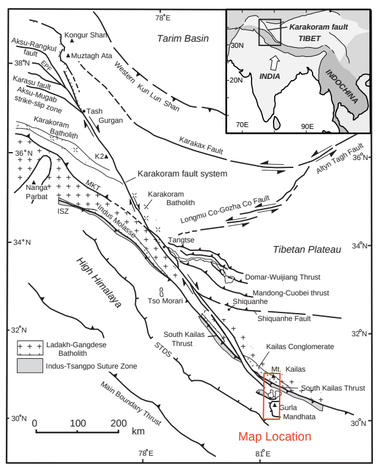
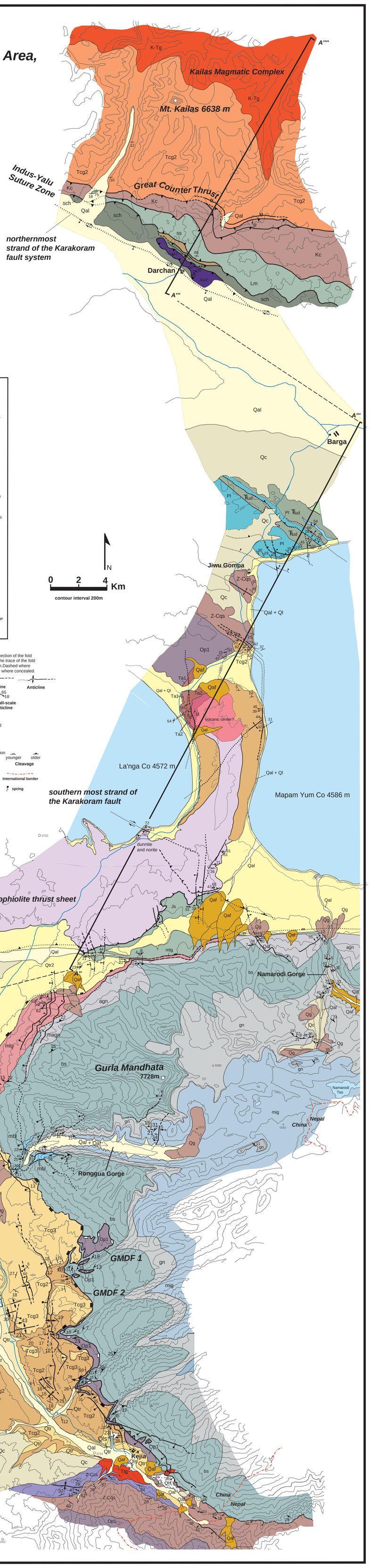
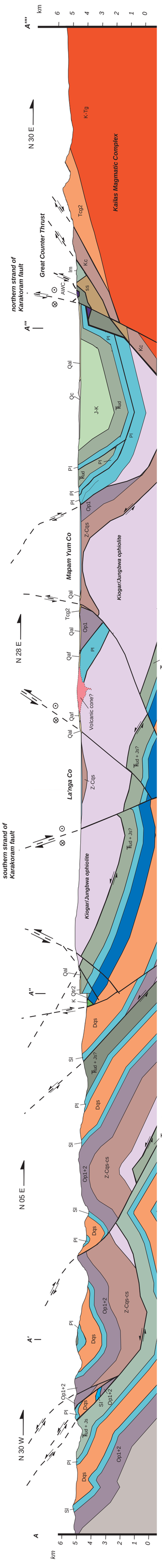
# Geologic Map of the Mt. Kailas-Gurla Mandhata Area, southwest Tibet




**Quaternary units**

- Qls — Landslide deposits
- Qg — Glacial deposits coarse clastic deposits, poorly sorted containing boulder-size clasts
- Qaf — Alluvial Fan Deposits cobble-pebble gravel, sand and silt
- Qal — Alluvial Deposits cobble-pebble gravel, sand, silt, and clay
- Qtr2 — River Terrace deposits cobble-pebble gravel, sand, silt, and clay
- Qtr1 — Older river terrace deposits cobble-pebble gravel, sand and silt
- Qc — Colluvial deposits boulder-cobble-pebble gravel and sand

**Pulan basin strata**

- Tcg3 — upper conglomerate unit boulder-cobble-pebble gravel and sand
- Tcg2 — middle conglomerate unit cobble-pebble-gravel, sand, silt and clay
- Tcg1 — lower conglomerate unit pebble-gravel, sand silt, and clay

**Tethyan Metasedimentary Sequence**

- Ks — Cretaceous- shale and limestone
- Js — Jurassic shale-contains ammonites
- Trud — Undifferentiated Triassic silty limestone, sandstone, and siltstone
- Pl — Permian limestone
- Dqs — Devonian quartzite
- Sl — Silurian phyllite with minor quartzite
- Op2 — Ordovician limestone, quartzite, tan phyllite
- Op1 — Ordovician phyllite-reddish purple crinoid bearing shales
- Z-Cqs — Precambrian-Cambrian quartzite
- Z-Ccs — Precambrian-Cambrian calc-silicate rocks

**Gurla Mandhata footwall**

- agn — Mylonitic augen gneiss
- mbl — Mylonitic marble
- bs — Mylonitic biotite schist, marble, leucogranite dikes and sills
- gn — Mylonitic gneiss, leucogranite dikes and sills
- mig — Migmatite
- mlg — Mylonitic leucogranite
- Ttg — Leucogranite

**Mapam Yum Co area**

- Volcanic center?
- Ta2 — Agglomerate interlayered with vesiculated volcanic flows
- Ta1 — Agglomerate, siltstone, sandstone
- Kiogar/Jungbwa ophiolitic rocks including mantle-type rocks, norite, dunite, harzburgite

**Mt. Kailas Area**

- K-Tg — Kailas magmatic complex, Cretaceous-Tertiary granitoids
- Tcg2 — Tertiary Kailas conglomerate
- Kc — Cretaceous Yiema formation, conglomerate and sandstone
- Lm — Cretaceous limestone
- SS — sandstone unit of unknown age
- sch — schist of unknown age
- AWC — serpentinized ophiolitic rocks, interpreted as accretionary wedge complex

## Geologic Symbols

**Lithologic contact** dashed where approximately located or inferred, dotted where concealed or inferred.

**Faults** dashed where approximately located or inferred, dotted where concealed or inferred. Arrows indicate dip of the fault and orientation of lineations. Where two arrows exist, the greater number indicates the dip.

**Strike-slip fault** opposing arrows indicate the sense of horizontal motion along the fault.

**Thrust fault** barbs on hanging wall

**Normal fault** bar and ball on hanging wall

**small-scale ductile normal fault**

**Detachment fault (low-angle normal fault)** box on hanging wall- open box on older detachament (GMDF 1), closed box on younger detachment (GMDF 2)

**Folds** Arrows indicate the dip direction of the fold limbs. Arrow oriented parallel to the trace of the fold axis indicates the plunge direction.Dashed where approximately located and dotted where concealed.

Overturned anticline · Syncline · Anticline

small-scale syncline · small-scale anticline

horizontal · inclined · overturned

**Strike and dip of beds**

transposed bedding · mylonitic foliation · younger · older

**Strike and dip of foliation** · **Cleavage**

**rock sample** and/or **mapping station** 97-8-6-2

**International border**

**spring**

**road**