



British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Geoscience for decision-making

International Geological Conference in the North West Highlands of Scotland

Did you know that 400 million years ago the North West Highlands of Scotland were formed when two tectonic plates collided? The collision literally 'thrust' packages of rocks over one another, like shuffling a pack of cards, to build a mountain range known by geologists as the Moine Thrust Zone. This zone measuring 200km in length runs south-west from Loch Eriboll in the North to the Sleat peninsula on the Isle of Skye and is 10km wide!

Between 12 and 20 May at the Macphail Centre, Ullapool, Scotland some 130 scientists from around the world will gather for a conference on 'Continental Tectonics and Mountain Building'. Delegates will come from as far as Australia, Korea and the USA. The conference is organised by the British Geological Survey and the Universities of Leeds, Durham, Portsmouth, Virginia (USA) and is a joint meeting of the Geological Society of London and the Geological Society of America.

During the conference, scientists will discuss new ideas on earth movements and mountain building and will study some of the classic geological sites in the North West Highlands Geopark. The conference celebrates the centenary of the "Peach and Horne" 1907 memoir on "The Geological Structure of the North-West Highlands of Scotland", a classic book that for the first time described the complicated 'Moine Thrust Zone' in great detail.

Prof. Rick Law from Virginia State University, USA, said: *"The recent earthquake in Pakistan shows that we still need a better understanding of how mountain ranges work. I do a lot of my research in the Himalayas, but return to the North West Highlands as some processes are better studied here"*.

Dr Rob Butler from the University of Leeds said: *"I run annual fieldtrips for my students to the North West Highlands as it is simply among the best training grounds for geology students"*.

The new geological map for Assynt will be presented at the conference, revised for the first time since the 1880's. Dr. Maarten Krabbendam from the British Geological Survey said: *"The Moine Thrust Zone provides the best, and certainly most accessible, example of thrust tectonics anywhere in the world"*.

Ian Muir from Achiltibuie and Chairman of the North West Highlands Geopark said: *"I am delighted that the conference is held in Ullapool: it is a great*

location for such a meeting, right on the doorstep of some of the finest geology in the world."

Peter Harrison, the Head teacher of Ullapool High School and the Macphail Centre that is hosting the event said *"It was the stunning nature of this geology along with the people that live here that first attracted me to the area and we all look forward to welcoming and sharing the week with our visitors."*

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Notes to Editors:

- An exhibition entitled 'Mapping Mountains' at the Macphail Centre, open to the general public, will show a selection of facsimile copies of the historic maps by Peach and Horne. Dr. Clare Bond from the University of Glasgow organised this exhibition and outreach activities at local schools, with funding from the Royal Society, Amerada Hess, BHPBilton and Scottish Natural Heritage.
- Dr. Iain Stewart, geologist and BBC science presenter, will hold a public lecture on how mountains are built and destroyed, on Monday 14 May at 1930 hours, in the Macphail Centre.
- 2007 is the centenary of the publication of the Geological Survey of Great Britain's "Memoir to the Geological Structure of the North-West Highlands of Scotland" by Benjamin Peach, John Horne and colleagues. This book is one of the most celebrated historic publications in the field of tectonics, drawing together the findings of an exceptional programme of fieldwork carried out in the 1880s by the Geological Survey.
- During the 19th century a vigorous and at time vicious debate raged among British geologists. The crux of this "Highlands Controversy" was

the question whether the rocks in the Highlands followed each other in normal order, or whether they were shuffled and 'thrust' over each other during an episode of mountain building. The memoir was the final nail in the coffin: it showed beyond doubt and in exquisite detail the different ways that rock packages were pushed over each other, in some cases shuffled like a pack of cards.

The British Geological Survey (BGS), a component body of the Natural Environment Research Council (NERC), is the nation's principal supplier of objective, impartial and up-to-date geological expertise and information for decision making for governmental, commercial and individual users. The BGS maintains and develops the nation's understanding of its geology to improve policy making, enhance national wealth and reduce risk. It also collaborates with the national and international scientific community in carrying out research in strategic areas, including energy and natural resources, our vulnerability to environmental change and hazards, and our general knowledge of the Earth system. More about the BGS can be found at www.bgs.ac.uk.