

Kythnos, Western Cyclades, Greece; a field guide

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This poster illustrates a new field-guide to the island of Kythnos, within the Western Cyclades: this can be downloaded from the QR-code on the poster. Kythnos comprises schists and marbles of Cycladic Blueschist Unit in the Lower Cycladic Blueschist Nappe, in the footwall of both the Eocene Trans Cycladic Thrust and the Miocene West Cycladic Detachment System (WCDS), with a small outcrop of the WCDS hanging wall (Pelagonian Zone) in the southwest of the island. Stretching lineations change from ENE-WSW directed in the north and east to NNE-SSW in the south, reflecting a reorientation of the strain due to Eocene exhumation from HP metamorphic conditions towards the WCDS extension direction; overall, finite strains increase towards the south and west.

The guide documents six day-long excursions, with a total of 63 stops; for several excursions more outcrops than can be reasonably visited in one day are given, allowing some choice in the outcrops seen. However, the island is so small (20 x 11 km) that almost any selection of outcrops can be included in a day, since most lie beside or close to a road and require little walking. Descriptions of several outcrops as seen from the local ferries are also given.

The guide documents both the dominant and unusual lithologies on the island as well as the major structural features of the island. In particular; deformation associated with the emplacement of the Pelagonian Zone hanging wall along the West Cycladic Detachment System; the development of an intermediate-scale low-angled detachment linking higher-angled Riedel fractures (Ag. Ioannis Detachment); the pervasive thinning and down-faulting of the rocks to the west, with contemporary ductile deformation in blue-grey marble and brittle deformation in quartz-rich layers within the blue-grey marble.