

TECTONICS OF SULTANDAĞ AND ITS SURROUNDINGS

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ABSTRACT.— In the tectonic evolution of Sultandağ and its surroundings, the compressional and tensional phases seem to have taken place alternately. The Paleozoic aged basement rocks were folded by the of Caledonian and post Caledonian phases. These phases affected the structure of the basement rocks to some considerable scale. From the morphological extend of Sultandağ, it is apparant that the fold axes are in the direction of northwest-southeast. However, in the western side of Çay-Hoyran area these axes are in the direction of northeast-southwests: The investigated area was probably quite stable during Upper Jurassic-Upper Cretaceous, but it was increasingly affected by the compressional stresses at the end of Lutetian, and as a result, the Hoyran ophiolitic complex unit moved over the older rocks by a tectonic contact. The investigation of the sediments of Upper Miocene-Pliocene shows that the region has neotectonically developed by compression. The Upper Miocene-Pliocene aged fluviatile-lacustrine and terrestrial formations of Bağkonak, Gökşögüt and Yarıkaya, unconformably overlain the rock units that had previously existed. Although these units show an upward lithology of conglomerate-sandstone and siltstone-argillaceous limestones-limestone, they also show lateral and vertical transitions. The folds, lying nearly in the direction of northwest-southwest, and reverse faults were formed by a tectonic deformation. The sediment adjacent to the basement rocks were strongly folded and also broken. The explanations given so far seem to indicate that the area has once undergone a compression in the eastnortheast-westsouthwest direction. Finally, it's possible to say that the eastnortheast-westsouthwest directed compression regime, which looks effective in the area, has taken places by the resistance of the Aegean plate to the Anatolian plate during a westernly movement.