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The role of the Fethiye-Burdur fault zone in the neotectonic evolution of SW Turkey – a combined geological / geoarcheological approach.

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The Fethiye-Burdur Fault Zone (FBFZ) in southwestern Turkey forms an important, but only moderately well studied lineament connecting three tectonic provinces. These provinces are characterized by different processes associated with the incipient and imminent collision of tectonic plates in the Eastern Mediterranean. To what extend these geodynamic driving forces play a role in the neotectonic evolution of the study area is still unclear, as is the role of previously suggested strike-slip motions along the FBFZ. Preliminary results are presented from two neotectonic sedimentary basins in the FBFZ using their tectonosedimentary record as a proxy for the relative contribution of collision-related processes. To cover the full history of fault activity in the region, this study combines information from different observational time scales. The first scale involves basin analysis at the geological time scale. The second scale focuses on the basin evolution at a historic time scale by incorporating archeoseismological evidence for fault activity from Hellenistic and Roman settlements. The third scale concerns seismological evidence for (sub)recent fault activity. It appears that the central part of the FBFZ is seemingly seismically quiescent, although the damage to some historical sites in the region indicates that major historical earthquakes did occur in the region. Geological evidence suggests that NW-SE extension persisted from Late Miocene – early Quaternary time. The youngest (i.e. Holocene), deformation is characterized by spatially different contributions of shear components that are attributed to the local effects of the neighboring tectonic provinces. Therefore, our preliminary conclusions present the FBFZ as a broad zone of isolated or interconnected NE-SW-

trending basins that formed under prevailing NW-SE extension, rather than being a significant strike-slip fault zone.