WARWICKSHIRE GEOLOGICAL CONSERVATION GROUP
Chairman - Martyn Bradley 01926 428835.
Secretary - Mr Maurice Rogers 01788 812869
24 , Badby Leys, Rugby, Warks CV22 5RB

NEWSLETTER

ISSUE No 4 ; SPRING 2000

INTRODUCTION

This is our fourth news letter in which we describe a range of activities and interests of our Group .

-A full programme of Summer field trips has been arranged and we are grateful to a number of our own members who have agreed to lead these.

-We are grateful to Anton Irving, Chairman of our RIGS Sub-committee for a contribution outlining the work undertaken in the last year.

-We are also reporting on a proposal that we should undertake the publishing of a Geology of Warwickshire written by our own members

-News of Members - we report the sad loss of David Mills, who was with our group for a short time and who was much loved by all.

-Report on the Warwickshire Earthquake Sept 23rd 2000

-We report on Peter Blake's Plesiosaur

-A Contribution by Jon Radley on the Geological Localities Record Centre

SUMMER FIELD TRIPS

We feel that there is a need for a rebalancing of our priorities so as to focus more closely on our core activity which is Geological Conservation in the County. Our RIGS Subcommittee is actioning a large programme of work to reassess sites and search for new ones and it is only right that we should concentrate effort within our County for the next year or two.

However we are recognising, in arranging trips to Blockley and Wren's Nest, the popularity of these sites and the fact that some of our members have been to neither. We always live in hope that one day we can repeat what happened when Peter Blake took a party last year and discovered a new species of Plesiosaur requiring some five hours collecting the many fragments and more than a years work on Peter's part reassembling it.

WARWICKSHIRE RIGS

Anton writes

It is two years since the RIGS subcommittee was set up and we wish to report our progress.

During 1999, we focussed on codifying our agreed selection criteria and alerting the eleven local planning authorities of our new contact point in the Museum. Agreement was reached with the Warwickshire Wildlife Trust that they would alert the Group of any planning applications affecting any of our RIGS.

The next major task was reviewing a portfolio of 46 existing RIGS against the codified criteria, using a proforma designed for the purpose. All forty original sites

were selected against the new criteria, but only one of the six later sites (Temple Grafton Quarry) has been reselected. The rest are subject to further investigations, but one (Whitley Grove) has been deselected and the planners informed.

The third area of work has been concerned filling the gaps on the portfolio of sites for example, there are no quaternary RIGS. Four sites are under consideration, including a waterfall which seems incredible for Warwickshire.

We have now drawn up a programme of tasks to take us forward in a more structured way. This includes revising the RIGS descriptions into a form suitable for handing to landowners, putting the Sites on the County Council Geographical information system (GIS) to enable computer printed maps to show RIGS alongside Wildlife sites. We are now drawing up a programme of monitoring the RIGS and propose to use Group members by allocating Sites to their home area.

This year we have been very sad to lose David Mills, but we have been strengthened by Hugh Jones, Maurice Rogers and Bill Stokes joining the subcommittee. We hope that the DETR funding arranged via the RIGS Western Association will allow Bill to spend 2 days a week on RIGS and see faster progress in the year ahead.

A PROPOSAL
A Proposal has been made that we write a Geology of Warwickshire.
We have in our Group a very experienced group of people who have an intimacy of the geological knowledge of the County that unless recorded will be lost.
There is no necessity for any account of the County Geology that duplicates the current publications.
This is well documented in the BGS Memoirs.
However what the memoirs and other publications provide is not the sort of information nor in a format that can be used by the typical car driving visitor to, say, the Hartshill Hayes Visitor centre, the Burton Dassett Hills or our own very good Museum. The chapters will be based on talks given by our members during the next two winters The following have volunteered :-
Alan Cook (the PC and Cambrian with Ordovician Intrusions)
John Crossling (the Carboniferous.)
Martyn Bradley (the Permo-Trias.) , Jon Radley (the Jurassic)
Prof Keene (Coventry Univ) has agreed to deal with the Quaternary.
Peter Blake (The preparation and conservation of Warwickshire fossils)
Hugh Jones on the use of stone in the Counties buildings.
Tony Eiger has volunteered to deal with the History of Research of Geology in Warwickshire.
Anton Irving of English Nature; the relation of fauna and flora to the geology.
Maurice Rogers will deal with the Industrial Archaeology / Geology in the County
We are seeking help from someone familiar with the deep coal mining in the Coventry Coal Field.
This will take a considerable length of time and a lot of hard work, but the rewards will be considerable in terms of pleasure and a sense of achievement.

IN MEMORY OF DAVID MILLS.

David was with us for a short time. He had moved from the NE of England where he had spent most of his working life with the British Geological Survey and set up home in Moreton Morrell with Helen. He offered to give us a talk and this focussed on his work with the Keilder Tunnel.

It was a riveting talk and he led us through the sequence of events covering the surveying before and during the construction. David had a style of speaking that was careful and measured and he had his listeners spell-bound. He then joined our Group and started to assist in the RIGS work. He also helped Martyn in his Geological Studies Group in the Warwick University.

We found him characterised by gentleness, good humour and sound sense. His measured and thoughtful approach to RIGS Conservation made all around him sit up and take measure, for these matters need not be done with haste or without sensitivity and he added to our Group a sense of rigour that made us feel the more valued when we had contributions to make.

But he was with us not many months before illness resulted in him having to withdraw.

He finally needed hospice care. During this time, some of us got to know Helen, his partner, and saw how she loved and cared for him.

To the end David never lost his twinkling humour and he was the kind of person that made us all feel privileged to know and be known by him.

WE WILL REMEMBER HIM

THE WARWICKSHIRE EARTHQUAKE 5.23am, 23rd September 2000
4.2 on the RICHTER Scale

The Epicentre was at Budbrooke, but reference to Geological maps show that this village is not on any fault line.

However, a deep N-S fault surfaces nearby along the A46 which dips down at depth to the west. The fault represents the western boundary of the Warwickshire Coal Field horst and its direction is particularly sensitive to E-W tensions due to the continuing Atlantic opening.

Reports of the shock were sent in from Cheadle (85km to the north) Gloucester (65km to the south) Peterborough (95km to the east) and the Welsh Borders (110km to the west). Little damage was recorded but various reports stated “the whole house shook”, “the whole building trembled”.

By comparison with others, this must be considered as a large earthquake within the UK (largest recorded 1931 Scale 6.1: Dogger Bank) and the most severe for 10 years. But in a global context 6000 earthquakes of this scale or larger occur every year and it was 60,000 times smaller in terms of energy than the Turkey earthquake last year that killed 15,000 people (extracts from the BGS report).

However even this one is to be considered small compared with the 2001 Indian earthquake (>9 Richter Scale).

Extract from the Warwick Advertiser : Saturday , December 19th 1896

.....Though not lacking in exciting incidents, the earthquake, which seems to have been generally experienced throughout the greater part of the country, did not apparently cause a great deal of damage. It was fortunately not so nearly so disastrous as the shock of 1884, which devastated a large portion of the county of Essex and occasioned widespread distress , necessitating the opening of a Mansion House Fund.

Still, in the English climate, despite its vagaries - which are of no mean order - we are not often subjected to these unwelcome phenomena and when anything in the nature of an earthquake shock does happen, however slight, much public alarm very naturally prevails.

The experience of Warwick residents appears to be that commonly met with throughout the country. We have a general tale of weird rumblings oscillations of furniture and rattlings of windows.

There is a comical aspect of the affair in the various interpretations placed upon this extraordinary manifestation in the small hours of a dark December morning. Some thought of burglars, and naturally trembled for their worldly possessions stored upon the premises, others believed that a gas explosion had taken place, but there were those who like the Earl of Warwick, at once realised the nature of the visitation and were not unduly alarmed after the first effects of the phenomenon had passed away.

It is more difficult to satisfactorily account for an earthquake in a country like ours than in a land which is obviously and naturally liable to volcanic eruptions.

Professor Lapworth of Mason College, Birmingham has provisionally given it as his opinion that Thursday's visitation was not volcanic at all but is rather to be ascribed to a slip or giving way of a portion of the earth's crust, the cracks in which render it susceptible to disturbances that may be variously induced. When the scientists have collected all the available information on the subject we shall get something more defined as to this. At present it is reassuring to know that there is no need for alarm, and that the preparation of the Christmas dinner may be looked forward to with calmness and dignity".

PETER BLAKE'S NEW PLESIOSAUR

The Blockley Brick Pit in north Gloucestershire is a much favoured site for geologists, for the fossils are so easily uncovered that one cannot but return with a large number of the most wonderful ammonites, belemnites and others. The Quarry Manager welcomes this fossil hunting activity in that it assists in removing unwanted limestone fragments and nodules from their production line. For calcium carbonate is decidedly not what is needed in the making of their bricks.

Whether it be wet and muddy or dry and easily walked over, the clay allows easy removal and identification of the life-forms that lived and died in the shallow warm sea that existed in this part of Gloucestershire some 200 million years ago. Visitors have come from far afield to this particular site for the last 150 years ago ever since the Victorians first engaged in hunting fossil remains in this area of England.

As indicated, the commonly found fossils are ammonites, belemnites, bivalves and gastropods, but it must surely have been more than coincidental that Peter Blake, in taking a group last summer, found his attention drawn to a set of tiny dark fragments that to the ordinary person would have passed as nothing but uninteresting and unidentifiable fossil fragments.

For Peter is an expert and has the skills in recognising not only rarities but how they can be reassembled to secure a single specimen with all the thousands of tiny fragments in place as they were when the animal lived in these seas.
The weather was fortunately fine and Peter and his party spent five hours aimed at retrieving every last fragment. He judges that he brought back some 80% of the total and this by any standard represents a major success. But the story does not finish there.

From the outset Peter sensed something was different with this specimen of Plesiosaur, for he has previously made similar discoveries but of species that have been well-documented and described. This was confirmed when he brought the material back to his workshop in Rugby. What lay ahead was a mammoth task. His material was in 25 large boxes and he had to re-assemble the animal from the fragments with each bone in its rightful place but, unlike previous specimens, he could rely on no drawings in any of the books and memoirs dealing with this type of creature. Fortunately, the soft clay had not caused any damage and there was no need for any treatment other than washing the grey clay off the fragments. But it soon emerged that features of the bony fragments were

strange. They could seem strange to anyone but the expert is self-trained to quickly sense a feature, a marking, an extra element that makes this one stand out from the rest.

So it was in this case, the 11 foot long (3.3m) Plesiosaur was unusual in that it had a shorter neck, longer tail and a very thick body section. Uniquely it had larger paddles to the rear suggesting a shallow water habitat and these features established it as a newly-discovered species. Further, the find was all the more interesting in that it was found in a section of the Lower Lias which does not normally yield many vertebrates.

Much work is needed in assembling and preparing the specimen for display. Peter will have to reassemble some maybe two thousand or so bony fragments, and so secure a specimen so rare that it surely needs a permanent siting within a major museum besides recording within the geological literature.

The Geological Localities Record Centre at Warwickshire Museum
- primary site database for the WGCG

The Geological Locality Record Centre (GLRC) was initiated at Warwickshire Museum in 1979. It records geological sites in the County whether current or historical as well as relevant maps, scientific papers, press cuttings, photographs, transparencies and other documents. These individual components are interlinked via indexes allowing rapid and efficient capture for individual sites.

The GLRC system is based upon site files, which incorporate information concerning all recorded geological sites within the historical county boundary. Documentation within the files is based on the MDA (Museum Documentation Association) data format.
Further information held within the GLRC relates to site geology and use, history of research, photographic records and chronology/nature of site visits. They also function as history files for relevant planning applications and consents, incorporating all relevant documents and correspondence. The records are filed and arranged in accordance with Ordnance Survey 1:10,000 grid squares. 1:25,000 scale Ordnance Survey sheets are stored within the files, hand-marked with site locations and numbers. Over 1,800 site records currently exist(October 2000).

The following resources are indexed to the site files:
1 Alphabetical card index of site names.
2 File of locality numbers.
3 Photographic transparencies.
4 Stratigraphical catalogue within which sites are alphabetically filed.
5 Instruction notes.
6 GLRC library - reprints and photocopies of papers and book extracts relating to the geology of the sites.
7 Stratigraphic files - site details filed alphabetically according to stratigraphic age.
8 1:10,000 scale geological maps in map cabinet.
9 Pin map adjacent to geology area - distribution, status, (eg RIGS, SSSI) and geology of all sites.
10 Computerised records representing 96.6% of total , recorded in GLRC stratigraphical catalogue. GD2 Software is used. This is a non-Windows System and new software is currently being considered as a replacement, including GD2's sister package RECORDER 2000.

Members of the Warwickshire Geological Conservation Group (WGCG) frequently record details of new sites and provide new photographic images (especially of temporary exposures). These are fed into the Museum for incorporation into the GLRC. The data base thus functions as the core resource and archive of the WGCG RIGS Committee and WGCG as a whole. Members of the Group can and do use this resource freely for non - commercial purposes.

For further details contact, Jon Radley 01926 412481

FORTHCOMING SUMMER FIELD TRIPS

APRIL Sunday 22nd 2001
The Peter Blake Fossil Collection.

MAY Sunday 20th
Blockley Brick Quarry, led by P Blake.

JUNE Wednesday 20th (evening trip)
Fennis Fields, Little Lawford led by Bill Stokes.

JULY Sunday 8th
Cross Hands Quarry, led by Jon Radley.

AUGUST no meeting

SEPTEMBER Sunday 16th
Wren's Nest, led by John Crossling.

WINTER TALKS
OCTOBER Wednesday 17th AGM & Review 2001

NOVEMBER Wednesday 21st
The Precambrian and Cambrian in Warwickshire : Alan Cook

DECEMBER Wednesday 19th SOCIAL and Members Holiday Contributions

SUBSCRIPTIONS DUE
Members are reminded of the need to pay their annual subscription as soon as possible.

(£10.00, £7.50 Concession for Wildlife Trust Members)