



Late Eocene geometry and kinematics of the Southern Provence foreland fold-and-thrust belt: relations with the Apennine and Alpine orogens.

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The Southern France area, and more particularly Provence, coincides with two orogenic fold-and-thrust belts: (1) late Cretaceous to Eocene north-verging thrusts (the so-called “Pyrenean” belt), commonly related to the northward migration of the Iberia and Corsica–Sardinia blocks, that affected mainly the Southern Provence and (2) post-Oligocene south-verging thrusts (the so-called “subalpine chains”), related to Alpine orogen, that affected mainly the northern and northeastern Provence. We discuss here the late Eocene geometry and kinematics of the Southern Provence fold-and-thrust belt. Structural data were collected along ENE-WSW and NW-SE thrusts usually linked to the so-called “Pyrenean” belt. However collected structural data indicate both N140°-N155° and N045° late Eocene shortening directions. Tectonic reconstructions before the Oligo-Miocene opening of the Liguro-Provençal Basin show that the Southern Provence fold-and-thrust belt was located on the foreland of an orogenic belt resulting from the subduction along the Corsica-Sardinia block (the so-called “Apennine subduction”). At the same time the Alps were also active. It is thus possible that during the late Eocene the Provence area was affected by two distinct state of stress, the first one (N140°-N155° shortening) linked to the Apennine subduction and the second one (N045° shortening) linked to the Alpine orogen.