

## Geochronology of the basement rocks in Bangladesh

Ismail Hossain

(地球進化科学・岩石学4年)

We present new U-Pb SHRIMP zircon geochronological data for basement rocks in Bangladesh, and discuss the relationship with the formation of Columbia Supercontinent. Euhedral zircons from a diorite sample yield a concordia age of  $1730 \pm 11$  Ma, which is interpreted as the crystallization age. The Paleoproterozoic age of the examined basement rock and the common occurrences of similar ~1.7 Ga geologic units in the Central Indian Tectonic Zone and Meghalaya-Shillong Plateau in Indian Shield suggest their apparent continuation. This, together with the occurrence of similar ~1.7 Ga geologic units in the Albany-Fraser belt in Australia and East Antarctica are used to suggest that the basement rocks in Bangladesh formed towards the final stages of the assembly of Columbia Supercontinent.

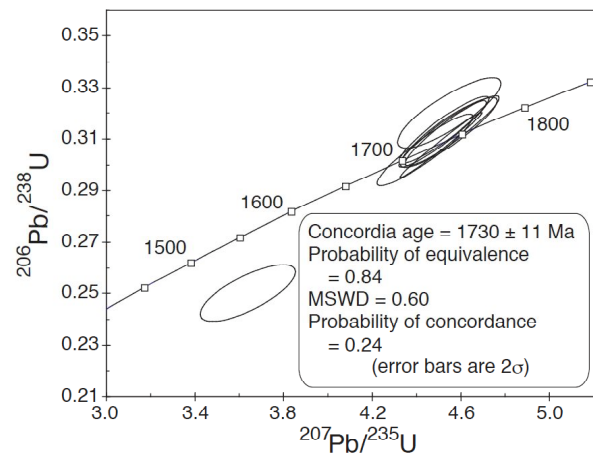


Figure 1. Concordia diagram showing SHRIMP analyses of zircons from basement rocks, Bangladesh.

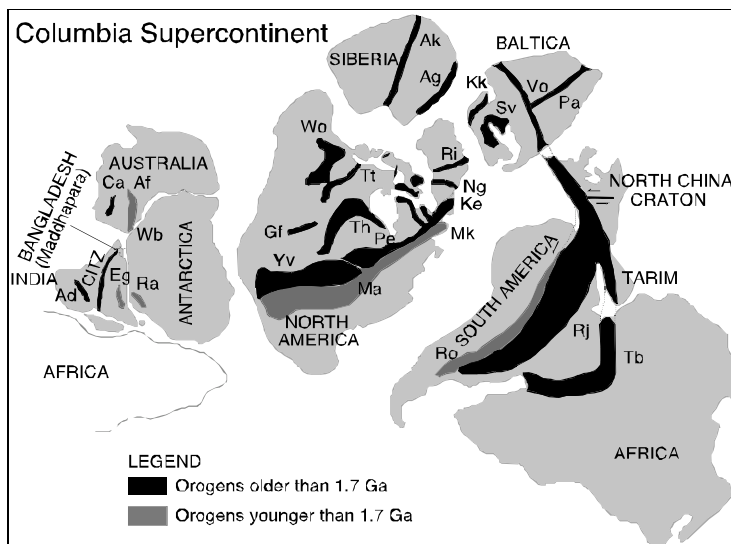


Figure 2. Schematic map showing the Columbia Supercontinent with its remnant in Bangladesh, as a continuation of the CITZ. Abbreviations of orogens; Af: Albany-Fraser, Ad: Aravalli-Delhi, Ag: Angara, Ak: Akitkan, Ca: Capricorn, CITZ: Central Indian Tectonic Zone, Eg: Eastern Ghats, Gf: Great Falls, Ke: Ketilidian, Kk: Kola-Karelia, Ma: Mazatzal, Mk: Makkovikian, Ng: Nagssugtoqidian, Pa: Pachemel, Pe: Penokian, Ra: Rayner, Ri: Rinkian, Rj: Rio Negro-Juruena, Ro: Rondonian, Sv: Sveckofennian, Tb: Transamazonian-Birimian, Th: Trans-Hudson, Tt: Thalston-Thelon, Vo: Volhyn, Wb: Windmill Islands-Bunger Hills, Wo: Wopmay, Yv: Yavapai.