Geophysical Research Abstracts
Vol. 19, EGU2017-3228, 2017
EGU General Assembly 2017

A field-guide to the geology of Kythnos, Western Cyclades, Greece

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This poster advertises a new field-guide to the island of Kythnos, within the Western Cyclades: kmz files of the outcrop descriptions etc. can be downloaded from the QR-code. Kythnos comprises schists and marbles of the Cycladic Blueschist Nappe in the footwall of the Miocene West Cycladic Detachment System, with a small outcrop of the hanging wall (Pelagonian Zone) in the southwest of the island. Stretching lineations change from ENE-WSW in the north to NNE-SSW in the south, reflecting a reorientation of Eocene exhumation strains towards the West Cycladic Detachment System extension direction; overall, finite strains increase towards the south and west. The guide is divided into 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 six 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; and the possibility that a very large-scale recumbent isoclinal fold forms the island.