

# Newsletter No. 273 June 2022

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Andrew Harrison

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Alan Clewlow

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Copy date for the next Newsletter is Monday 1 August

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To find out more about this photo - read on!



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For enquiries about field and geoconservation meetings please contact the Field Secretary.

To submit items for the Newsletter please contact the Newsletter Editor.

For all other business and enquiries please contact the Honorary Secretary.

For more information see our website: <a href="https://bcgs.info">bcgs.info</a>, <a href="mailto:YouTube">YouTube</a>, <a href="Twitter: @BCGeoSoc">Twitter: @BCGeoSoc</a> and <a href="mailto:Facebook">Facebook</a>.

## **Future Programme**

Indoor meetings are normally held in the Abbey Room at the Dudley Archives, Tipton Road, Dudley, DY1 4SQ, 7.30 for 8.00 o'clock start unless stated otherwise.

The same timing applies to online 'Zoom' meetings.

Visitors are welcome to attend BCGS events but there will be a charge of £1.00.

**Saturday 2 July: Launch of Glacial Boulder Trail 2: The Louis Barrow Trail - Around Bournville and Cotteridge Park** at the CoCoMAD Festival in Cotteridge Park, **from 12.00.** There will be an Erratics Project stall and two guided walks, at 1.00 and 2.00. This is one of the richest trails historically, geologically, and in quantity of erratics. Assistants are needed at the stall, or just come and enjoy the Festival, visit the stall, or join a walk. (See the Project up-date on p.8 below for more information.)

Wednesday 6 July (Evening Field Meeting): The Geology and Landscapes of Barr Beacon Local Nature Reserve Geosite, led by Graham Worton. Meet at 7.00 at the Beacon car park (grid ref: SP060967). An evening walk to examine the geology and its effects on the landscapes of the Barr Beacon area of Walsall. Graham will also explain the recent works and new interpretation installed as part of the 2022 'Purple Horizons Nature recovery project' with Natural England. Joint meeting with the Geological Society, West Midlands Regional Group.

Thursday 4 August (*Evening Field Meeting*): The Geology, mining heritage and landscapes of Himley Hall and Baggeridge Country Park, led by Graham Worton. Meet at 6.30 at Himley Hall car park, DY3 4LA, (grid ref: SO889915). An evening walk to examine the geology and its effects on the landscape of the historic hall that was also the home to the last deep coal mine of the Black Country (Baggeridge Colliery). Joint meeting with the Geological Society, West Midlands Regional Group.

**Wednesday 7 September** (Evening Field Meeting): The Geology of the Rowley Hills Geosite, Sandwell, led by Graham Worton. Meet at 6.30 in the lay-by roadside parking on Darby's Hill Road, B69 1SG, (grid ref: SO967892). This evening walk will take in the views, look at exposures of the famous 'Rowley Ragstone' at the Blue Rock Quarry Geosite, and some millennium Geoart installations. Joint meeting with the Geological Society, West Midlands Regional Group.

Monday 26 - Friday 30 September: BCGS visit to the Dingle Peninsula. Field trips led by Ken Higgs. For more information see Newsletter 271, Feb 2022, p.4. Contact Alan Clewlow, email: <a href="mailto:treasurer@bcgs.info">treasurer@bcgs.info</a>

**Saturday 8 October** (*Geoconservation Day*): **Wren's Nest.** Directed by the reserve wardens. Meet at 10.30 at the wardens' office at the end of Fossil View, off Wren's Hill Road (Grid Ref: SO93792). Park along Fossil View. The day will involve scrub clearance. Bring gloves, stout footwear and packed lunch. Wardens will provide tools, hard hats if necessary and a hot drink. Finish around 2.30.

## **Other Societies and Events**

## **Warwickshire Geological Conservation Group**

**Sunday 26 June, 10.00 – 4.00: Field Outing to Cannock Chase.** Led by Ian Stimpson (Keele University).

Saturday 16 July, 10.00 - 4.00: Field Outing to Cleeve Hill. Led by Nick Chidlaw.

**Friday 29 July, 8.00am to Sunday 31 July at 5.00pm: Mendips - Weekend Field Trip.** Led by Dr Martin Whiteley. There will be a charge of £60 per person to cover the leader's fee, field handout, minibus travel and a visit to Banwell Bone Cave. We understand that there are currently 6 places available and BCGS members have been invited to take part.

There is a charge of £2.00 for non-members. For more details visit: <a href="http://www.wgcg.co.uk/">http://www.wgcg.co.uk/</a> or email: <a href="http://www.wgcg.co.uk/">WarwickshireGCG@gmail.com</a>.

### North Staffordshire Group of the Geologists' Association

**Tuesday 5 July, 10.30: The Roaches** – joint field trip with EMGS. Led by Martin Whiteley (East Midlands Geological Society).

For enquiries: Steve Alcock, Longfields, Park Lane, Cheddleton, Leek, Staffs, ST13 7JS. Tel: 01538 360431 or 07711 501028. Email: <a href="mailto:steves261@aol.com">steves261@aol.com</a> More info: <a href="mailto:www.esci.keele.ac.uk/nsgga/">www.esci.keele.ac.uk/nsgga/</a>

### **East Midlands Geological Society**

**Tuesday 5 July: The Roaches, Leek, Staffordshire.** This is a one-day field trip to examine dramatic exposures of the Namurian sandstones (Millstone Grit) which are also strongly folded and faulted on the western edge of the Peak District.

Non-members are welcome and should register with the secretary. Further info: <a href="www.emgs.org.uk">www.emgs.org.uk</a> or email: <a href="mailto:secretary@emgs.org.uk">secretary@emgs.org.uk</a>

## **Teme Valley Geological Society**

**Thursday 7 July: Field trip to Woolhope Dome.** Limited places. To reserve, please email John Nicklin.

Non-members £3. For field trip details and further information contact John Nicklin, email: <a href="mailto:martleypfo@gmail.com">martleypfo@gmail.com</a> or phone on 01886 888318 or visit: <a href="https://geo-village.eu/">https://geo-village.eu/</a>

## **Mid Wales Geology Club**

Wednesday 15 June: 'Introduction to Outer Hebrides Geology'. Speaker: Chris Simpson.

Further information: Tony Thorp tel. 01686 624820 and 622517 <a href="mailto:tonydolfor@gmail.com">tonydolfor@gmail.com</a> Web: <a href="mailto:http://midwalesgeology.org.uk">http://midwalesgeology.org.uk</a> lectures start at 7.15 via Zoom.

## **Abberley and Malvern Hills Geopark - Geofest**

The 2022 Abberley and Malvern Hills Geofest is running from 28 May to 4 September with the usual variety of events and exhibitions. Click <u>here</u> to view or download the Geofest programme.

Andy Harrison will be assisting at the following Geofest events and is looking for more volunteers. If you are interested in helping with either of these events, please contact Andy directly: <a href="mailto:fieldsecretary@bcgs.info">fieldsecretary@bcgs.info</a>

**Saturday 18 June: The Severn Valley Country Park.** Geology stand: 10.00 to 4.00 to promote West Midlands geology. The day will include a rock and fossil hunt and ecological walks led by park staff. Refreshments will be available from the visitor centre café.

**Saturday 16 July: The Hive,** Sawmill Walk, The Butts, Worcester, WR1 3PD. Geology stand 10.00 to 4.00 to promote West Midlands geology. Heritage day to celebrate The Hive's 10th birthday. Refreshments will be available from the shop.

For further information go to: <a href="http://geopark.org.uk/">http://geopark.org.uk/</a>

## **BCGS Committee: vacancy for a Meetings Secretary**

**We urgently need a new Meetings Secretary.** If you can help, or would like more information about the work entailed, please don't be shy to put your name forward! Please use this email address: honsec@bcgs.info

## **Editorial**

The summer field trip programme started with our first non-local trip since 2019, and for those who missed it there is a detailed account of the Brampton Bryan trip from Andy on p.5. The series of local evening trips is continuing with Graham leading, and in September we have the 5 day trip to the Dingle Peninsula to look forward to (see p.2, or Newsletter 271 for full details). To whet your appetites if you're not sure, remember that Ken Higgs will be our leader, and his talk for BCGS can still be seen on our YouTube channel here: <a href="https://www.youtube.com/watch?v= hz5fEGqnnw&t=6s">https://www.youtube.com/watch?v= hz5fEGqnnw&t=6s</a>

Our partnership involvement in the project 'Birmingham's Erratic Boulders: Heritage of the Ice Age' goes from strength to strength, with ever widening horizons as we learn more about the glacial history of the boulders, and their connections within the local communities around them. Enthusiasm for a field visit to the Arenig mountains is steadily growing as people get to know 'their' boulders, and want to see where they came from! Have a look at the latest up-date on p.8 and if you haven't yet become involved, don't miss the next launch event on 2nd July.

Although we are delighted to have Mark Jeffs on board as our new Secretary, we are still sadly lacking a meetings secretary. Hence, as yet, we have no evening talks on our programme for the autumn season. The committee will rally round and do our best, but we are all busy with other BCGS business, and we need to strengthen our team. Please contact the Secretary (details on p.2) if you can help. ■

Julie Schroder

## **Field Meeting Report**

**Saturday 23 April: Brampton Bryan Park and the Pedwardine Inlier.** Led by John Moseley (Gloucestershire Geology Trust).

Brampton Bryan Village is located on the A4113 approximately 14.5km west of Ludlow Town Centre and roughly 2km from the England-Wales border. The village includes numerous small art and craft shops, a castle and Brampton Bryan Park, a late 15th/16th century deer park on its western outskirts. From Hall Farm on the western village periphery, ground elevations rise gently towards the south-west and through the park from roughly 135m Above Ordnance Datum (mAOD) to 150m AOD across open rolling grass-covered fields. Towards the park's south-western end, ground elevations rise sharply to a hill summit at 334m AOD, which is covered by Pedwardine Wood. Together the village and park belong to the historic Harley Estate, which sits close to the Shropshire and Herefordshire border.

The Harley Estate is on the eastern edge of the British Geological Survey (BGS) map Sheet 180, 'Knighton', and had remained unsurveyed for over 100 years leaving a 'black hole' in the BGS's mapping for the Welsh borderlands. Since 2003/04, John has been involved with a project to re-map the Knighton sheet which was planned and instigated by Dr Arthur Tingley, a retired BGS geologist. This has involved mapping the Precambrian rocks on the Harley Estate. John has also coordinated many residential A-level trips to the area over the years and been helped in his mapping endeavours by volunteers from the Teme Valley Geological Society, Herefordshire and Worcester Earth Heritage Trust and Woolhope Naturalists' Field Club. Members from these three groups joined BCGS members for thismartleypfo@gmail.com field visit. We met John at Aardvark Books in Brampton Bryan village, where he provided handouts and an overview of what the day would include. ▶

Entering Brampton Bryan Park via Hall Farm, we headed south-west across the fields with sporadic trees and patchy woodland. John explained how the park sits at the northern end of the Pedwardine inlier and within the Welsh Borderland Fault system. This includes the Church Stretton Fault, which passes roughly south-west to north-east through the hills to the west of our location. The Pedwardine inlier represents a sequence of Precambrian, Ordovician (Tremadocian) and early Silurian strata that have been emplaced in their current position due to movements along the Church Stretton Fault.

Our first two stops in the park were to look at late Precambrian exposures. These rocks belong within the Longmyndian Supergroup, with which they exhibit very similar characteristics and structures. The Long Mynd, in Shropshire, forms a long extensive plateau immediately west of Church Stretton and is

the type locality for similar Longmyndian Supergroup rocks.

The first stop was a small quarry with exposures of vertical, purple, thickly bedded sandstone, steeply tilted to the west. In places it displays faint graded and cross-bedding. Thin clay or shale horizons separate each sandstone layer. Similar exposures are found along the Church Stretton Fault line and on the western side of the Long Mynd (see front cover photo). They are classed as the Wentnor Group and considered equivalent to the Bayston-Oakswood Formation.



Wentnor Group conglomerate

A short distance from the quarry we stopped at some conglomerate beds that are equivalent to such beds seen on the top of the Long Mynd. These beds exhibit a range of clast sizes and shapes, from rounded to angular, with compositions that included quartz, quartzite, jasper, quartz-muscovite, chlorite-muscovite and volcanic pebbles. The tilt seen within the sandstone beds and these conglomerates is compatible with that which forms the isoclinal syncline structure associated with the Long Mynd.

Sedimentological analysis of these and similar rocks indicates that they represent a braidplain sedimentary succession of mudstone, sandstone and conglomerate, forming a prograding turbidite to alluvial grading sequence. This succession is interpreted as having been deposited in a late



Lower Elton Shale exposure

Precambrian, trans-extensional, fault-bounded basin within what is known today as the Welsh Borderland Fault System. Initially, subsidence was rapid and allowed sediment to flood in, but later the sedimentation rate exceeded the rate of subsidence. Initially deposits comprised fine muddy turbidites. As the basin filled these were replaced with deltaic sandstones and eventually sands, conglomerate beds and alluvial muds deposited from rivers on low-lying floodplains. The Wentnorian sandstones we saw in the quarry and the conglomerates outside represent the upper, more terrestrial parts of this succession. ▶

The late Precambrian plate tectonics for this area are complex, and include a subduction zone with accretionary prisms and magmatic arcs. During this time the area would have been located within a southern hemisphere setting and it is believed that the trans-extensional faulting referred to, related to Avalonia just as it separated from Gondwanaland.

Beside trans-extensional faulting, which involves both simultaneous extensional and translational fault movements, the Pedwardine inlier also has many examples of thrust faulting. To the north, we could see Coxall Knoll where late Silurian Pridoli strata have been thrust up over middle Silurian Wenlock Shale. A line of fence posts close to where we stopped to look at the conglomerate outcrops marked the line of another thrust fault. Here, the Longmyndian Wentnor Group rocks are thrust eastwards over younger Ordovician (Tremadocian) mudstone and shale belonging to the Shineton Shale Formation.



Shineton Shales, Letton Formation angular unconformity

Continuing south and west through the park, we stopped at two localities where light grey shales belonging to the Silurian (Lower Ludlow) Elton Formation are exposed. These rocks have been downthrown to the west to sit up against the Longmyndian rocks to the east. Variations in dip hint at fault drag bending these rocks. Fine-grained, they were deposited in relatively deep marine, low energy conditions towards the edge of the continental shelf, and contain occasional planktonic fossils such as monograptids. Viewing a bedding surface at the right angle to the sun revealed a crinkly appearance that is believed to result from algal mats growing as a green film over the muddy substrate. Gentle currents created a rippled effect over the algal mat.

The shales also contain fine-grained carbonate nodules, the origins of which are uncertain. They may have formed during the diagenesis and lithification of the Elton Formation. However, another more favoured theory is that they represent small boulders deposited on relatively shallow slopes on the continental shelf margin.

After lunch at Aardvark Books, we headed south to Upper Pedwardine. Our first stop was to view an example of the thrust faulting that is common to the strata in this area. In the steep bank of a small stream on the track to the farm, we saw a thrust-faulted angular unconformity where rocks of the



Leintwardine Formation boulders over Elton Formation exposure

Ordovician, Tremadocian (Shineton Shales) are overlying Silurian, Llandovery (Letton Formation) strata. This is a continuation of the thrust we had seen marked out in the landscape earlier in Brampton Bryan Park. The Shineton Shales are poorly exposed in the area and form the basal stratigraphic division for the lower Ordovician. They exhibit dendroid graptolites and represent a phase of relatively rapid mud deposition over much of Wales, the Welsh Borders and the Midlands. The Letton Formation is a coarse gritty sandstone with interbedded yellowish shale that can yield various brachiopod fossil species.

Our last location for the day was a quarry on the western edge of a region referred to as Wigmore Rolls. Here, fine-grained grey Elton Formation strata are overlain with boulders and rubbly yellowish-grey fine limestone corresponding to the base of the Leintwardine Formation. The Wigmore Rolls region represents Silurian continental shelf facies that are a continuation of the Ludlow area. The rocks seen in the quarry represent the continental shelf margin where sediment slowly built up prior to finally collapsing under gravity into the deeper Welsh Basin. The collapsing sediments created preferential channels that became filled with boulders. It is thought that the carbonate nodules seen in the Elton Formation shales in Brampton Bryan Park, may have originated from such a channel.

We finished the visit around 4.30 and headed to Aardvark Books in Brampton Bryan. I would like to thank John for a very interesting day and another great field visit, and look forward to our next one.

Andy Harrison

## Birmingham's Erratic Boulders: Heritage of the Ice Age Two trail launches down - five to go!

Trail leaflets and launches have been the main priority for the Project team and volunteers since my last up-date. With 2 launch events in fairly quick succession and the 3rd looming on the horizon, there's been a whirlwind of activity on all fronts - nothing glacial about the rate of progress!

### Launch of Glacial Boulder Trail 1 - The Roland Kedge Trail, on 23 April



A pre-launch walk took place on 9th April to prepare for the big day and to encourage some volunteers to become post-project walk leaders. The launch was based in a room at Great Stone Inn Northfield, and the day started the unveiling of millstone, recently retrieved from the banks of the River and appropriately Rea, another venture in which Roland Kedge played a major role. There were two guided walks along the trail and visitors to our base were able to collect printed trail leaflets and learn more about the project and the heritage of the Ice Age. ▶



Adam conquers the large erratic in Selly Oak Park

#### Launch of Glacial Boulder Trail 3 - Around Kings Norton, on 14 May

Glacial Boulder Trail 3
Around Kings Norton
Kings Norton to Bromford Dell
via Masefield Square

Take a trip back into deep time to discover relics
from the Great Ice Age half a million years ago.
Thread your way past glacial erratic boulders,
mostly from the mountains of Wales and brought
here by the power of ice. This trail links these
little-known bastions of our prehistoric heritage.

There was barely time to breath back our before work started in earnest for the next trail launch (trail 3 preceding logistical trail 2 for Researching reasons). and writing the Trail 3 leaflet had to be done at pace, and thanks to our team of researchers, trail testers and proof readers it was completed well in



Visiting an erratic in Kings Norton on one of the guided walks

time. Our base for this launch was a stall at the Kings Norton Farmers' Market. We had around 120 visitors to the stand, taking an interest in our display and depleting our leaflet stock by a considerable amount.

There were two scheduled walks led by members of the project team, and by popular demand an impromptu short walk around the Kings Norton boulders was led by one



Foundation erratic at St Nicolas' Place

of our volunteers. This trail features the only erratics we know of in the project area which are incorporated into the structure of buildings. We're hoping that more will be found following the launch. We made lots of new contacts and all in all the day was a great success.

#### Preparing to Launch Trail 2 - the Louis Barrow Trail, on Saturday 2 July



*Minworth Greaves, erratic left of the door* 

Selly Manor Museum has been a particular focus of interest in preparation for the Trail 2 leaflet. We previously knew of one erratic in the grounds, but more have come to light, and in liaison with the Bournville Village Trust's Heritage Manager, there are moves afoot to collect them into more visible places. Prior to this project, the glacial erratic story did not feature much in the numerous activities and wealth of history on offer at Selly Manor and its companion historic building, Minworth Greaves. The newly revived interest in the Museum's glacial heritage has pushed back the age of their oldest exhibit by some 450,000 years! ▶

#### **Erratic Research**

Several rock-hounds have been busy sleuthing for 'new' erratics, with some success. The current total for our area is over 130, though some of these are on private land. Closer study of the boulders is also throwing up some interesting new discoveries. A small boulder in Kings Norton (shown in the group photo on p.9), was originally thought to be one of the more usual Arenig ash erratics. Closer study has now proved it to be one of a rarer breed amongst our local erratics. Though it is from the Arenigs with similar mineral composition, it is an intrusive volcanic rock with feldspar phenocrysts, closely matching an already known porphyritic erratic in Masefield Square (Trail 3).



Porphyritic boulder in Masefield Square



XRF analysis of the Aston Webb Boulder

The Aston Webb Boulder at the University of Birmingham provides a splendid conclusion to Trail 1. Long thought to be a basaltic boulder from the Rowley Regis area, recent XRF analysis (undertaken on behalf of the Project by Ian Stimpson from Keele University) has thrown up the surprising result that the boulder is mostly sedimentary, with only a small amount of basalt. This begs many questions, and I'm sure there will be more to say on this in due course.

#### Volunteering and up-coming events

We will be extending the project into 2023 to give us more time to complete our objectives satisfactorily. Keep an eye on the Erratics Project website for up-dates, and have a look at the 'Volunteering Opportunities Handbook' to find out how you could become involved. Our volunteer coordinator, Zoë Jackson, is looking for more volunteers on all fronts, but particularly for historic research into the erratics, both scientific and in the social context. Please contact her directly on: <a href="mailto:z.jackson@worc.ac.uk">z.jackson@worc.ac.uk</a> or via the website and other social media (details below).

**Saturday 25 June: Frankley Carnival 11.00 to 4.30.** This is a local community event. The project team will be seeking community involvement in a proposed 'Timeline Trail' in Frankley. We'll be promoting the project and running geology-themed art and craft activities for adults and children. Everyone is welcome.

Saturday 2 July: Launch of Glacial Boulder Trail 2: The Louis Barrow Trail - Around Bournville and Cotteridge Park. See the BCGS programme of events, p.2 for details. ■

For more information:

https://erraticsproject.org/ https://www.twitter.com/erraticsproject https://www.facebook.com/birminghamerratics https://www.instagram.com/erraticsproject

Julie Schroder (BCGS rep. on the Erratics Project steering group)



## **Murchison at Barnard Castle**

Dominic Cummings may have recently drawn attention to Barnard Castle, County Durham, but on a recent visit I found that someone much more interesting had been a resident, and turned from a life of indolence chasing foxes and shooting grouse to that of scientific discovery and international fame.

In 1818 Roderick Impey Murchison took up residence in Galgate with his wife Charlotte, and made the acquaintance of Sir Humphrey Davy who urged him to turn his energy to science and not waste time riding to hounds and shooting. This culminated in 1849 in

FORMERLY
THE RESIDENCE OF
SIR RODERICK MURCHISON,
TWICE PRESIDENT OF THE ROYAL
GEOGRAPHICAL SOCIETY. HE DIED
IN 1871, AGED 79, A GREAT
GEOLOGIST AND EXPLORER, A TOWN
IN NEW ZEALAND, FALLS ON THE NILE
A MOUNTAIN RANGE AND RIVER, IN
AUSTRALIA AND A SOUND IN
GREENLAND ARE ALL NAMED
AFTER HIM.

Dudley, where 15,000 Black Country locals declared him the 'King of Siluria' - not an epithet DC will ever get to enjoy! ■

Mike Williams

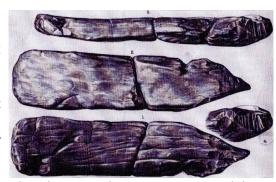
## Mike's Musings No. 39: A Question of Trust - Part 1

Science progresses by means of a cumulative acquisition of knowledge, peer reviewed theories being put to the test and found to fit proven facts: or, as Newton is reputed to have put it, "seeing further by standing on the shoulders of giants". This is all very well, but the scientific method relies on the veracity of 'giants' and thus being able to trust the work of those who have come before.

Fortunately the vast majority of scientific work has been found to be trustworthy, not necessarily always correct, but certainly conducted with belief in its correctness and willing to stand corrected when found wanting. But what happens when work is not only incorrect, but knowingly so? Trust breaks down, and all subsequent progression is called into question. The whole scaffold of progress collapses, resulting in a false and broken edifice.

Probably the best known and most notorious instance of - well, I'll call it 'mischief' for the present - in the geological realm, is the celebrated case of Piltdown Man, presented to the world in 1912. This particular case of deliberate deception has been described so many times, including a brief account I wrote on the centenary of this affair (Newsletter No. 216, December 2012), that it doesn't require further repetition here. Fortunately, much of the geological fraternity were rightly sceptical and relatively few (albeit influential) individuals were completely taken in. This scepticism, or downright disbelief, gathered momentum as further scientific discoveries failed to chime with the theory that the Piltdown remains purported to support. Nevertheless, it remained a festering sore for the reputation of British science for several decades until evidence definitively revealed the truth in 1953. Only recently has speculation on the culprit really settled down to the conclusion that it was almost certainly Charles Dawson 'who done it', possibly with the connivance of others, despite over a dozen other candidates having been implicated by various commentators at different times.

It has been suggested that this whole affair began as a joke. When certain experts took it at face value, it became more and more difficult for the perpetrator to backtrack without revealing themself, even when some of the discoveries were so conveniently timed in response to raised suspicions. The episode of a so-called 'cricket bat' artefact was a final attempt to expose the nonsensical nature of all the other material, but even this was duly accepted by those who just couldn't see through the deception.



The Piltown 'Cricket Bat'... a mammoth bone from Plate XIV, Dawson & Woodward, 1915

The main reason that this affair caused such an uproar was down to the very high profile of the scientific significance

attached to the matter. It fed into the whole debate about the sensitive nature of human descent, which had been (and in some quarters still is!) a very hot potato indeed, ever since the subject of 'evolution' raised its controversial head. On balance, however, I don't think Piltdown can simply be dismissed as 'mischief' or 'a joke that went too far', and it is difficult to avoid a charge of 'fraudulent activity with intent'.

Piltdown appears to have been perpetrated in order to enhance the perpetrator's kudos amongst his peers whilst at the same time handing the British scientific community the blue riband prize they were seeking: evidence of the earliest human ancestor, the coveted 'missing link' between ape and man, and at the same time providing the evidence others were seeking for the manufacturer of ancient flint tools. Curiously enough, this latter side of the human evolutionary story has a still older association with fraudulent activity some fifty years prior to Piltdown.

In mid-19th century France the search was already on for the primitive manufacturer of flint tools, so when an ancient human jaw together with some flint implements came into the possession of a local amateur, a certain Boucher de Perthes, the story created a minor sensation. The finds were reported in 1863 as having been unearthed by workmen from the Moulin Quignon gravel pit near Abbeville, northern France. This immediately attracted the attention of two leading British geologists who had previously been acquainted with the site but had never found anything of interest. Suddenly in 1863 flints came flooding out of the site, but it soon became clear that the finds weren't all they seemed. The characteristic colour of flints from this site were soon discovered to have been applied falsely and their authenticity, as well as that of the jawbone, were cast into doubt. Other criteria supported this



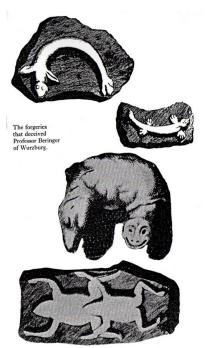
Jacques Boucher de Perthes
Wikimedia Commons

conclusion and though it was generally accepted that Boucher de Perthes was the innocent victim of unscrupulous workmen who played on an amateur's gullibility for monetary gain, it showed the danger of accepting 'second hand' finds at face value.

If this story doesn't quite follow the Piltdown trajectory, it does have strong echoes of the sad story concerning one Johann Bartholomew Adam Beringer. Chief physician to the Duke of Franconia. He also held the chair of natural history at the University of Würzburg, in Bavaria, and was Dean of its Faculty of Medicine. This tale of an innocent and pious, albeit rather conceited, scholar being duped by some of his students dates back to the 1720's, when, as with Piltdown, such behaviour was rather easier to get away with than in the forensic age we live in today. ▶

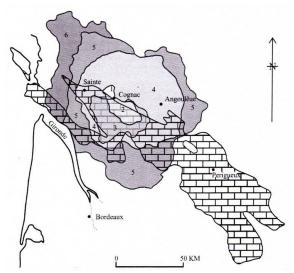
To keep a complicated saga as brief as possible, Beringer was taken in by his discovery of a series of stone tablets with ever more ridiculous 'natural curiosities' engraved upon them. They began as images of simple worms and other creatures but gradually included other less 'natural' images such as frogs fossilised 'in flagrante', spiders complete with webs, representations of the moon, stars and a radiant sun. All the while he accepted them as genuine 'fossils', accruing over 2,000 specimens that went on to feature in his magnum opus of 1725, the 'Lithographiae Wirceburgensis'. After publication, further, ever more ludicrous images appeared on these tablets culminating in one with his own name engraved upon it in Hebrew (overtones of the nonsensical Piltdown 'cricket bat). The cat was out of the bag and finally, by one account, a humiliated Beringer spent the rest of his days trying to buy back all copies of his great tome.

That, at least, is the simplified version of events. In fact many others were also taken in by the tablets (that came to be known as 'the lying stones of Würzburg') and contemporary documents since unearthed from official archives show that the deception was at the hands of his academic enemies; but the whole affair was conveniently hushed up



'The lying stones of Würzburg'

to spare the blushes not just of Beringer, but also the Duke of Franconia himself, likewise taken in by the scam. It also appears that there had been attempts to contain the 'joke', but Beringer couldn't be persuaded to see the truth sooner. In the end it was the 'jokesters' who, when exposed and found guilty, also fell on their swords, being forced from office in disgrace.



Map of the Cognac Region - grades of cognac (1-6) with Chalk outcrop superimposed

Staying on foreign soil, one deception that appears to have been intended very much as a joke concerns one Professor Henri Coquand, who, as President of the Geological Society of France, was invited to give the after-dinner talk at their 1857 conference following a field trip around the Cognac Region. He used the occasion to propose the idea that the quality of the brandy from this area declined in ever increasing circles with distance from the town of Cognac itself, in direct relation to the 'chalkiness' of the soil. As he had conducted detailed geological research in the area he clearly knew he was 'taking the Michel'. The outcrop of Chalk bears no relation to the supposed 'zones of declining quality' of the local tipple, but his presidential talk was included in the official report of the field excursion and the nonsense has been repeated many times since. It appears that Coquand never thought fit to

reveal the 'joke' himself, presumably imagining it (wrongly!) to be all too obvious to anyone with a bit of geological nous (or at least with access to a geological map of the region)! ■

In Part 2 I shall recall several more recent cases of disrepute, beginning with a less well known tale contemporary with the Piltdown affair.

Mike Allen