

NEOGENE EVOLUTION OF THE "DEPRESION INTERMEDIA" BASIN. BETWEEN THE SIERRA OF ALTOMIRA AND THE SIERRA OF BASCUÑANA-CENTRAL PART OF SPAIN.

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ABSTRACT

The Depression Intermedia basin, consist of a long an narrow area whose major axis is N-S oriented. Zone of important continental deposits during tertiary times.

The neogene sedimentation is particulary well known, as it has been tarjet of various detailed studies perfomed mainly by the Empresa Nacional del Uranio. The total surface of aprox. eleven thousand square kilometers has been investigated by seismic methods, drilling and with geological mapping, paleocurrents measurement, petrographical and paleontological studies etc.

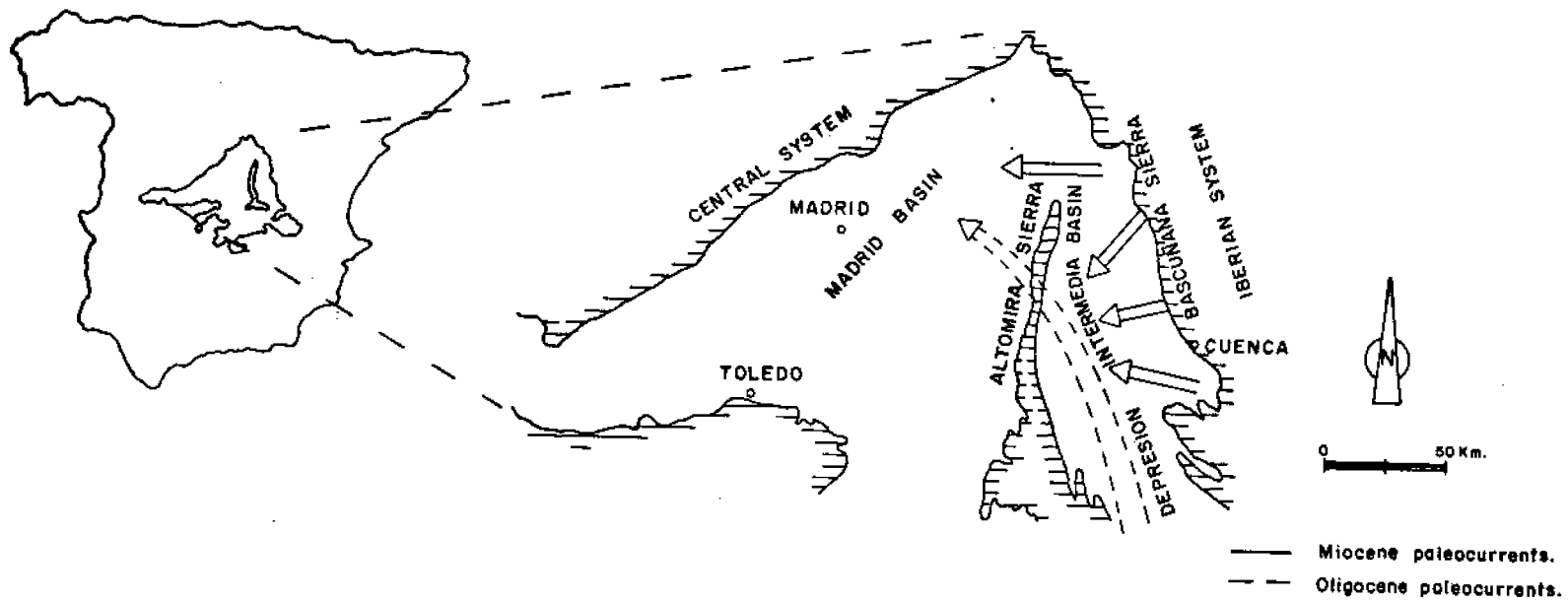
If during the Oligocene times, the Depression Intermedia Basin functtioned predominantly in an unconfined way, in that the majority of the deposits during this time were detritics, corresponding to distal facies of humid alluvial fans, during the Neogene times, following the developmente of the Neocastellana Phase of the Alpine Orogeny, the basin would beging to function in an almost complete state of confinement, with a wide range of chemical and/or organic origen sediments. In the Neogene sediments there are three fundamental megasequences distinguishable:

- The lowest beguins in the lower-middle Agenian and ends in the lower Aragonian. This is charaterized by the development of four importan systems of humid alluvial fans, with very extensive drainage areas in the interior of the Cordillera Ibérica, guaranteeing the stability of the flow, which are re presented by sediments deposited by fixed channels, as defined by FRIEND (1979,1983), with a dominance of the vertical building over the lateral, due to the important structural control: subsidence-sedimentation. Local arid alluvial fans, with very small drainage areas that did not give stable flows, interfinge with the humid alluvial fans and all these systems grade distally to lacustrine mud flats and lacustrine rooted and burrowed gibses, which become dominant towards the top of this megasequence.

- The second megasequence, which beguins in the lower Aragonian and ends in the middle Aragonian, is marked in its base by a minor unconformity, produced by the progradation of the humid alluvial fans in areas of anterior chemical sedimentation. The function of two preceedings alluvial fans is aborted before this megasequence, and although the deposits of bioturbed gypsum continues, the carbonated sediments of lacustrine-palustrine origen dominate, and much more towards the top of the megasequence.

- The third megasequence -Paramós megasequence- is marked by a strong unconformity in its base: the upper Aragonian is not represented. It begins with channeled sediments deposited by low sinuosit channels, which grade distally to deposits of lacustrine-palustrine carbonates, which become dominant at the top of the megasequence, whose age is situated tentatively in the Vallesian.

- Probably there is a fourth megasequence of Turolian age, not well known.



General situation of the "Depresión Intermedia" Basin and Oligocene-Miocene paleocurrents pattern.