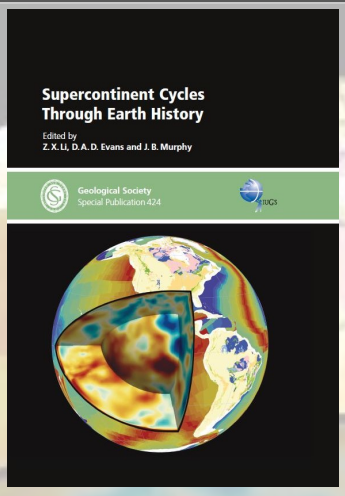
The Geological Society

serving science & profession

Supercontinent Cycles Through Earth History



The supercontinent-cycle hypothesis attributes planetary-scale episodic tectonic events to an intrinsic self-organizing mode of mantle convection, governed by the buoyancy of continental lithosphere that resists subduction during the closure of old ocean basins, and the consequent reorganization of mantle convection cells leading to the opening of new ocean basins. Characteristic timescales of the cycle are typically 500 to 700 million years. Proposed spatial patterns of cyclicity range from hemispheric (introversion) to antipodal (extroversion), to precisely between those end members (orthoversion). Advances in our understanding can arise from theoretical or numerical modelling, primary data acquisition relevant to continental reconstructions, and spatiotemporal correlations between plate kinematics, geodynamic events and palaeoenvironmental history. The palaeogeographic record of supercontinental tectonics on Earth is still under development. The contributions in this Special Publication provide snapshots in time of these investigations and indicate that Earth's palaeogeographic record incorporates elements of all three end-member spatial patterns.

Edited by Z.X. Li, D.A.D. Evans and J.B. Murphy

Product Code: SP424
Series: GSL Special Publications
Publication Date: May 2016
ISBN: 978-186239-733-0
289 Pages
Hardback

List Price: £110
GSL Fellow Price: £55
Other Society Price: £66

Subject categories: Tectonics, Palaeography and Precambrian Studies

View more information online
www.geolsoc.org.uk/sp424

Geological Society Publishing House
Unit 7 Brassmill Enterprise Centre,
Brassmill Lane, Bath BA1 3JN, UK

Tel: +44 (0) 1225 445046
Fax: +44 (0) 1225 442836
Email: sales@geolsoc.org.uk

Postage:
UK: +5% (£4.50 minimum) **Europe:** +15% (£9.00 minimum) **Rest of world:** +15% (£13.50 minimum)

Please allow up to 28 days for delivery of in stock items in the UK. Parcels to Europe and the Rest of the World are sent by surface mail and can take 6 to 12 weeks to arrive. (Air courier rates available on request).

All prices and postage valid until 31st December 2016.

The Geological Society
serving science & profession
IUGS