

## **Late Quaternary continental shelf earthscapes**

Torbjörn E. Törnqvist

*Department of Earth and Environmental Sciences, Tulane University, 6823 St. Charles Avenue, New Orleans, Louisiana 70118-5698, USA*

The ~100-m-amplitude sea-level changes that characterize the past few hundred thousand years of Earth history have rendered continental shelves some of the most dynamic land/seascapes on the planet. This contribution places the shelf off the Dutch coast in a global perspective by means of (1) a brief overview of the geological origin of continental shelves, (2) a discussion of the role of glacial-interglacial cycles and how they lead to successive shelf flooding and subaerial exposure, and (3) illustrations of striking geomorphological contrasts between different continental shelves. Examples are provided from, among others, northwest Europe (Bay of Biscaye), the US Gulf Coast (Gulf of Mexico), and South Africa. More specifically, it is shown that the relationship between the shoreline and the shelf edge is critical in determining the nature of continental shelf landscapes during the glacial conditions that dominated the late Quaternary.