

Preface

Following a "quiet revolution" in deep-sea sedimentology in the 1960s, there has been an ever-increasing amount of work on bottom-current-controlled deposition. It is now apparent that contourites form a significant proportion of deep ocean sediments, as drift and sheets on continental slopes and rises, as well as in ocean basins where they form large fields of sediment waves, irregular drifts within deep-sea passages and fan-shaped bodies at their downstream exit. Bottom currents interact with turbidity currents and pelagic/hemipelagic processes, and can rework sediments at all depths.

Contourite successions in present-day ocean drifts may be hundreds of metres thick, and hold a remarkable record of bottom-water circulation and water-mass exchange through key gateways between the world's oceans. These changes are themselves controlled by fluctuation in global climate, eustatic sea-level and the geographical disposition of continents and seas. It is little wonder

then that so much attention has been paid to their study.

This collection of 19 papers on bottom currents and contourites follows from a very successful symposium on the topic held at the 13th International Sedimentological Congress in Nottingham, U.K., in August 1990. It is appropriately introduced by Hollister's paper on the origin of the concept of contourites, and perhaps fitting that most papers then focus on the Atlantic Ocean. Clearly, there is need for a similar synthesis of work in the Pacific and Indian Oceans and, most importantly, for a more determined search for and study of ancient contourites exposed on land. The final paper provides a synthesis of the contourite problem as perceived by the editors.

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