Symposium S03

TERRA cognita 7, 1987

S03

HIMALAYAN MOUNTAIN BUILDING AND THE TECTONICS OF SE ASIA

Convenors: D. HELMCKE, A. BAUD

S03.17
THE WEST END OF THE TIBETAN PLATEAU
A. BAUD
(Musée géologique, Lausanne, Switzerland)

The Tibetan plateau is ending between the eastward extruding system of the NW-SE oriented, right-lateral strike slip Karakoram fault and the E-W oriented, left-lateral strike slip Altyn-Tagh fault.

The Plio-Pleistocene Sutlej basin, the Garpo pull-apart, the Purang and the Shiquanhe grabens are linked with the late Tertiary displacement of the Karakoram fault system. In this western part of the plateau, the S (Lhasa) and N (Gangtang) Tibetan Blocks can be subdivided in 4 zones.

1- The Ladakh - Kailas zone is bounded to the S by the Indus - Zangbo suture and to the N by the Shiquanhe ophiolitic melange. The later can be followed along the Karakoram fault, dismembered, and correlated westward with the Shyok melange.

2- The South Bancong Lake zone consists mainly of early to middle Cretaceous sediments intruded by huge late Cretaceous (?) granitic bodies.

3- The East Changchemno zone belong to the next Qangtang Block, bounded to the S by the late Jurassic Bancong - Nu-jiang suture and is separated from the Loqzung zone to the N by the SW-NE oriented, left-lateral strike slip Changchemno fault.

4- The Loqzung zone consists of a curved from NW to E belt, of folded late Paleozoic to late Cretaceous mainly shallow water sediments.

To the N, the Lighteen Lake (Longmu Co) cryptic suture is separating the Qangtang Block from the Aksaī Chin zone belonging to the Western Kun-Lun Block. This last zone is characterized by a thick Cretaceous sedimentary cover lying disconformably on partly metamorphosed and folded Paleozoīc black slates (Kilian facies).