

SUR L'AGE DE QUELQUES AMPHIBOLITES DU RHODOPE GREC

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L'histoire des formations cristallophylliennes du Rhodope méridional est difficile à déchiffrer et prête encore à controverse. A défaut de pouvoir utiliser les méthodes chronostratigraphiques traditionnelles pour tester certaines hypothèses relatives à la structure tectonique de ce secteur hellénique, des datations radiométriques ont été effectuées sur deux échantillons d'amphibolites prélevés dans les régions Nord (Polyneron) et Sud (Mati) du Massif. Ces roches résultent de transformations de séries pélitiques sous forte pression et basse température qui reflètent des conditions de mise en place en contexte orogénique et par conséquent, renseignant sur l'évolution tectogénétique du Rhodope.

Les amphiboles, aussi bien au Nord qu'au Sud, ont fourni des âges Eocène inférieur/Paléocène, tandis que la roche totale indique un âge plus ancien au Nord et plus récent au Sud. Il semble qu'une phase orogénique alpine importante ait affecté cette région au début du Tertiaire.

Dans ces conditions, les intrusions granodioritiques des régions de Kavala, Krinides, Panorama, Vrontous et Granitis, d'âge déjà connu, sont plus récentes et peuvent être considérées comme post-tectoniques.

Ces données n'excluent pas l'existence de diastrophismes et de métamorphismes plus anciens suivis de diaphtorèses dans des grades plus faibles des séquences impliquées dans des structures rhodopiennes.

ROCK 1: A PROGRAM FOR STATISTICAL ANALYSIS OF DISCONTINUITY PLANES IN QUICK BASIC FOR PC-IBM and COMBATIBLES

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Rock 1 is a program of statistical analysis for the elaboration of rock discontinuities as faults, bedding planes etc. It is written in Quick Basic for PC-IBM Computers and compatible ones.

Rock 1 is presented with the intend to help who needs to carry out statistical analysis and its graphic representations. In the program have been used well improved algorithm as well as new methodologies.

Several of the statistical techniques previously applied by hand are here quickly and easily executable with the aid of the present program.

One of the advantages of Rock 1, apart from the rapidity of elaboration and presentation of data, are the rigorous results, otherwise difficult using graphic methodologies, when the number of data increases. The program has the possibility to define the space density distribution, to draw isodensities and finally to estimate the main plane systems.

Rock 1 gives also the possibility to show on the screen, and to reproduce on the line printer the data and all the results either in 2D or in 3D.

The complete flow-chart of the program is given, the applied methodologies are fully described and an application example is discussed.

PASSIVE MARGIN SEDIMENTATION AND COLLAPSE IN THE NEOTETHYS OF S. GREECE

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Sedimentation in the S. Greek area is governed by the history of the numerous micro-continent blocks which rifted from the northern edge of Gondwana and their subsequent accretion to the active margin of Eurasia. While our research has dealt with rift-related tectonics and sedimentation and ophiolite genesis and obduction, we here present our interpretation of continental margin units deposited in the final stages of basin evolution.

The Argolis Peninsula of S. Greece comprises a series of deformed platform units and ophiolites (Pelagonian Zone), transgressed by U. Jurassic-L. Cretaceous carbonates and overthrust by a tectonically thickened 8 km stack of E. Tertiary flysch, interpreted as an accretionary complex (Ermioni Complex). Associated with the flysch is a series of calciturbidite and calcilutite thrust sheets, which we interpret as the preserved continental margin to the Pelagonian Zone platform. Those strata exposed in the south of the area show SW-facing, mega-slump folds as well as bioclastic debris in turbidites, redeposited from the adjacent platform. The calcilutite layers contain a pelagic fauna of mid-late Cretaceous age. In contrast those limestones exposed in the north show a gradation up into terrigenous flysch, although at lower levels they also show the characteristics of slumped, slope carbonates. Additionally, bituminous micritic limestones suggest deposition on the upper continental slope, within the oxygen minimum zone. We interpret these two areas to be the remains of a carbonate margin which underwent flexurally induced collapse as the opposing active margin and accretionary complex began to impinge on it in Upper Cretaceous times. This collapse caused olistoliths to be shed from the platform into the trench where they were incorporated into the accretionary wedge. Finally, parts of the slope succession were over-ridden by the wedge and incorporated as the lowermost thrust sheets and emplaced on to the continent as final Eocene suturing of the Neotethys occurred. Most recently the