



Depositional system of the Middle Miocene Cingoz Clastics: A sequence stratigraphic approach, Eastern Mediterranean, Turkey

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Cingoz Formation comprises Langhian-Serravalian segment of the Miocene clastic succession deposited in the Adana Basin at northern onshore part of the Eastern Mediterranean. The unit, as a megasequence, consists of retrogradational sub marine fan deposits at the bottom, followed by high energy turbiditic material, and terminates with the hemipelagic shales.

The canyons were incised on the shelf during the rapid fall of the sea level at the end of Burdigalian. The incision period corresponds to the deposition of low stand stacks at the down slope and deeper part of the basin. Previously incised canyons were filled by the coarse grained material in the later stage of the low stand and the transgressive periods during Early Langhian. Relative sea level rise increases the accommodation space and causes the sub marine fan system to be shifted proximally. The succession terminates with the Serravalian pelagic shales, and almost entirely includes superimposed low stand and transgressive system tracts. The system is repeated in several times by the interaction of eustacy, tectonism, subsidence, and sediment supply. However, the effect of the eustacy is obscured by the rapid rate of subsidence in the area.