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# 地質学セミナー

# Recognization of an Accretionary Complex along Yarlung-Zangpo Suture Zone, Southeast Tibet

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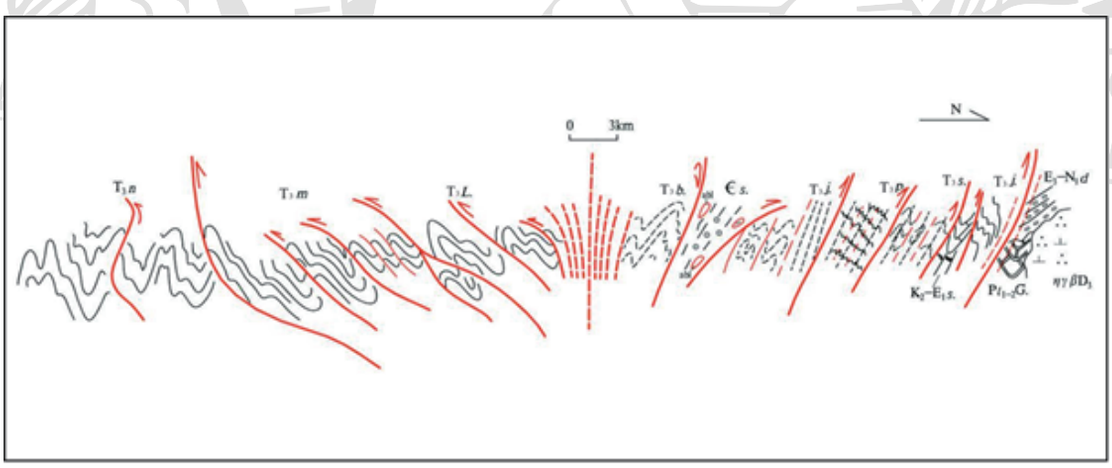
The Yarlung-Zangpo Suture Zone has long been known as the suture boundary between the Eurasian and Indian plates (Gansser,A.,1964), represented by the ophiolite rocks along the river for more than 2000km from west to east indicating the remnants of Neo-Tethyan Ocean.

Immediately south of the suture zone is the Tethys Himalaya which is interpreted as the deposits of north passive continental margin of Indian continent. Based on geological mapping and structural analysis, one accretionary complex related to the subduction-collision process has been recognized in Shannan area, southeast Tibet.

3 main tectono-stratigraphic units are divided through the study area from north to south---Lhasa terrane, suture zone (accretionary complex) and north margin of Indian continent. In the Luolin accretionary complex, 2 stages of deformation were identified within strongly deformed chaotic flysch sequence. The rock combination consists of sericite phyllite or phyllonite matrix with blocks of sandstone, mafic rocks and deformed quartz veins. The quartz veins were always found within the dark mud-rich layers. The veins represents the S1 foliation which were extended or sheared parallel to the foliation forming boudinage or porphyroclasts showing the mechanism is simple shear. The main foliation in the Luolin accretionary complex is S2 crenulation cleavage dipping to the south. D2 deformation caused the folding of early foliation and imbrication of tectonic slices within the complex. Central structural belt lies to the south of accretionary complex.　The S2 foliation within the belt is almost vertical on which sub-horizontal lineation could be seen indicating dextral slip. The coherent pelagic marine fan deposits (Langjiexue Group and Nieru Formation) are located to the south of central structural belt. Unlike the accretionary complex, only one stage of deformation occurred in the monotonous sequence of sandstone interlayered with argillite or slate causing the folding of sedimentary beddings and imbrication of Langjiexue Group over Nieru Formation. The structural style of the Shannan area shows top-to-north movement in the acrretionary complex and top-to-south movement in the marine fan sequence, separated by central structural belt, which we interpret as the positive flower structure.

Detrital zircon age results show that youngest age is around 210-230Ma, indicating rocks were deposited as early as late Triassic. Similar zircon age spectrums imply that the whole sequence, no matter whether the accretionary complex or marine fan deposits, may have the same material provenance.




Structural Style in Shannan Area,Southeast Tibet.