

ABSTRACTS OF THE PAPERS PUBLISHED ONLY IN THE TURKISH EDITION OF THIS BULLETIN

THE GEOLOGY OF THE EASTERN PART OF THE PULUR MASSIF

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ABSTRACT- It is hoped that important evidences about the formation and evolution of Eastern Pontid's can be obtained from a geological study of Pular massif. Therefore, a total of 430 km² area belonging to Pular massif between Bayburt and Demirözü has been studied. The oldest basement of the area is the Pular metamorphic complexes. At the base a metamorphic schists, which has a 600 m apparent thickness and at the top 200 m thick limestones of Permo-Carboniferous age are placed. Lower Jurassic formations, which consist of basal conglomerates and sandstones, disconformably overlies the Pular massif. These formations, are conformably overlain by volcano-sedimentary series of Liassic age. During the Liassic time intensive volcanism yielded the diorite, andesite, diabase and basalt masses. Some basalts contain large analcime phenocrysts that the rock can be named analcimitite. Liassic volcano-sedimentary formations are conformably overlain by 50-60 m thick limestones of Dogger age. These limestones are also conformably overlain by another limestone facies of Malm-Lower Cretaceous age. At the top a melange facies of Aptien-Albien age are seen. These indicate that the Pular area was a marine depositional environment at least since Carboniferous or since Devonian until Upper Cretaceous, except a time gap between Permian and Lias. This marine basin was shallow at the beginning but gradually became deeper starting from Dogger time. In the region, two different type metamorphism, which are hornblende-hornfels facies of contact metamorphism and Barrowian type amphibolite facies of dynamo-thermal metamorphism, are distinguished. The structural character of the region is similar to Alpine type tectonic. Anticlines, synclines, faults and large extension of a thrust faults, which are elongated in NNE-SWW direction, are the most important features of that tectonic style.

STRATIGRAPHY, STRUCTURAL GEOLOGY AND GEOTECTONIC EVOLUTION OF AMANOS MOUNTAINS WEST OF TÜRKÖĞLU (K.MARAŞ)

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ABSTRACT.- The studied area is situated to the northern part of Amanos mountains, to the west of Türkoğlu. It contains sediments ranging from Lower Paleozoic to Miocene. Lower Paleozoic units are exposed within the core of a large anticline and are parallel to the general trend of the main orogenic belt. Lower Paleozoic consists of a continuous succession ranging from Lower Cambrian to Upper Ordovician and Devonian is represented by Hasanbeyli formation. Mesozoic succession is characterized by thick platform carbonates which are, due to extensive dolomitization, very difficult to subdivide. The carbonate deposition was continuous until the Lower Maastrichtian. Koçali complex was emplaced post-Lower Maastrichtian, causing imbrication of the platform carbonates. The studied area was uplifted during the Eocene and was later inundated by extensive Miocene transgression. The area has been uplifted at the end of Miocene and has gained the present day topography. N-S compressional regime in the Southeastern Anatolia, which was caused because of the collision of Arabic and Anatolian Plates, was responsible for the emplacement of ophiolites. This event resulted in a number of thrusting in the basement, generating extensive rock cleavage at the bottom of Mesozoic succession. This is, in effect, caused the easily crumbling nature of carbonates. Fold axis, vertical ant thrust fault planes are approximately parallel to each other. Neo-tectonic development of the region is thought to have been effected by the on going Southeast Anatolian compressional regime, yet the control of East Anatolian and Dead Sea faults were evident.

STRATIGRAPHY AND TECTONICS OF THE LATE CRETACEOUS - PLIOCENE SERIES IN THE NORTHWEST OF ANKARA(BAĞLUM - KAZAN)

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ABSTRACT.- The series outcropped between Bağlum and Kazan towns in the northwest of Ankara are the sandstone rich flysch representing the interval of Late Campanian - Maestrichtian, fluvial and limnic sediments of Paleocene epoch, shallow marine limestones of Lutetian age, and limnic and fluvial type continental series of Late Eocene and Mid Miocene period. The only unconformity in the series of Late Campanian and Miocene is seen between Maestrichtian and Paleocene in the area. The continental occurrences of Pliocene, cover the older units by an angular unconformity. The formations representing the period of Late Campanian and Miocene had folded together related to the continental collision commencing by Mid Miocene. The region bears the features of a fore-arc depositional basin in the mentioned period.

AGE OF THE MURMANO PLUTON AND ITS RELATIONSHIP WITH THE OPHIOLITES

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ABSTRACT.— The composite Murmano pluton (a few km NNW of the town of Divriği, province of Sivas, Eastern Central Anatolia), ranging from quartz-syenitic to dioritic in composition, is intrusive into serpentinites belonging to the Divriği ophiolite complex. The pluton gives a 110 ± 5 Ma (IV) Rb-Sr whole rock isochron date which is interpreted to represent the age of the intrusion. A series of 7 samples, one micro quartz syenite, 5 monzonites and one hydrothermal scapolite rich dyke rock, together representing a c. 100 by 200 m large area at the southern margin of the pluton, defines a 112 ± 8 Ma(IV) Rb-Sr whole rock isochron with an initial $^{87}\text{Sr}/^{86}\text{Sr}$ ratio of 0.7068. Another series of 7 samples representing ac.200 by 500 m large area at the southwestern margin of the pluton gives a 5 point 109 ± 5 Ma (IV) isochron with an initial $^{87}\text{Sr}/^{86}\text{Sr}$ ratio of 0.7058. The two concordant dates are interpreted as the age of intrusion which is thus given as 110 ± 5 Ma (IV). The two sample series represent two separate magma batches which may have originated by anatexis of different source rock complexes with different Rb-Sr isotopic ratios. The predominantly silicic character of the pluton combined with its considerable size c.25 km excludes an origin in the oceanic realm. The magma was intruded subsequent to the obduction of the ophiolite complex which is thus suggested to have taken place more than 110 ± 5 Ma ago.

A NEW SPECIES OF *BOURNONIA* FISCHER GENUS FOUND IN THE CENTRAL ANATOLIA MAESTRICHTIAN

Sacit ÖZER*****

ABSTRACT. In this article, the systematic study of a new species of the genera *Bournonia* Fischer which is collected from the Maestrichtian of the central Anatolia is given.

PREHISTORICAL RESEARCHES AROUND ANTALYA BAY AND ITS GEOMORPHOLOGICAL CONTEXT

Angela Minzoni DEROCHE* and Nuri GÜLDALI**

ABSTRACT.— Up to the present, comparatively very little work on prehistory has been undertaken in Turkey. In the neighbouring countries of Turkey, such as Syrian, Lebanon and Israel, much work has been done and large number of remains of obsidian and flint artifacts, made for the purposes of cutting and breaking into pieces, of the Neolithic period have been found. Assuming that the similar objects may also be found in Turkey, the formulation of a comprehensive research in this country has been undertaken. As a start, research work has been carried out at the mediterranean coasts of Turkey ; this work will also, be extended to the southeastern Anatolia in due course. In the mediterranean region of Turkey, the research work has particularly conducted in three main areas. The first area that has been chosen as a case study lies between the River Alara and the River Karpuz and situated near to the coast. The next area that has been studied includes the terraces and alluvial fan area of the River Burhan, northwest of Antalya. In these areas very little evidence of flint artifacts have been found. The third area that has been selected for a study comprises the surroundings of Kocapınar village, which is situated to the north of town of Elmalı. It is in this area that large quantities of silex nodules and flint tools have been found. The preliminary examination of this findings imply that the tools are of Late or Middle Neolithic period.

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Ketin, I., 1977, Genel Jeoloji: İst. Tek. Üniv., İstanbul, 308.

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