

the sea level, the second (MEM) about 20 m higher and the third one (MEL) 10 m above the second. Among the new collected material are some specimens of lagomorphs. These lagomorphs belong to *Trischizolagus* and they are determined as *T. dimitrescuae* and *T. cf. maritsae*. The first species is characterized by large size and well developed mesoflexid. The other is a small-sized leporid similar in size with *Trischizolagus maritsae* from Rhodes (Greece) and thus it is referred as *T. cf. maritsae*. The presence of *T. dimitrescuae* in Megalo Envolon gives also some data about the age of the locality. The type locality of this species is Malusteni (Romania) and belongs to late Ruscinian, MN 15. The possible presence of *T. maritsae*, which belongs to early Ruscinian, MN 14, indicates an older age. Nevertheless the age indicated by *T. dimitrescuae*, which is certainly represented in the locality, is confirmed by the other faunal data. Thus a late Ruscinian age, MN 15, is possible for the Megalo Envolon locality.

## **A STENONOID HORSE (EQUIDAE, MAMMALIA) FROM THE VILAFRANCHIAN OF WESTERN MACEDONIA (GREECE)**

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An equid sample from the Villafranchian of western Macedonia is studied. The material was found in the locality of "Dafnero 1" (DFN), situated near the village of Dafnero, about 30 km southwestern to Kozani. The DFN horse is described and compared with the villafranchian ones. The morphological characters of the studied equid are similar to those of *Equus stenonis*, while its dimensions suggest a large-sized form. The comparison with the various subspecies of *E. stenonis* indicates great similarities with the form from St-Vallier (France) and especially with the form from La Puebla (Spain). Thus the DFN equid is referred under the name *Equus stenonis cf. vireti*. Its close relations with that from La Puebla and St-Vallier suggests a middle Villafranchian age, MN 17.

## **THE YOUNG PALEOZOIC AND TRIASSIC TETHYAN ROCKS IN THE EXTERNAL HELLENIDES ON CRETE - THE NORTHERN BORDER OF GONDWANA**

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Within the External Hellenides on Crete extended investigations have been made in the Talea Ori group, the Trypali group, the Phyllite group, and the Tripolitza group.

By biostratigraphical research (conodonts, radiolarians, ostracods) a rock sequence from the Middle Carboniferous up to the Triassic/Liassic boundary could be proved. By numerous conodonts and radiolarians, too, hitherto known only from western North America, SE-China, Japan, and Cis-Ural, from the Middle to Upper Carboniferous, the Middle Permian, the Upper Permian and partially the Upper Triassic a important main connection in pelagic facies can be proved at the northern border of Gondwana between the young Paleozoic of SE-Asia and Pamir, SE-Arabia, southern Italy and Tunisia.

The sedimentation area of these rock sequences shows nearly only pelagic to hemi-pelagic sediments from the Bashkirian to the Lower Triassic, including the Permian/Triassic boundary. These features are characteristic for west Crete as well as for east Crete.

By these results the hitherto most accepted model of a Paleotethyan in the North and a Neotethyan in the South must be modified distinctly. The main branch of the triassic rift zone is lying far in the north, a younger one in the south, opening from the Jurassic, described namely as Neotethyan.

The pelagic Young Paleozoic to Lower Triassic is lying still south of this Neotethyan. At the end of the Scythian important volcano-tectonic events touch these parts of the External Hellenides. Whereas in the northern parts strong rifting occurs (post Upper Scythian), compression is going on in the south. Especially in the Upper Triassic to Liassic the southern part is covered by a large carbonate platform which starts to subside partially in the Jurassic. Up to the Oligocene this sedimentation seems not to be interrupted.

In the Oligocene and basal Miocene a part of the External Hellenides subside to greater depth, undergoing a high pressure/low temperature metamorphism and locally strong tectonic deformation.

## **THE CONTRIBUTION OF GEOMORPHOLOGY IN LOCALIZATION OF AREAS OF DYNAMIC PROCESSES IN THE BASIN OF DAMS. AN EXAMPLE OF AKROPOTAMOS DAM, PIERIA VALLEY, EAST MACEDONIA NORTH GREECE.**

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The present paper deals with the drainage systems which are developing in Pieria valley, East Macedonia, North Greece. The aim of the study was the localization of some parts of the drainage systems which may provide high overland flow and large amounts of suspended sediments during periods of heavy rainfalls.