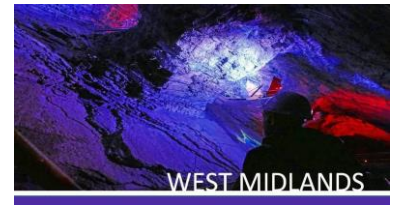




The
Geological
Society

-serving science & profession



Land Instability in the Ironbridge Gorge

Chris Bullas (Principal Geotechnical Engineer – Telford and Wrekin Council)

14th January 2025 | Mott MacDonald, 10 Livery St, Birmingham B3 2NU / Zoom Video Conference |
6:00pm refreshments and networking | 6:30pm start.

Abstract:

The Ironbridge Gorge is an internationally recognised area of Outstanding Universal Value and is one of seven designated conservation areas in the borough of Telford and Wrekin Council. UNESCO awarded the Ironbridge World Heritage Site status in 1986 in recognition of the area's record of innovation during the Industrial Revolution. This is captured in the many historical sites, landscape, setting of the gorge and the social history of the area.

The River Severn runs across Shropshire from approximately west to east. The Ironbridge Gorge was formed by meltwater from a Glacier or Ice Sheet and was cut rapidly. Its sides overly steep for the soil and rock from which it is comprised. During the Ice Ages, the upper layers of the strata comprised permafrost. As the climate warmed towards the end of the last Ice Age, particularly during the summer months, the upper layers of the geology thawed. The strata then "flowed" down the slopes by gravity in a process known as solifluction. This has resulted in extensive Head Deposits and Colluvium.

The geology provides many mineral resources and during the late 18th, 19th and 20th centuries, activities such as mining and iron founding have produced extensive man-made soils, which blanket the Colluvium and bedrock.

The Gorge is a geologically complex area and because of this presents challenges to its ongoing management as well as potential development.

e-mail

Get in touch

geolsoc_wmrg@live.co.uk

www

Find us on the web

www.geolsoc.org.uk/wmrg



Connect on LinkedIn

[WMRG ID: 4315899](https://www.linkedin.com/company/wmrg)



Join our Facebook Group

[WMRG
ID:/330578153706037](https://www.facebook.com/groups/wmrg)



Follow us on Twitter

[@wmidsgeolsoc](https://twitter.com/wmidsgeolsoc)

Geological Society, Burlington House, Piccadilly, London, W1J 0BG

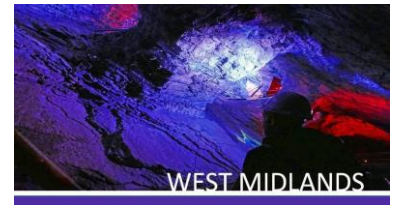
Tel: +44 (0)20 7434 9944 Fax: +44 (0)20 7439 8975 Email: enquiries@geolsoc.org.uk Web: www.geolsoc.org.uk

Registered Charity No. 210161



The Geological Society

serving science & profession



Steppe Bison
Bison priscus



Woolly Rhinoceros
Coelodonta antiquitatis



Steppe Mammoth
Mammuthus primigenius



Wild horse
Equus ferus



Spotted Hyaena
Crocuta crocuta



Grey Wolf
Canis lupus



Figure 1: The past residents of Telford.



Figure 2: A clay shaft which collapsed in December 2023.

e-mail

Get in touch

geolsoc_wmrg@live.co.uk

www

Find us on the web

www.geolsoc.org.uk/wmrg



Connect on LinkedIn

[WMRG ID: 4315899](https://www.linkedin.com/company/wmrg)



Join our Facebook Group

[WMRG ID: 330578153706037](https://www.facebook.com/groups/wmrg)



Follow us on Twitter

[@wmidsgeolsoc](https://twitter.com/wmidsgeolsoc)

Geological Society, Burlington House, Piccadilly, London, W1J 0BG

Tel: +44 (0)20 7434 9944 Fax: +44 (0)20 7439 8975 Email: enquiries@geolsoc.org.uk Web: www.geolsoc.org.uk

Registered Charity No. 210161



The
Geological
Society

-serving science & profession



Figure 3: The backscarp of the Lloyds landslip.

About the Speaker:

Chris spent a childhood a stone's throw from the Wrens Nest Nature Reserve near Dudley and from the birthplace of Abraham Darby. He spent a childhood out in the wilds of the Black Country, collecting fossils and reading about dinosaurs. He went on to graduate from Portsmouth Polytechnic in 1990 and started working as an engineering geologist with a local geotechnical contracting, consulting and testing company where he spent the next 29 years.

He is a Fellow of the Geological Society, a Chartered Geologist and an Associate Member of the Institute of Civil Engineers.

After the COVID 19 pandemic, Chris moved on to Telford and Wrekin Council as Principal Geotechnical Engineer. Life in the borough of Telford is seldom dull. The Black Country has exciting geology and mining history. Telford takes those to another level. He is a member of the Team which is part of Operation Tangent, the emergency multi-agency plan for dealing with a catastrophic failure in the Gorge and, on a lighter note, is actively involved with guided walks as part of the annual Ironbridge Walking Festival.

e-mail

Get in touch

geolsoc_wmrg@live.co.uk

www

Find us on the web

www.geolsoc.org.uk/wmrg



Connect on LinkedIn

[WMRG ID: 4315899](https://www.linkedin.com/company/wmrg)



Join our Facebook Group

[WMRG
ID: 330578153706037](https://www.facebook.com/groups/wmrg)



Follow us on Twitter

[@wmidsgeolsoc](https://twitter.com/wmidsgeolsoc)

Geological Society, Burlington House, Piccadilly, London, W1J 0BG

Tel: +44 (0)20 7434 9944 Fax: +44 (0)20 7439 8975 Email: enquiries@geolsoc.org.uk Web: www.geolsoc.org.uk

Registered Charity No. 210161



The
Geological
Society

serving science & profession



Forthcoming Talks:

Date	Title	Speaker	Venue
Tuesday 11th February 06:30pm start	Radium Contamination (title TBC)	Jen Barnes, Jacobs	Mott MacDonald's Birmingham office / Zoom Video Conference
Tuesday 11th March 06:30pm start	Calculating uplift rates using geological sea-level indicators on the south coast of England	Becky Briant, Jacobs/ Birkbeck University of London	Mott MacDonald's Birmingham office / Zoom Video Conference

The WMRG is constantly on the lookout for fascinating talks. If you would like to present, know someone who is willing, or would like to request a subject please contact the WMRG committee (details below) and we will try our very best to accommodate your requests.

Contact:

For all enquiries regarding the West Midlands Regional Group and events please contact us using the details below.

e-mail

Get in touch

geolsoc_wmrg@live.co.uk

www

Find us on the web

www.geolsoc.org.uk/wmrg



Connect on LinkedIn

[WMRG ID: 4315899](https://www.linkedin.com/company/wmrg)



Join our Facebook Group

[WMRG
ID:/330578153706037](https://www.facebook.com/wmrg)



Follow us on Twitter

[@wmidsgeolsoc](https://twitter.com/wmidsgeolsoc)

Geological Society, Burlington House, Piccadilly, London, W1J 0BG

Tel: +44 (0)20 7434 9944 Fax: +44 (0)20 7439 8975 Email: enquiries@geolsoc.org.uk Web: www.geolsoc.org.uk

Registered Charity No. 210161