

## The form of fault accompanying the folding of the Shinano River middle region

# Kengo Umetsu[1], Kenta Kobayashi[2], Ryo Yamamoto[3]

[1] Geoenvironmental Sci, Niigata Univ, [2] Grad. Sch. Sci. & Tech., Niigata Univ., [3] Dep. Geo. Fac. Sci. Niigata univ.

The Shinano River valley is a leading high strain speed convergence belt, and many A-B class active faults go side by side and arrange it in the direction of N-S-NE-SW also in Japan. It considers as the fault in which degree of certainty I and the degree of activity have B, and displacement has east omission or a horizontal gap ingredient by length of about 15km to which Yukuizan Faults system is extended to NNE-SSW. Moreover, according to Azuma and others (1995), these are active fault systems which consist of four segments. This research area the sediment of tertiary and Quaternary is known also as active fold area which is carrying out folding notably, and research of the dislocation accompanying folding is also done (Yoshioka 1988) It is important to make fault rock at the time of unconsolidation like this research applicable to research when you understand the general fault rock. This research area the sediment of tertiary and quaternary is known also as active fault area which is carrying out folding notably, and research of fault accompanying folding is also done (Yoshioka 1988) It is important to make fault rock at the time of unconsolidation like this research applicable to research when you understand the general fault rock. In this research area, Suyosi facies and Uonuma facies show a west inclination by NE-SW strike mostly, and the reversed portion is also seen. Although Oyama facies, terrace gravel facies, and alluvium are distributed almost horizontally, Oyama facies, terrace gravel facies tend to incline in a plain side (east) a little. The fault currently checked in this research area is checked around Yukuizan fault. fault shows concentration weak in an east inclination at NE-SW strike, and has many reversed faults. Although parallel or the fault which cross a little has checked mostly to layer, they do not necessarily develop into a clear rock facies boundary, but progress mostly also in a layer. As for lineation, the dip slip ingredient stands high. Moreover, clear fault plane and fault rock are not formed, but these faults have crookedness or many field-less faults. The width of fault gouge belt currently checked is a maximum of 1cm. Moreover, there is much what cannot check a secondary shear plane with the naked eye. Moreover, some which can check the deterioration belt with which the color of an original rock differs from the degree of solidification in the range of the number cm of width are in the side of fault gouge belt. Structure and an organization similar as compared with the Katagai fault checked in Katakaimachi, Ojiya City of the Shinano River west coast reported by Umetsu etc. for fault and fault rock of this research area, and comparison (2000) are seen. From these things, the fault in unconsolidation layer around this research area was not accompanied by the clear fault plane and the fault rock, but has checked that a thin fault gouge belt or a deterioration belt is only formed and that it was. The scale does not necessarily become large with the scale of fault. From this, fault in unconsolidation sediment like this research area understands that there are many portions which cannot be adapted for recognition of the brittle fault rock in rock facies by which research of former many has been made and which solidified. Moreover, Tertiary and Quaternary carry out folding, and a small fault is distributed [ then, ] also on the Niitsu hill which hits the northwestern part of this research area. Comparison with this area and the Niitsu hill is also due this time, to be performed.