九、崩错活动断裂与 8 级地震破裂

崩错活动断裂处于喀喇昆仑—嘉黎活动断裂中段，属青藏高原南部规模较大的右旋走滑断裂和强烈地震活动带（Armijio et al., 1989），发生过 1951 年崩错 8 级强烈地震和多期全新世古地震事件。崩错活动断裂整体呈北西走向，延长达 100~120km，北西起始于班戈县江措区的拉纳沟，向东南经那卡、纳堆多、崩错、达孜和打沙，横穿念青唐古拉山，抵达谷露盆西过龙孔玛，由拉纳—松果段、错达如—打沙段、弄青—过龙孔玛段 3 段右列斜接而成。崩错断裂右旋错动基岩山地、山脊、冲沟、冰川槽谷和湖岸阶地，形成多期地震破裂、多期右旋位移、多级地震陡坎和不同规模的拉分盆地，1951 年 8 级地震形成地表地震破裂带和斜列分布的串珠状地震鼓包，震中区同震位移约为 8m。根据断裂位移和活动时代的观测资料，估算崩错活动断裂晚更新世晚期—全新世右旋走滑运动速率为 7~16mm/a，平均走滑运动速率为 11.5±4.5mm/a，全新世 8 级左右地震复发周期为 900±500a（吴中海等，2003；吴珍汉等，2004，2005）。

PART 9 BENGCO ACTIVE FAULT AND SEISMIC FRACTURES OF THE Ms 8.0 BENGCO EARTHQUAKE

Bengco active fault of northwest trending is middle segment of Karakorum-Jiali fault system dominated by dextral strike-slip in south Tibetan Plateau. It is also an important regional seismic zone where Ms 8.0 Bengco earthquake occurred in 1951 and several times of intense earthquake occurred in Holocene. Bengco active fault is 100~120km long from east of Bengco Lake to Jiangco Lake in west, including Lana-Songuo, Cuodaru-Dasa and Longqin-Guolonkonma segments. Bedrocks, ridges, streams, glacial valleys and lake terraces were dextral slipped along Bengco active fault at rate of 7-16mm/a in Late Pleistocene-Holocene. Seismic fractures, pressure ridges, sag ponds and pull-apart basins formed along Bengco active fault during Ms 8.0 Bengco earthquake and ~8m dextral slip occurred near epicenter of the earthquake. And average strike-slip rate and interval time of Ms 8.0 earthquakes in Late-Pleistocene-Holocene are estimated as 11.5± 4.5mm/a and 900±500a respectively for the Bengco active fault (Wu et al., 2005).



图 76 蓬错南 1951 年 8 级地震破裂与右旋拉分盆地

地震破裂沿崩错右旋走滑断裂分布，由斜列地震鼓包、地震陡坎、张扭性分支破裂和拉分盆地组成，部分拉分盆地积水形成湖塘；镜头向北西，摄于 2003 年 7 月。

Fig.76 View northwestward in July of 2003 at seismic fracture zone and pull-apart basin formed in Ms 8.0 Bengco earthquake occurred in 1951



图 77 蓬错南沿崩错活动断裂 1951 年 8 级地震形成的地表破裂与斜列鼓包

（镜头向北西，摄于 2003 年 7 月）

Fig.77 View northwestward in July of 2003 at seismic fractures and en-echelon pressure ridges of Ms 8.0 Bengco earthquake occurred in 1951



图 78 蓬错南沿崩错走滑断裂 1951 年 8 级形成的地震破裂右旋错断湖岸堤 8-10m

（镜头向北，摄于 2003 年 7 月）

Fig.78 View northward in July of 2003 at 8-10m dextral slip of coastal terrace of Pengco Lake along seismic fracture zone of Ms 8.0 Bengco earthquake occurred in 1951



图 79 崩错断裂 1951 年 8 级地震破裂与堰塞塘

（镜头向北西，摄于 2003 年 7 月）

Fig.79 View northwestward in July of 2003 at seismic fracture zone and sag pond of Ms 8.0 Bengco earthquake occurred in 1951



图 80 崩错右旋走滑断裂古地震破裂与小型拉分盆地

（镜头向南西，摄于 2002 年 5 月）

Fig.80 View southwestward in May of 2002 at seismic fracture and pull-apart basin formed in Holocene along Bengco active fault



图 81 崩错右旋走滑断裂地震遗迹

（镜头向北西，摄于 2002 年 5 月）

Fig.81 View northwestward in May of 2002 at earthquake relics along Bengco active fault