Masson Hill where fragmentary evidence of the vent agglomerate and basalt associated with the Lower Matlock Lava was seen in the roadside. A footpath was followed towards the Great Rake where silica rock, a metasomatic replacement of limestone, was examined. Crinoid ossicle epimorphs were observed in the fine to very fine-grained quartz. Hereabouts it was used as field gateposts but no exposures were discovered; some of the silica rock contained cavities lined with fluorite. Discussions about the origins of silica rock concluded that our understanding had not developed significantly beyond the pioneering work of Bemrose in 1898, and Jessop in 1930.

The footpath followed a north-easterly direction and encountered the post-mining landscape associated with fluorspar mining of the Great Rake. This large fissure vein was last worked in the early 1970s. The land adjacent to the rake is surfaced with concrete being all that remains of a fluorspar washing plant that produced metallurgical grade fluorspar for use in the Sheffield steelworks.

The party returned to Bonsall via Pounder Lane, which crosses the Bonsall Sill. Plenty of evidence of basalt (microgabbro) was present where it has been used for the construction of field walls. The day ended in Bonsall where thanks of appreciation were given to the leader.

Noel Worley

REPORT

The Peak District GeoWalk

By Albert Benghiat and Martin Whiteley
https://peakdistrictgeowalk.org/

A users' experience by ***Andy*** and ***Eileen Howard***

Published on the Web on 1 January 2023, the Peak District Geowalk is a long-distance circular walk passing through some of the finest scenery in the Peak District. The website explains how the local rocks and geological processes have contributed to the landscape, influenced our heritage and impacted modern day living. The guide includes a clear introduction to basic geological principles and the geological history of the Peak District, aimed squarely at non-geological users.

The Geowalk is organised into 14 Sections that join up to form a continuous walk of some 215 km around the periphery of the Peak District National Park. Individual sections vary in length from 11 to 20 km, each providing a moderately challenging full day's walk demanding a reasonable level of fitness.

Each Geowalk section is conveniently provided in PDF format for printing or easy download onto smartphones. The guides follow a familiar format, including clear maps, precise waypoints with Ordnance Survey (OS) Grid References, narrative directions, and well-written explanations of geological, biological, and socio-industrial features of interest. For those using the PDFs on their smartphones, it's advisable to save them for offline use, as mobile phone signals can be unreliable along some sections. Alternatively, printing the guides in A4 format and using clear plastic wallets for waterproofing is recommended as a backup, in case of phone battery depletion. The web-based platform allows for easy route information updates, overcoming the common issue of printed guidebooks becoming outdated if footpaths change.

As a web-based guide, the Geowalk is designed on the reasonable assumption that users can competently use other resources on the web to find parking, refreshments, public transport and accommodation. Each individual section provides some basic logistics information, but don't expect to have your hand held – working out how to access and complete these walks is all part of the fun! To illustrate this, we tried out one of the sections, firstly to review the geological information and directions provided and secondly to give some suggestions to other users on logistics.

Both of us are geoscience graduates and did our mapping dissertations in the Peak District, though at different universities and in different years. Eileen mapped the Ashover area, I (Andy) tackled the southern Goyt Syncline area between Buxton and Leek. The latter area is traversed by one of the walk sections (No. 6, Upper Hulme to Flash, total length 16 km) so we chose that one for this review. I did my mapping project in the summer of 1978, so my memory of geological detail is hazy, but I spent a full six weeks working in the area and didn't leave many stones unturned. I went on to work as a geologist at the British Geological Survey (BGS) for over 30 years, but Eileen left the profession and enjoyed a long career as an accountant, and was therefore able to put the non-technical narrative to the test. We both enjoy fell walking, but prefer not to make a whole holiday of it, so tackling the whole Geowalk in one go was not for us. We prefer our walking in bite-sized chunks, so our review recounts our experience of tackling one of the longer sections as a stand-alone walk.

Each of the 14 sections is essentially a linear walk, not circular. So if you intend to do individual sections as day trips, you have some pre-planning to do. While using multiple cars can be an option for some, parking is a challenge in the Peak District and the environmental impact of increased emissions should be considered. As a one car household, our initial plan was to leave our car at Upper Hulme and use public transport to return from Flash. Both villages lie close to the main A53 Buxton to Leek road, so we expected a reasonably frequent bus service between those two towns. Wrong! The last bus along the A53 stops at Flash at 3.10pm, so we simply couldn't complete the walk route fast enough to catch it! We considered other alternatives to return to

Figure 1. *Doxey Pool and sandstone tors on the crest of The Roaches. Local legend holds that the Pool is fathomless and haunted by a mermaid answering to the name of Jenny Greenteeth (not shown). Photo: Andy Howard October 2013.*

Upper Hulme, such as a taxi, hitching a lift or cycling. After lots of poring over maps and failing to find the keys for our bike locks, the option we eventually chose was to split the section into two parts, then head off-route and use the good footpath network in the area to convert each of the two parts into a circular walk. We then tackled each part on separate days, giving us two Geowalks for the price of one!

Day 1. Armed with our downloaded PDF, and with our smartphones loaded with the OS Maps App and the BGS Geology of Britain App to help us off-route, we parked up at Ramshaw Rocks near Upper Hulme, the start of Section 6. We missed out Hen Cloud, heading straight to The Roaches via Well Farm. From there we ascended The Roaches ridge and walked north-westwards along the crest past the tranquil and mysterious Doxey Pool (Fig. 1). The Roaches were formerly famous for a colony of Tasmanian red-necked wallabies that had originally been turned out into the wild back in the 1940s by the owner of a private zoo at Roaches Hall, now a luxury hotel. I managed to snap

Figure 2. *A red-necked wallaby in the Five Clouds Quarry below The Roaches. Photo: Andy Howard August 1978.*

Figure 3. *Ochreous stream draining into a tributary of the River Dane at Gradbach. The ochreous colour is due to oxidisation of iron-rich mine water draining from old coal workings in the Goyt Syncline area to the south. Photo: Andy Howard August 2023.*

***Figure 4**. The River Dane tumbling over cross-bedded Chatsworth Grit below the 18th-century 'Silk Road' packhorse bridge at Three Shires Head. Photo: Andy Howard August 2023.*

one of these while on my mapping project (Fig. 2), but they are now thought to be locally extinct. After a picnic lunch enjoying the spectacular views westwards across the Cheshire plains from The Roaches, we continued along the ridge to Lud's Church, a natural chasm formed along the backscar of a rotational landslip. Turning eastwards, we proceeded to the Wildlife Trust car park at Gradbach. There we bailed out from the 'official' Geowalk route to take good footpaths back southwards across the formerly mined Lower Coal Measures of Goldsitch Moss (Fig. 3), and then back to our car at Ramshaw Rocks. Total distance was 13.5 km.

Day 2. We started after lunch at the Gradbach car park, taking the route north-eastwards along the Dane Valley Way to Three Shires Head (Fig. 4) and then across the moors to Axe Edge and Oliver Hill, both of which have east-facing scarps offering magnificent views across the White Peak. After stopping off for a refreshing early evening drink at the New Inn in Flash (Fig. 5), we returned to Gradbach via a 4 km downhill walk along quiet country lanes, passing the farm where I stayed while completing my undergraduate mapping project. Total distance was 11.5 km.

Regarding navigation, the narrative information on Section 6 proved to be very clear and up to date. The route map was useful for planning but the base maps are not OS, so using a separate OS Map or the OS Maps App is strongly recommended, especially on the more remote routes. Each section also includes a BGS geological map with the walking route and waypoints superimposed, which helps considerably to highlight the rock formations traversed en route. The geology is clearly explained at a non-technical level that is accessible and inspiring to non-specialists and backed by some excellent photography and illustrations. If, however, you add your own sections into the route you will have to manage without the geological explanation. Perhaps the best compliment we can pay to the educational quality of the narrative is that it really does help to train your eye and, when without it, read the landscape for yourself.

***Figure 5**. The New Inn at Flash, the highest 'village pub' in England. Photo: Andy Howard August 2023.*

The authors conclude their guide with the statement *'Walking, after all, is simply a form of enjoyable exploration and this website attempts to provide guidance, rather than prescription'*. The guide certainly achieves this objective and, having tried one of the walks and customised it to our own tastes and abilities, we are looking forward to trying out the other 13 Sections. There is plenty more exploration to keep us going for several more summers!

Andy and ***Eileen Howard***