

CONTINUOUS AND DISCONTINUOUS UPPER EOCENE SEQUENCES
IN THE BUDA MTS. /HUNGARY/ AND THEIR TECTONIC IMPLICATIONS

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The nine criteria of READING /1980/ for the recognition of ancient strike-slip belts are applied to the Upper Eocene of Buda Mts. Seven of them are fulfilled as follows:

1. Lateral matching of displaced paleogeographies across faults:

- no discrete faults could be recognized as yet.

2. Discordance between size and materials of alluvial fans and possible source areas:

- no source areas could be recognized for the andesite pebbles found all over the area of Buda Mts. in the conglomerates underlying Upper Eocene sediments; they are certainly not from the volcanic area of Velence Mts. due to their different composition /SZABÓ, 1983, pers. comm/.

3. Thick, but not laterally extensive, sedimentary piles deposited very rapidly:

- Uppermost Eocene--Lower Oligocene pelitic sediments: contradiction between their great thickness E of Buda Line and minimal to zero thickness W of it.

4. Localized uplift and erosion giving rise to unconformities of the same age as thick sedimentary fills nearby:

- Continuous algal limestone - Discocyclusina limestone - bryozoan marl sequence at Mátyáshegy; unconformities and basal conglomerates at several horizons of this sequence at Uthegey, Martinovicshegy, Rókahegy, Kecshegy, etc., within a few kilometres distance, absence of

Buda Marl in some places and its presence in others.

5. Extreme lateral facies variations:

- in the course of the microfacies investigations of Upper Eocene carbonates the facies sequences of the different exposures could /or rather couldn't/ be correlated with the greatest efforts only /KÁZMÉR, 1982/.

6. Simultaneous development of both extensional and compressional tectonics within the same tectonic belt:

- for extensional tectonics: unequal sinking of different blocks, inclusion of exotic blocks in deep sublittoral Tard Clay, neptunic dykes;
- for compressional tectonics: emergence of blocks above sea level proven by intra-Priabonian karstification /KÁZMÉR, 1982/.

7. A wrench fault style of structural deformation, in particular en echelon folds:

- no investigations as yet.

8. Little or no metamorphism:

- no metamorphism.

9. Sparse igneous activity, except locally in zones of transtension:

- no more than some thin crystalloclastic tuffitic layers occur /SZABÓ--BALOG, 1983/.

The fulfilment of seven criteria of nine proves that the area of the Buda Mts. was part of a strike-slip mobile zone during Late Eocene time. This zone included the Buda Lineament of BÁLDI /in BÁLDI et NAGYMAROSY, 1976/ extending its character from a paleogeographical boundary to a strike-slip tectonic lineament. The present investigations were made for the mentioned interval only, with no reference to preceding or following events.