

Editorial

During the autumn and winter we held no public events, although we are planning guided walks for the spring, so keep an eye on the website for the latest events. We haven't visited Frickley Country Park for a few years, but there is a walk planned in early February, so do go to see this extraordinary geological site built on a huge disused colliery site, but now a splendid country park close to Wakefield. In spite of poor weather in the last few months, a group of us have been looking at new geological sites, particularly some quarries in the Horbury area of Wakefield which show some very interesting features. More research needs to be done on their geology and history, but we hope to take walks in that area in due course. As you may have noticed we've also had a refresh of the newsletter. We hope you like it and would welcome suggestions or comments on it if you have any.

Thorner Quarry

Regular readers of the Newsletter may be aware that there is currently a lot of ongoing work at Thorner Quarry, one of WYGT's LGS, which is located in Thorner, just north east of Leeds. The quarry shows exposures of the Rough Rock Flags with a range of sedimentary features but is located behind a large stone wall on private land and is heavily vegetated so is relatively inaccessible. The main focus of the work is the continuing project to redevelop Thorner Quarry into an amenity for the whole village by removing the wall, spoil and vegetation from the quarry floor and turning it into an open space so the geology and history of the site can be appreciated by all. WYGT has and continues to actively support the project.



Thorner Quarry - before vegetation removal



Thorner Quarry - after vegetation removal

Spring cleaning

In May 2015, with permission from Thorner Parish Council and the landowners, Bill Fraser of the Leeds Geological Association and Gareth Martin of WYGT cleared one of the main faces at Thorner Quarry which had become very overgrown with ivy and low scrub. The clearing has greatly improved visibility of the features and its use for guided walks. It has also tackled one of the major causes of the Poor Declining status of the LGS identified during the last Condition Assessment of the site.

Quarry development update

Unfortunately the redevelopment of Thorner Quarry has taken a recent setback with the rejection of a funding bid to secure funds for a geotechnical assessment of the quarry, one of the main barriers to progression. Interestingly, the Thorner Quarry Feasibility Study Group are planning to use a crowd funding approach to raise the money, including walks lead by WYGT members. Hopefully, there will be further details in the next newsletter when the crowd funding has been finalised.

Barnsley Canal walks

Tony Felski of WYGT, has been busy in 2015 leading several guided walks to two fascinating, but commonly overlooked exposures along Barnsley Canal for the members of the Leeds Geological Association and Huddersfield Geology Group.

Both sites offer a great insight into the depositional conditions in the Middle Coal Measures, and contain a unique set of bivalve escape structures not known elsewhere in West Yorkshire (see photo below). These escape structures may be linked to the effects of seasonal monsoon rainfall conditions in the Carboniferous causing rapid sedimentation on the river bed and the need of fauna to migrate upwards to survive. There is also coal and a seatearth exposed at the site, as well as intriguing evidence for a potentially fossiliferous marine band below the soil surface as shown by some fossil bivalve spat in a mudstone identified during the Leeds Geological Association visit.

Barnsley Canal is already designated an LGS and it is hoped the other outcrop visited, the Oaks Rock, will be designated in the near future (see below for more details). Furthermore, discussions are on-going with the landowner to clear vegetation from the site and attempt to unearth the marine band.

William Smith's geology map mosaic

David Parkin of WYGT recently took a visit to York to see the newly unveiled mosaic of William Smith's famous and groundbreaking geology map. The beautifully designed pebble mosaic map, complete with accurate geology, was commissioned by York Philosophical Society. It was clear to David that the



Society had put "a tremendous amount of time and energy into developing the project". The photo, taken by David, shows how elegant the map is. The unveiling was accompanied by a lecture which highlighted how the map had served as a launch pad for the British Geological Survey.

Bracken Hall Countryside Centre

WYGT recieved some good news in June 2015 informing us that the Bracken Hall Countryside Centre was to reopen in September 2015.

The centre is particularly well placed for walks around three LGS, namely Baildon Hill, Baildon Quarries and Shipley Glen. WYGT has previously run guided walks around these sites from the centre until it closed and several WYGT members are currently looking into restarting these walks, hopefully helping to support this great resource!

There is a programme of events in place which can be viewed at <http://www.friendsofbrackenhall.org.uk>.

River Wharfe Cadeby limestone outcrops

Congratulations to Alison Tymon and Alan Rayner who, along with a local interest group completed and published their on-going research into the Cadeby limestone exposures along the River Wharfe near Wetherby and Boston Spa. The article will hopefully be released in the coming months once peer reviews have been completed. As well as providing great detail on the exposures there, one significant finding was that the three members of the Cadeby Formation, namely the Wetherby Formation, Hampole Beds and Sprotborough Formation are all represented in one exposure, a rarity in the Permian beds in the UK!

Wakefield area site visits

There's been a flurry of activity in the Wakefield area recently as a group of WYGT members; Gillian and Sarah Lindsay, Tony Felski and Gareth Martin, have identified several new potential LGS sites at Barnsley Canal, Coxley and Castleford to complement those sites already designated. Work is currently underway gathering the required evidence and preparing the relevant documentation for their designation.

Barnsley Canal, Oaks Rock - The site displays a very large and easily accesible expsoure of the Oaks Rock, showing a wide range of sedimentary features indicating deposition in a briaded river. The Oaks Rock is one of the most common lithologies not currently covered by an LGS in West Yorkshire.

Redhill Road - This site shows the Upper Carboniferous unconformity with the overlying Permian Yellow Sands Formation and the conformity with the Cadeby Formation. It is possibly the only place in the UK where the upper and lower contacts of the Yellow Sands can be seen together. Additionally, the Glass Houghton Rock is not covered by any current LGS in West Yorkshire.



Part of the Oaks Rock exposure at Barnsley Canal

The Glass Houghton Rock, Yellow Sands Formation and Cadeby limestone formation exposure at Redhill Road

Coxley Quarry - This enormous exposure of the Thornhill Rock is situated in beautiful woodland and shows a huge range of features, including sandstone and silt bedding and trapezoidal channels, all indicative of a meandering river channel, which is rare in Thornhill Rock outcrops in West Yorkshire.



Coxley Woods North Quarry.

Coxley Woods South Quarry

Peak District Local Geodiversity Action Plan

The Peak District Local Geodiversity Action Plan has been in discussion for several months as part of the Peak District Geopark project. In October 2015 the final draft of the action plan was issued for consultation. While only a small area of West Yorkshire falls within the Peak District, this small area includes three of our LGS, namely Bannister Edge, Butterley Cutting and Digley Quarries.

The plan is brief but detailed, providing a step to the future geological preservation of the area and details regarding cataloguing of all relevant geological information. We hope to include updates on the progress of the plan in future Newsletters.

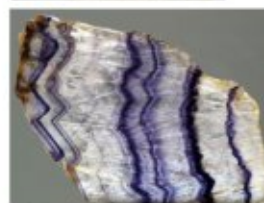
WYGT has also produced a Geodiversity Action Plan for West Yorkshire and this can be read here:

<http://www.wyorksgeologytrust.org/misc/Draft%20WYGAP.pdf>



"Geodiversity is the variety of rocks, minerals, fossils, landforms and soils, together with the natural processes that shape them. Geodiversity is a foundation for life and our society. It influences landscape, habitats and species as well as our economy, historical and cultural heritage, education, health and well-being."

Geodiversity Charter for England, 2014



Events

Frickley Country Park, South Elmsall, Wakefield

Saturday 13th February 2016 2.00pm – 4.00pm. Meet at Doncaster Road car park on the B6422 (SE477100). Tony Felski (WYGT) leads this short walk around the Frickley Colliery site which is now a landscaped country park. The walk will cover the rocks and fossils found in the mine and the geological history of the area around South Elmsall. The terrain is flat and on footpaths.

Roundhay Park Geological Walk

Wednesday 9th March, Saturday 14th May, Wednesday 6th July and Saturday 10th September, 1.30pm – 4.00pm. Meet outside the Mansion House Visitors Centre, LS8 2JL (SE330383) at 1.15pm for a 1.30pm start. Bill Fraser (LGA) leads this circular walk of 1.5 miles organised by the Friends and Roundhay Park. The walk covers the different shales and sandstones exposed in the park and associated sedimentary and tectonic structures and fossils. The paths are generally flat but can be very muddy in wet weather.

Yorkshire Geology Month

The annual Yorkshire Geology Month launch event is scheduled to take place at the National Coal Mining Museum on Saturday April 9th 2016 from 10.30am to 5.00pm and will include a number of public lectures, hands on demonstrations, a guided visit down the mine and exhibitions.

It Happened 300 Million Years Ago.....

Saturday 16th April 1.00pm. Organised by Calderdale Countryside Services. Meet John Midgley from West Yorkshire Geology Trust in the car park off Stainland Road, Stainland (behind the Red Lion but not the pub car park) at 1.00pm for a 2.5 mile meandering circular route from the car park to Eaves Top Quarries and back to look at Millstone Grit rocks and their features. Dogs are welcome but they must be kept on a lead at all times. The walk is free of charge.

Rocks and Minerals in Halifax town centre

Sunday 17th April 2.00pm - 3.30pm. Organised by Calderdale Council. Start at Halifax Parish Church (Minster), Kirkgate by the main porch (SE097252) finishing at the Piece Hall. Alison Tymon (WYGT) leads this gentle walk of less than 1 mile around the centre of Halifax to see the variety of local and imported decorative rocks used in the buildings. Bring a hand lens if you have one so that you can look closely at some of the rocks we will see.