G-II2

Crustal thickening and thinning in double-convergence conditions : the tectonic evolution of the Alboran crustal domain

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In the Alboran Basin, Neogene and Quaternary sedimentary sequences of variable thickness overlay a continental basement, 25-12 km thick.

Most of this basement belongs to the Alboran Domain, a preMiocene crustal segment made-up by a polyphase nappe-pile of Alpine age, the nappe-pile consisting of the main internal complexes of the Betic-Rifian orogen.

The Alboran Domain overthrusted westwards on both Southiberian and Maghribian crustal domains in the Miocene, through the Gibraltar crustal Thrust. The estimate relative displacement of the Alboran Domain is consistent with the coeval North Atlantic spreading. A North-South convergence between Iberia and Africa happened at the same time.

During the later stages of this "double convergence" process, extensional displacement ocurred, which strongly thinned the Alboran continental wedge before the Tortonian. Large-scale folds and subsequent transcurrent and extensional post-Tortonian faults determined the physiography of the Alboran Sea and the Bay of Cadiz.

G-II3

Submarine valleys in the continental margin of Murcia (Spain, Western Mediterranean) : an area where Aristeus antennatus is captured

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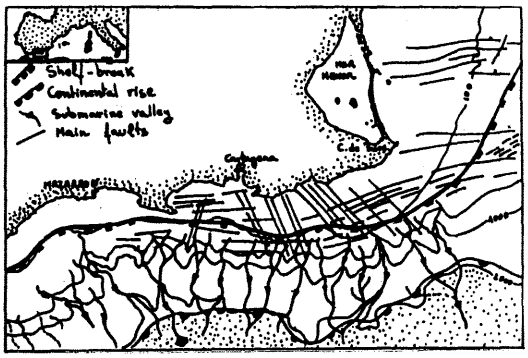
From the analysis of a seismic-reflection profiles and sediment samples, it has been possible to study the distribution of the sedimentary textures, as well as the morphology of the shelf and the continental slope.

The geological structure of the margin have a control role in the sedimentary distribution and its morphology. The shelf-break is close to the shore, and it's very abrupt.



In the continental slope are placed a group of submarine valleys. They have a sedimentary origin, but only some of them are located in the direction of the main faults.

The sediments forming the margin are mainly argillaceous, and have a PlioQuaternary age.

In this area, there is a hight fishering activity in *Aristeus Antennatus*.

Actually, we are studing some especies with a fishering interest. In this paper we present the relation existence between total biomass and the nature and morphology of the sea floor.

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