

E-W direction and (iii)  $\alpha_3$  remained constant in sub-horizontal position around the N-S direction.

This change is attributed to the gradual westward migration of the Hellenic arc in relation to the role of depth of deformation and especially to the probable relation of the Corinthian fault zone from a paleotransform fault zone.

## **MICROSTRUCTURAL OBSERVATIONS ON THE GRANITES OF IKARIA ISLAND, AEGEAN SEA**

**D. Papanikolaou, D. Sakellariou, A. Leventis**

University of Athens, Department of Geology, Panepistimioupolis Zografou,  
15784, Athens, Greece

The microstructures of the Miocene granites of Ikaria island have been studied and important differences concerning the degree and style of deformation have been found. Especially the main granitic body of western Ikaria comprises rather inhomogeneous parts, as far as their structural framework is concerned, with domains where the rock is underformed (mainly along the southern outcrops) or domains where the rock is highly mylonitic with characteristics of S-tectonite (mainly in the western outcrops) or domains where the rock is ultramylonitic with characteristics of L-tectonite (mainly along the eastern outcrops). The shear sense is directed towards the north. The lack of penetrative structures within the smaller granitic body of Xylosyrtis and the available radiochronologic data permit the dating of the microstructures and the discussion of their genetic relation within a megashear developed during the late geotectonic evolution of the area.

## **GEOMETRY OF ACID INTRUSIVES IN PLAKA, LAURIUM, AND RELATION BETWEEN MAGMATISM AND DEFORMATION**

**D. Papanikolaou, D. Syskaki**

University of Athens, Department of Geology, Panepistimioupolis Zografou,  
15784, Athens, Greece

Some new intrusive forms have been described in the granitic rocks of Plaka area in Laurium, such as loccoliths and pipes, besides the well known dykes and sills. Some of the granitic bodies have been found to be intensively deformed bodies with penetrative structures. Some isoclinal non cylindrical folds with curved hinges have been also described in some granitic bodies and also in the neighboring mica schists and phyllites. These structures occur mainly above the thrust plane of the Laurium allochthon. The above observations

imply a very young age of deformation in the area, including the last stages of nappe emplacement over the autochthonous of Attica as well as the development of penetrative structures within the granitic rocks, because the available radiochronologic data point to an age of 9-10 Ma for the granitic rocks. However, the dated outcrop is not deformed, belonging to the last stages of magmatism in the area and thus the age of the deformed granites might be somewhat older.

## SEDIMENTOLOGICAL EVOLUTION OF MESOZOIC - EARLY TERTIARY SMALL OCEAN BASINS IN THE EASTERN MEDITERRANEAN NEOTETHYS

A.H.F. Robertson, P.D. Clift, P. Degnan, G. Jones

Department of Geology and Geophysics, University of Edinburgh, Grant Institute,  
West Mains Road, Edinburgh EH9 3JW, U.K.

The palaeoceanography of the Eastern Mediterranean Neotethys is here interpreted in the light of palinspastic reconstructions of the area as a series of Mesozoic - Cenozoic small ocean basins and microcontinents, rifted from Gondwana. Permian rifting first detached Apulia from Gondwana, giving rise to a southerly seaway (Sicily, Crete, N. Cyprus). More general rifting then produced a mosaic of blocks and basins in the Early - Mid Triassic (Scythian-Ladinian). Rift facies include intermediate composition extrusives, volcanoclastics, gravity deposited carbonates and siliciclastics, and localised radiolarian sediments (eg. Pindos, Antalya). Ammonitico rosso facies accumulated in subsiding rifts and on seamounts. Continental break-up and sea floor spreading began in the Late Triassic (Carnian, Norian). Rift and marginal oceanic crust is predominantly of calc-alkaline character (eg. S. Greece), while more axial oceanic crust and seamounts are mainly mid-ocean ridge and within-type basalts. Sea floor spreading in the Antalya area, SW Turkey isolated a number of continental slivers that were overlain by carbonate build-ups. A single large carbonate platform was also present within the Pindos ocean, Greece (Parnassos). The Apulian passive margin in Greece was offset by large continental margin transform faults (eg. Sperchios, Metsovo). During the Late Triassic, radiolarian sediments accumulated below the carbonate compensation depth (CCD) in the deeper basins, while periplatform ooze was shed from carbonate platforms to form «Halobia» limestones. Deeper-water passive margin areas subsided through the CCD by Early Jurassic. Related to regional compression in the mid Jurassic, ophiolites were created by spreading above subduction zones in the Pindos Ocean (Greece, Albania, Yugoslavia). Passive margin-trench collisions regionally emplaced huge ophiolite thrust sheets (eg. Vourinos, Othris) westwards onto the Pelagonian microcontinent in the Late Jurassic. The Pindos Ocean survived into the early Tertiary as a remnant basin, closed in the N, but undergoing mainly pelagic carbonate deposition in the S. By contrast, further east (eg. Antalya, Mamonía), passive margin deposition lasted from Late Triassic until Late Cretaceous. This was interrupted by a pulse of regional crustal tension in Late Jurassic-Early Cretaceous time, documented by localised gravity deposition of siliciclastic