Field trip 10

Subduction, Collision and Indentation in the Tauern Window

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The field trip is devoted to the structure and evolution of the eastern Tauern Window. The first day deals with the record of Cenozoic subduction of the Alpine Tethyan ocean (Glockner Nappe) and distal European continental margin (Modereck unit). Structures visited include the limb of a spectacular crustal-scale sheath fold formed during rapid exhumation from HP conditions. The second day is devoted to structures associated with indentation of the Alpine orogenic crust, including km-scale upright folds, mylonitic shear zones and brittle faults that accommodated coeval shortening and lateral orogenic escape. On the final day, we visit basement nappes forming a duplex in the structurally deepest level of accreted European crust. The field trip ends with a hike to the eastern margin of the Tauern Window where a low-angle normal fault (Katschberg Normal Fault) exhumed the hot Penninic units in its footwall. This late orogenic structure manifests the response of orogenic crust to a combination of Adriatic indentation of the Eastern Alps and Miocene roll-back subduction in the Carpathians.

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