During the main part of the Jurassic, the sources for the clay fractions might be the North Africa margins and the European continental areas. These clay fractions were transported to the Olonos-Pindos basin by a powerful westward equatorial current which turned clockwise in the Western Tethys. The end of the Juressic and the beginning of the Cretaceous are marked within clay fractions by: 1) an abruptincrease of the relative abundances of smectite and mixed-layer chlorite-smectite; 2) the appearence of serpentine and talc; 3) a marked increase of the Mg/Al and (Co + Ni + Cr)/Al ratios. These modifications may be explained by: 1) the late Jurassic Dinaro-Hellenic obduction; 2) the establishment of a westward circumterrestrical current through the Tethyan oceanic sea way, connected with the Pacific Ocean through the Caribbean. In this way, the smectite and serpentine rich clay fractions were inherited from erosion of paleohellenid continents in the internal Hellenid zones, which were folded and uplifted during the Upper Jurassic and the Early Cretaceous.

During Cretaceous the characteristics of the clay assemblages did not change and were always controlled by estearn sources and a westward current.

COMPARISON OF TWO PALEOZOIC DOMAINS IN TURKEY: SAIMBEYLI-ADANA IN TAURIDES AND ARAC-KASTAMONU IN PONTIDES

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The well preserved Paleozoic outcrops, in Turkey, are scarcely seen in some localities mainly in Taurides and only in one location in Pontides. One of them, in Taurides, is exposed around Saimbeyli-Adana area, while that of the Pontides is seen in Arac-Kastamonu area. The Saimbayli Paleozoic domain consists of from bottom to top, Armutludere (Ordovician?), Halityaylasi (Silurian), Ayitepesi (L. Devonian), Safaktepa (M. Devonian), Gümüsali (U. Devonian), Ziyarettepesi (L. Carboniferous) and Yigiltepe (U. Permian) formations. All these formations show a thickness of approximately 4000 m. As for the lithology, the Armutludere formation is composed solely of shales representing foliation may be developed by very low grade metamorphism. Halityaylasi and Ayitepesi formations are mainly made up of sandstone-mudstone-clayey limestone, respectively. All the other formations, range from M. Devonian to U. Permian in age, possess the lithologies consisted essentially of carbonate rocks. The Paleozoic domain in Saimbeyli-Adana area is easily observed to have been strongly affected by Alpine tectonic movement. The Paleozoic rocks, in Arac-Kastamonu area of Pontides, are apparently seen to have taken depositionally place on top of Precambrian high-grade metasediments constituting the southernmost tip of Eurasian plate. The Arac-Kastamonu Paleozoic domain consists of from bottom to top, Yayladere (Cambrian?), Dotla (Ordovician), Zirze (Silurian) and Küreihadit (Devonian) formations. All these Paleozoic formations, recently called Samatlar group, show a total thickness of nearly 3900 m. As for the lithology of Smatlar group, the Yayladere formation consists of from bottom to top, metasand stone and argillite. The Dotla formation is composed basically of quartzite and

some ergillite taking especially in the uppermost part. Main rock type of the Zirze formation is argillite interbedded with mainly limestone and rarely quartzite. The Küreihadit formation includes quartzite in the bottom and carbonate-argillite alternance in the top. The tectonic feature of Samatlar group is exactly similar to that of Saimbeyli-Adana domain, or to put it another way, it is observed to have been gained during Alpine period.

STRUCTURAL AND GEOMORPHOLOGICAL CHARACTERISTICS EXPRESSING STRIKE-SLIP MOTION ON THE CENTRAL PART OF THE NORTH ANATOLIAN FAULT ZONE AROUND NIKSAR, TURKEY

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The North Anatolian Fault is an active strike-slip fault which extends for about 1200 km from Karliova in the east to the gulf of Saros in the west along the Black Sea mountains, and has an extremely well developed surface expression.

Structural and geomorphological characteristics of the fault zone have been examined around the Niksar pull-apart basin which is bounded by two major strike-slip faults associated with earthquakes in 1939 and 1942. The two master faults bounding the basin splay into several branches at the end of the fault rupture as a horsetail structure. Related structures include linear fault valleys, elongated hills, fault scarps, offsets, depression zones, landslides, dammed streams and alluvium fans.

Types of strike-slip fault pattern in dextral (right lateral) regimes that produce adjacent extensional sedimentary basins and compressional uplifted blocks are discussed with emphasis on examples from the Niksar region.