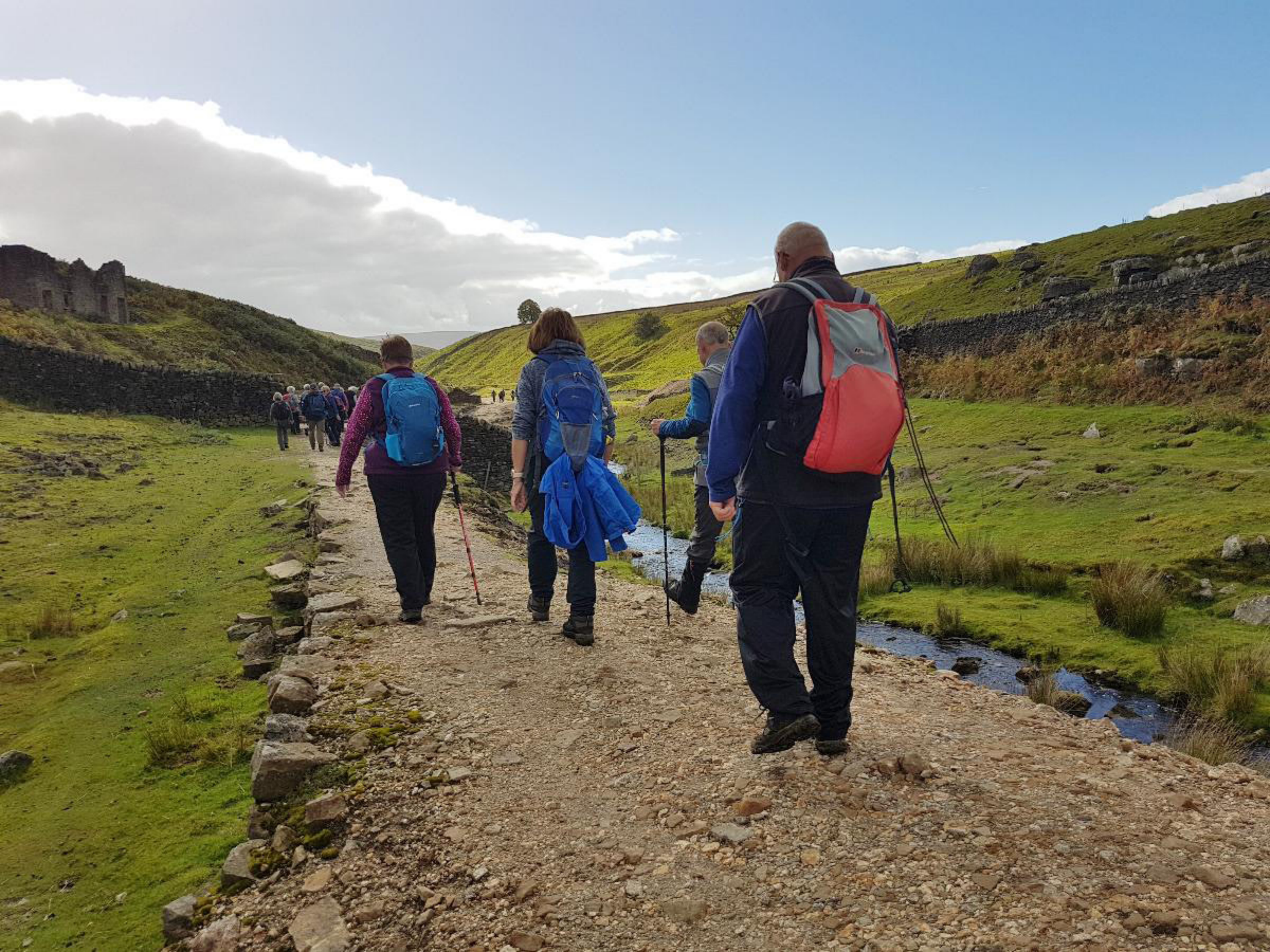
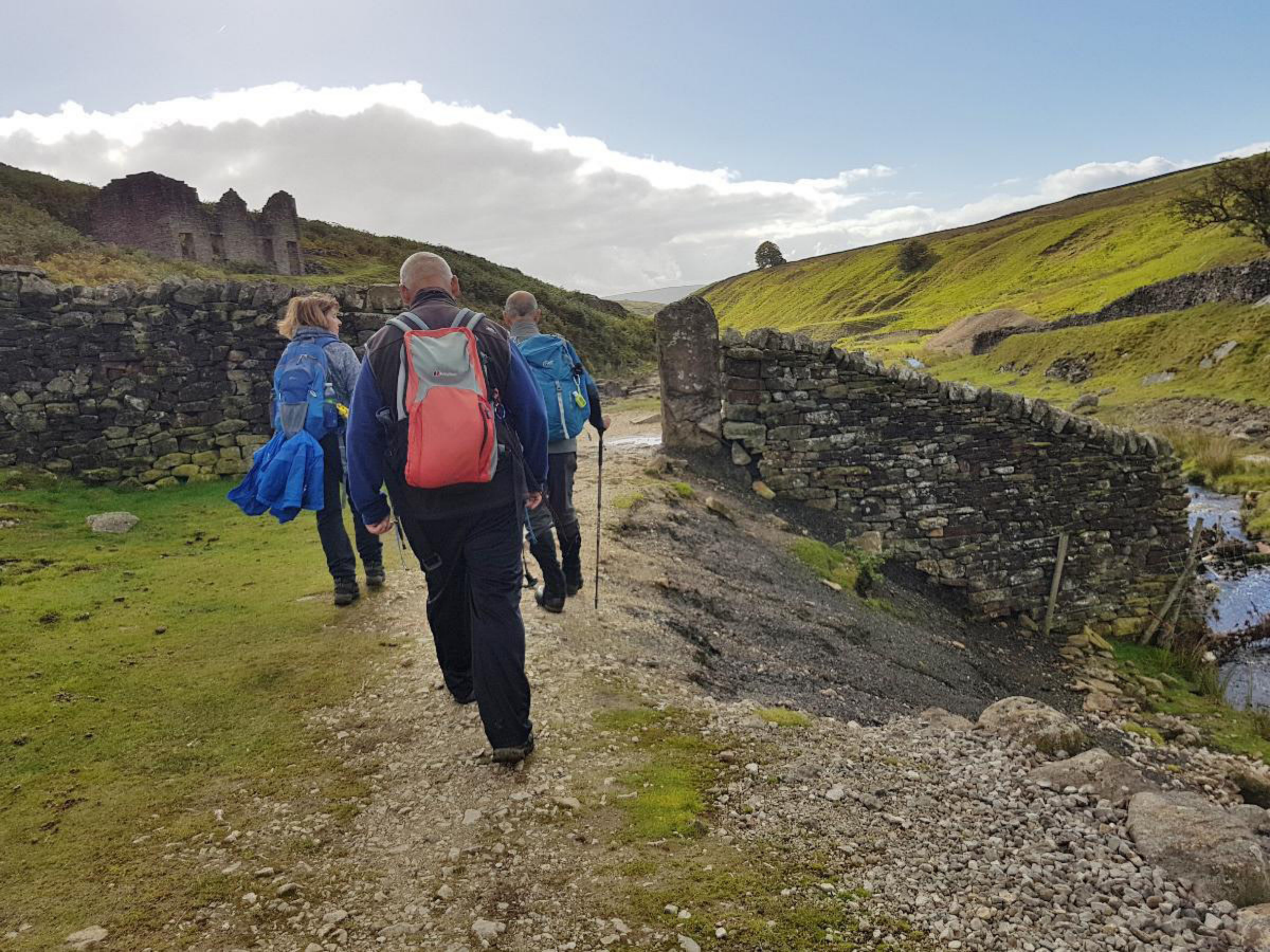
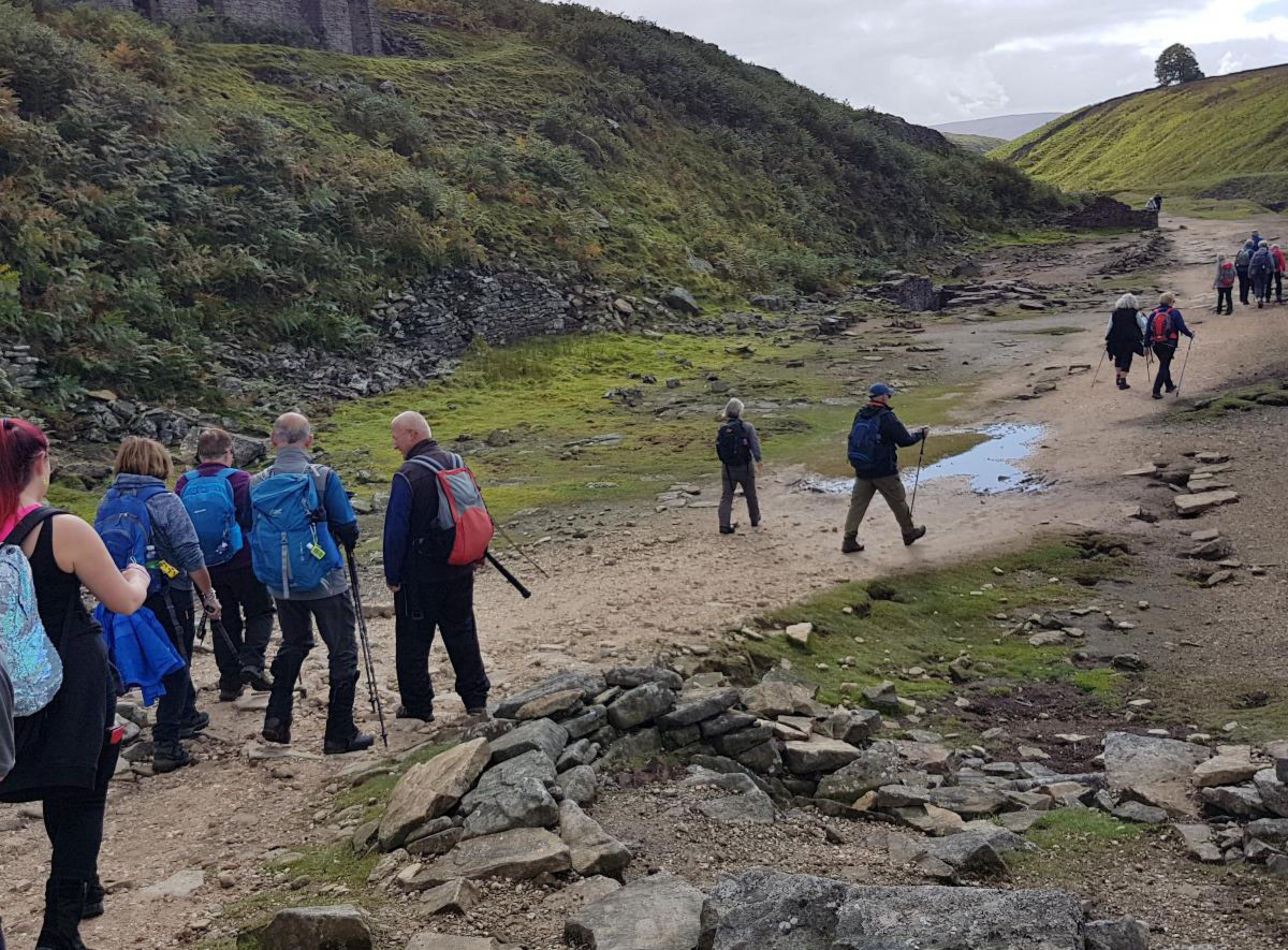
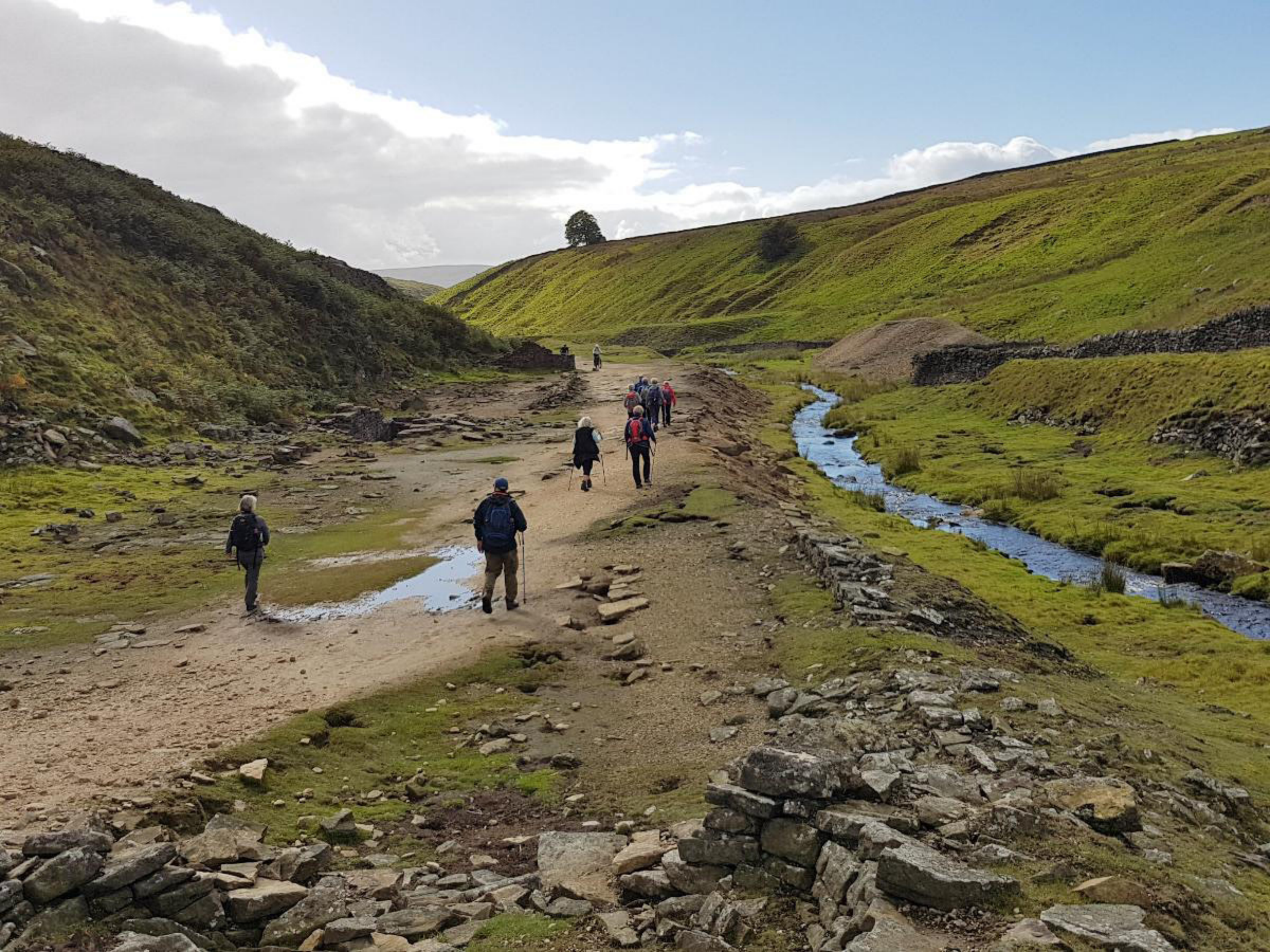
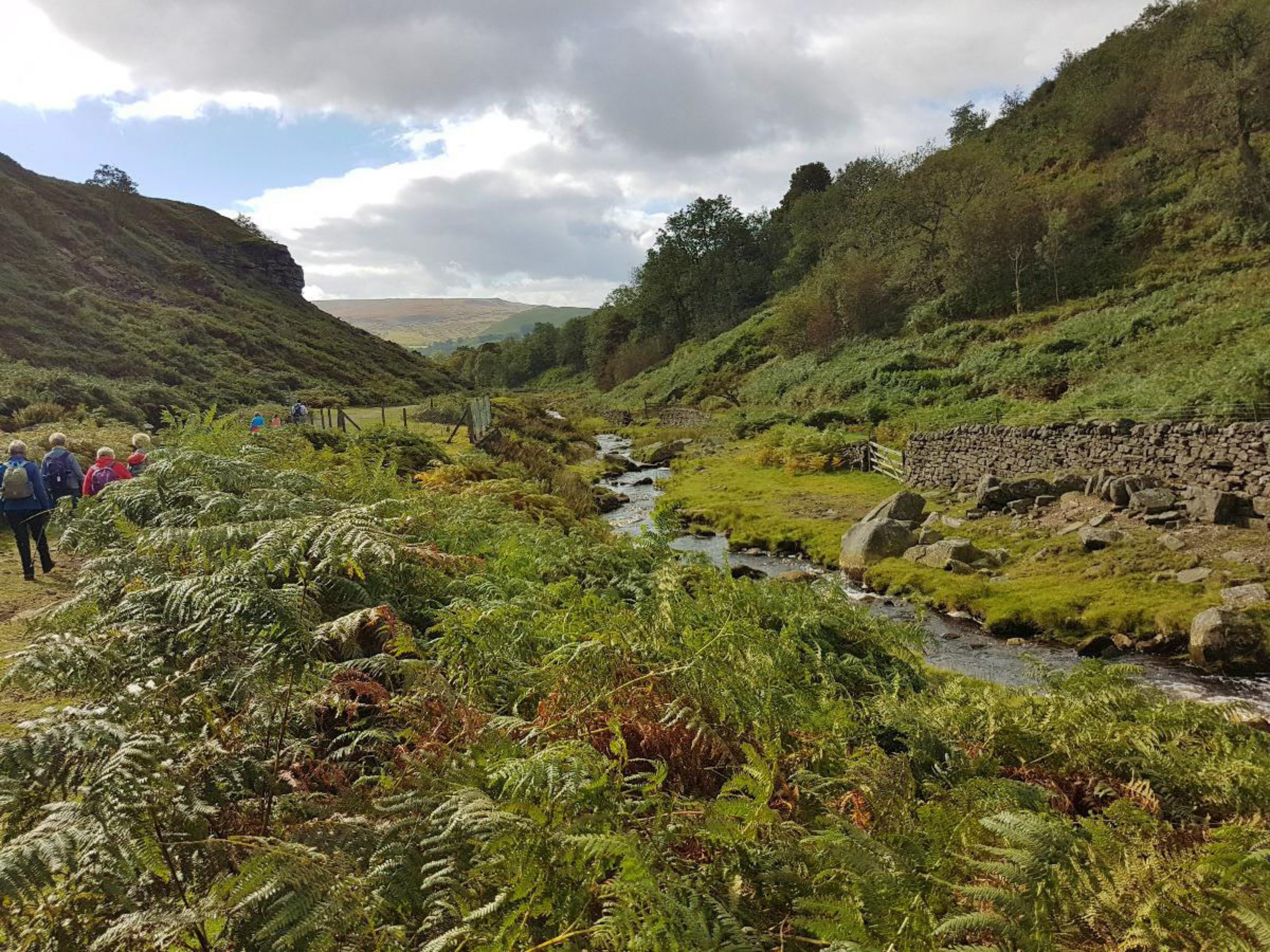


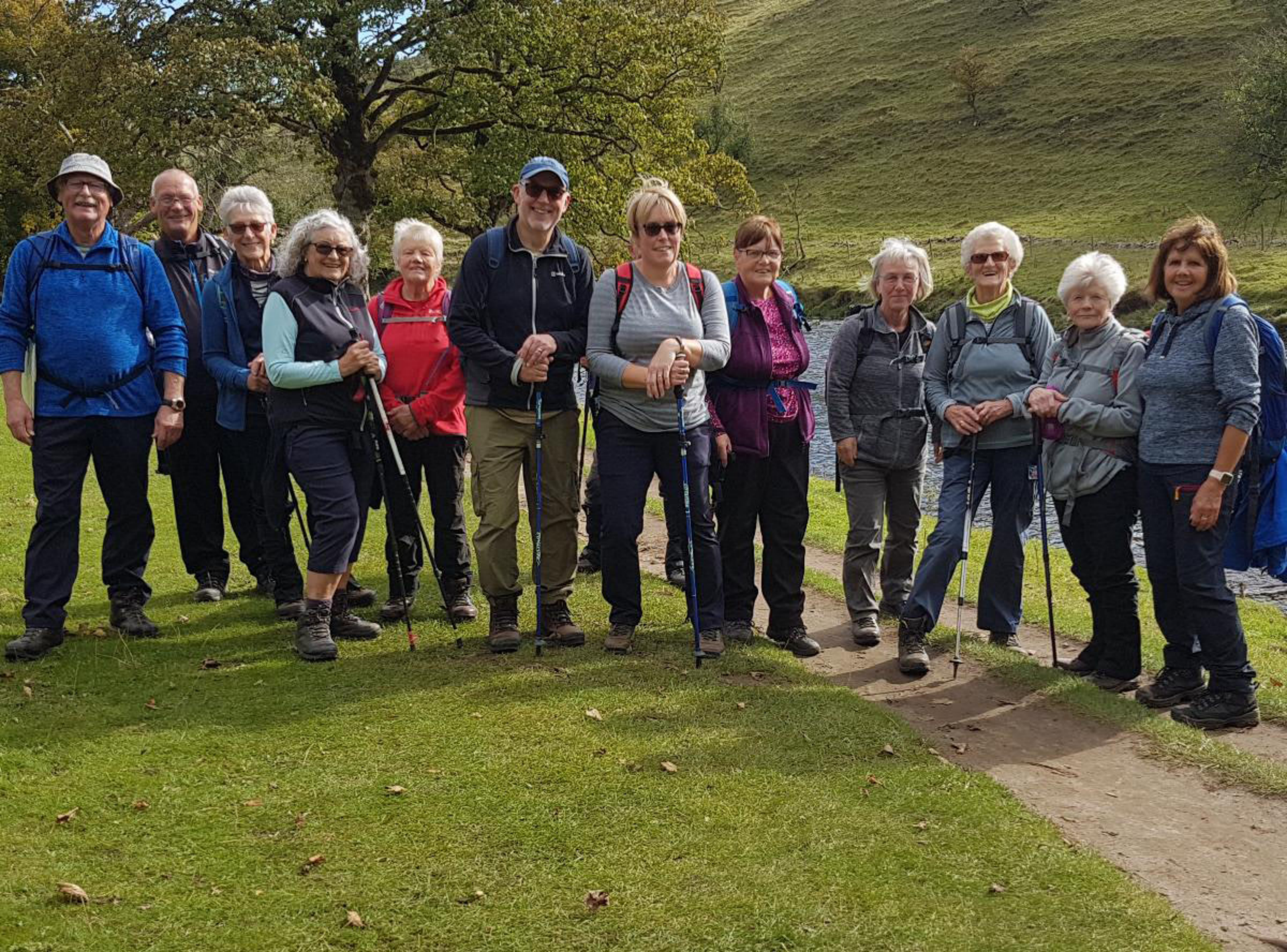


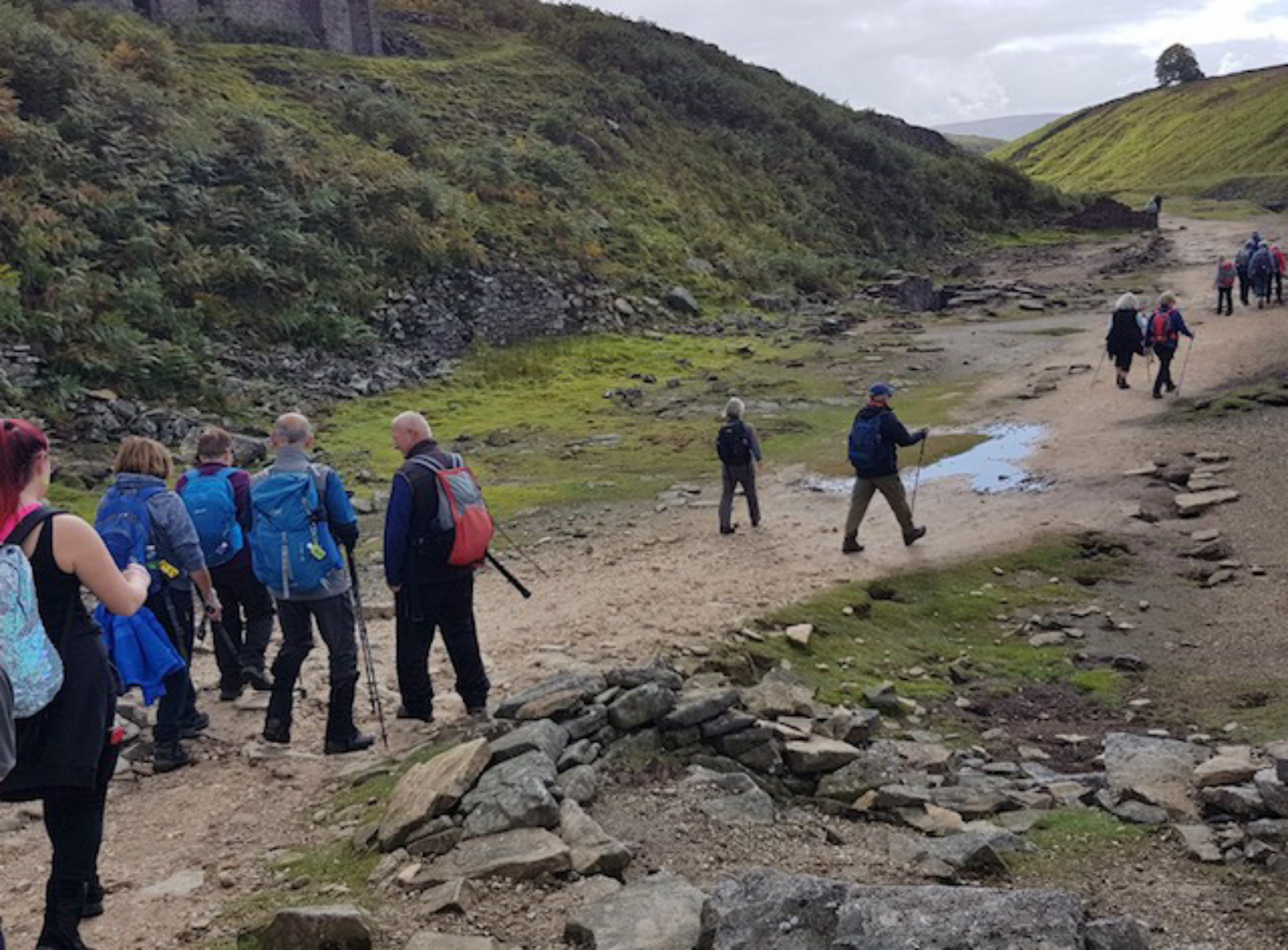


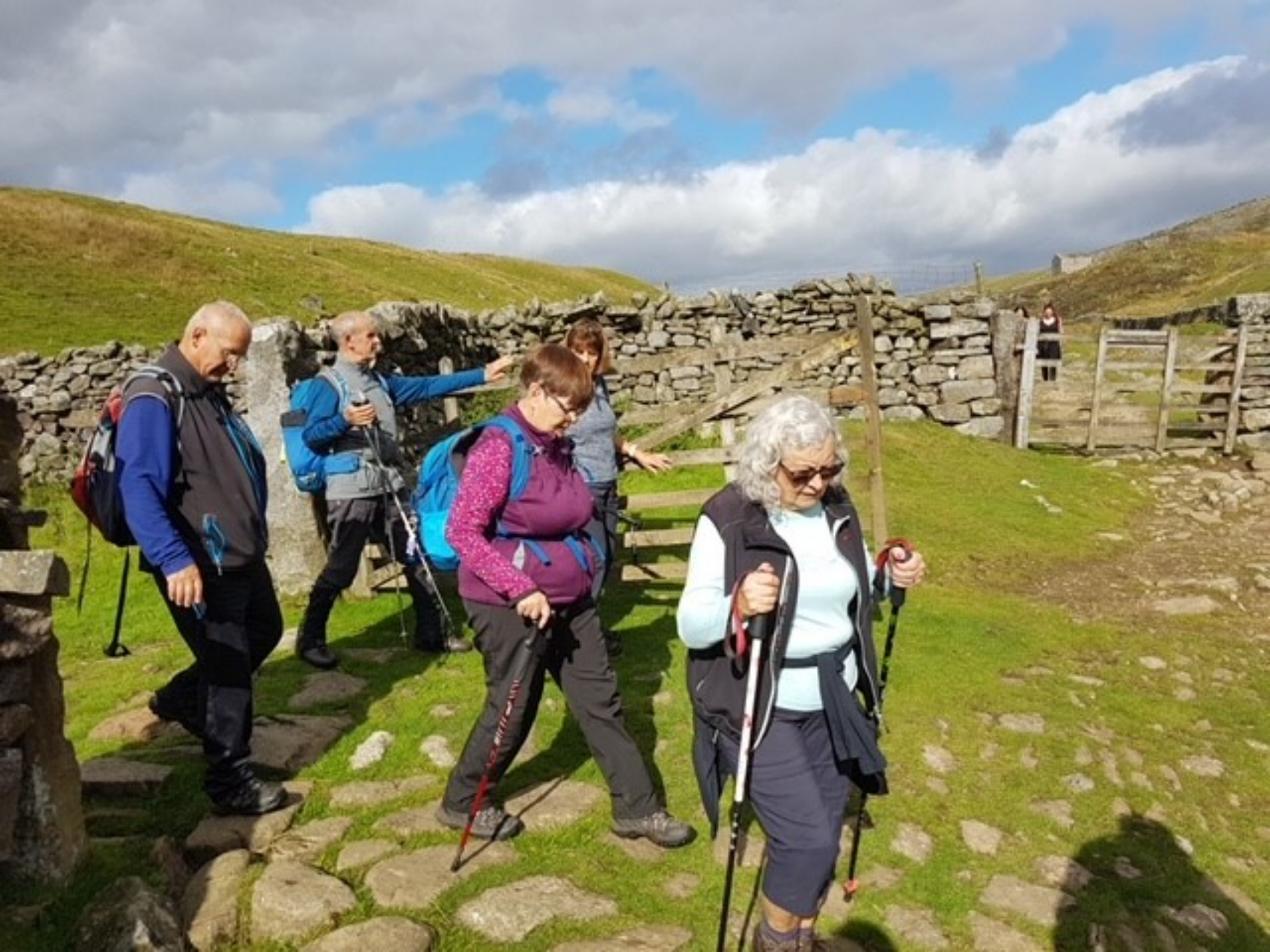


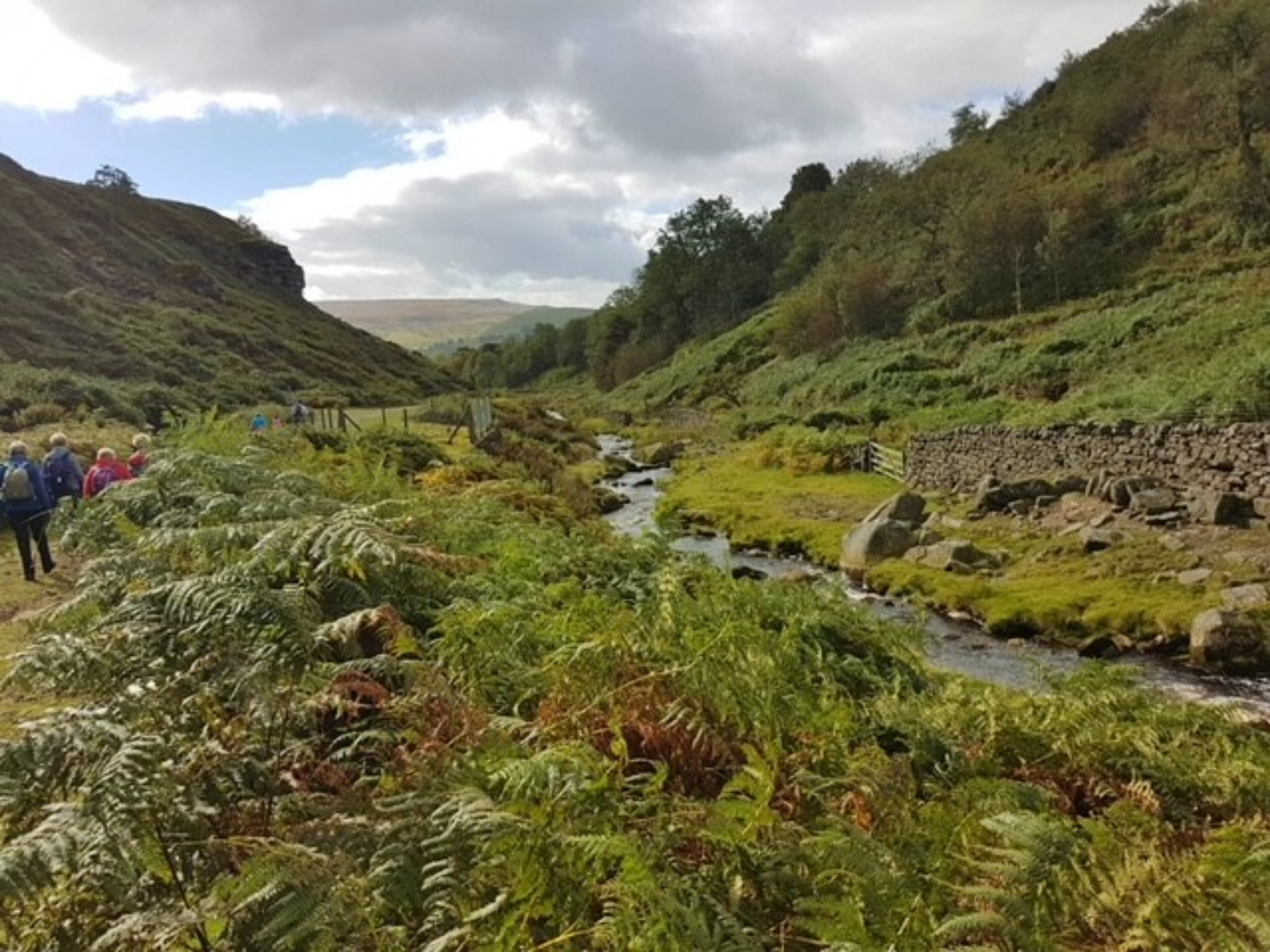


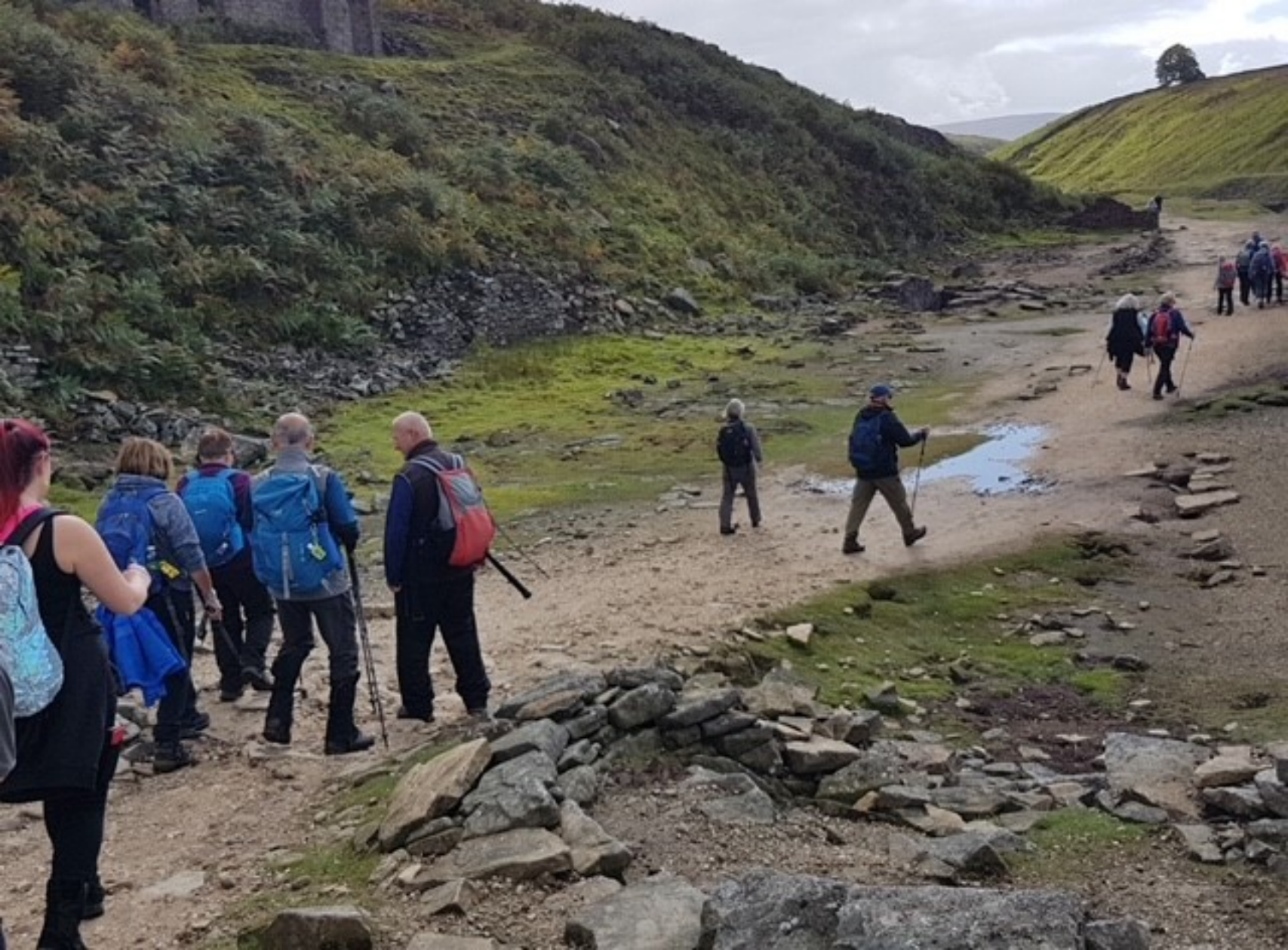


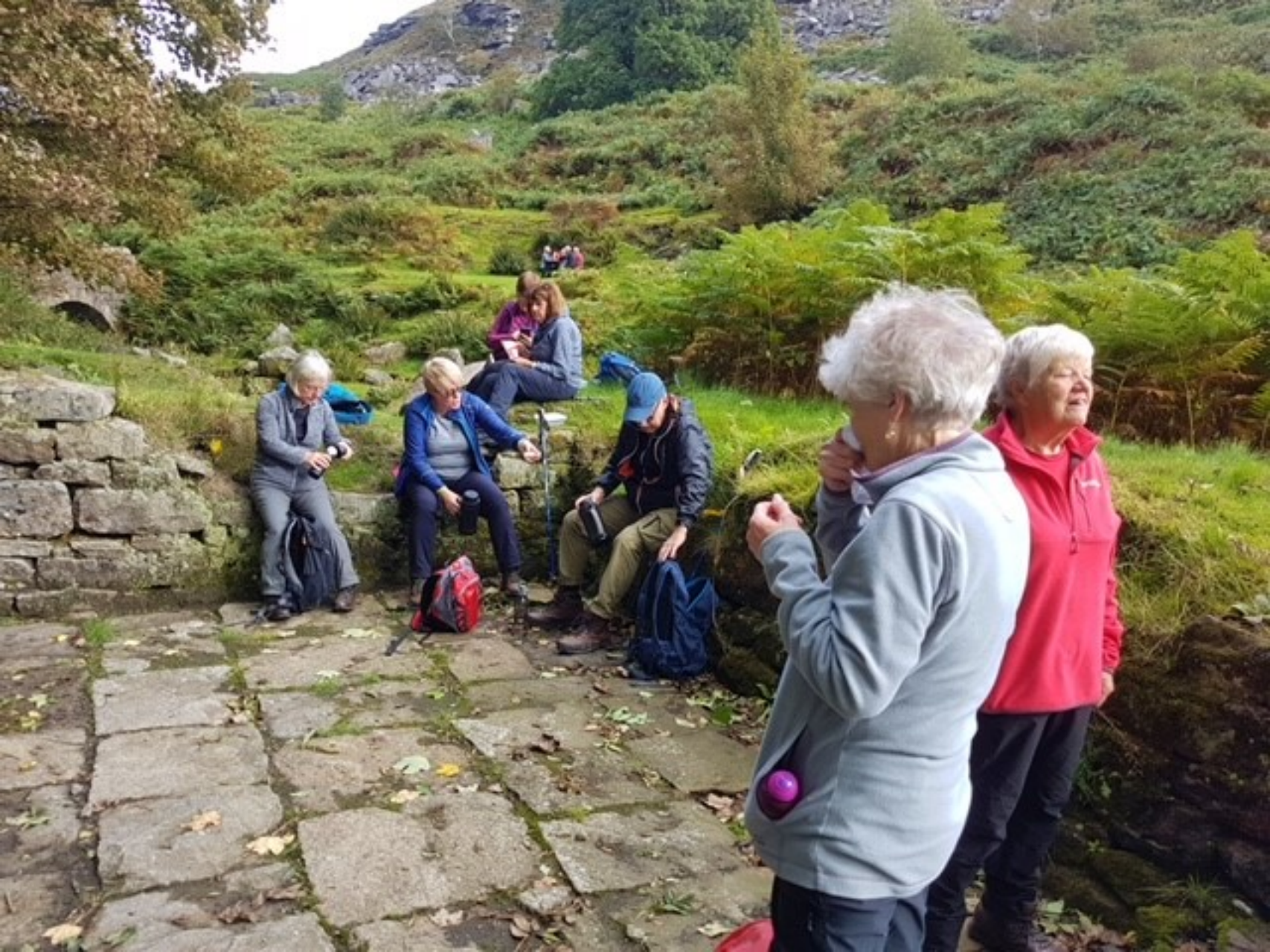


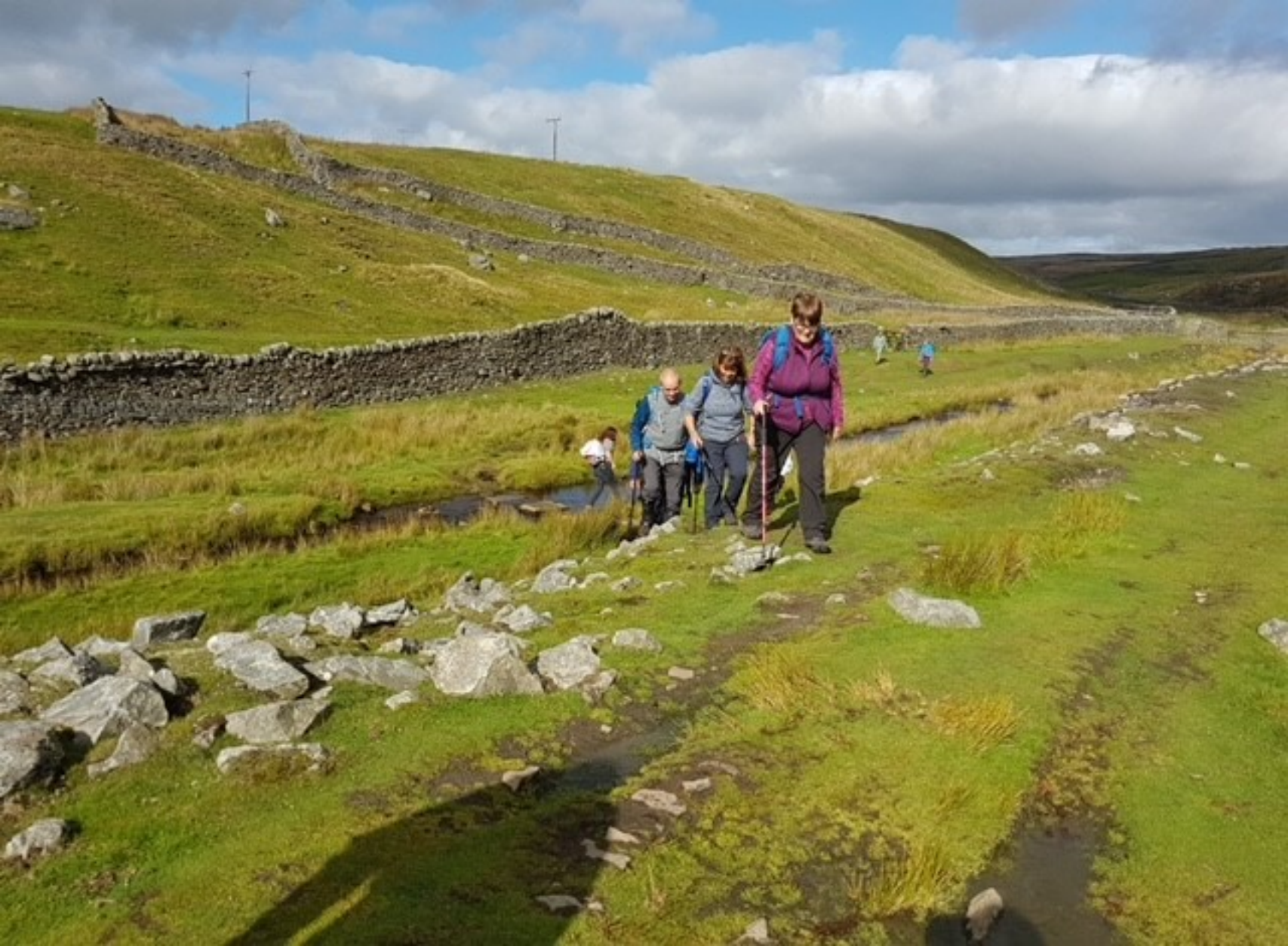


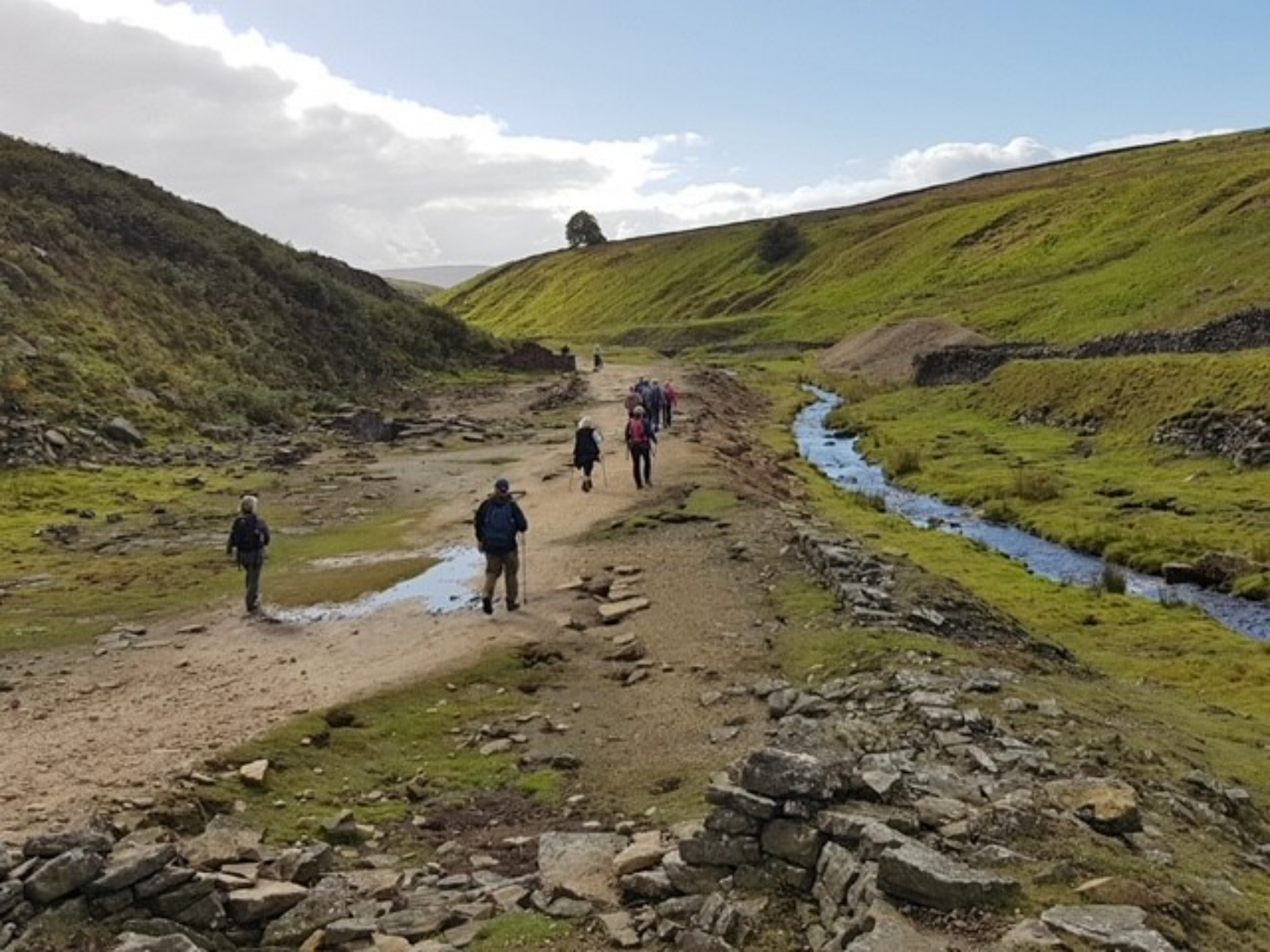


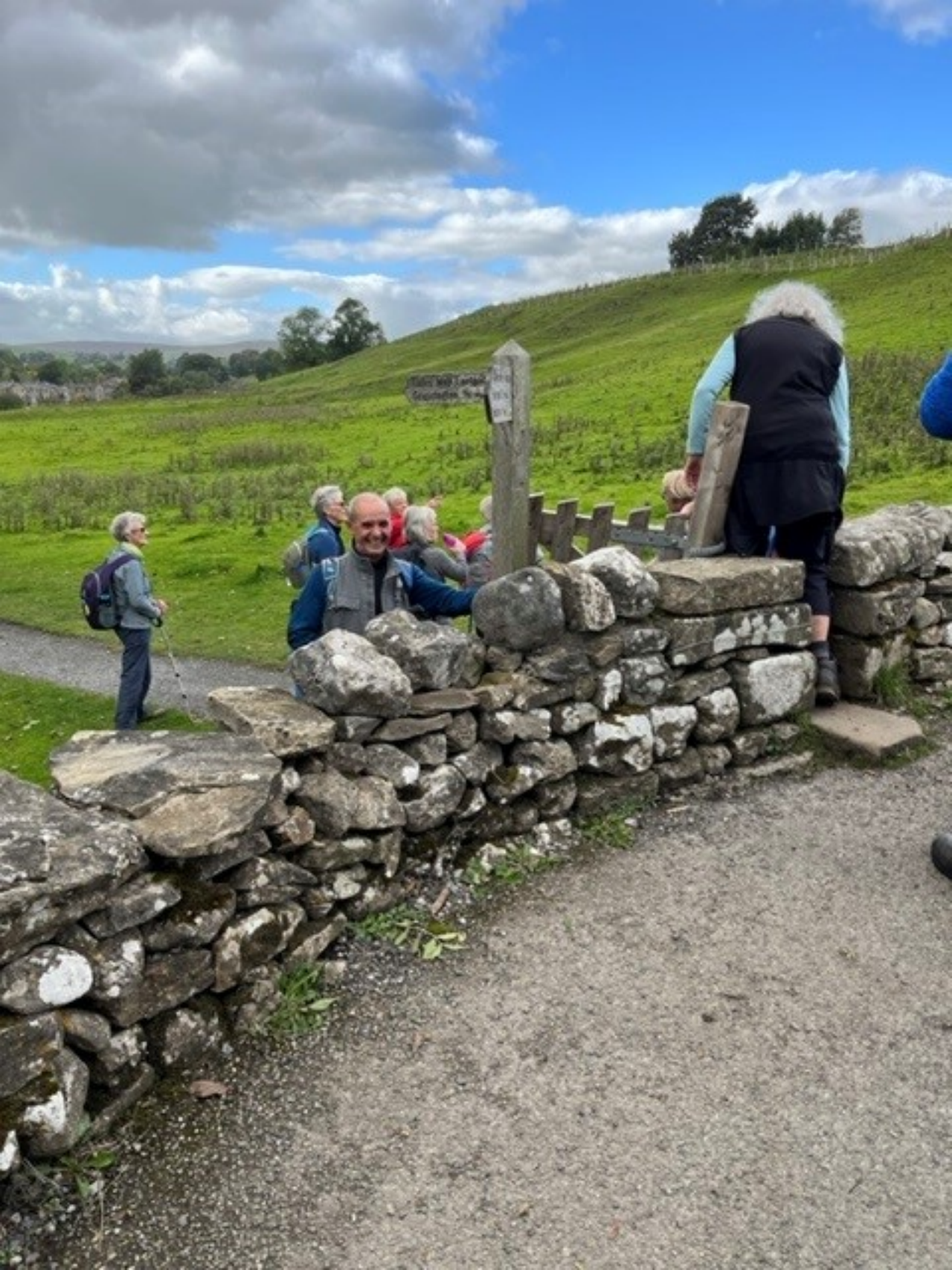


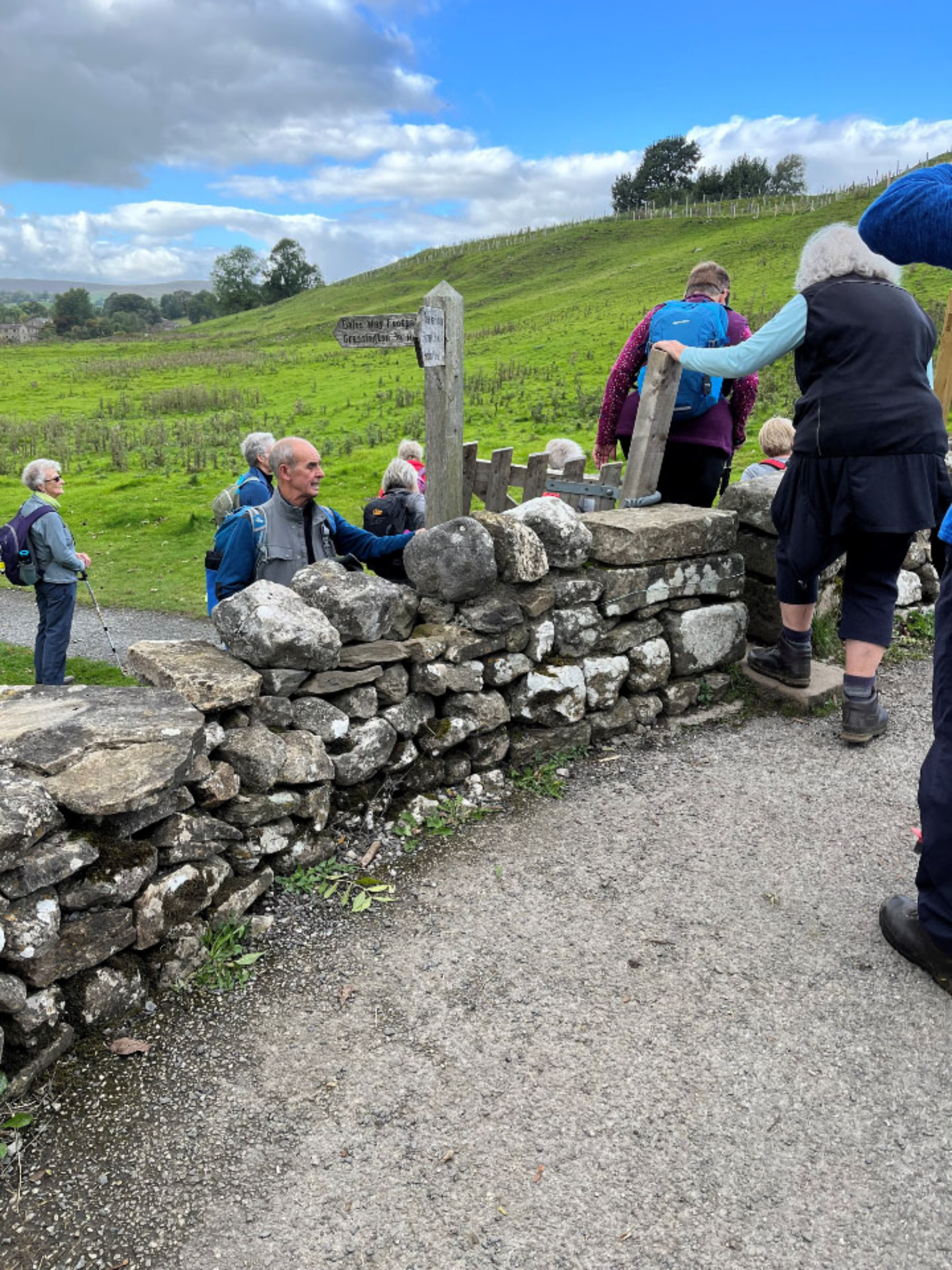


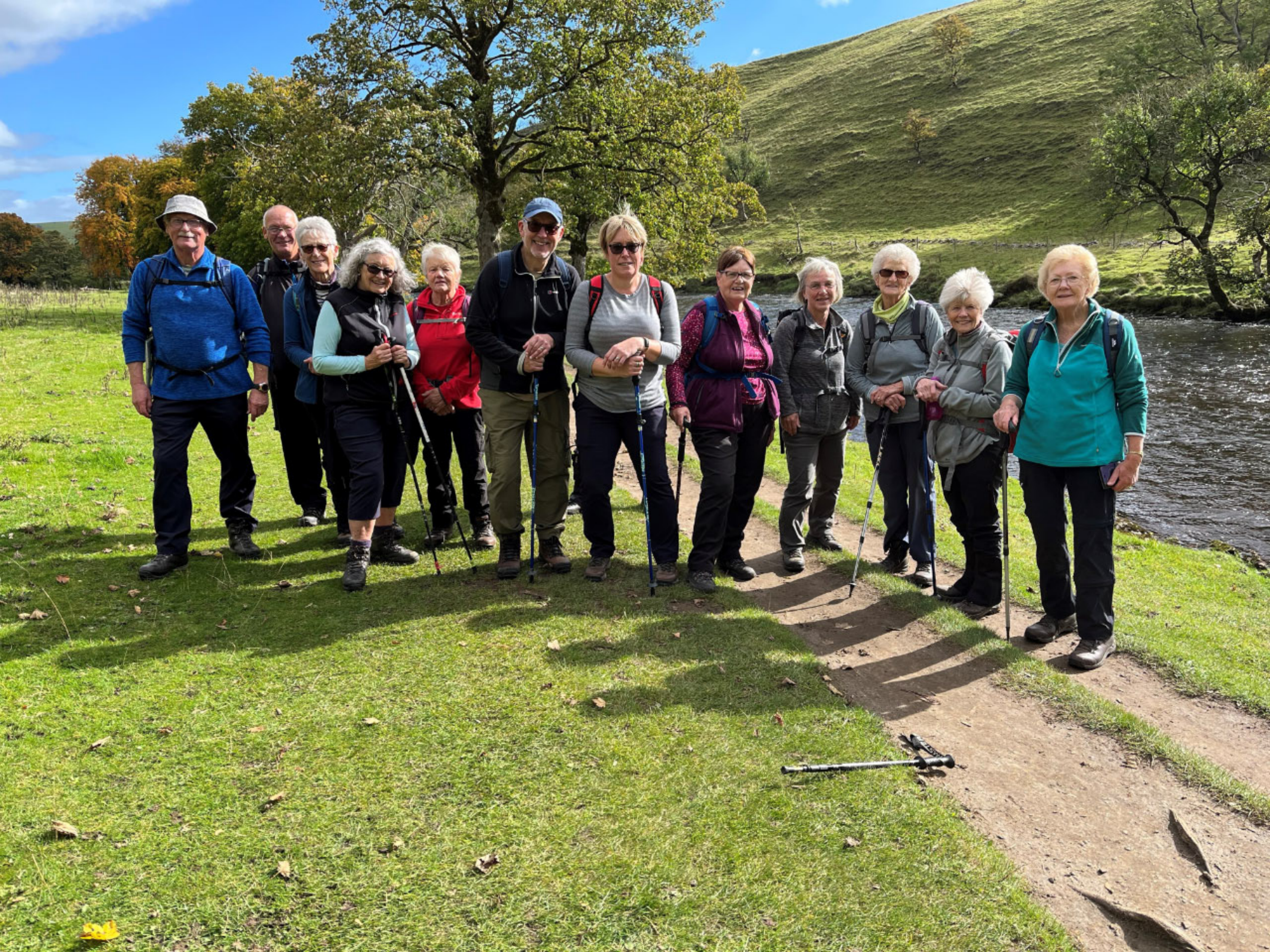


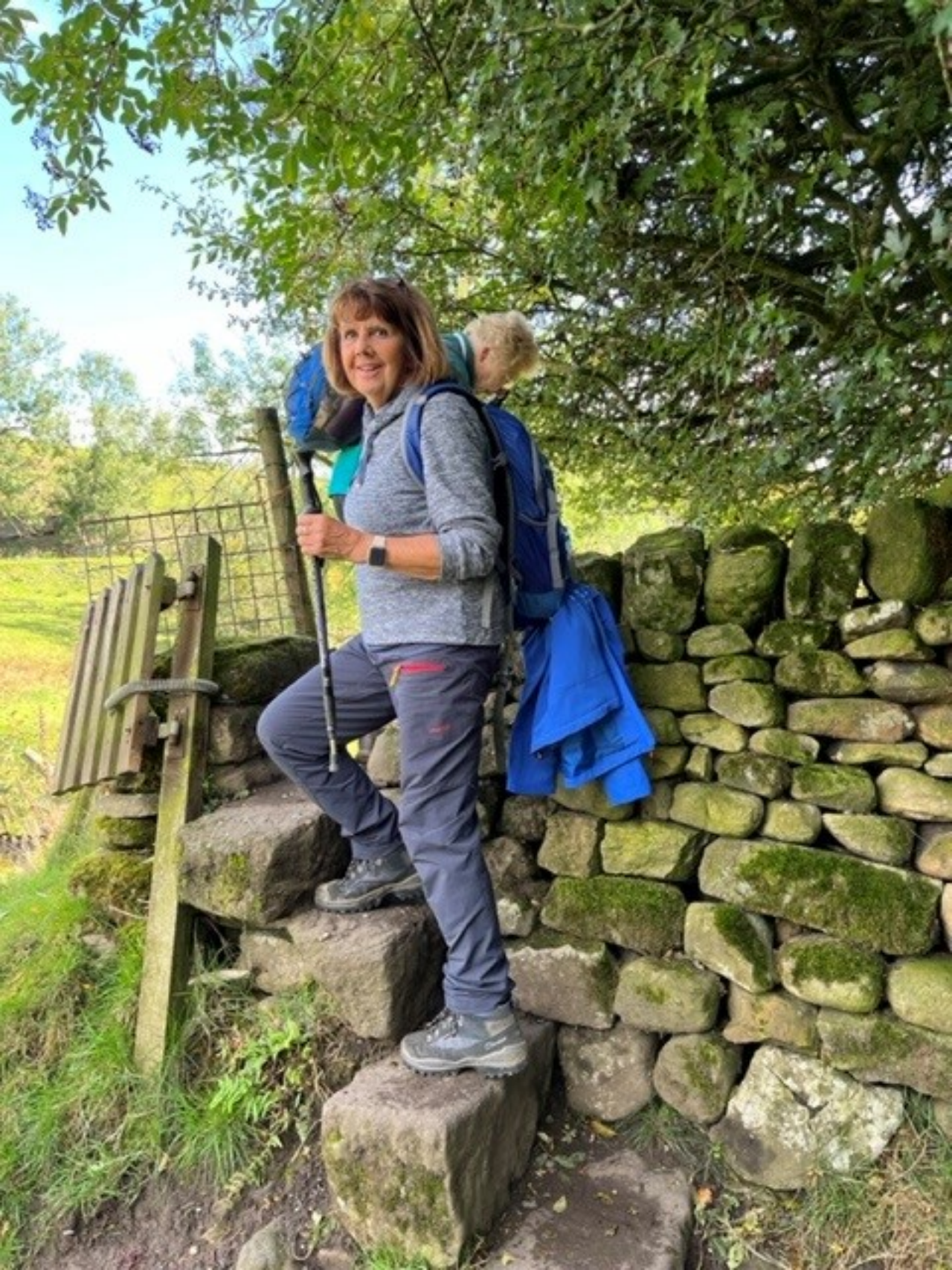


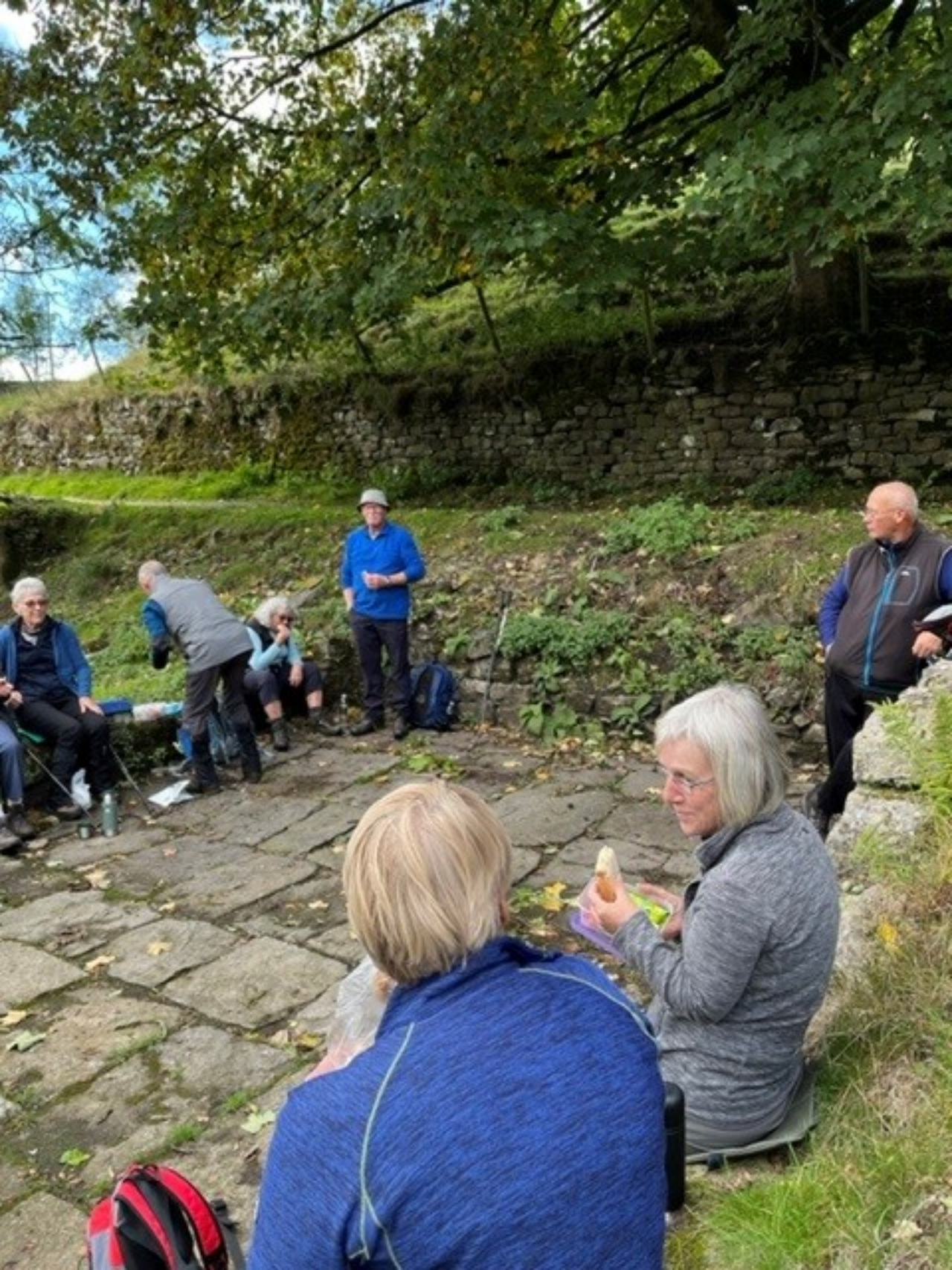


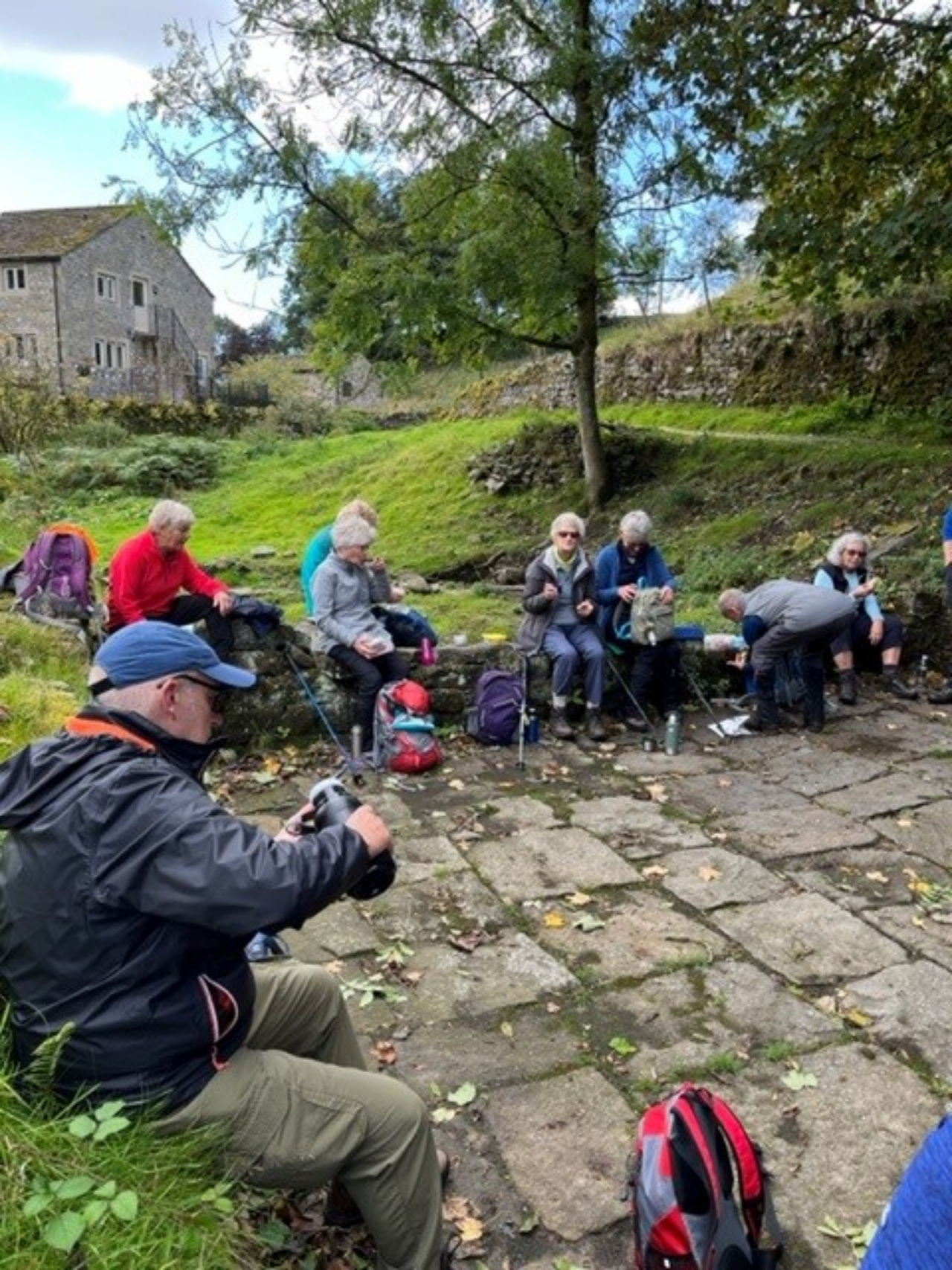


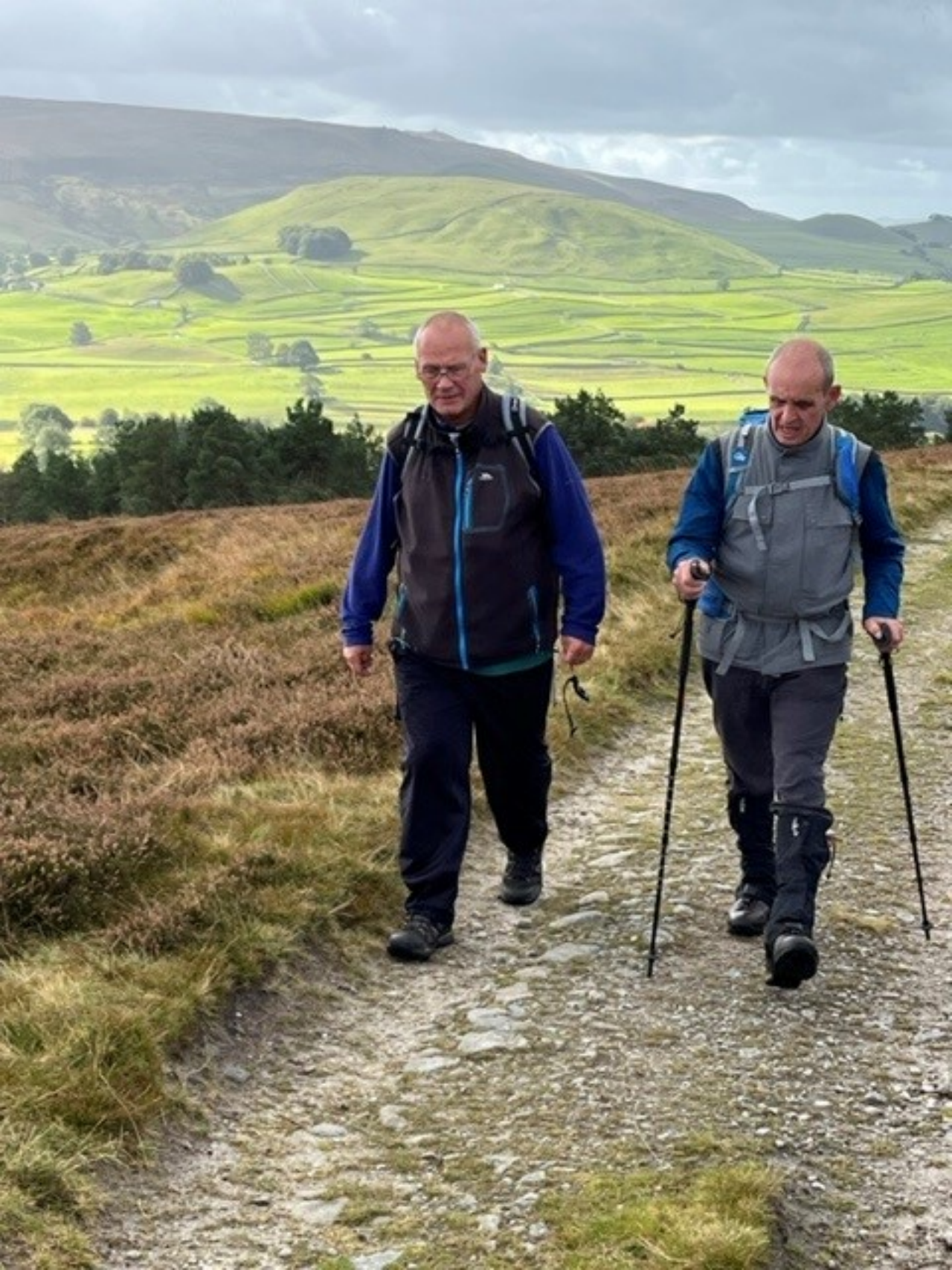


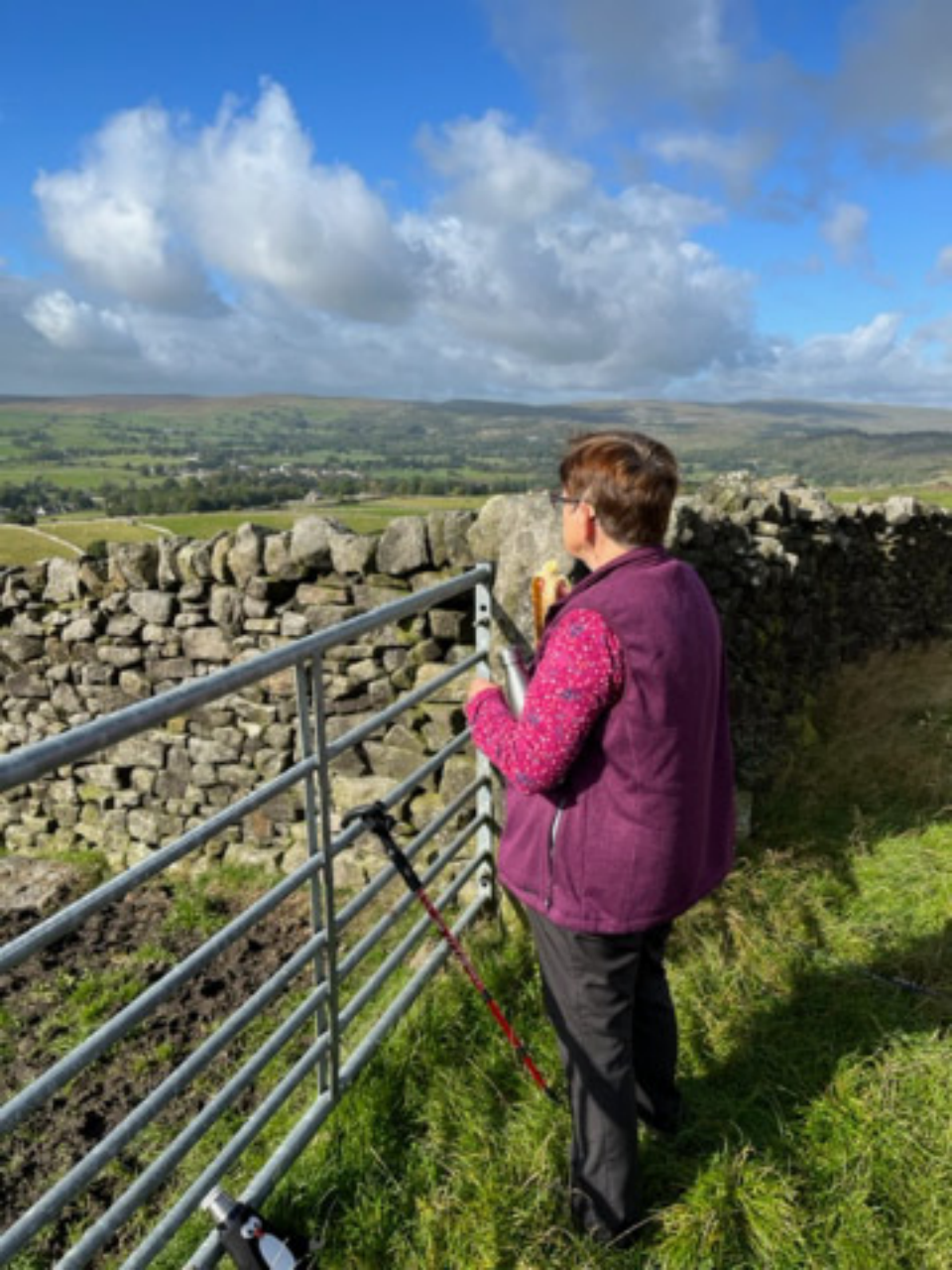


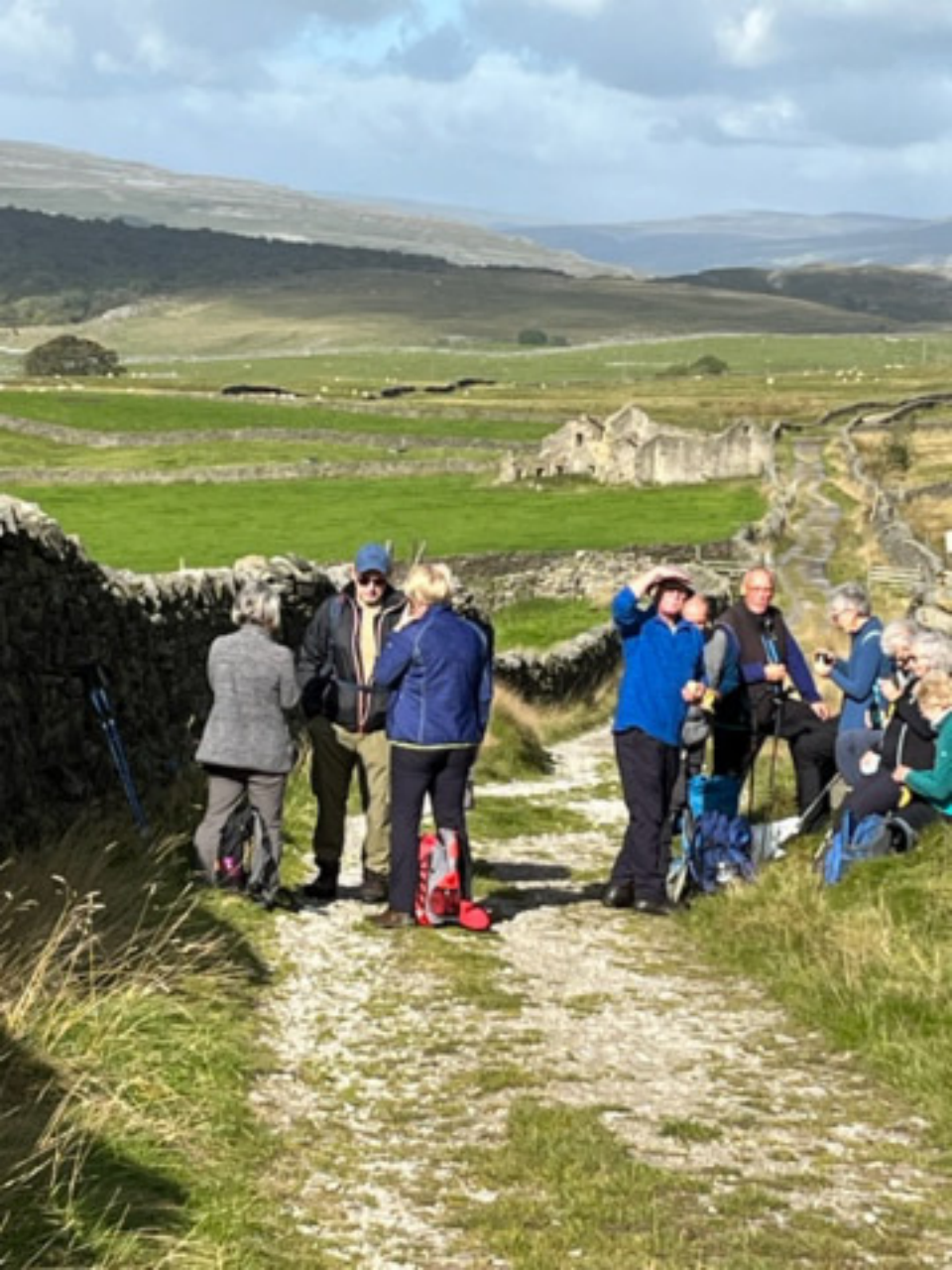


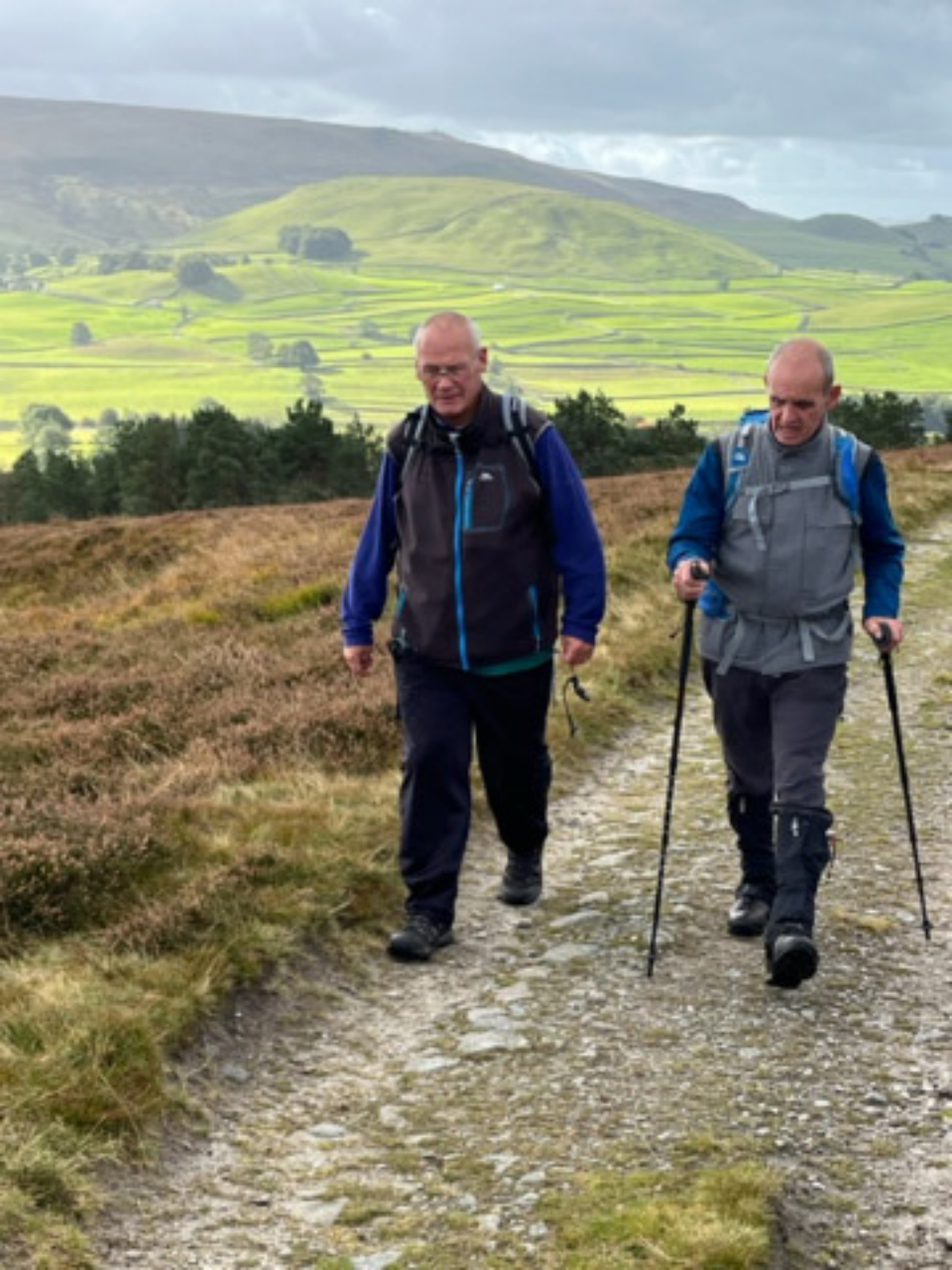


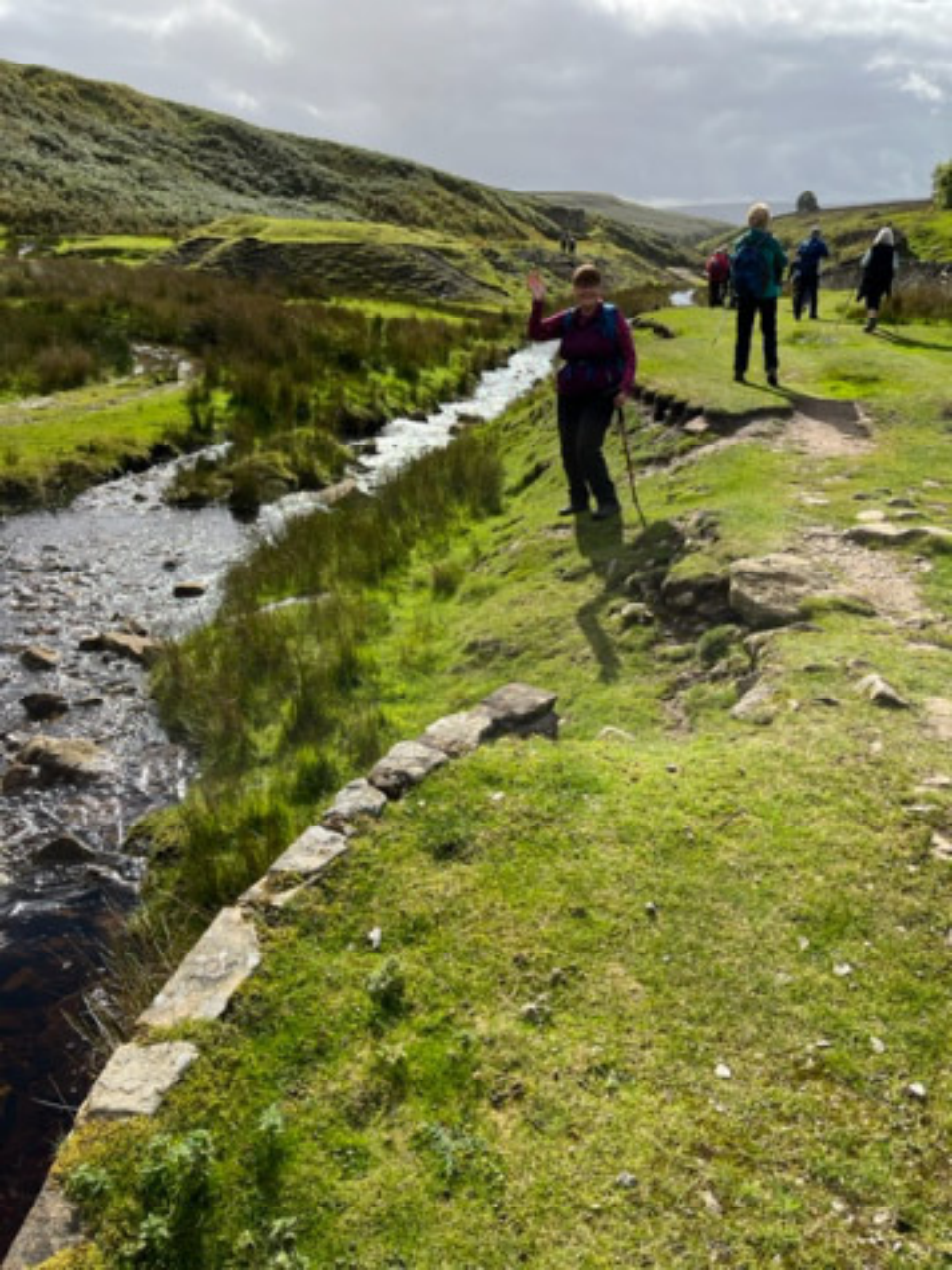


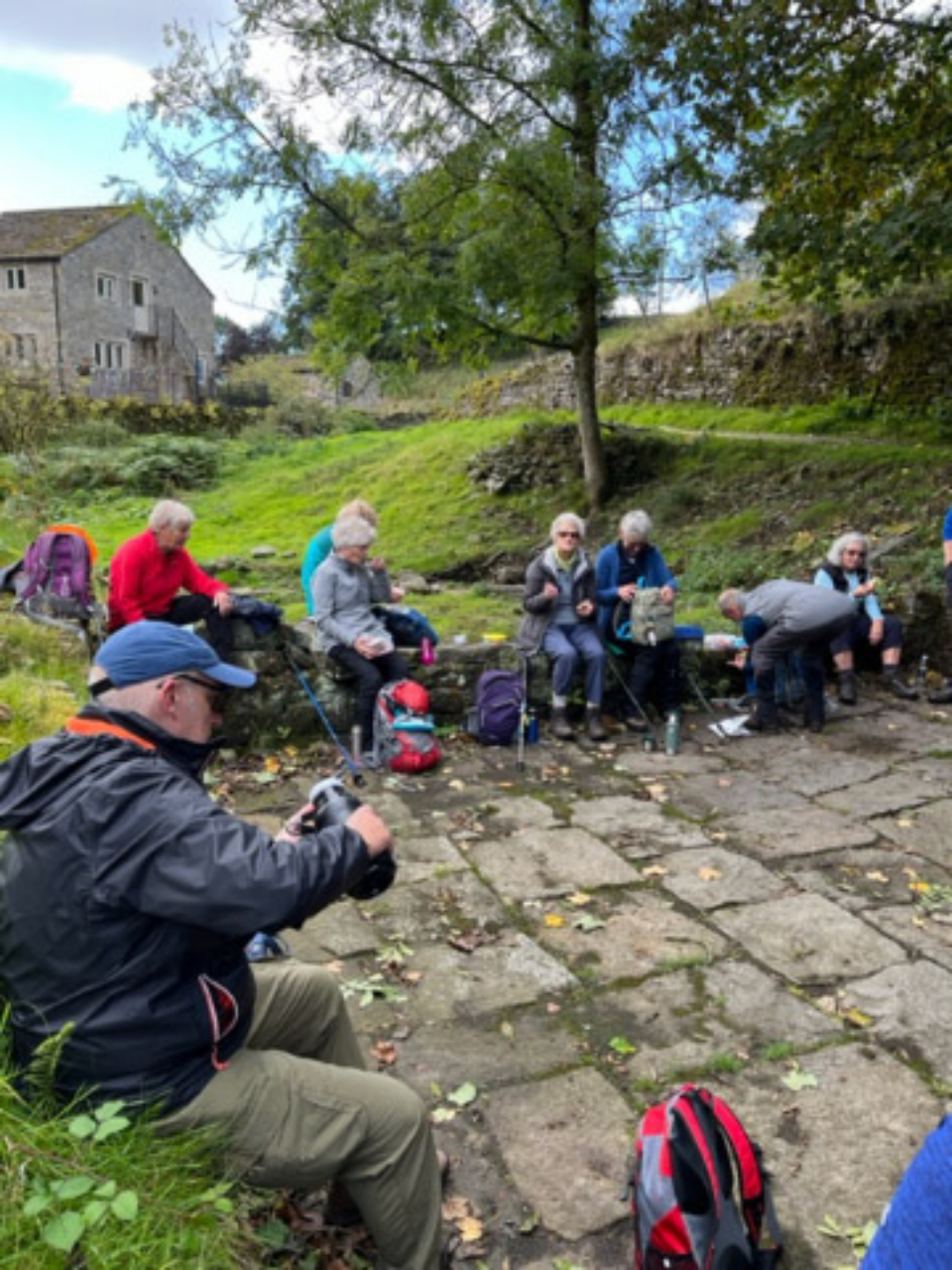


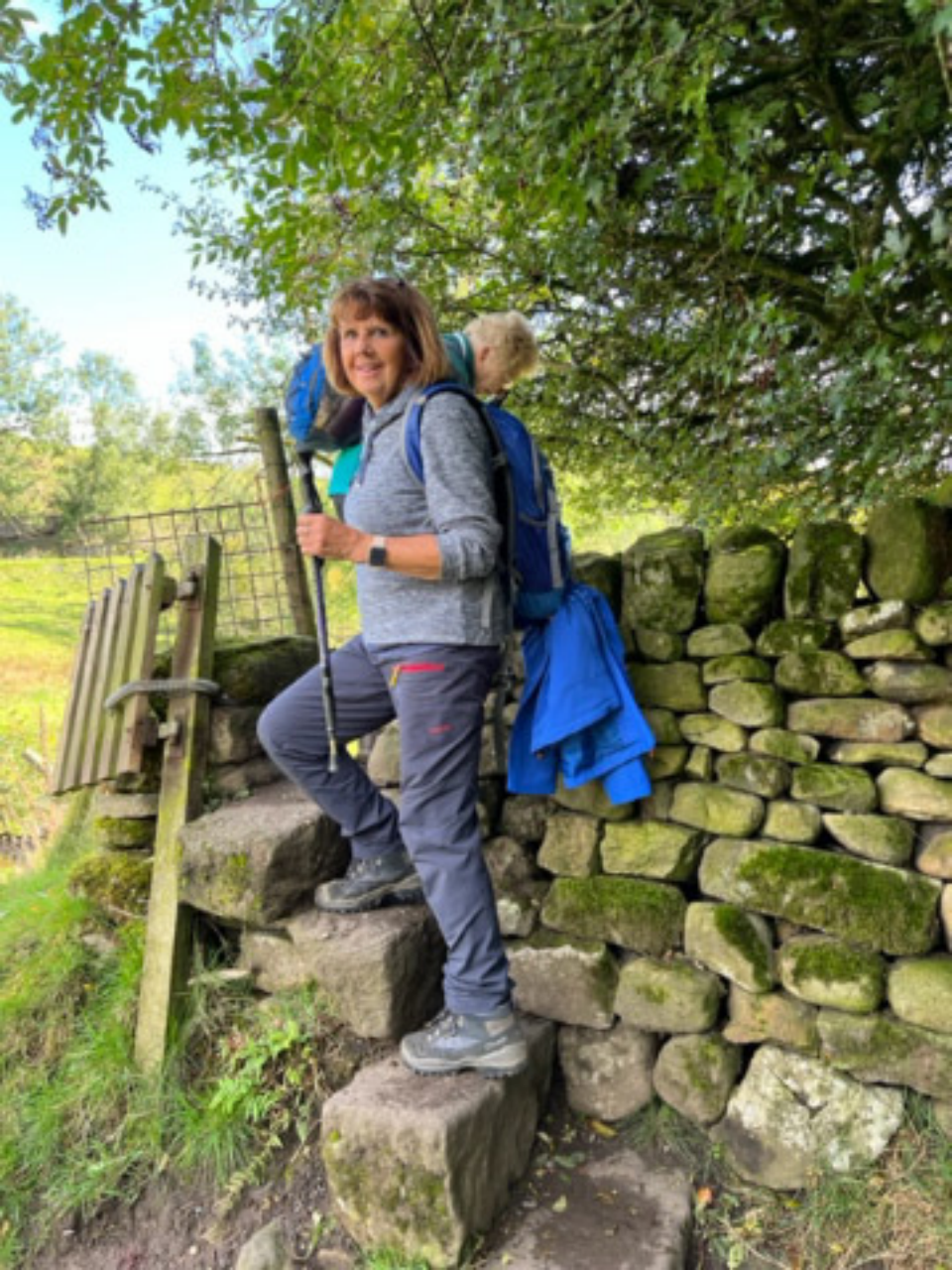


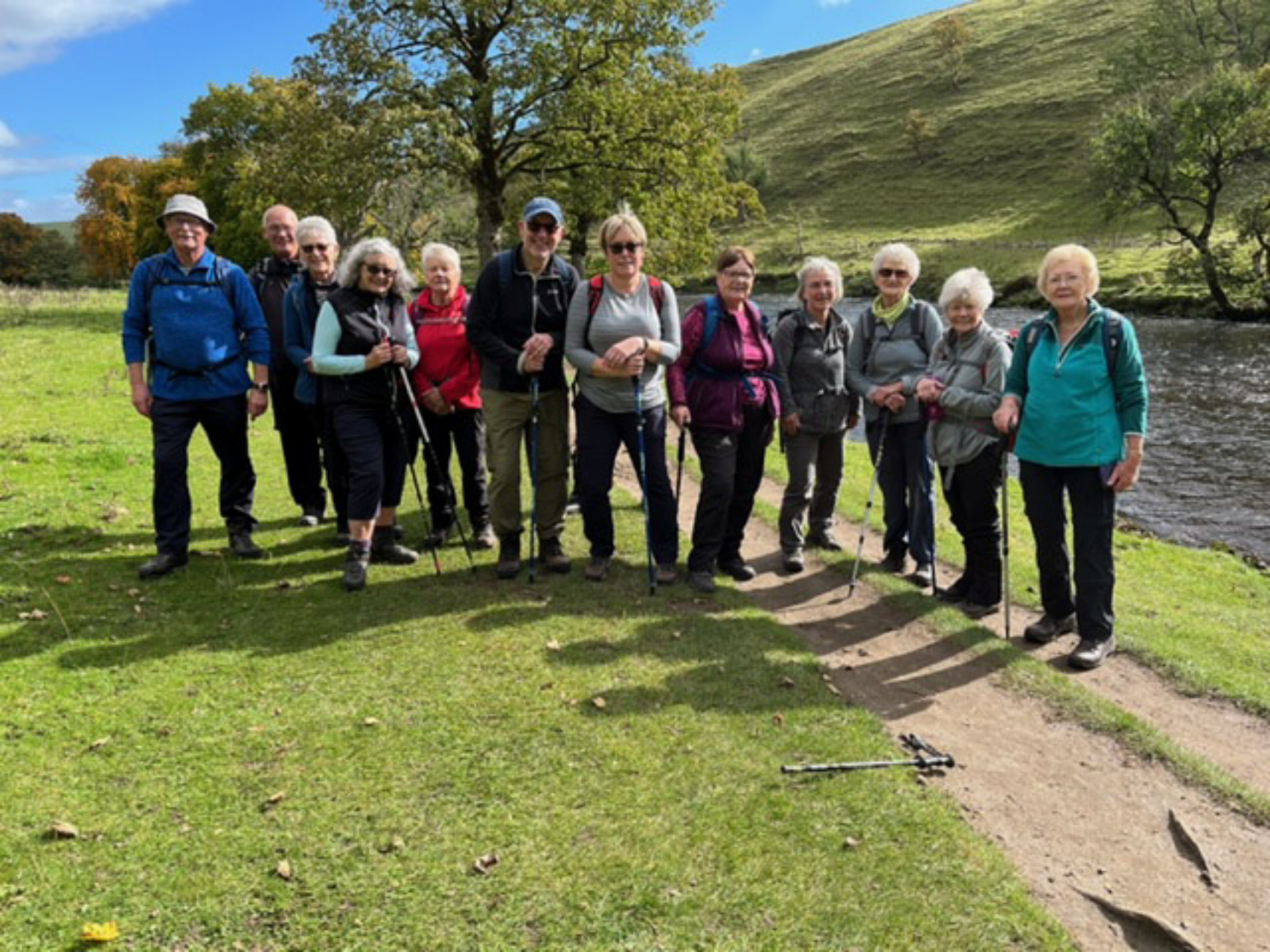


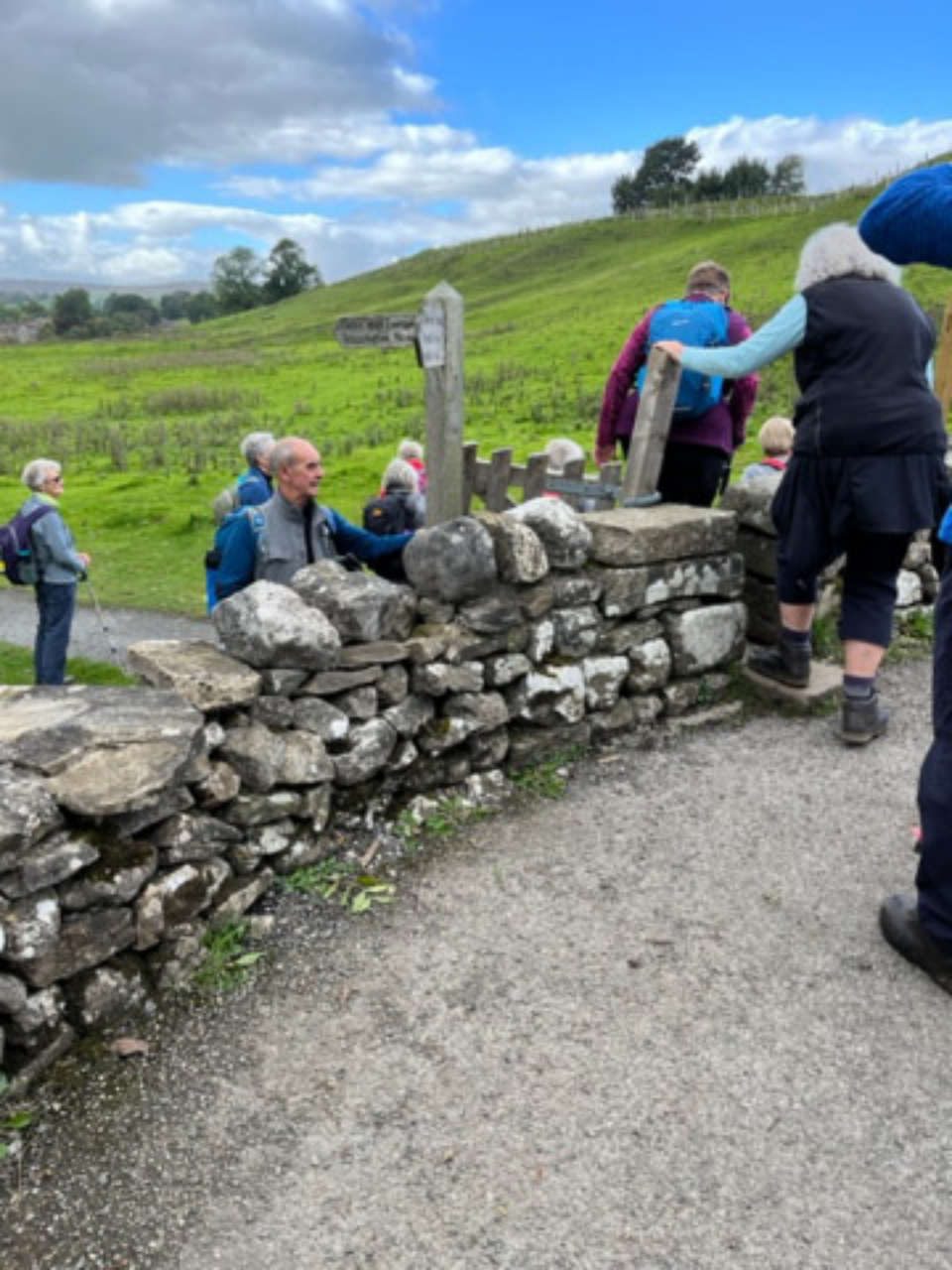


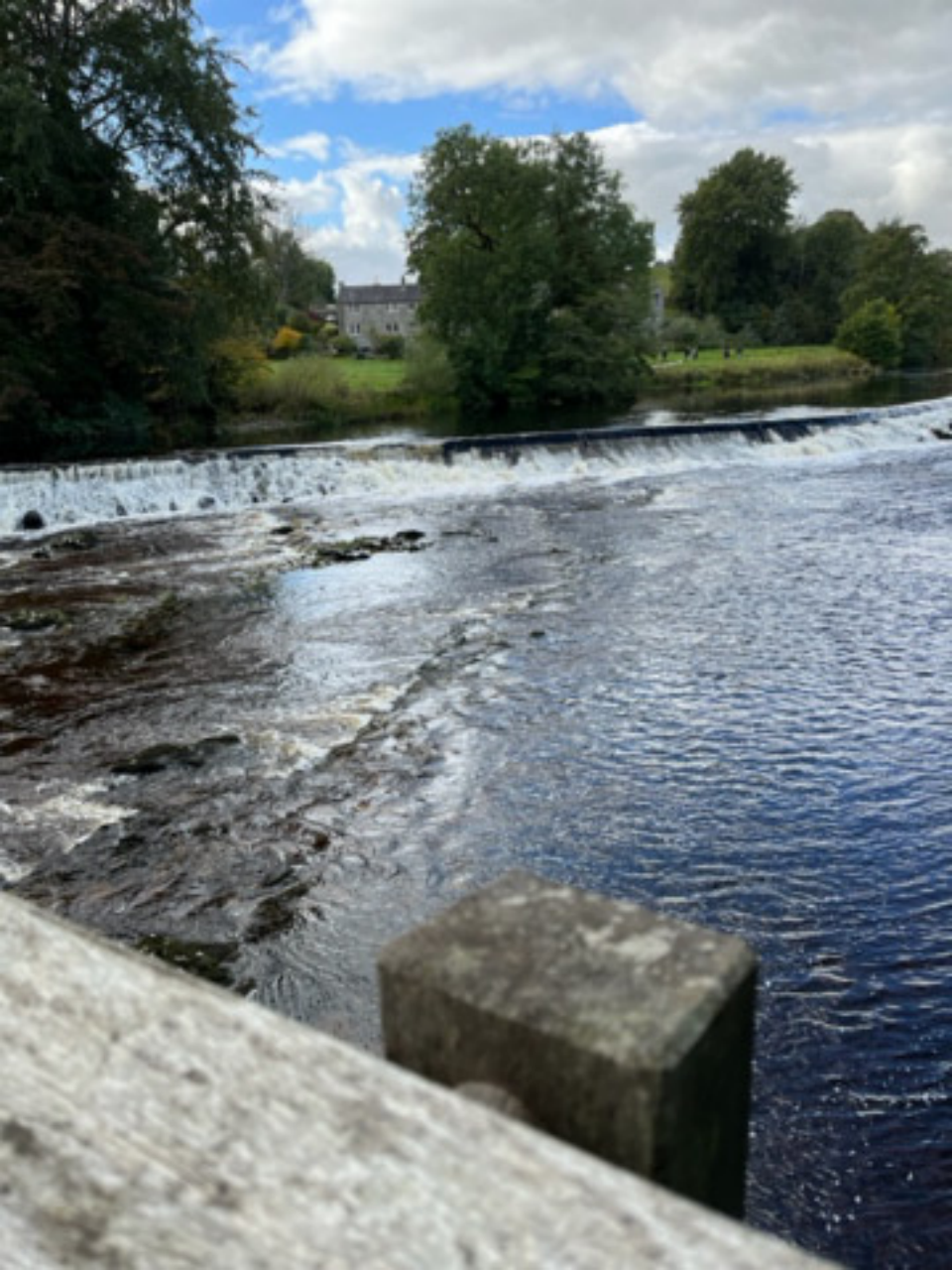


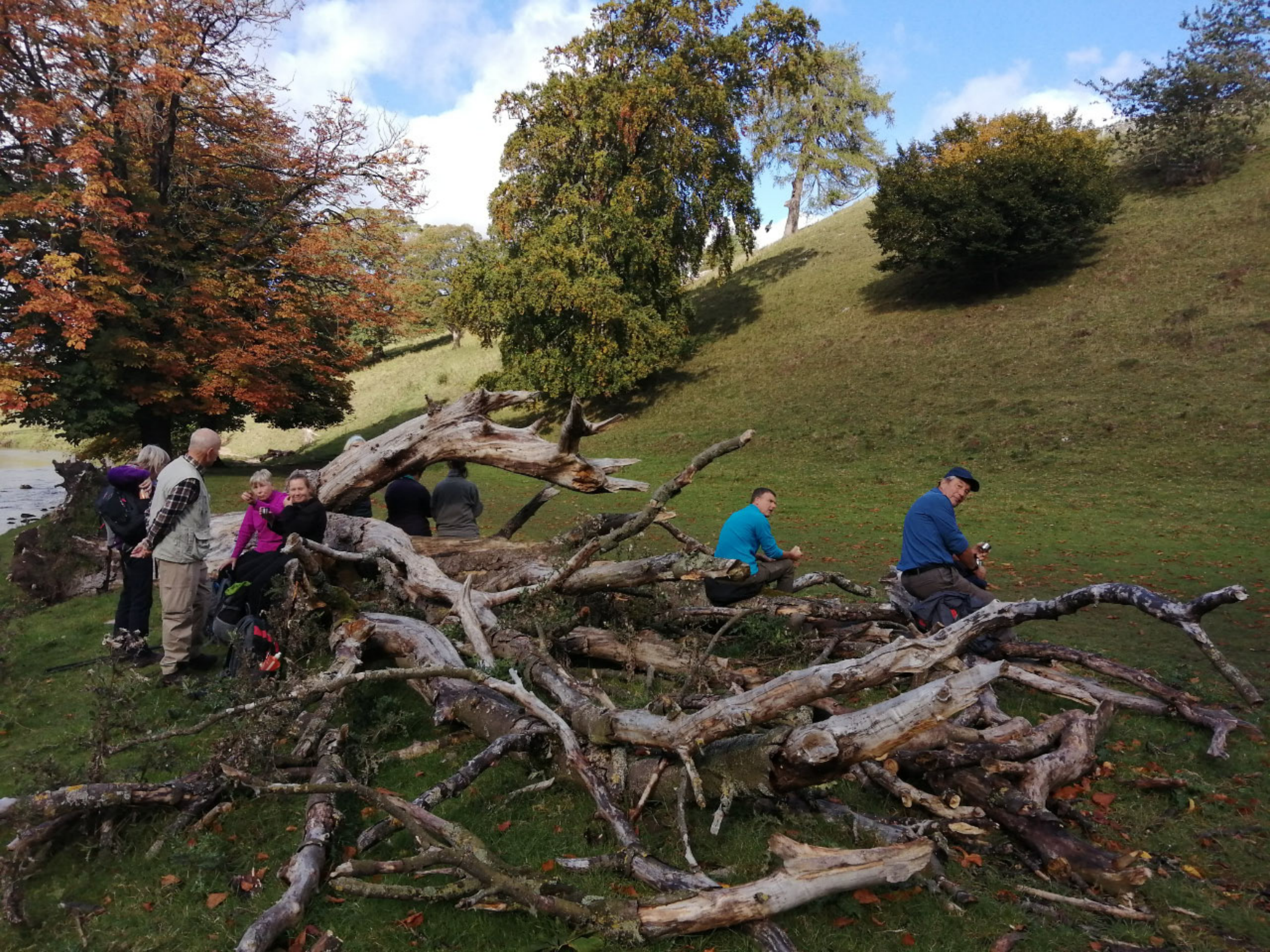


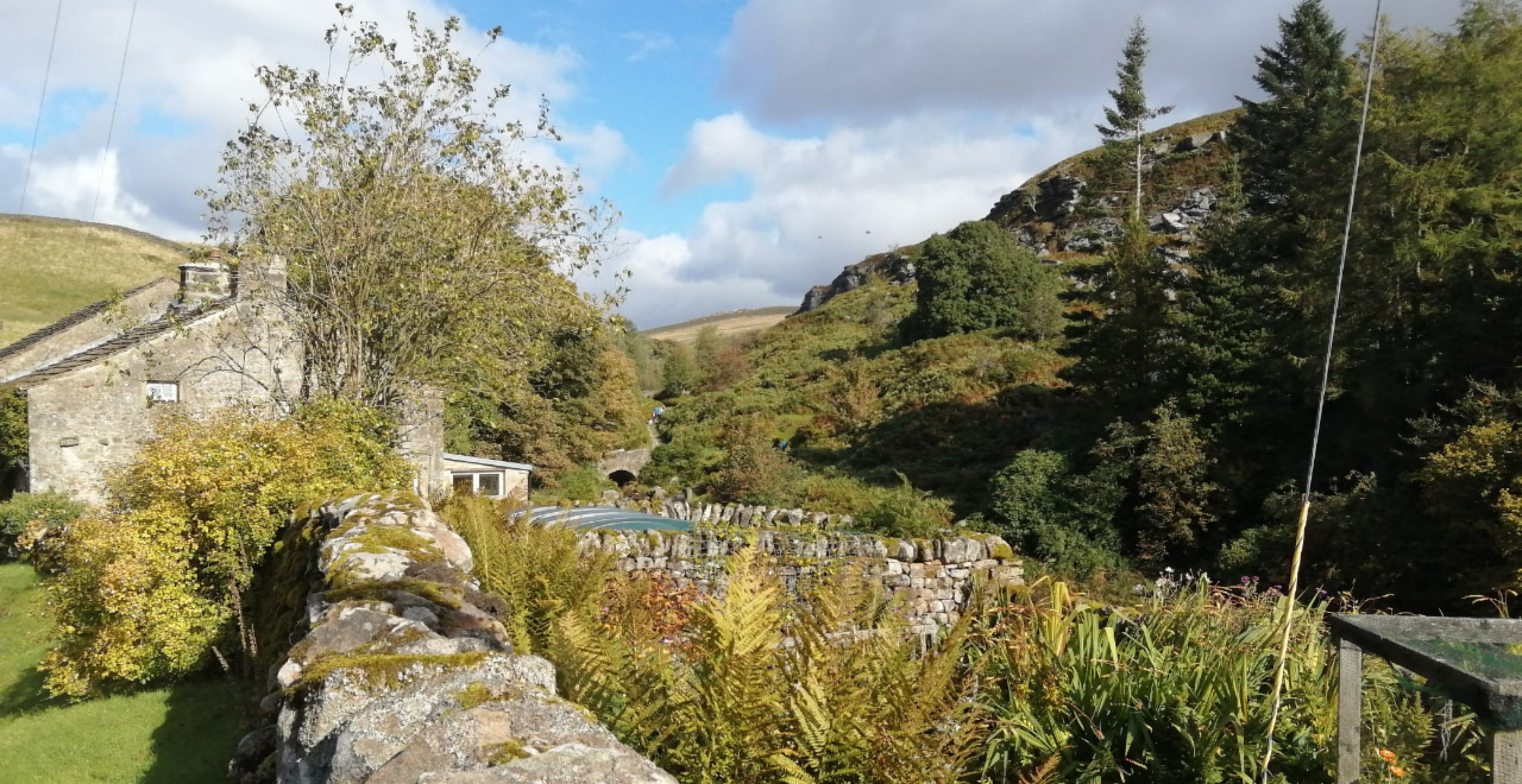


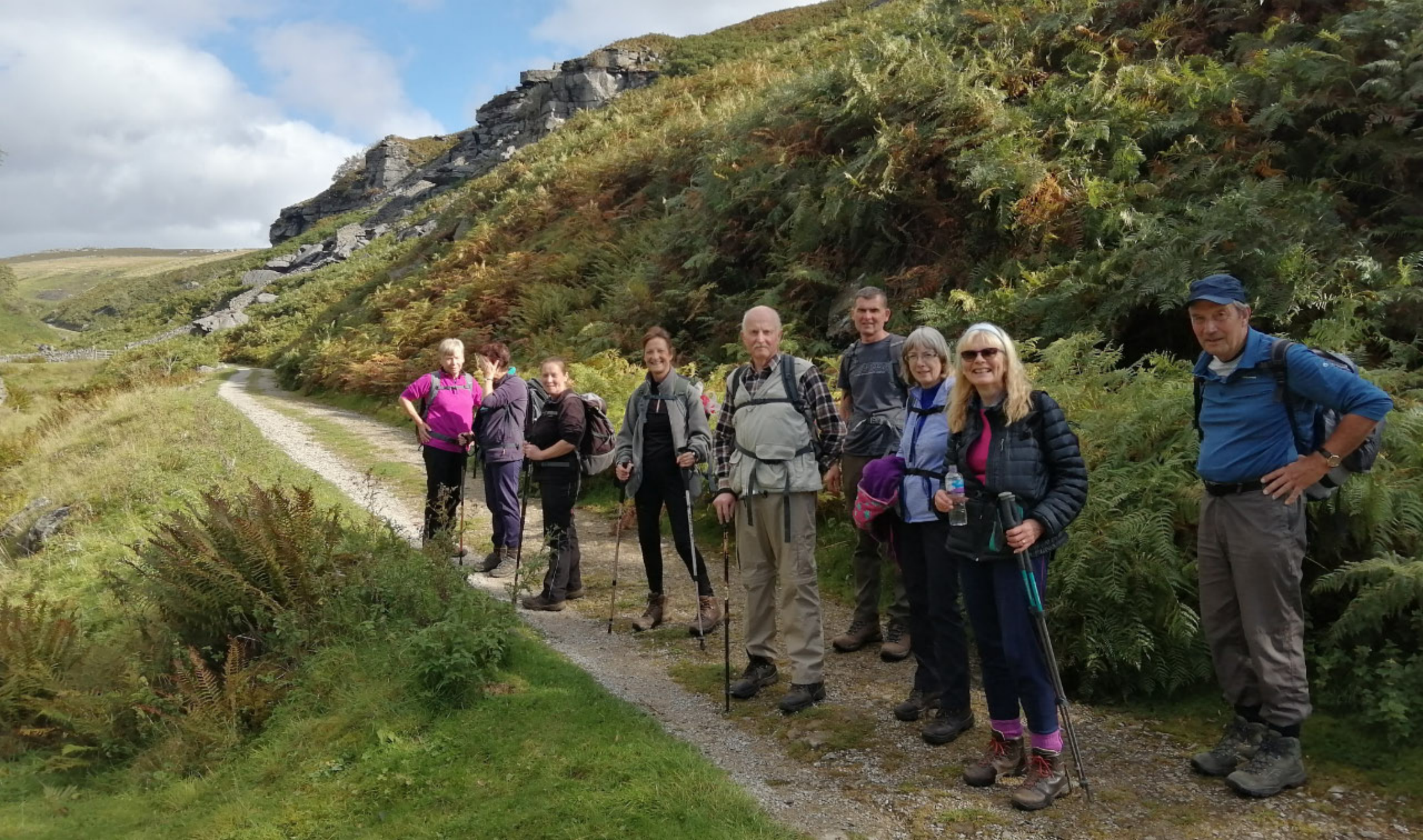


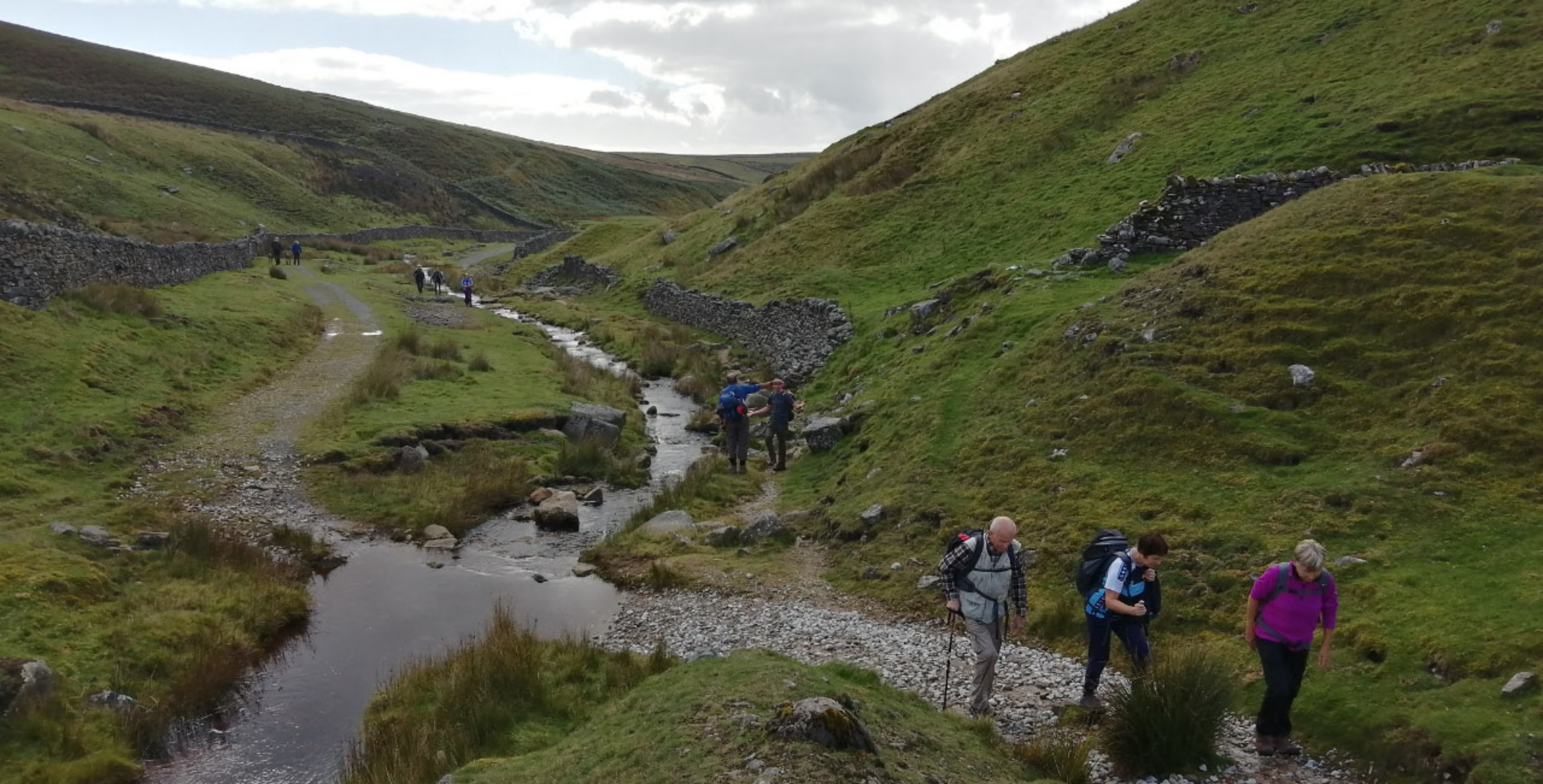


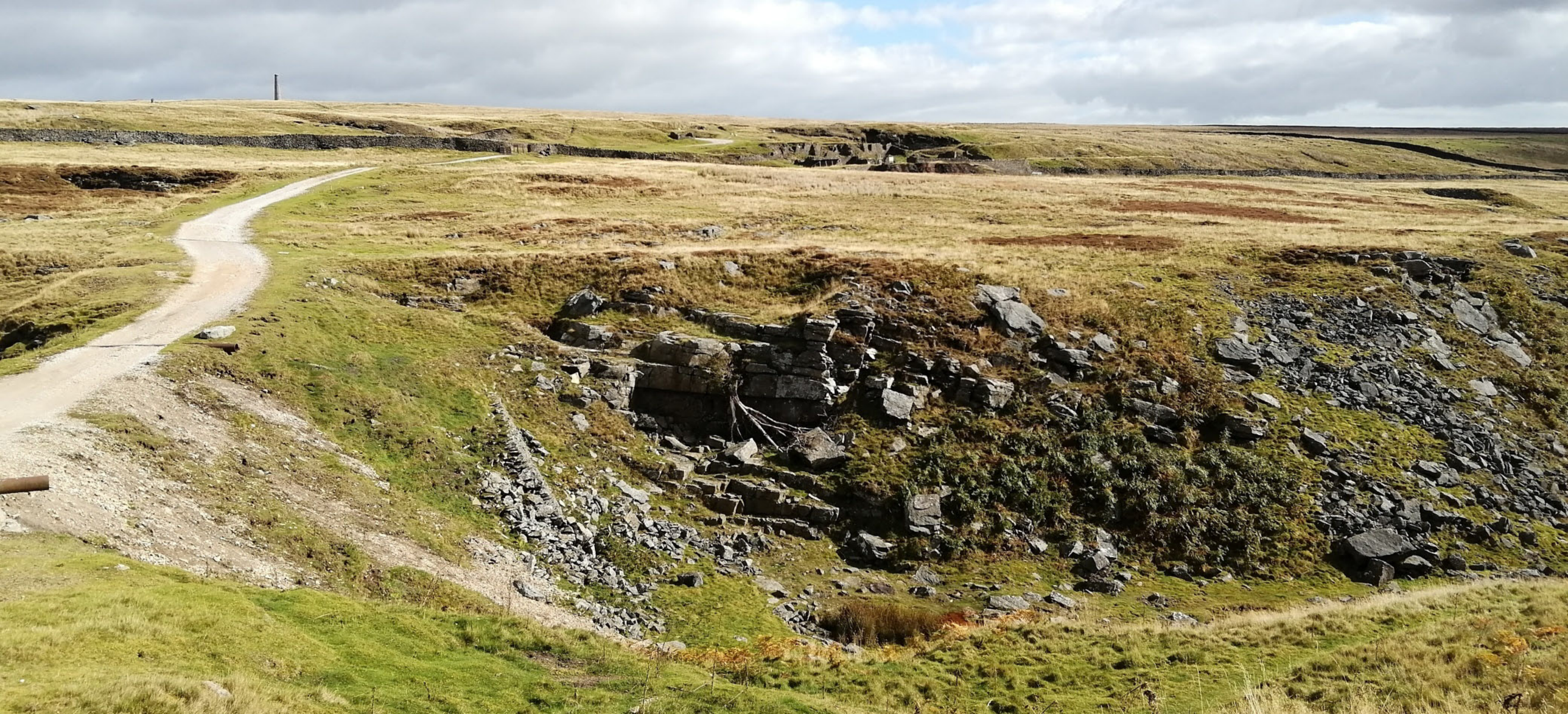












A History of the Grassington Lead Mines

The early mines

In 1604 the 4th Earl of Cumberland built a smelt mill near Linton Church and began working the lead mines in earnest. Tradition has it that miners were brought from Derbyshire, but most of them probably came from the nearby villages of Appletreewick, Greenhow and Kettlewell, with a few from Swaledale.

The miners worked in small partnerships under a system of Customary Mining Law, forms of which were once widely used in lead mining areas. They are sometimes called 'Free Miners', but this is wrong because they were not free to mine where they chose. Instead they were granted 'meers' of ground on the line of a vein. A meer was 30 yards (27 metres) long by seven and a half yards (7 metres) on either side.

Around 1680, the Earl of Burlington inherited the mineral rights through marriage. The mines prospered in the 18th century, but most had reached the water table by the late 1760s and had worked out the easily got ore. To encourage miners to sink deeper shafts and to search for other veins, the Earl's successor, the Duke of Devonshire, introduced leases and increased the area granted. The corners of these grants were marked by Meerstones, on which were carved the owner's initials. Those stones marked with an 'F', for example 'John Tennant F', denote the founder or discoverer of the vein.

The leases only had a limited success because an adit was needed to drain the mines. This was eventually begun in 1796, starting at Hebden Gill and reaching Yarnbury in the 1820s and Coalgrovebeck Mine, on the Out Moor, in 1830. The Duke also built the more efficient Cupola smelt mill, which is on the edge of Out Moor, in 1792.

The early 19th century

The mines were very poor during the first 20 years of the 19th century, but in 1818 John Taylor was made the Duke's Mineral Agent. He built dams and brought water to a 15 metre diameter waterwheel, which he used to drive pumps in the Coalgrovebeck Mine, allowing production to resume 10 years before the drainage adit driven from Hebden Gill reached it. Taylor also sank new, deep shafts which were accessed by ropes wound by horse powered winding machines or whims. These shafts were linked by roads to mechanised dressing mills where the ore was crushed and separated before going on to be smelted.

During the next 50 years, the network of water courses and reservoirs was extended for over eleven and a half kilometres to Yarnbury and onto Grassington Moor and served at least 11 water wheels although not all working at one time.

The Cupola smelting works had two reverbertory (cupola) furnaces which burnt good quality coal. In order to extract the maximum lead from the ore, a long flue and chimney was added in 1849. Tiny particles of lead, carried off in the waste gases from the furnaces, condensed out on the walls of this flue and were then washed off at regular intervals. Another long section of flue was added by 1855, making a total length of 1.8 km.

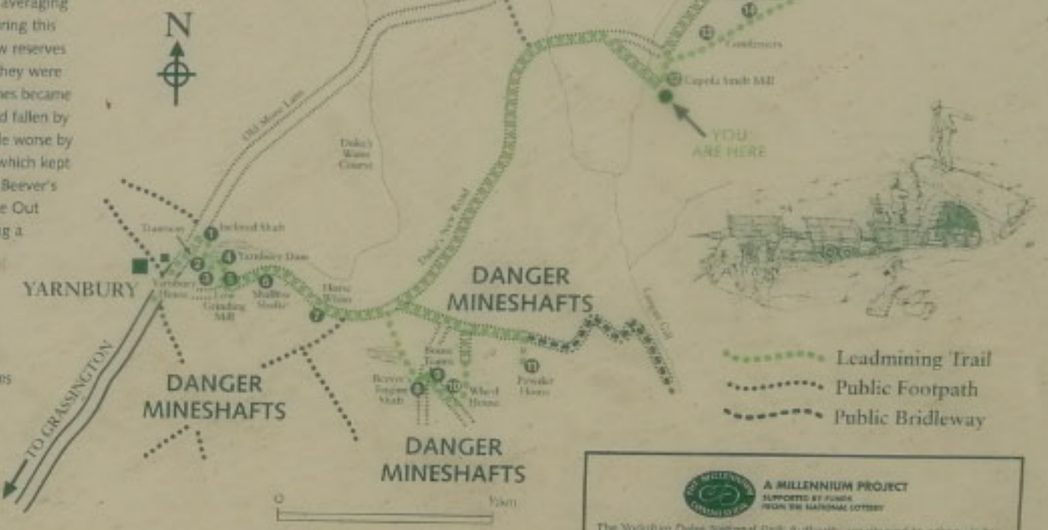
Prosperity and decline

The mines entered their most prosperous phase between 1821 and 1861, when they produced 20,273 tons of lead, averaging 965 tons a year and employed about 170 people. During this prosperous period, deeper trials were made to find new reserves of ore, but, apart from a rich strike at Sarah's Shaft, they were disappointing. After 1861, output fell steadily as the mines became exhausted. By 1881, the population of Grassington had fallen by 400 according to the census. These problems were made worse by the impact of rising imports, mainly of Spanish lead, which kept prices low by underselling English lead. Work around Beever's Engine Shaft, at Yarnbury, and Old Moss Shaft, on the Out Moor, stopped in May 1880. The smelt mill kept going a little longer using up stocks of ore mined previously.

There has been no serious attempt to reopen the mines since 1880, but barytes, fluorspar and some lead ore has been recovered from the waste dumps. The largest of these operations were the Grassington Lead Mines Ltd between 1916 and 1920 and the Dales Chemical Company between 1956 and 1963.

The installation of the Grassington Moor Leadmining Trail has been carried out in partnership with the Yorkshire Dales Millennium Trust using funds from the Millennium Commission.

GRASSINGTON MOOR LEADMINING TRAIL



A waymarked trail has been laid out around the lead mining area on Grassington Moor. There are many unmarked mine shafts on the moor so for your own safety, please do not wander off the marked route. Keep dogs on leads at all times and take special care that children stay close to you.

The trail continues through the gate to your right

A MILLENNIUM PROJECT
SUPPORTED BY FUNDS FROM THE NATIONAL LOTTERY

The Yorkshire Dales National Park Authority are pleased to acknowledge that conservation work on this site and the provision of the interpretive trail has been generously assisted by the following partners:

EUROPEAN COMMUNITY
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