



**THE OPEN UNIVERSITY GEOLOGICAL SOCIETY
GOGLEDD CYMRU - NORTH WALES
BRANCH NEWSLETTER**



Volume 7

Issue 1

December 2004

Branch Organisers Bit (February 2005) As this is the first newsletter of the New Year, I would like to wish everyone a successful and prosperous 2005. It was good to see every one who made it to the AGM at the beginning of the month. The Committee for 2005 was confirmed at that meeting. The main change being that Wendy Owens has volunteered to act as Treasurer for the coming year. Thank you Wendy. The other members include Tony James (Newsletter Editor) and Lyn Relph and Sue Hughes (Ordinary Members). We are in the process of firming up dates for field trips this year, and are hoping to have a varied programme of events – something for everyone. For details please see announcements below.

Membership for 2005 We have been asked to remind members to renew their membership for 2005 and if a Tax payer to go for the gift aid option.

Field Trips Don't forget there are also trips being organised by other regions in which you may be interested. All trips should be advertised in the OUGS newsletter. However confirmation of trips in the local area and the most up-to-date information will be in the GCy newsletter. Sometimes arrangements change because of unavoidable reasons, so if possible let the contact know if you wish to attend so that we can let you know if anything changes. The contact is not always the organiser or leader of the field trip, but is usually the best person to talk to in the first instance.

Are you interested? At the AGM there was some interest in the possibility of arranging an underground trip to Parys Mountain. If this went ahead, I understand it would be on a weekday evening and it is likely there would be limited numbers. Please will you email me if you are interested. We will try and arrange a visit if there is enough interest?

Transport to Field Venues If you have difficulty with transport and would like to attend please ring and we will do what we can to get you a lift. We look forward to seeing you at the field trips.

Best wishes Rachel Atherton Gogledd Cymru Branch Organiser

RV PRINCE MADOG

The first Prince Madog arrived at Bangor University in the 1960's. The new Prince Madog was built in 2001 by Vosper Thornycroft. The hull was built in a Romanian yard where all the skilled welders are women (men are only fit for the menial tasks fetching/carrying *Ed.*). Fitting out was done in Holland by Visser. She is a joint venture between Bangor University and Vosper Thornycroft who run and maintain the ship. She is 34.9m overall and weighs 390 tonnes, her maximum draft is 3.5m. She carries 20 students and staff on day cruises with 10 berths for longer trips, and a crew of 8.

The engines are controlled from the bridge to allow more precise control of the vessel, essential for handling the expensive delicate scientific instruments that are lowered from the vessel. The Prince Madog is unique in small research vessels in that she has an electric auxiliary engine that is quiet enough to allow for high resolution acoustic surveys of the seabed. The auxiliary engine could be used in an emergency to get the vessel home with a maximum speed of 5 knots.

Much of the data collection is computer controlled, for example a real time plot of the water profile,

e.g. temperature, salinity, chlorophyll.

There are two labs, one for receiving samples, (which is accessible from the aft deck), and a dry lab, which is used for recording information.

For those of you who would like to know more about the R V Prince Madog there is an excellent web site with photographs, plans and technical data www.rvprincemadog.com

Report written by: Lyn Relph

Afternoon field trip along the south of the Menai Straights.

Setting the scene.

Anglesey is made up of several blocks, which are not related to each other, they are slices of rock, which were brought together when the Iapetus Ocean closed. The edge of Anglesey is not the Menai Straits but the Dinordwic fault which runs parallel to the straits but on the mainland. It is visible as a very steep wooded hillside just below the Felinheli bypass. There is a belt of Carboniferous



Fig 2. Carboniferous rocks deformed by the dinorwic fault

limestone, which outcrops, on Anglesey and the mainland. It is a sandy limestone with a distinctive pink hue due to iron staining derived from overlying deposits.

Location 1, Port Dinordwic Quay..

Here we saw gently S W dipping beds of sandy limestone, which were only slightly affected by Hercinian folding.

Location 2. Beach at western end of Felinheli.

The limestone beds here look very different the bedding is vertical, brownish in colour with crinoid ossicles and burrows. There are also bands of chert. This gives a younging towards the N E. Now these limestones look very odd so are they really limestones? When put to the acid test, no fizz so not limestone even though there are crinoid ossicles. They are in fact sandy dolomites, 83% dolomite, 13% silica.

As we worked our way down the sequence (westwards), there is some vertically bedded angular conglomerate with well-rounded quartz pebbles.

Next along are horizontally bedded unlithified, red conglomerates of Triassic age. The clast in this deposit are tuffs and granites which are not found

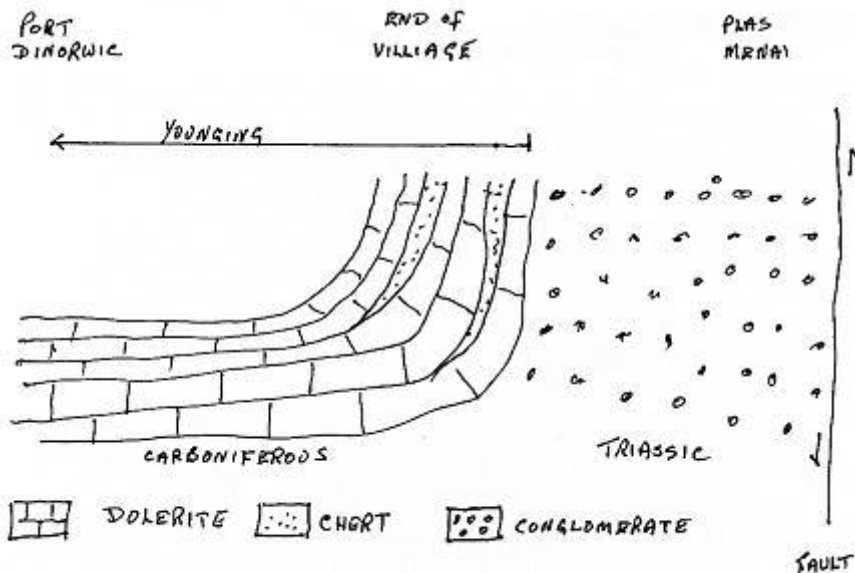
on Anglesey but on the mainland. This deposit has been interpreted as having been eroded from the fault scarp on the mainland side of the Dinordwic fault.

Location 3. Plas Menai.

Here the Triassic conglomerate is horizontally bedded and lithified. It has been interpreted as a distal deposit because there is no red mud, this has been winnowed or washed out. The matrix is a dark grey in colour. The cause of the colouring is not known but it is very local. The clasts are a sub-angular mixture of Twt Hill granite, quarts and rhyolite, all from the mainland so Arvonian in origin. Running through the conglomerate are dolerite dikes 30 to 40cm wide. They originated on

Sky and Arran and run NW to SE. These dikes run across the Straits without being offset so there has been no horizontal movement on the fault since they were intruded into the conglomerate in Tertiary times. There has however have been vertical movement.

When the sections are drawn together as in Fig1, we can see that there has been a steep upturn at the end of dolerite beds. We saw at Port Dinordwic that there was only very gentle Hercinian folding so what caused the bedding at the other end of the village to suddenly turn up vertically?



movement on the fault is for the mainland to rise and in the process it dragged the dolerite beds up with it into the vertical position we see today (Fig 2.)

Our thanks go to Rob and Jonathan for preparing and leading a very interesting field trip.

Report written by:
Lyn Relph

Fig 1. Sections drawn together showing the drag

of the Carboniferous sequence by the movement on the Dinordwic fault.

Announcements

The website address is www.OUGS.org.uk. The placing of newsletter copies reachable by hyperlink is coming closer – watch out for the full colour high res images.

The new membership secretary has asked me to remind members that any change of address should be sent to her (Penny Widdison e-mail: p.e.widdison@durham.ac.uk), this will ensure that a single database can be kept as up to date as possible. Please use the Giftaid on the renewal notice for membership – this will enable the OUGS to reclaim some of your tax, and put it to a better use.

I've been asked (as usual) to remind everyone that the cost of field trips is £2.00. This covers expenses for the leader (travelling and/or photocopying etc.). Remember to check your insurance details for trips, the exact requirements are published in the national newsletter.

Events Diary

Gogledd Cymru Field Trip programme for 2005. If you are interested in further details of any of the following field trips please ring the appropriate contact.

Date	Location	Description	Contact	Contact number
19 March	Wrexham	Wrexham Science Fair Geology Stall (joint with NWGA) 'Ice and Fire' demonstration of materials pertinent to the ice age and Steel Manufacture at Brymbo.	Tony James	01270 651651

9 April	Holywell Flintshire	Morning visit to Limestone Quarry	Wendy Owens	01352 715531
8 May	Lleyn Peninsula	Glacial deposits/ coastal erosion at Nefyn on the Lleyn Peninsula (DIY day)	Rachel Atherton	01942 270152
June?	Anglesey	Parys Mountain (either structures or mineralisation)	Rachel Atherton	01942 270152
July or September	Wrexham	Borras Sand and gravel Quarry (Glacial) or Limestone pavements around Minera, Dr Jacqui Malpas	Rachel Atherton	01942 270152
August?	Wirral	Hilbre Island (joint with North West branch) – Sandstones and oil	Hilary Tatton/Rachel Atherton	01942 270152
October?	Anglesey	Camel Thrust with Rob Crossley	Rachel Atherton	01942 270152
4 Feb 2006	Wrexham	AGM and talk		

Liverpool GS: Contact Joe Crossley on lgsjoecrossley@hotmail.com, tel. 0151 426 1324

- **8 March:** Walking with Cavemen, Prof. Peter Wheeler
- **3 April:** Field trip to Cwm Graianog, Nant Francon, leader Joe Crossley
- **20/21/23 May:** field w/e to Antrim Coast, leader Dr. Alan Bowden

Manchester GA: contact Fred Owen and/or visit www.mangeolassoc.org.uk for more detail and synopses.

- **Sat 19 March:** Afternoon seminar, start 1.30 pm - Living with Volcanoes:

4 papers by Dr Peter Kokelaar, Prof Steve Self, Dr Jeurgen Neuberg and Prof Harry Pinkerton

North Wales GA: contact Fred Owen 01565 651004.

- **March 23rd Wednesday:** Conwy, 7.30pm Graptolites, muds and trapped bubbles: new insights into the copper deposit at **Parys Mountain**. Talk by Anna Jones and Jan Zalasiewicz, University of Leicester.
- **April 13th Wednesday, NEWI, Wrexham, 7.30pm,** Tsunami- with special reference to the Indian Ocean event, BGS scientist Dr David Tappin.
- **April 22nd or 29th Friday:** Brymbo Social Club Wrexham 5.30pm, Brymbp Steelworks and Carboniferous coal mine reclamation themed meeting

May 18th Wednesday: Conwy 7.30pm: Tenerife volcano, talk by will Jones.

March 18th-20th – Hilary Davies and Cynthia Burek – Silurian/Carboniferous N.Walws and Cheshire – This is being run by the Walton Hall Branch.

Liverpool GS: Contact Joe Crossley on lgsjoecrossley@hotmail.com, tel. 0151 426 1324

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Your committee for 2004 is

Branch organiser	Rachel Atherton
Acting Treasurer	Sue Hughes
Newsletter Editor	Tony James
Webmaster	Wendy Owens
Committee member	Lyn Relph

4 papers by Dr Peter Kokelaar, Prof Steve Self, Dr Jeurgen Neuberg and Prof Harry Pinkerton