NEWSLETTER NO. 92 APRIL 1992

The Black Country Geological Society

Lecture meetings are held at the Saracens Head, Stone Street, Dudley, 7.30pm for 8 o'clock start

The Society does not provide personal accident cover for members or visitors on field trips. You are strongly advised to take out your own personal accident insurance to the level you feel appropriate. Schools and other bodies should arrange their own insurance as a matter of course.

FUTURE PROGRAMME

MONDAY 27TH APRIL

Lecture: "Classic coastal landforms of Southwest England" by Peter Keene (Faculty of Environment, Oxford Polytechnic)
Many members will have seen the coasts of Devon and Cornwall, with their impressive geological structures and spectacular scenery. In addition, coastlines are among the most dynamic geomorphological environments, and they bear witness to many processes and episodes of landscape change, reacting with the underlying geology.

This lecture will enquire into the origins and evolution of coastal scenery. It will interpret the spectacular coastal landscapes of Southwest England in terms of the relation between geology, current marine and land processes, and those features inherited from the Pleistocene.

PETER KEENE is a geomorphologist with a particular interest in geology as it affects landforms, with his main interests in Quaternary and coastal geomorphology. He is also editor of "Thematic Trails", a series of geological guidebooks, and has written several guides including "Classic Landforms of the North Devon Coast", which several members purchased during the Society's weekend visit to North Devon last summer.

SUNDAY 17TH MAY

Field Meeting to Leckhampton Quarry, near Cheltenham.
Leader: Dr. Chris Sands.
Meet 11.00am at the car park for Leckhampton Hill (grid ref: 950189). This is about 2 miles south of Cheltenham, off the B4070 road from Cheltenham to the "Air Balloon" and Birdlip. Coming from Cheltenham, soon after a sharp right-hand bend take a small road on the left (Daisy Bank Road) and the car park is about 150 yards along.

Leckhampton Quarry is one of the most important geological sites on the Cotswold escarpment. This escarpment, which is such a prominent feature seen from the Severn Valley, is mostly in the Inferior Oolite of the Middle Jurassic, and Leckhampton Quarry shows the greatest thickness of Inferior Oolite seen anywhere in one section. Several of the beds have abundant fossils-

brachiopods and bivalves.

Leckhampton Hill is also one of the best viewpoints for looking at the landscape of the Severn Valley, with its varied geology and distant hills.

DR. CHRIS SANDS is well-known in the West Midlands for the many geological classes he has run, and probably many members have at one time attended one of his evening classes.

MONDAY 1ST JUNE ***150TH ANNIVERSARY LECTURE***
Lecture: "The past is the key to the future" by Colin Reid, Keeper of Geology, Dudley Museum.

This lecture is one of our events to mark the 150th anniversary of the old Dudley & Midland Geological Society. Its date is close to the anniversary of the Society's first regular meeting, held on 7th June, 1842.

Exactly 150 years ago, Sir Roderick Murchison gave a visionary inaugural speech to the first Dudley and Midland Geological Society. In this he proposed the establishment of a geological museum in the town, to display fossils and artefacts relating to the areas's unique geological heritage. It was the beginning of a rather short-lived 'Golden Age' when both Socie and Museum flourished.

After almost a century in the doldrums we are now experiencing something of a renaissance in Black Country geological activity, due in part to the establishment of a permanent geological post at the Museum, to maintain the collection and promote local geology.

In his talk, illustrated by slides, Colin will be looking back to the early days of the museum service in recent years. He will also be looking ahead to exciting developments planned both in this 150th anniversary year, and in the years ahead.

After the lecture, members who are interested can adjourn to Dudley Museum (across the road from the Saracens Head) where Colin will show selected items from the collection not on display, and also the new geological displays in the Museum which have attracted so much attention.

SUNDAY 7TH JUNE
Rowley Rag Revisited. Field meeting to Rowley Regis Quarries to commemorat the first field meeting of the Dudley and Midland Geological Society.
Meet at 10.00 am at Tarmac's Hailstone Quarry (at the junction of Tippity Green and Portway Road, Rowley Regis).

The first field meeting was held on 7th June 1842 and started with a lecture regarding the igneous rocks of the South Staffordshire coalfield. After a "cold collation" at the Dudley Arms Hotel, the party visited the Rowley Hills Quarry to inspect operations.

Our field meeting will also be a mixed day, with talks in the conference room at Hailstone Quarry, Rowley Regis, (conference room kindly arranged by Tarmac) including a talk by an ARC/Tarmac representative and Colin Knipe. There will also be a description of the quarry and visit to the workings by kind permission of ARC.

SUNDAY 20TH SEPTEMBER
Field meeting to Church Stretton, Shropshire. Joint field meeting organised by Shropshire Geological Society.

Meet 10.00 am at the main car park in Church Stretton (grid ref: 453936). When travelling along the A49 Ludlow-Shrewsbury road, turn into Church Stretton at the traffic lights. After 200 yards turn left into the car park.

This is another of our meetings to mark the 150th anniversary of the Dudley and Midland Geological Society. The society was re-formed in 1862, and one of its first field meetings was held on 19th September 1862 to Church Stretton, so the meeting in our programme will be almost on the anniversary, 130 years later.

It was a joint meeting with other local societies - Woolhope Field Club, Oswestry Field Club and Warwickshire Field Club. The party from Dudley travelled by train to Shrewsbury, met up with the others and visited the Museum; afterwards they went to Church Stretton, where some of the group visited Long Mynd and others Caer Caradoc.

Our friends from the Shropshire Geological Society, who represent some of the same clubs who joined the original field meeting, are kindly organising the joint field meeting, again to Church Stretton, to mark the occasion.

MONDAY 12TH OCTOBER
Lecture: "Blue John fluorspar" by Dr. Trevor Ford.

SUNDAY 18TH OCTOBER
Field meeting to Walsall, Hayhead limestone mines and quarry, and Barr Beacon. Leader: Peter Whitehead, Head of Earth Sciences, Bluecoat Comprehensive School, Walsall.

Meet: 10.30am at Hayhead Nature Trail car park, Longwood Lane, Walsall (grid ref: 042986). This is about 2 miles ENE of the centre of Walsall. Longwood Lane is off the A454 road from Walsall to Aldridge.

OCTOBER/NOVEMBER (date to be decided). Canal barge trip through the newly re-opened Dudley Canal. With geological and historical commentary.

MONDAY 16TH NOVEMBER
Lecture: "Silurian geology from the Pentlands to Pembroke" by Dr. Derek Siviter, University Museum, Oxford.

SATURDAY/SUNDAY 28-29TH NOVEMBER. GEOLOGY FAIR in Dudley Town Hall to celebrate 150 years of the Dudley Museum geological collection.

EDITORIAL

I have long recalled a conversation as I was leaving the Lake District with a party of students. (We had been studying the contact between the Eskdale granite and the overlying andesites and the detailed lithology of the Borrowdale Volcanics). My companion commented that geology was so esoteric, implying that it was far removed from the realities of everyday life. And that, I suspect, is how geologists are often seen, as harmless, rather eccentric fossil and mineral collectors. The irony was that we were at the time driving down a glacier eroded slope along the junction of the Silurian with that the overlying Carboniferous limestone. The Lake District's tourist economy is founded on its geological contrast with the surrounding area. At a very early age I learnt to appreciate the relationship between geology and landforms, flora, architecture and industry. (Have we any members who are not familiar with A.E. Trueman's *Geology and Scenery in England and Wales*?) My companion was an engineer whose career was geologically based. It is extraordinary that geology has been marginalised (in contrast to the importance in the science of the nineteenth century).

I find the joy of our subject is in its range, from minutia of the design of the Cambrian trilobite eye to such vitally important twentieth century

concerns as the disposal of nuclear waste. Hopefully our programme represents this multiplicity of view points.

I would greatly appreciate letters, articles and comment on and for the newsletter.

REPORTS

13th January 1992, Lecture : W.J. Harrison (1845-1908) by Peter James, Local Studies Archivist, Birmingham Central Library

William Jerome Harrison was one of those energetic and industrious Victorians that we admire so much today. He was active in many fields but was best known as a geologist, a scientific educationalist and photographer. Peter James, who has a special interest in early photography, has spent 5 years studying Harrison's life with the aim of gaining recognition for this little known man.

Harrison was educated as a teacher and his first professional post was as headmaster of a school in Leicester. His scientific education began in 1868 when he studied for the examinations of the Science and Art Department. He spent much time in the laboratories of the Government Science schools at South Kensington and earned high distinctions in chemistry, physics, geology and physical geography.

In 1872 Harrison was appointed Chief Curator of the Leicester Museum and during his time there carried out original work on the geology of the Charnwood Forest. He also started educational classes taking as his guide the motto "Let Nature be Thy Teacher". He advocated the then novel method of direct learning and organised field trips to study geology. "Get out in the open air and hammer away at any rock" was his advice to students!

He was elected a Fellow of the Geological Society in 1876 and received grants from the Royal Society for his researches.

He realised at an early date the value of photography for recording geological features and his book on the Geology of Leicester and Rutland published in 1877 was the first ever to be illustrated with photographs. The book was provided with 12 mounted photographs, taken by a professional photographer using the wet plate method which involved chemical preparation of the plate and its development in the field. He published several books and many papers on geology, particularly of Charnwood and of Midlands glaciation, at least 3 papers were published in the Proceedings of the Dudley Geological Society although there is no record of him ever being a member.

In 1880 he was appointed Science Demonstrator to the School Board of Birmingham, a post he held to the end of his life. He was responsible for the scientific studies of 8000 older children and hundreds of young teachers. At around this time the gelatin dry plate was introduced which revolutionised photography. Harrison was a founder member of the Birmingham Photographic Society and started a collection of photographs aimed primarily for teaching purposes.

He was the originator in 1890 of a scheme for a photographic survey of Warwickshire which was the model for similar surveys in other counties and countries. His geological work at this time was done during his holidays with his family of 10 children who were all drawn into the work, carrying equipment and modelling to show the scale of the features.

Harrison's large collection of photographs is now held by the British Geological Survey, but many are also kept at the Birmingham Library and Peter

James' talk was copiously illustrated with Harrison's own photographs which provide a fascinating record of quarries, railway cuttings, glacial erratics etc, but their interest also lies in their social record of the times, showing quarry workers and their equipment and Victorian families at leisure.

Harrison's History of Photography and Catalogue of early photographic literature are still used as reference works.

An exhibition of Harrison's work mounted by Peter James will be shown in the offices of the Birmingham Post and Mail from 18-30 May 1992.

Peter James' talk was appropriate since 1992 is the 150th anniversary of the foundation of the Dudley Geological Society, the forerunner of our own Society. Members present could only marvel at the extent of Harrison's geological and other work, much of it carried out in holidays and spare time from a demanding educational career. We have much to learn from the Victorian work ethic!

J K BROWN

Monday 24th February, 'Mount St. Helens - Ten Years On' by Paul Shilston

Mount St. Helens blew its top on 18th May 1980, now nearly twelve years ago (was it really that long ago?) and this talk included a description of what the mountain is like now, and how the surrounding area has developed since that time.

Mount St. Helens is in the Cascade Range of Oregon and Washington States. The Cascades are close to a subducting plate boundary, and this gives rise to continuing igneous activity all along the range. There is an eruption, of varying intensity, every 10-20 years or so somewhere along the range, so Mount St. Helens is only one of many mountains in the chain that have a history of volcanic activity.

Mount St. Helens was the star of the show, but there is a lot of other geological interest in the area. The talk started with a look at the Cascades in general, with pictures of Mt. Shasta in the south, then Mt. Batchelor, finishing up with Mt. Hood and Mt. Rainier in the north, all with a history of eruptions in recent or geologic time.

Then we had a tour of Mt. St. Helens, with pictures showing the destruction starting 15 miles away, gradually getting closer until we were some 3 miles from the crater. The trees that were blasted down are still lying where they fell, or are floating in the enlarged Spirit Lake, and within a six miles exclusion zone everything is being left untouched so that scientists can study the regeneration.

There has been some regeneration, particularly where there was some shelter from the blast, but in other places that received the full force of the blast not much has happened. Scientists are particularly interested to see if any fish return to Spirit Lake, perhaps by swimming up the feeder rivers, but it is not clear if this has happened yet.

For other items of interest in the Cascades we went down to Lassen Volcanic Park in northern California, which was the remains of a caldera formed from the eruption then collapse of Mt. Tehama some 500,000 years ago. There is still a lot of activity in the area with fumaroles, steam vents, boiling pools and mud pools "plopping" away.

After Mt. St. Helens the most spectacular feature was Crater Lake, actually a caldera some 6 miles across formed in 4895 BC by the eruption of Mt.

Mazama. This caldera is now filled by a lake - Crater Lake - and one could imagine the sense of wonder felt by its first visitors, John Wesley Hillman and his party in 1853, when they found this unbelievable lake 6000' up in the mountains. Its vivid blue colour, which really is as the pictures showed, surrounded by the caldera rim, makes an unforgettable sight.

There were a number of other features covered in the talk, all connected with the volcanic activity in the region. While this makes for interesting geology, it must worry the local inhabitants as to which mountain is going to blow off next. They all had stories of the Mt. St. Helens eruption, with great thicknesses of dust covering their roofs, gardens and streets, and nowhere to shovel it to!

PAUL SHILSTON

Continuation of the report on Dudley's Geological Societies

The second Dudley Geology Society was founded 130 years ago. The new society adopted a title similar to the first, but longer, the Dudley Midland Geological and Scientific Society and Field Club. One of its first acts was to take control of the Dudley collection, which it retained until the early part of this century when it passed to the local authority, around 1910.

Despite the unwieldy title the daughter society was extremely active holding regular lectures and field meetings, the latter often having a botanical, historical or archaeological flavour too. In addition the society organised exhibitions and conversaziones, transactions were published and during its earlier years was a forum for research papers.

The society's first meeting was held on 15th August 1862, commencing with a lecture from Professor Beckett about the fossil forest discovered at Wolverhampton. After lunch and a few more addresses the members visited Wrens' Nest, the Thick Coal open workings at Foxyards, Castle Hill and the Priory grounds, finishing after tea with the caverns under Castle Hill, which were specially illuminated by candles courtesy of the Earl of Dudley! The autumn and early winter months saw field trips to Wolverhampton/Sedgley including lunch 'al fresco' in Baggeridge Woods; a joint meeting with the Woolhope, Oswestry amd Warwickshire field clubs at Church Stretton and local trips to Walsall and Park Hill. It is all the more remarkable that these field trips were achieved without the aid of the motor-car and almost always held on weekdays.

The new society joined forces with the Dudley Mechanics Institute to finance a new building which would be used by both organisations and would provide the much needed museum for the Dudley collection. The building located in Wolverhampton Street was completed in 1863 and survived for about 100 years before modern re-development. The collection however appears to have moved to the library and ultimately its present home when acquired by Dudley Council.

The society had a total membership of over 200 in the 1860's and even in 1901 very near its end the membership was still 56, which is some measure of its stature. The reasons for its demise are not totally clear, although there are several mitigating factors. Not least of these was the financial burden of the museum building.

Now in 1992, geology in once again the subject of much activity in Dudley. There are exciting plans for the museum and further developments which will raise the profile of geology. It is planned too, that the BCGS programme, commencing with the January meeting (about W.J. Harrison who was a member of the Dudley Society) will reflect some of the character and zeal of our

forebears. We even plan to include a trip to the Dudley Caverns which was very much 'de rigeur' in the nineteenth century.

ALAN CUTLER

REPORT OF THE A.G.M. ON MONDAY 24TH FEBRUARY 1992

The Treasurer reported a financially successful year with an excess of income over expenditure of £569-43. The Chairman also reported a good year, with membership stable at 84. The progamme had included six lectures and six field meetings, the latter including a joint meeting with Shropshire Geological Society and a weekend field meeting in North Devon.

Conservation work had continued, including clearing up the SSSI geological exposure at Brewins Bridge, Netherton, in conunction with Dudley Canal Trust.

Three sites in Walsall and four sites in Sandwell are now officially recognised as Sites of Importance for Nature Conservation (SINC).

I. Golledge (Vice Chairman) and Janet Meakin (Committee) were, on retiring om the committee, thanked for their valuable contributions to the Society over a number of years.

Officers elected to the committee were:

Chairman: Alan Cutler — Vice Chairman: Graham Worton
Secretary: Paul Shilston — Treasurer: Mrs Judith Shilston
Committee members: Miss L. Burgess, S. Hughes, P. Smith.
Hon. Auditor: Mr. G. Hubbard.

There was discussion about possible uses for the cash balance the Society had accumulated over recent years.

ITEMS IN BRIEF

1. Welcome to new members

   Dr. Peter Bishop - Halesowen
   Gordon Hensman - Tividale
   Gordon James - Sutton Coldfield
   Moira Edwards - Walsall

2. University of Nottingham, Department of Adult Education
   Details from: Mrs H. Blackburn, University of Nottingham, Dept of Adult Education, 14-22 Shakespeare Street, Nottingham NG1 4FJ
   Telephone: 0602 483838

   Geology, wildlife and wilderness of the Yukon and Alaska. 3 weeks July/August, 1993. Cost approx. £2000.

3. British Coal have plans to sink test boreholes to 700 metres at Sherbrook Valley and Cannock Chase Heath to prove the coal measures structure in the hope of finding new seams to be mined from Littleton Colliery. (Item from the North Staffs Group of the Geologist's Association Bulletin).

4. Congratulations to friend of the Society, Gordon Giltrap, in having his Rhapsody 'Eye of the Wind' performed in Birmingham Town Hall by the Birmingham Schools' Concert Orchestra. A number of members of BCGS were present and the extended piece had a rapturous reception from the audience. Sections were subtitled 'volcano' and 'swamp'. I detect some

subliminal interest in geology at work since the piece was composed before Gordon met Hilary!

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