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Post-Miocene extension in Central Anatolia; It's linkage to Aegean extension

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Anatolian Plate, -where Central Anatolia situated on-, escapes westward onto African plate along Eastern Mediterranean-Cyprus subduction zone, sliding by North and East Anatolian faults. Central Anatolia is bounded by dextral North Anatolian Fault from north, Taurides from south and it is fragmented by strike slip faults evolving under N-S compression in east and by Aegean horst and grabens evolving under N-S extension in west.
To be able to delineate and understand the deformational order in Central Anatolia and its linkage to Aegean region, various sectors with the Anatolia are chosen, namely, Ankara region (Beypazarı to Kazan Miocene basins), Eskişehir region (Mihallıçık to İnönü Miocene basins) in Central Anatolia, Gediz-Alaşehir Graben and Efes areas in Western Anatolia are selected.
To sum up, in a wide region from Central Anatolia to Western Anatolia, i. Unconformities btw uppermost Late Miocene and Plio-Quaternary, and btw Plio-Quaternary and Quaternary are clearly identified in both regions, ii) ENE-WSW to N-S compression (intense post-Late Miocene – pre-Pliocene folding) with almost E-W extension operates during post-Miocene (during Pliocene) is followed by a short lived strike slip deformation during Early Pliocene, and finally by NW-SE to WNW-ESE oriented multi directional extension during post-Plio-Quaternary. And in Gediz-Alaşehir Graben and Efes (western Anatolia); a continuous NNE-SSW to NE-SW multi directed extension since post-Late Miocene following almost N-S compression (post-Early Miocene) operated. Dextral strike slip faulting with normal components and normal faulting with right lateral strike slip components are recorded on same fault planes, iii) Quaternary normal faulting post dates folding, reverse and strike slip faulting in both regions. However, right lateral strike slip faulting is recorded to the NW tip of the normal faults like Efes, Manisa and Eskişehir faults, iv) under the new kinematic findings, the boundary conditions of neotectonic domains should have to be redefined in Anatolian plate, and v) during the escape of Anatolian plate towards east-southeast, based on the shift of principal stress directions counterclockwise block rotations can be operated along the "microplates" where northern blocks of the "microplates" are downthrown.

Key words: normal faulting, extension, neotectonic domains, post-Miocene, central Anatolia.