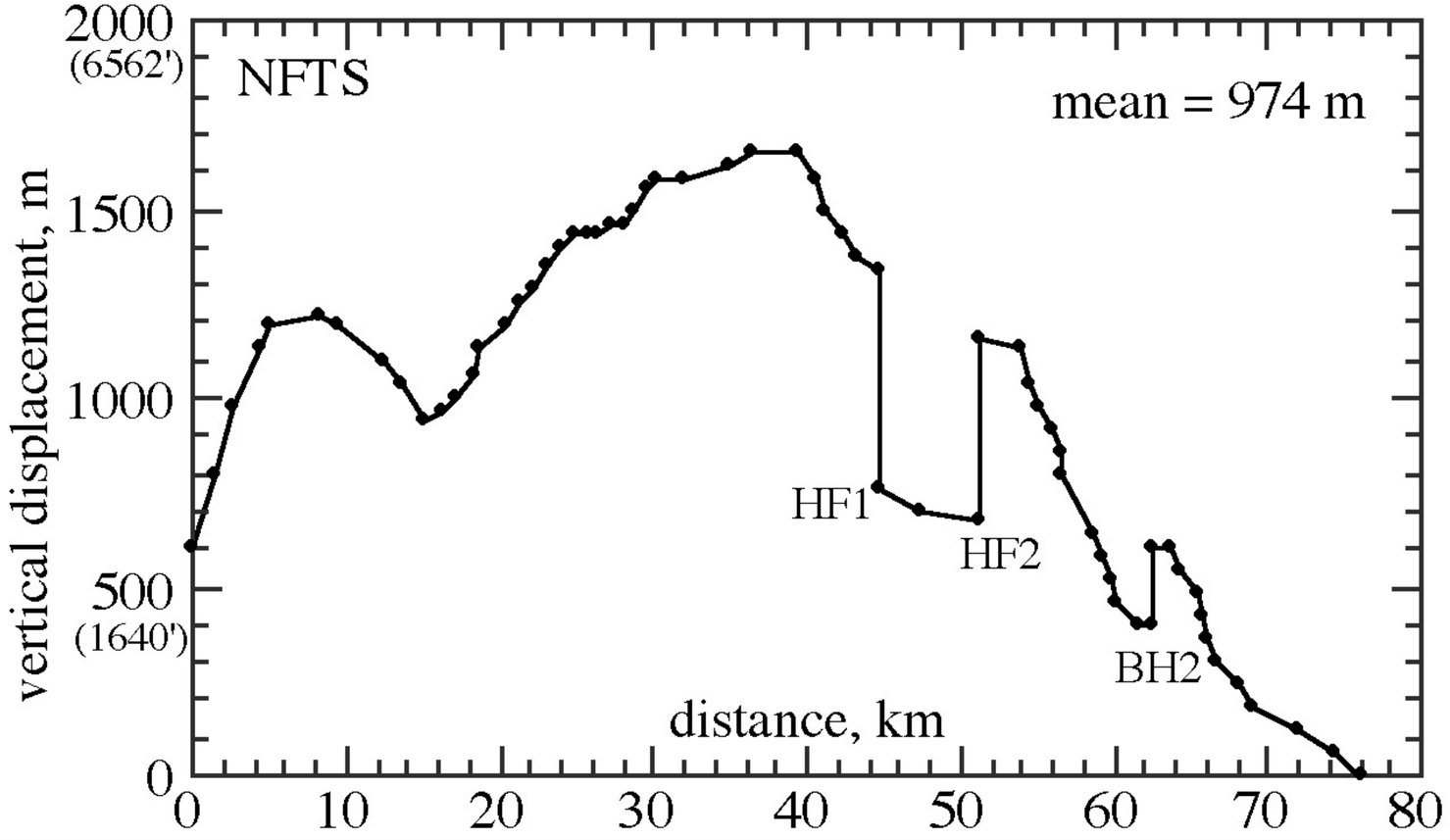
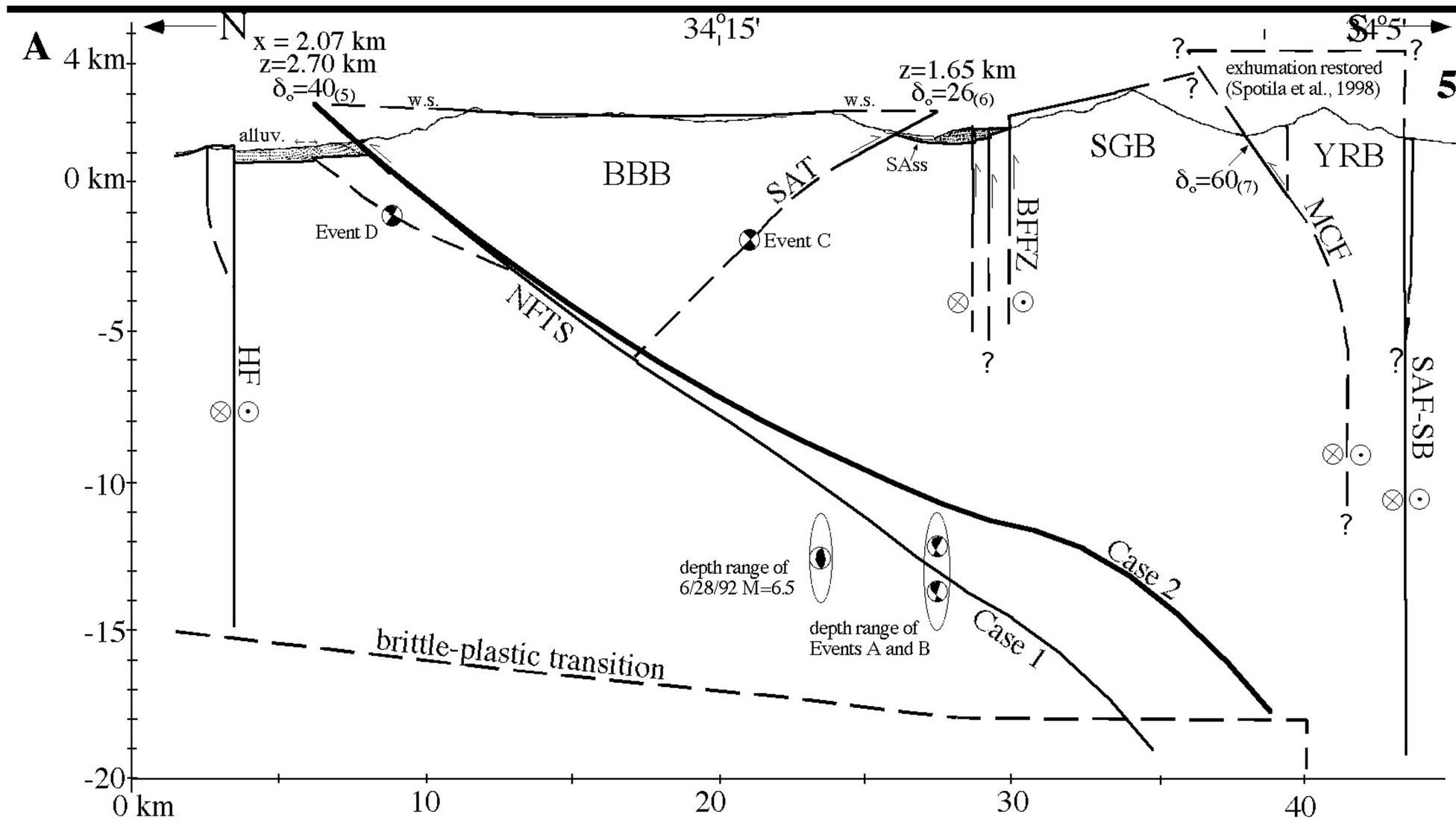
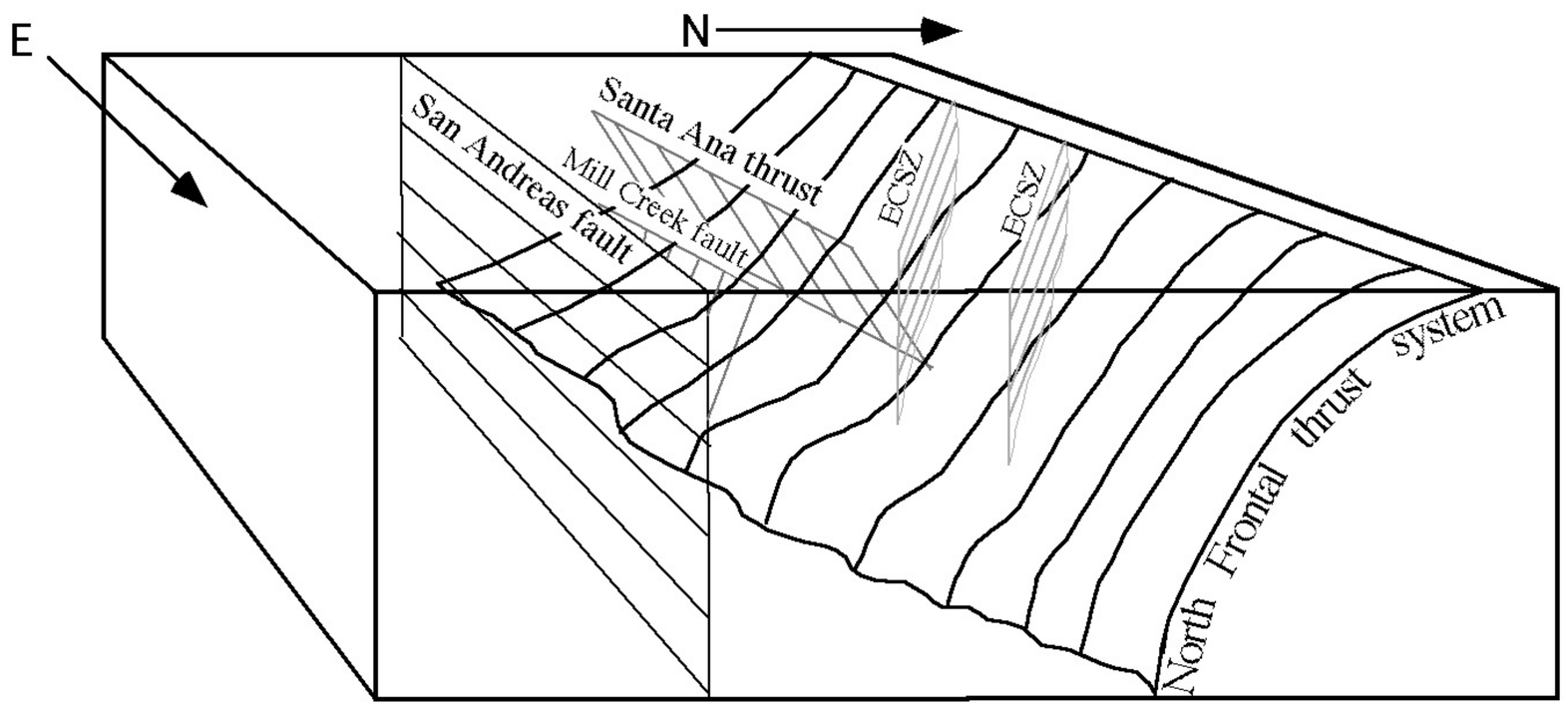


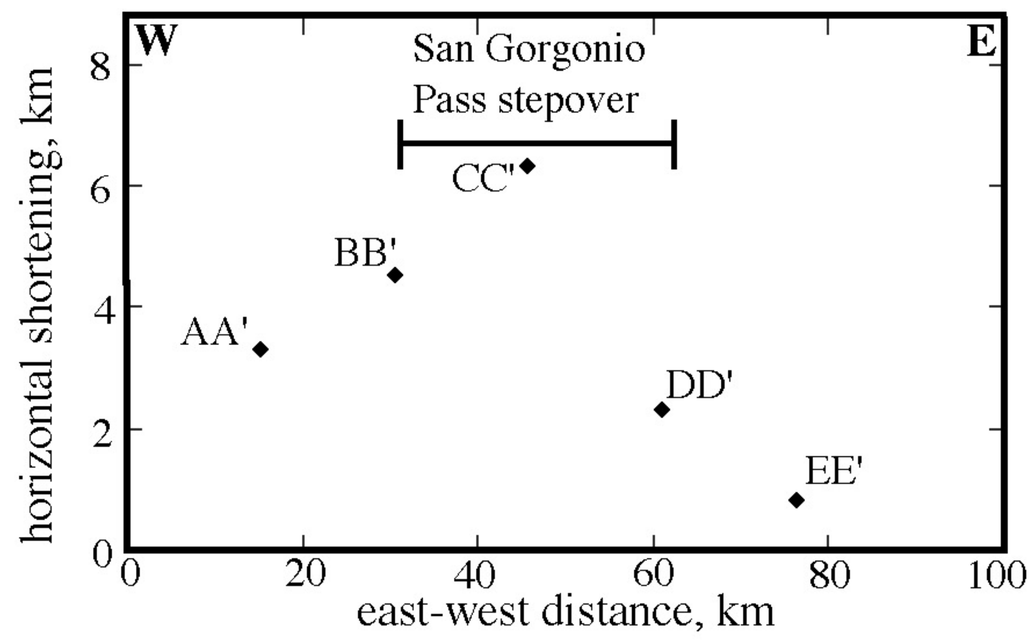
4.
Plot of vertical displacement along the NFTS (from west to east), based on the differencing of the weathered surface atop the hanging wall and footwall. HF1, HF2, and BH2 are strike-slip faults that produce grabens near the range front (Spotila, 1998).



5. Cross section from north to south across the SBMs (see Fig. 2). The details of this section are described in Spotila (1998). The light line shows 1:1 topography, the heavy line near it represents the structure contours to the weathered surface (w.s.). Faults are shown as solid lines (HF = Helendale f., SAT = Santa Ana thrust, MCF = Mill Creek f., SAF-SB = San Andreas, BFFZ = Barton Flats f.z.). Fault blocks are BBB = Big Bear b., SGB = San Gorgonio b., and YRB = Yucaipa Ridge b. The rock uplift of the YRB is restored using thermochronometry of Spotila et al. (1998). Two cases of NFTS geometry are shown, based on tilts of the overlying weathered surface and different assumed pre-uplift topographies. Note that both have complex shapes, flattening under the structural low of Santa Ana V. and steepening under the high SGB. Because the NFTS dips down beneath the BBB and SGB before reaching the brittle-plastic transition, it is plausible that it is responsible for uplift of both.



6.
Schematic diagram showing the best guess of subsurface fault geometry of the SBMs. Based on cross section analyses (similar to Fig. 5), the NFTS likely steepens with depth on the east, flattens with depth on the west, and does both in the middle, giving it a complex, corkscrew-like shape (Spotila, 1998).



7.
Plot of the west to east variation in horizontal shortening across the SBMs, based on line-length shortening evident in the pattern of rock uplift shown by the weathered surface and thermochronometry (Spotila 1998; Spotila et al., 1998). The spatial coincidence between the peak shortening and the location of the left-bend in the San Andreas fault at San Gorgonio Pass is striking and likely causally related.