

Research of an analogue of the Soultz-sous-Forêts granite in Catalonia

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The objectives of this program are the definition of the petrographic and tectonic setting of the geothermal exchanger at a scale of 500 metres, the estimation of the validity of several hypothesis about the fracture network, the relationship between different granites and the fluid flow paths.

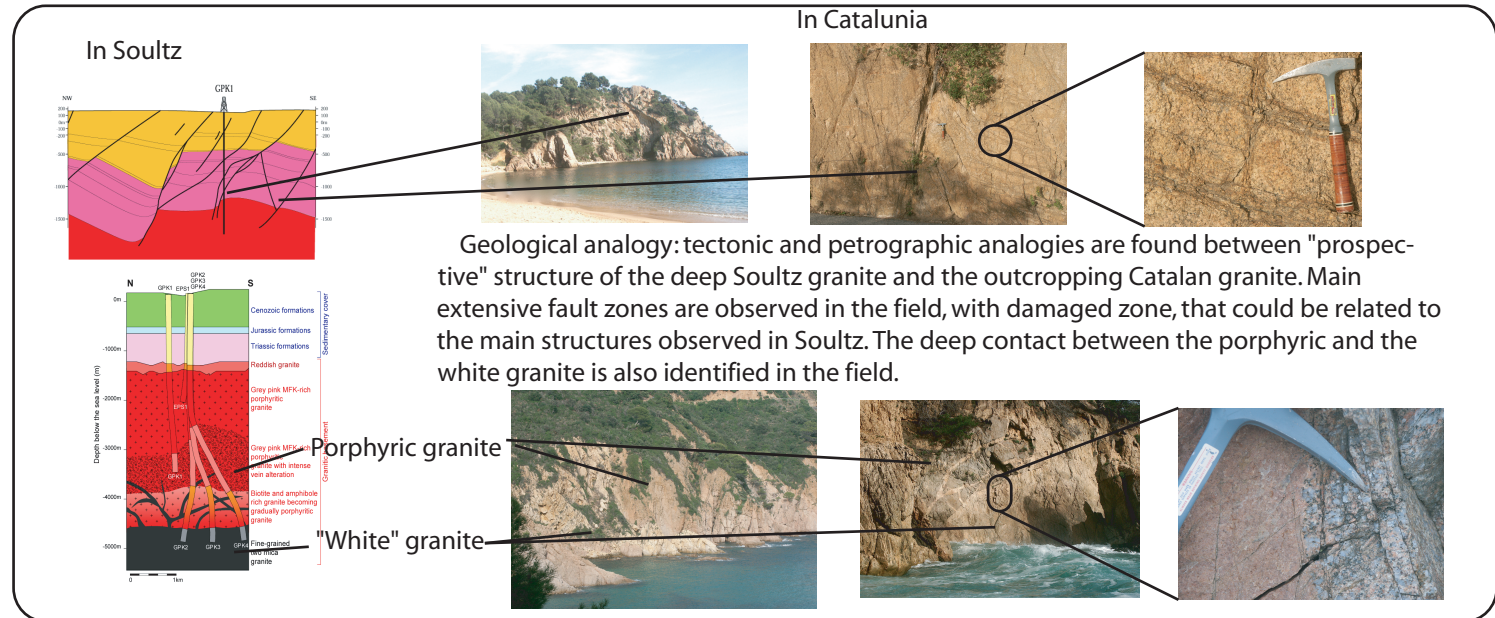
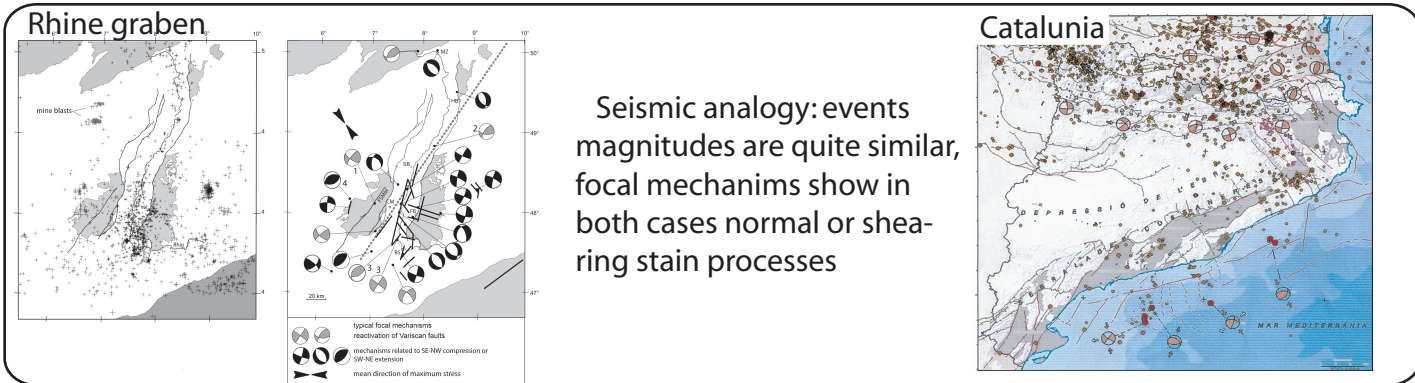
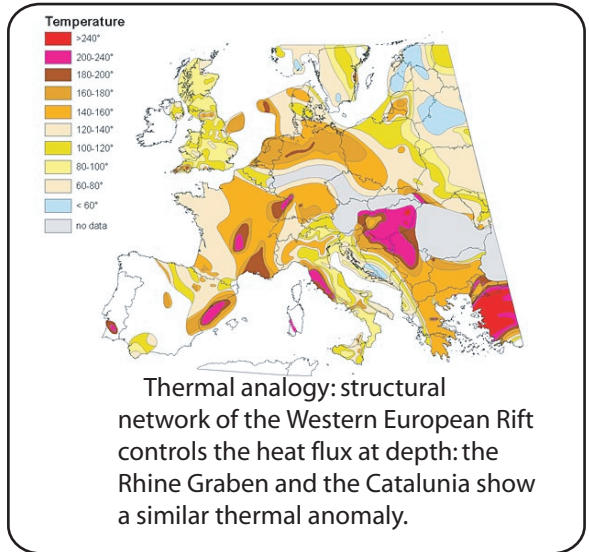
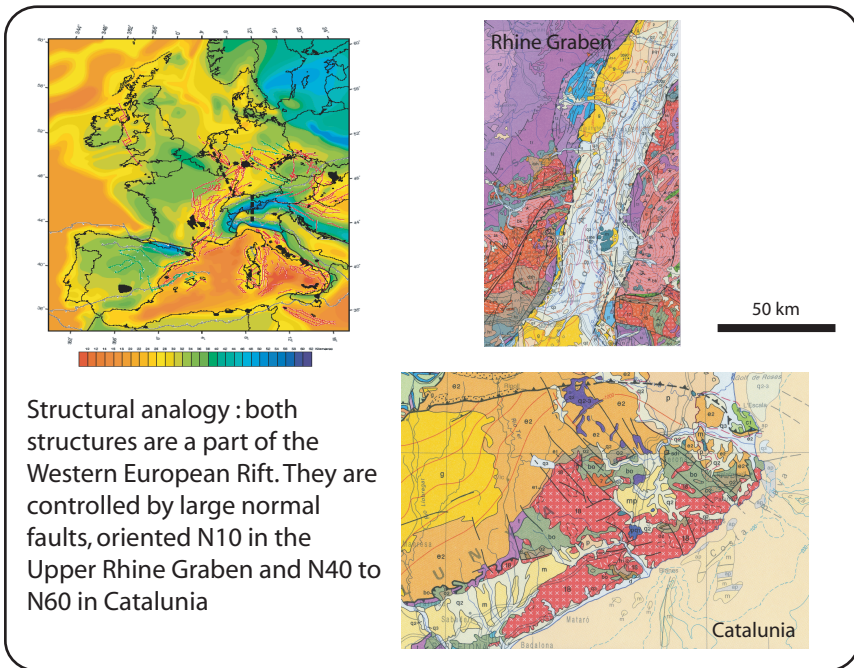
With this aim, the Catalonia area is considered because of its numerous analogies with the Rhine graben.

Structural analogy: graben structures have the same age and show similar topographic anomaly,

Petrographic analogy: the same granite materials cored between 1500 and 5000 metres in Soultz outcrop in Catalonia,

Thermal analogy: the same thermal anomalies are described at depth and hot springs at 75°C at the surface,

Sismicity analogy: intensity and focal mechanisms are similar in both cases.



THE PROGRAM...

- Petrography: Further granite facies identification and comparison,
- Petrophysics: Precise structural description of the structures at different scales (from cm to hm), and 3D permeability distribution,
- Geophysical investigation and characterisation of the structures outcropping in Catalonia by a Spanish research team. The main targets are the contacts between two kinds of granite, the faults (and relay zones ?) imaging, and the characterisation of the seismic response of these structures to help the interpretation of a future Vertical Seismic Profiling survey at Soultz.