

Recumbent folded structure of the Tethyan sedimentary successions in Jomsom area, Thakkola, Nepal Himalaya

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The project of stratigraphic analysis of the Triassic sequence has done in Jomsom area, Thakkola, Nepal Himalaya. Structural analysis is indispensable to construct precise measured section. Folds and faults were analyzed in the area. Thakkola region belong to Tibetan Tethys Zone where Cambrian to early Cretaceous sediments are occupied. The study area is along the eastern valley slope of Kaligandaki River from Thinig to northern end of Jomsom village. The Triassic sequence is distributed between Permian/Triassic and Jurassic/Triassic boundary. The Triassic sequence is subdivided into 4 Formations; Tamba Kurkur, Mukut Limestone, Tarap Shale and Quartzite in ascending order. The Permian Thini Chu Formation is distributed in the southern most part of this area.

Attitude of bedding and younging direction; Almost beddings of these successions uniformly trend E-W to ESE-WNW directions. However The dips of these beddings have variations, southward to northward. Younging direction of bedding is obtained by sedimentary structure, for example graded bedding and cross lamination. Every north dipping bed indicates normal. Every south dipping bed indicates reverse.

Minor fold and slaty cleavage; The well known large outcrop of recumbent fold of Jurassic Jomsom Formation occurs at the north of Jomsom village. Similar style minor folds are common in the Permian mudstone with quartzite bed. Tightly folded alternation of mudstone and limestone of the Mukut Limestone Formation is observed at the axial part of large fold. Slaty cleavage is penetrated in mudstone and is associated with minor fold as axial plane cleavage. Attitude of slaty cleavage is almost horizontal. Slaty cleavage is distinctive in Permian mudstone but gradationally obscure upward. So the slaty cleavages of upper part of Triassic and Jurassic sequence are often hard to identify by naked eye.

Folded structure of the Triassic sequence in Jomsom area; The recumbent syncline with horizontal axial plane is analyzed. The interlimb angles are 60 to 80 degrees indicate not so tight. The fold and the associated axial-plane cleavage might be formed before the uplift of Himalaya which made the original fold to be recumbent.

