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PALAEOZOIC TERRANES IN THE CIRCUM PACIFIC OROGENS
(Introductory Review)

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A review of the work of IGCP 267 on Palaeozoic terranes around the Pacific margin will be given as an introduction to a session dealing with this topic. Current research and future directions will be discussed. Contrasts between eastern and western Pacific margins and links between China, Australia, North and South America and Antarctica will be considered.

The concept of a PaleoPacific and a global 'Caledonian' network will be presented as a basis for discussion.

THE MAGELLAN OROCLINE

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The narrow southern Andes Range sweeps through 90° into Tierra del Fueogo. The outer western and southern margin comprises a core zone of Palaeozoic phyllites, intruded by Cretaceous granites in the Condillera Darwin, flanked by younger rocks. A central zone of Jurassic felsic volcanics (ignmbrites) marks a belt of steep dips and a line of narrowly scalloped thrusts on which the volcanics and slivers of Palaeozoic phyllites have been thrust over Cretaceous slates of the inner margin. Tertiary sediments, developed as a molassic wedge, occupy the inner side of the arcuate belt.

Bending has been established by Palaeomagnetic studies and occurred during or after the Cretaceous.

The major structure of the zone is a simple major overturned fold and thrust belt. W-E sections through the N-trending segment (eg through Peninsula Brunswick) are similar to S-N sections through the E-trending segment (eg through Bahia Brooks).

Oroclinal bending has been achieved by differential rotational and ductile to brittle movements on the thrusts in a manner similar to an "airport baggage conveyor". Intersection lineations of bedding on cleavage show a wide variation, even in a single handspecimen, and over wide domains fold axes spread up to 90° in the axial-plane cleavage and thrust plane. There are no accommodation folds in the concave side of the arc but mega-kink folds in the Palaeozoic turbidites at Lago San Martin to the north result from N-S shortening that may accompany bending to the south. Late steep major E-trending wrench faults splay westwards across the strike and may locate several major fiords; these probably took up some of the youngest brittle movements.