TERTIARY SEDIMENTATION IN THE ÇANKIRI - ÇORUM BASIN, CENTRAL ANATOLIA

SENALP Muhittin .Maden Tetkik Ve Arama Enstitüsü
Temel Arastirmalar Dairesi ANKARA - TURKEY;

A succession of marine and continental rocks which range in age from Lower Eocene (Ypresian) to Pliocene (Pontian), and which represent a regressive series, are excellently exposed in the Sungurlu area of Central Anatolia.

The succession is as follows:

Age	Group	Formation	Member
Pontian		Büyükseyhefendi Tepe	
		~~ angular unconformity ~~~	
		Terzili	
		Büyükpolatli	
Lutetian Ypresian	Sungurlu →	IV-Büyükincesu	
		III-Kambeli Tepe	
		II-Kepir Tepe	
		I- Cevherli →	3) Karababa Tepe
			2) Kirankisla
			1) Küçükpolatli

The Sungurlu Group (Ypresian - Lutetian) consists of a succession of marine rocks and contains four formations: two of which are autochthonous and the others of which are allochthonous.

The Cevherli Formation is composed of an alternation of conglomerates, sandstones and mudstones. This formation can be further subdivided into three members: the Küçükpolatli Member: a unit of mudstones with some sandstones and siltstones; the Kirankisla Member: a unit of mudstones and sandstones which are present in equal proportions; and finally the Karababa Tepe member: a unit of conglomerates, sandstones and subsidiary mudstones. These three members are interpreted as representing: a distal turbidite, an intermediate turbidite (between distal and proximal) and a proximal turbidite sequence which appears to have originated by the southward progradation of a submarine fan.

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The succeeding Kepir Tepe Formation consists of mainly calcareous mudstones and limestones with some lenses of conglomerate and sandstone. These rocks appear to have been laid down in a shallow shelf sea, the floor of which was cut by submarine valleys.

The Kambeli Tepe Formation is allochthonous consisting of, a melange of mixed basic and ultrabasic igneous rocks together with radiolarites and limestones of shallow water origin. The formation is thought to have been transported by submarine gravity sliding.

The Büyükincesu Formation is also allochthonous, and is composed mainly of broken fragments of the Kambeli Tepe Formation. It occurs as olistostromes which are often associated or interbedded with turbidites.

Since Upper Eocene time, continental conditions have existed over the area. The Büyükpolatli Formation consists of a rhythmic series of conglomerates, sandstones and mudstones, which have been interpreted as having been deposited in a fluvial environment dominated by meandering streams. The succeeding Terzili Formation, which is composed of regularly alternating gypsum and fine clastics with minor amounts of medium sandstones, overlies and interfingers with the Büyükpolatli Formation and is thought to have been deposited in an interior playa basin.

Folding of the preceeding formations was followed by erosion. Finally the deposition of the Büyükseyhefendi Tepe formation, of Pontian (Lower Pliocene) age occurred. This is composed largely of poorly sorted conglomerates, sandstones and conglomeratic mudstones which appear to hove ariginated in an alluvial fan environment.

Rather similar conditions have continued until the present day. The Pliocene deposits have been gently tilted and movements are probably still continuing.