

INTERNAL STRUCTURE OF THE DRAMALA PERIDOTITE, PINDOS OPHIOLITE, GREECE

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The Dramala peridotite consists chiefly of harzburgite with pervasive dunite as layers or small pods. The presence of (from base to top) harzburgite, harzburgite with pyroxenite, harzburgite with gabbro dikes, and harzburgite with sizable dunite bodies defines a crude internal stratigraphy underlying a mixed zone of peridotite with cumulates: The transition to the cumulate section (oceanic layer 3) is preserved, but deformed into a «synformal» structure with respect to the position of the petrologic moho, and a ductile-brittle fault zone related to early emplacement.

The oldest peridotite fabric (high-temperature orthopyroxene foliation, dunite and cumulate layers) strikes 125/50S, with a parallel set of mylonitic zones. All these structures plus pyroxenite and some gabbro dikes are deformed into an 040/60S «low-temperature» foliation that extends into the cumulate section. Some «cold» mylonites are folded to the new fabric, and some mylonites with parallel brittle shears appear to relate to the 040 deformation. The most highly deformed peridotite (non-annealed granulation fabric and highly elongated orthopyroxenes) lie in zones sub- to non parallel to either fabric, aligned with emplacement related (decoupling) fault zones. Brittle faults and shears trending from the 040 fabric into a 125/30N geometry demonstrate late back-thrust of the peridotite to the SW.

The geometry of the Dramala peridotite is entirely conformable to that of Vourinos: Earliest shear in the upper mantle conforms to a NE movement with 040 trending tear (transform?) faults. The Dramala unit is located in the trailing, «ductile» part of the obducting slab, and suffers some internal decoupling, while Vourinos conforms to a higher, brittle-field obduction.

METALLIFEROUS AND PELAGIC SEDIMENTATION OF THE MESOZOIC PINDOS OCEAN, GREECE

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Following reassessment of the Mesozoic tectonostratigraphy and structure of mainland Greece and the Peloponnesus it was concluded that during Late Triassic-Early Tertiary time