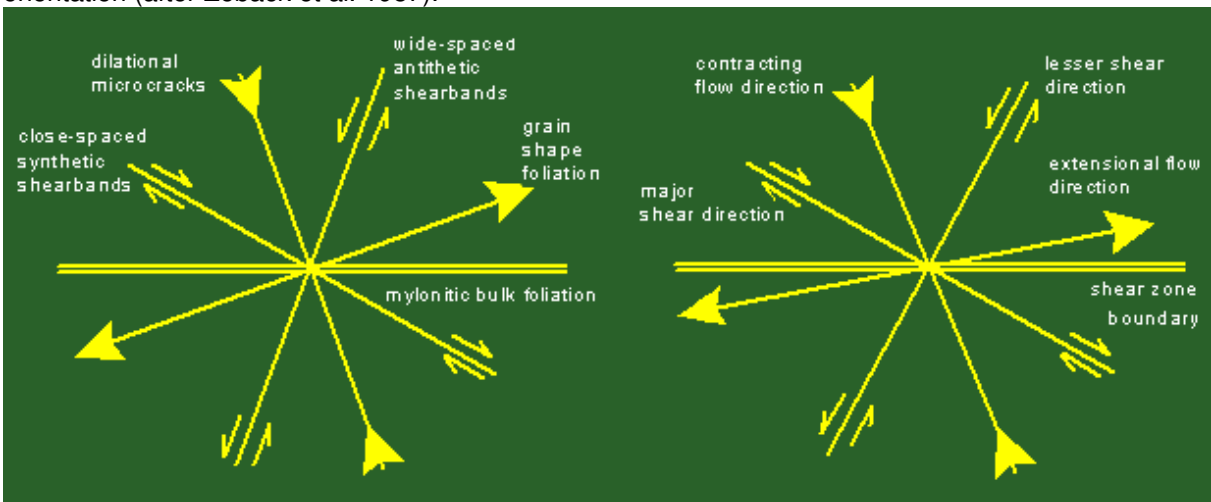


Tectonic map of California, rotated so that the SAF (in red) is horizontal. Blue: max compressive stress orientation (after Zoback et al. 1987).



Left: observed mesoscopic fabric elements in a mylonite, Spessart Mtns, Germany (data: K. Weber). Right: predicted orientation elements of stress and displacement according to the new approach.

The two diagrams in the lower panel are nearly identical, except that Weber's grain shape foliation does not fit with my extensional flow direction. I believe that the quartz grain shape foliation is not the proper element to be included in this diagram because it depends on grain boundary migration, temperature etc. If instead the (001) plane of mica had been included, or the S-plane of SC-fabrics, the coincidence of left and right would have been absolute.

Note that the max stress directions in the map scale panel above, the dilatational microcracks on the outcrop scale, and the contracting flow direction in the predictions are virtually identical.