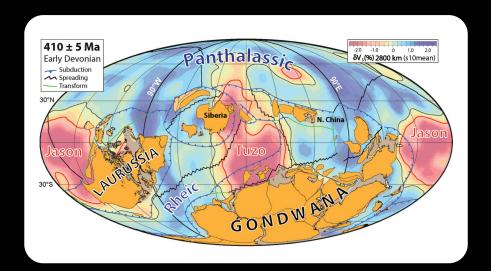


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New Frontiers in Palaeogeography and Biogeography

21 September 2018

The Geological Society, Burlington House, London



The general acceptance of plate tectonics in the 1960s was the culmination of passionate debates among Earth scientists about Wegener's continental drift hypothesis over a century ago, and which led to a mobilistic theory for the dynamic evolution of the Earth's surface. Plate tectonics was originally developed only for the 'young' Earth (Cretaceous to Recent), but a key paper by Wilson in 1966 on the existence of a proto-Atlantic Ocean paved the way for efforts to untangle the past location of continents in pre-Mesozoic times. Palaeographic maps set the context for many aspects of Earth history, including biogeography, palaeoclimates, and the

tectonic evolution of our home planet. The construction of such maps is best achieved through the integration of data from many sources, such as hotspots (since the Cretaceous), palaeomagnetism (including ocean-floor magnetic anomalies since the Jurassic), and the analysis of faunal distributions and biogeography (notably the identification of faunal and floral provinces), in addition to the character of the rocks themselves.

Recently-developed techniques, which pair palaeomagnetism and deep Earth structure - such as the location of subducted slabs and the source regions of mantle plumes from seismic tomography - provide new means of determining the pre-Cretaceous palaeolongitude of continents. These developments have unlocked a new way forward in developing detailed Earth geographies in deep time and this meeting aims to highlight these new opportunities to untangle Earth's intricate tectonic history, together with discussions about those challenges and controversies which remain outstanding. Expert speakers have been invited from the fields of tectonics, plate reconstructions, seismic tomography, and biogeography.

The conference is related to the 80th birthday (June 2018) of Dr. L. Robin M. Cocks and his pioneering contributions to the linkage of Palaeozoic stratigraphy and faunas to global and regional palaeogeography.

Invited speakers include:

Alycia L. Stigall (Ohio University) Grace Shephard (University of Oslo) **Douwe van der Meer** (CNOOC-Nexen) Richard Fortey (Natural History Museum)

Convenors:

Conall Mac Niocaill (Oxford University) Trond Torsvik (University of Oslo) David Harper (Durham University)

Further information:

For further information please contact: Georgina Worrall, Conference Office, The Geological Society, **Burlington House, Piccadilly,** London W1J 0BG

T: 0207 434 9944

E: georgina.worrall@geolsoc.org.uk Web: www.geolsoc.org.uk/ palaeogeography18



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Call for abstracts

Abstracts for oral or poster presentations are welcome. Abstracts should be approximately 500 words and include a title, authors and their affiliations. Please send you abstract as word document to Georgina Worrall by September 1st 2018.