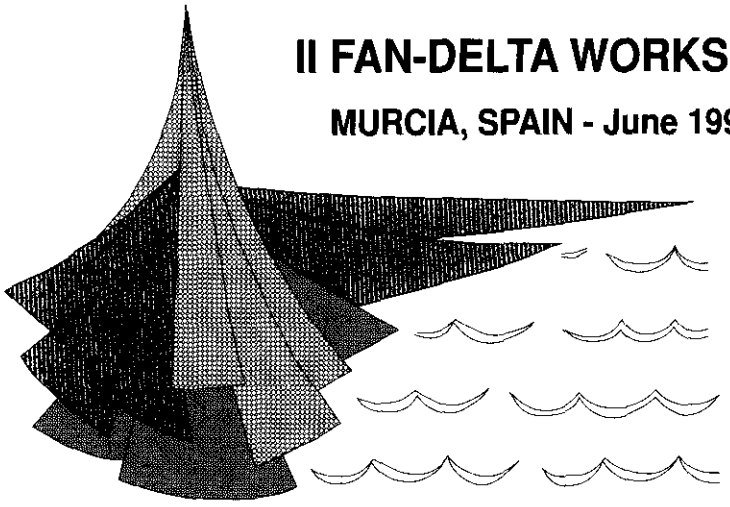

II FAN-DELTA WORKSHOP

MURCIA, SPAIN - June 1990

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FINAL REPORT

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Being this a Special Volume derived from a meeting it seems logical to end it with a reference to the activities performed during the II Fan-delta Workshop (Murcia, Spain 1990). 28 researchers attended the workshop. They actively discussed various aspects of fan-delta sedimentation both in the field and also indoors. Not surprisingly, a large part of the discussions were focussed on sea-level changes and Sequence Stratigraphy applied to fan-delta derived sediments. We also enjoyed seven oral contributions and a video session which showed interesting points of view about processes similar to those visited during the field trips. A nice, relaxed atmosphere greatly facilitated the exchange of ideas and knowledge.

Field work occupied mornings and early afternoons. The excursions were not intended as a classic field trip in which god-like leaders «try to sell their products» to a confident audience. Specific topics were discussed according to the possibilities of the outcrops under observation. A field guide helped to locate places and precise observations. We visited selected outcrops and participants had plenty of time to see, evaluate and understand.

Here follows a brief account of the visited basins:

In the *Fortuna Basin*, Tortonian fan deltas and reefs are exposed almost unchanged after deposition. Excellent outcrops of almost-horizontal deposits, clearly visible in all three dimensions, offered a chance to discuss in detail lateral relationships of alluvial, fan-delta and marine facies. The delta-front slope facies generated much interest, in particular the precise nature of the association of parallel-laminated sandstone and conglomerate forming pockets and irregular layers (which was largely debated) and the large volumes of resedimented marlstones (muddy debris flows) forming the basal part of the slope. Hot discussions surged when visiting fan-delta lobes colonized by reefs between those in favour of autocyclic processes and those defending relative sea-level changes and the application of the Sequence Stratigraphy concepts. In conclusion, the need of a careful study of the erosional surfaces and breaks in sedimentation became evident.

In the *Carrascoy range (Murcia basin)*, the Upper Miocene facies associations record deposition on a tectonically-active basin margin. Fining and thinning upward megasequences (tens to hundreds of meters thick) were interpreted to record the progressive transgression of fan-delta systems. Lively discussions surged concerning the proposed sedimentary model versus a Gilbert-type fan delta and the probable depth of deposition of the delta slope facies. These subjects were illustrated the same evening during the video session and also by the examples from Korean basins.

The *Elche Basin-Lower Segura Basin* occupies the northern end of a left lateral shear zone. Its Late Pliocene and Pleistocene evolution is a case history of the evolution of a basin under a major tectonic control. Most of discussions focused in the fluvio-marine versus fluvio-lacustrine nature of the rocks exposed in the innermost areas of the basin and the invoked sedimentary processes. The sedimentary evolution in areas close to the marine entrance of

the basin nicely illustrates the dramatic change in paleogeography related to tectonics.

In the *Cope Basin* a continuous, gradual uplifting during Pleistocene generated an offlapping sequence of successive units of fan delta deposits interrupted by eustatic sea-level changes. A close up of the zone of interfingering of marine and terrestrial deposits led to interesting discussions about the results and proofs of sea-level drops. Attention was directed to the interpretation of alluvial deposits as lowstand versus late highstand and also to the place occupied by the erosional surfaces of channels during lowstands.

Thanks to all attendants for their interest and dedication. We are proudly posing for the coming generations in the photograph of the group during the excursion to Rojales (3rd day) of the Fan Delta Workshop.

FUTURE MEETINGS

The *3rd International Workshop on Fan Deltas* will take place in Pohang, Korea in February 22-26, 1993 organized by the Korean Sedimentology Research Group (KSRG). A later offer by British researchers allow to think in a new meeting by 1996 in UK. Let's wish them all the best!

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