

Supplementary materials

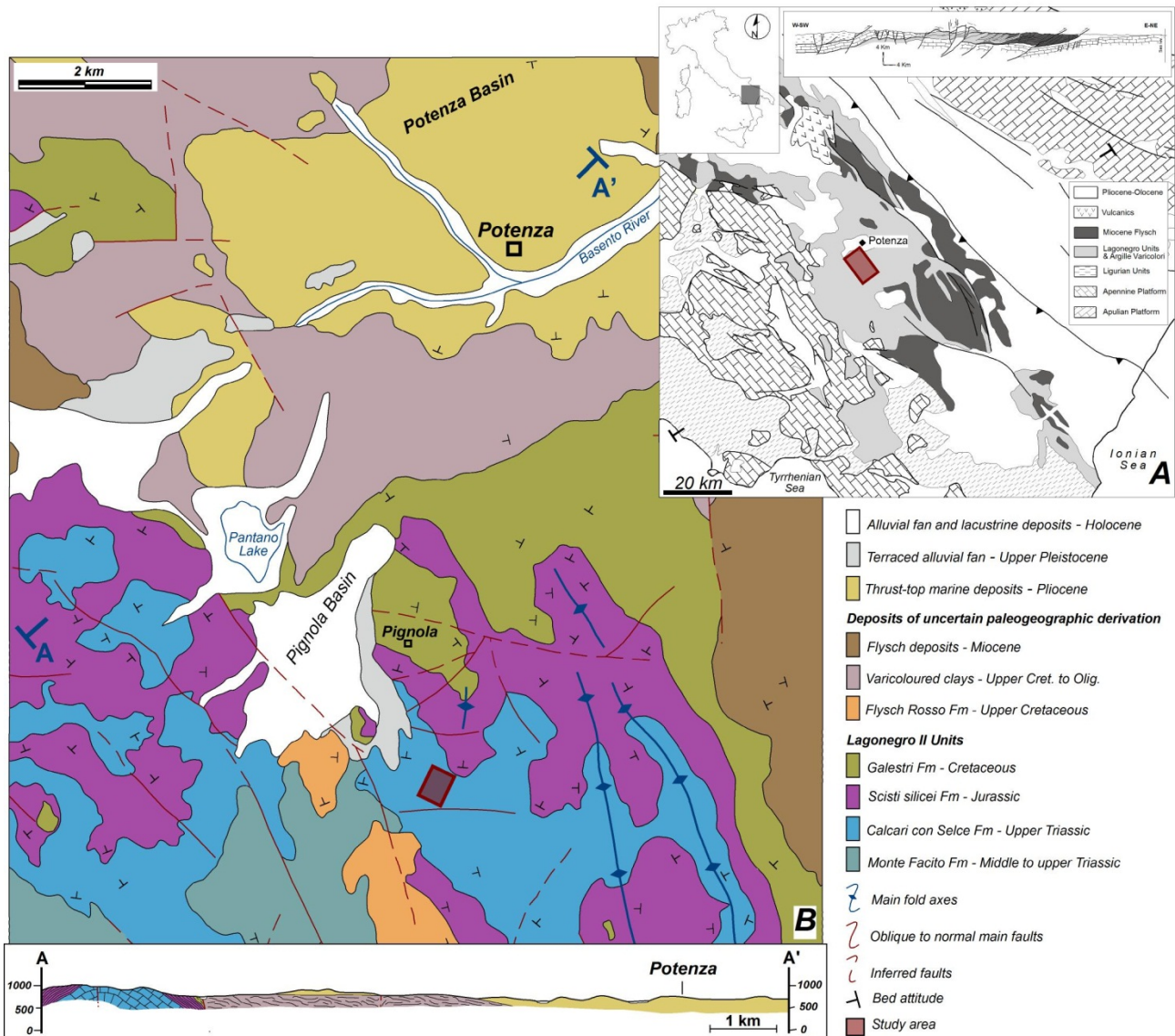


Figure 1SM: Geological setting of the study area. A: Structural map of the Lucanian Apennines showing the main tectonic Units, the location of the study area (red square) and a regional cross section. B: Geological sketch of the Pignola area, showing location of the study outcrops (red square) and a simplified geological cross section (trace A-A').

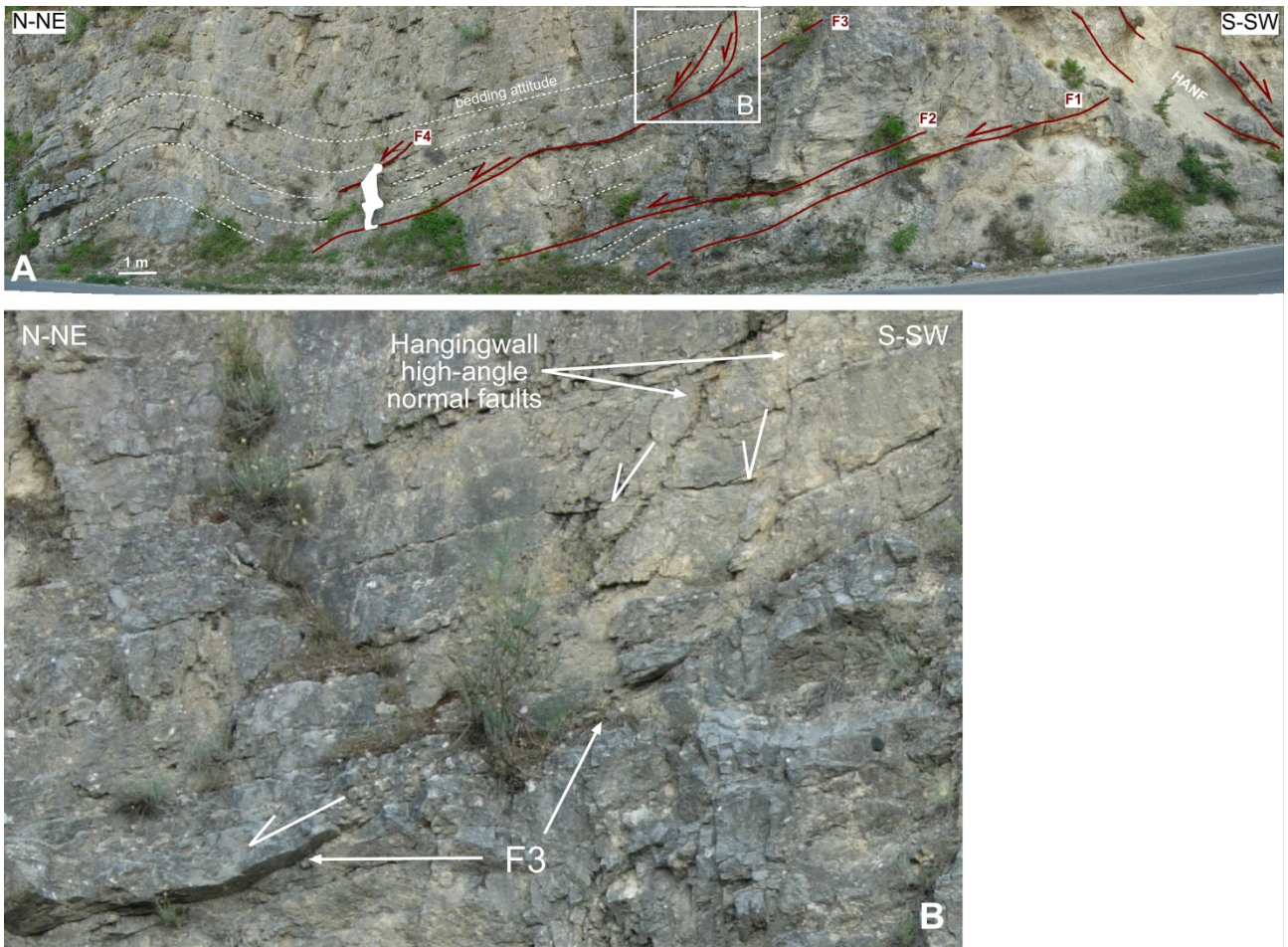


Figure 2SM: A) Panoramic view of the study transect. B) Field photograph of low-displacement (few cm) high-angle normal faults formed synchronously with the F3 LANF. This relationships indicate that the present attitude of the LANFs is original, and that these structures did not experience significant tilting after their formation.

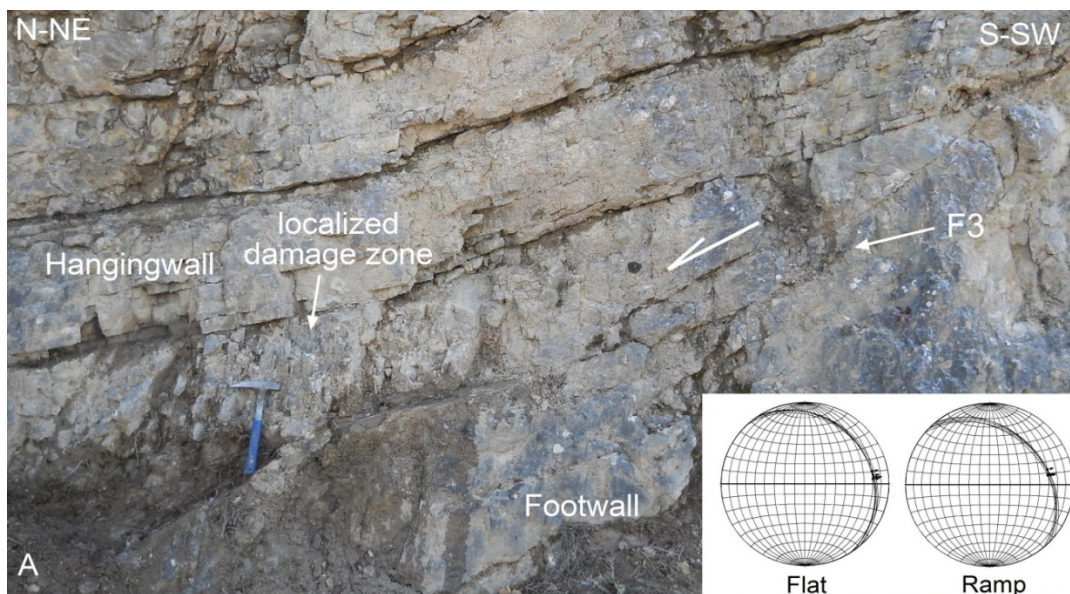


Figure 3SM: Field photograph of ramp-flat-ramp geometry of the F3 LANF.

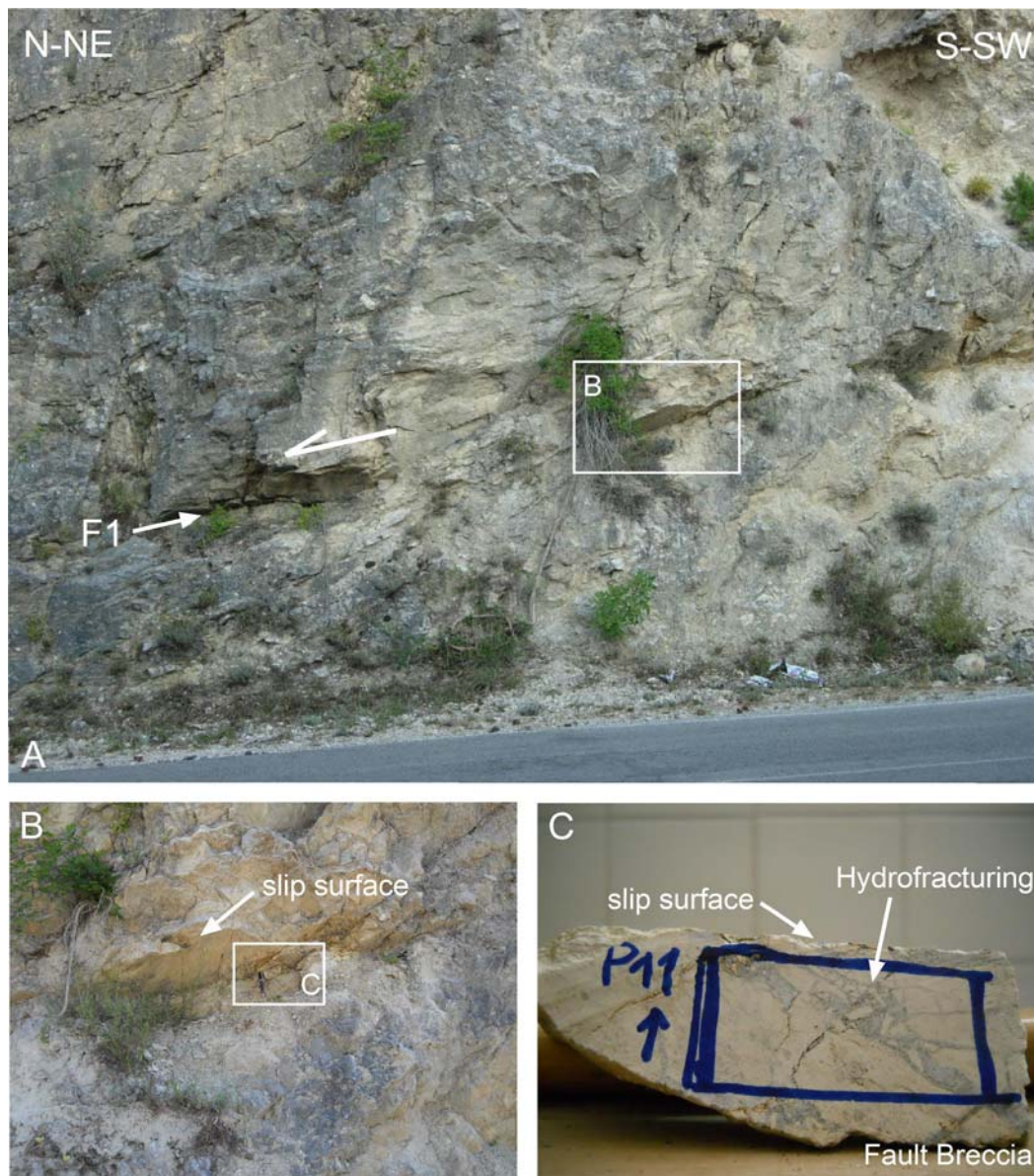


Figure 4SM: A) Field image of the F1. This fault represents the main fault of the LANFs array. B) F1 slip surface and core sampling area. C) Polished hand specimen of the mature fault core represented by crush breccia and fine crush breccia showing evidence of hydrofracturing processes.

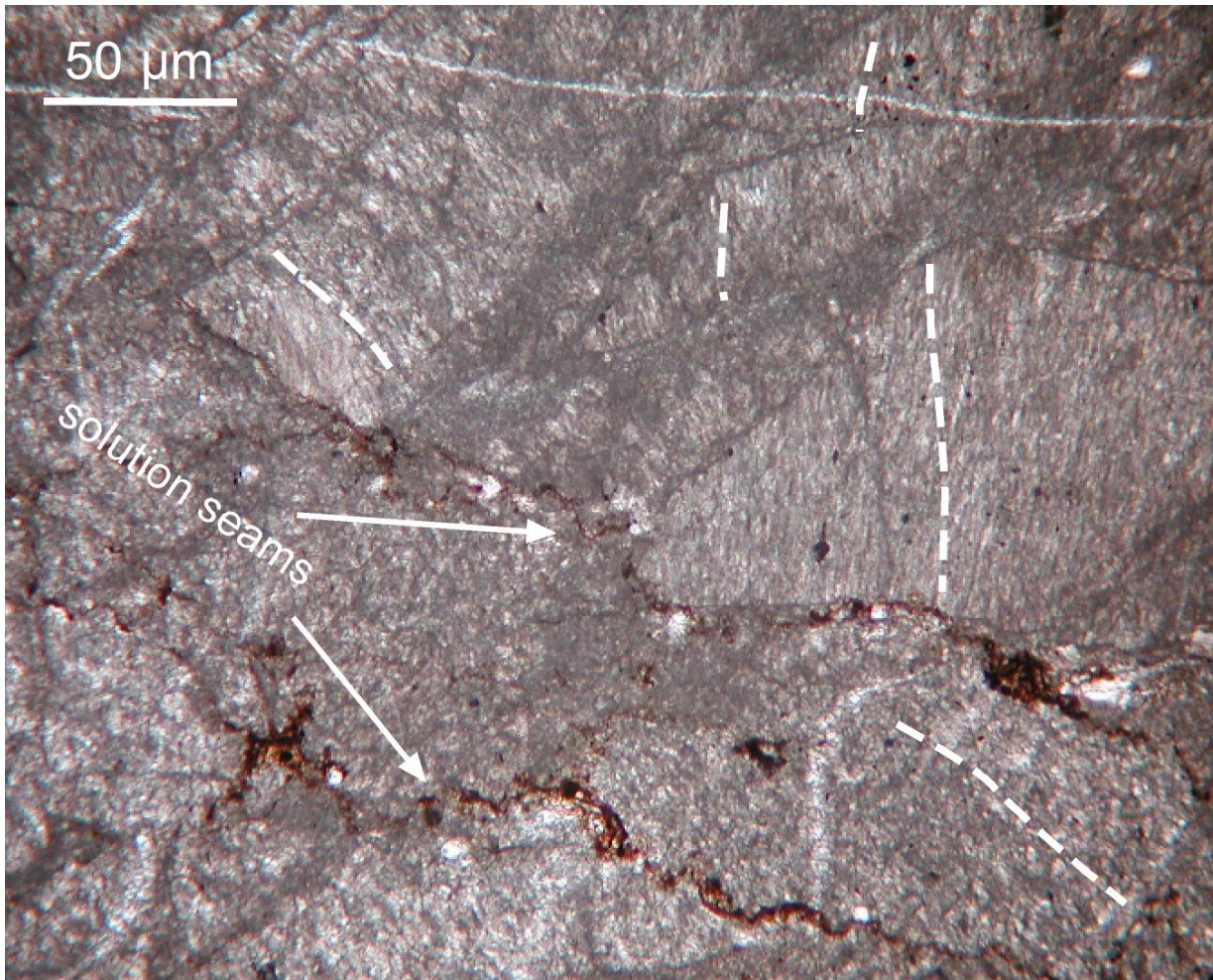


Figure 5SM: Microphotograph of the brittle deformation (i.e. cataclasis and solution seams) overprinting the a pre-existing foliation (dashed white lines) next to the main slip surfaces.

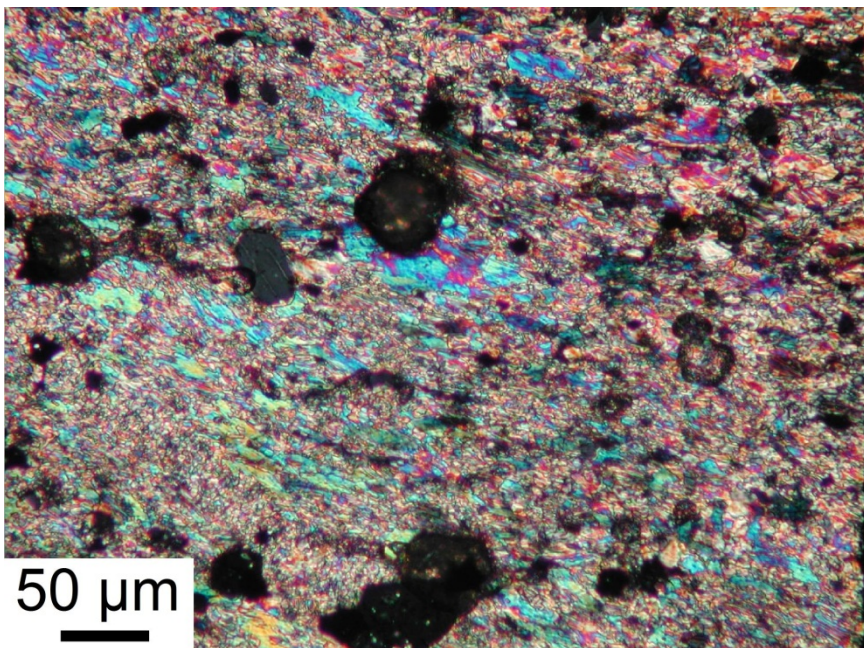


Figure 6SM: Micrograph in cross-polarized light (ultra-thin section) of the foliated calcite aggregates

