outer shelf area, but still in a shallow-water carbonate platform position; this palaeogeographic position is especially confirmed by the new pulse of subsidence in the Late Carnian after a long lasting phase of omission. The evolution of the Wetterstein Carbonate Platform in the Inner Dinarides corresponds perfectly to successions known from the southern parts of the Northern Calcareous Alps or the southern West Carpathians.

Main structural features of the coal-bearing Ptolemaida basin (north-west of Greece)

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More than of 100 measurements of the strata and fault elements have been performed in every outcrop during several field trips. The processing and the interpretation of the geological data completed the field researches. The results have been represented on the rose diagrams that have been superimposed on the geological map of the studied area.

The interpretation of the results shows that the synorogenic movements of the Neoalpine folding created at the end of the Tertiary period a large tectonic graben. The prevailing faults of the area have NW - SE and NE - SW directions. The former of these are considered as the marginal faults, which formed the original tectonic graben, the latter ones caused the traverse, to the general graben trend, fragmentation and formed subgrabens and small horsts, which give today's picture of Ptolemaida basin. From south to north five grabens are divided: Kozani - Servia, Sarigiol, Ptolemaida, the lake Petron - Limnihoriou and Florina. These grabens are separated by the horsts: Kila – Galani - Proskinatariou, Sf. Hristoforou - Komanou, Klidi - Xino Nero - Aetos.

The faults with direction NW - SE formed due to extensional forces, which activated on NE - SW direction in Upper Miocene - Pliocene. The faults with NE-SW direction formed because of extensional forces on NW – SE direction, which activated in the Lower Pleistocene. Younger faults than the previous with directions N-S and E-W to ENE-WNW are also observed in basin and at its margin as well. From those above it is observed that the action field of extensional forces presents from Miocene superior to Pleistocene inferior, a rotation on NE-SW to NW-SE direction. All these faults are normal faults with the greatest jump of faults until 60 meters, without to be constant on the whole long of fault. The changes of jump are explained by continue activity of faults, due to plasticity of sediments and of compressions and curvatures suffered by these when they are changing the place. The faults NW-SE are developed vertically until some meters over to geological roof of lignite, those on E-W direction until in the floor of Quaternary sediments yellow sandy, and those NE-SW until the floor of Quaternary sediments of red colour or a little above of them. Due to the tectonic movements the lignite beds as well as the sediments above and below them show a slight folding and in places, have a slight dip (3 to 5 degrees) to the SW, while they are almost horizontal in the greatest part of their extent. The observed erosion of the Neogene and Quaternary sediments is also a result of these movements. Rupture tectonic conditions prevail in the marginal rocks with the faults of the mentioned directions. The Triassic - Jurassic rocks are traversed by faults of NNE-SSW strike and WNW dip, and the Upper Cretaceous rocks by faults of NW-SE strike and NE dip. The geometrical result is that the Upper Pliocene sediments follow the morphology of the metamorphic basement, forming a mega-flexure with axis striking NE-SW and presenting large radius of curvature. This macrostructure is also accompanied by the significant presence of reverse faults. These appear before and after a big normal fault. The reverse faults are of the second order and originate in forces of compression, which acted in different zones.