

ASPECTS OF MESOZOIC ANDEAN BASIN DEVELOPMENT IN SOUTHERN SOUTH AMERICA.

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The Paleozoic orogenies at the Pacific margin of southern South America have come to an end by the Gondwanide orogeny (P-Tr). In Triassic times the region is characterized by various intramontane basins. Transgressive marine Upper Triassic is only found in some regions.

The Lower to early Upper Jurassic sedimentation is transgressive. The South Peruvian Basin, the Andean Basin and the Patagonian Liassic Basin (replaced by the Austral Basin in the Oxfordian) contain characteristic sedimentary sequences which give hints to the basin's development.

All the basins were separated from the Pacific Ocean by island arcs in changing extent.

The Jurassic history is partly terminated by the Araucanian diastrophism (Middle Kimmeridgian). It produces only few tectonic and sedimentary instabilities in the South Peruvian Basin, but a regional unconformity followed by a transgression in the Neuquen Basin, and the shifting of sedimentation in eastern Extraandean regions in the Austral Basin.

In the Cretaceous, the mentioned basins show different developments. Several tectonic events, in part regionally restricted, cause further transgressions and regressions and the arise or disappearance of depocenters. In the Middle Cretaceous, the subsidence of the Atlantic basins of southern South America increased, whilst the Pacific ones increasingly filled up in the course of the further Cretaceous.

Obviously both the break-up of Gondwana and the beginning of the Andean tectonic megacycle affected the Pacific margin of the southern South America from north to south in different ways which may depend on the respective specific plate tectonic position.